Zenonas Norkus

Post-Communist Transformations in Baltic Countries

A Restorations Approach in Comparative Historical Sociology

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Contents

List of Abbreviations

A	original system
AST	American standard test CDR
B	intermediate system
C	restored system
CDRPS	criterion of democracy restoration performance success
CGDPpc	current year GDP per capita
CPSU	Communist Party of the Soviet Union
CRR	criterion of restoration resilience
CRES	criterion of restoration endurance success
CREPS	criterion of restoration economic performance success
CRHPS	criterion of restoration health performance success
CRSPS	criterion of restoration somatic performance success
CRES	criterion of restoration endurance success
CWS	Capitalist World System
DST	Dutch standard test
ECC	Estonian Citizens' Committees
EPA	Estonian Privatisation Agency
ESS	European Social Survey
ESSR	Estonian Soviet Socialist Republic
FDI	foreign direct investment
FRG	Federal Republic of Germany
fSU	former Soviet Union
GDPpc	gross domestic product per capita
GDPpc PPP	gross domestic product per capita at purchasing power parity
GEKS$ 2011	2011 International Gini-Eltetö-Köves-Szulc dollars
GGDC	Groningen Growth and Development Centre
GFC	the 2007–2008 global financial crisis
GK$ 1990	1990 International Geary-Khamis dollars
HLTD	Human Life Table Database
HMD	Human Mortality Database

ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
ICOMOS	International Council on Monuments and Sites
int$ 2011	international dollars at constant 2011 prices
JST	Japanese standard test
KGB	*Komitet Gosudarstvennoy Bezopasnosti* (Committee for State Security)
LAF	Lithuanian Activist Front
LFFM	Lithuanian Freedom Fight Movement
LiSSR	Lithuanian Soviet Socialist Republic
LRM	Lithuanian Reform Movement
MIT	middle-income trap
MNC	multinational corporation
MPD	Maddison Project Database
MPS	Material product system (in Soviet statistics)
Na	Not applies
NCDRisC	Non-communicable Diseases Risk Factor Collaboration (research network)
Nd	No data
NECDEC	Nutrition-exertion-climate-disease environments of children
NEP	New Economic Policy (in Soviet Russia 1921–1928)
OECD	Organisation for Economic Co-operation and Development
OIST	outperforming intermediate system test
OOST	outperforming original system test
PISA	Programme for International Student Assessment
PWT	Penn World Tables
RGDPNApc	real GDP per capita at constant national prices, obtained from national accounts data
SER	Society for Ecological Restorations
SNA	System of National Accounts
SS	*Schutzstaffel* (German): Nazi paramilitary organisation
TFP	total factor productivity
TNC	transnational corporation
UN	United Nations
UN DESA	United Nations Department of Economic and Social Affairs
UNECE	United Nations Economic Commission for Europe
UK	United Kingdom
USSR	Union of Soviet Socialist Republics
US	United States
WDI	World Development Indicators
WWI	World War I
WWII	World War II

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Chapter 1
Introduction

This book is a comparative case study in the historical sociology of modern social restorations. This is a new field in comparative social research designed to extend and complete comparative historical sociological research on social revolutions. Comparative research on revolutions is a well-established research field, as at least four generations of theory have changed to date (cf. Goldstone 2001, 2014; DeFronzo 2006, 2021). It originated with the comparison of 1789 French and 1917 Russian revolutions (Shlapentokh 1999), culminating in the famous study by Theda Skocpol (1979), which is one of the most influential and cited works in comparative social research (Goodwin 1996). Puzzlingly, as yet no authors have taken into due account the fact that both great modern social revolutions did in fact end (in 1815 and 1989 correspondingly) with restorations of the prerevolutionary regimes.

This applies also to *The Problem of Restoration: A Study in Comparative Political History* by the Austro-American historical comparativist Robert A. Kann (1906–1981), which remains the sole attempt to transform the concept of restoration from a purely historical notion, applied mainly to the 1815–1848 epoch in European history, into a theoretically articulated sociological concept on par with revolution, state or democracy (Kann 1968).[1] Kann conceived restoration as the final component in a larger pattern of social change, featuring the sequence of original (A), intermediate (B) and restored (C) social systems, where the restored system affirms, constructs or claims continuity with the original (or ancient) system that was disrupted by the revolutionary transition from the original to an intermediate system.

Kann applied his framework in the study of 11 restoration cases, starting with the first (in the sixth century BC) restoration of the Jewish homeland and closing with the Bourbon restoration in France (1815) and restoration of the German Empire

[1] German translation: Kann (1974). See also Kann (1961, 1972). Stråth (2016) and Sellin (2017) are two further relevant works, prompted by the 200-year anniversary of the Vienna restoration of 1815. They are important as efforts to clean the word 'restoration' from the connotations of 'reaction' and 'regress'.

Z. Norkus, *Post-Communist Transformations in Baltic Countries*,
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(1871). He simply did not live long enough to witness the post-communist restorations of capitalism and (in some cases) of a 'bourgeois democracy' together with an independent state. In addition, his pioneering work was published at the wrong time: in 1968, at the very peak of the New Left with its cult of revolutionaries (such as Che Guevara) and revolutions. Those times have now passed, but mainstream social research remains grounded in the assumption that revolutions alone are a progressive form of social change, while restorations are merely brief episodes of stagnant reaction and are doomed to fail (Kondylis 1984).

While this may apply to some restorations, I argue that this does not apply to all restorations. Some restorations may fail or be regressive, but the same applies to revolutions. The Russian revolution did end as a disaster and a historical deadlock, instead of creating a society free from exploitation, oppression and alienation. There was neither a free market, nor representative government, nor protection of civil rights (the rule of law) under the Jacobin dictatorship in 1793–1794. Neither the Thermidor regime, which was a self-perpetuating oligarchy of the regicides who survived the Jacobin terror, nor Napoleon's post-revolutionary dictatorship was able to implement the 'ideas of the French Revolution' (popular sovereignty, liberty, equality, fraternity).

I argue that the progressiveness of both revolutions and restorations should be assessed based on their performance in enhancing human wellbeing. Thus, it is a matter of empirical measurement rather than of definition. This was also Kann's approach, who inquired about conditions for the success and failure of restorations. Kann defined the success of restoration as its duration for at least two generations (70–80 years), claiming that successful restoration is impossible if the original system did not last for at least one generation (35–40 years) and the intermediate system endured for at least one generation.

Differently from Kann, I distinguish between the endurance success and performance success of restorations. The endurance success of C means that it endures longer than B or A. The performance success of C means that it increases human wellbeing more than A or B and thus is progressive in the absolute (increasing rather than decreasing wellbeing) or relative (acceleration of wellbeing increase) sense. Successful restoration creates an improved version of the original system, safeguarding against the recurrence of a revolution and outperforming intermediate systems produced by revolutions.

The fatal drawback of Kann's ground-breaking work was the heterogeneity of his cases, coming from four different epochs of Western history. However, before the French Revolution of 1789, there was no emic distinction between revolutions and restorations (revolutions were perceived, staged or presented by revolutionaries themselves as restorations of 'the good old days'). It was the French Revolution that brought the idea that it could be possible and right to overturn the existing social order by force on the grounds of abstract principles rather than historical tradition or existing law. Therefore, I suggest that comparative social historical research of restorations should start from the analysis of *modern* restorations. This set of cases encompasses restorations of states, political regimes and economic systems, following revolutions of the French ('bourgeois') and the Russian ('socialist') type. Under

modern conditions, states exist (and can be restored) only as internationally recognised units in the international system; thus, a comparison of international order restorations should also be included.

I explain in more detail how my theorising of social restorations differs from Kann's path-breaking attempt in the very first chapter of the first part of this book. The main purpose of my revision of Kann's framework is to make the historical sociology of restorations approach usable in order to rejuvenate the research field known as 'transition studies'. Transition studies are a transdisciplinary research field that emerged in the 1980s, aiming to provide precepts for democratisation and market reforms.

The core precepts of economic transition are famously known by the name 'the Washington consensus', which imply austerity, macroeconomic stabilisation, market liberalisation and deregulation and mass privatisation. The credibility of 'the Washington consensus' was undermined by the spectacular failure of neoliberal market and democratic reforms in Russia, on the one hand, and the success of the transition to a market economy in China, despite the incompatibility of Chinese economic policy with 'the Washington consensus' (Rodrik 2007). According to the historical sociology of restorations approach, post-communist transformations are just a subset of modern social restorations.

Due to their short-term chronological perspective and social-engineering approach, transition studies overlooked the fact that capitalism, and in many countries democracy also, did exist before state socialism, which even in Russia was established only in 1929–1933, following the 'new economic policy' (NEP) period, which can be described as a partial restoration of capitalism (a market economy based on effective private property over means of production). This neglect of a capitalist past before post-communist market transition may be explained by the long duration (1917/1929–1991) of the intermediate system, encompassing the life span of nearly two human generations. Its long duration made this past appear as irrelevant to the post-communist present. In fact, Kann argued that restoration cannot succeed if the intermediate system endured for at least one 'political generation' (35–40 years, according to Kann).

This is nearly as long as the accomplished state socialist system did endure in those countries (1949–1989) where it had been imported from the Soviet Union in 1939–1948, suggesting that a different duration of the intermediate system may be a key variable explaining cross-country variation in the outcomes of capitalist and democratic rehabilitation of decaying socialism. By describing market and democratic reforms as 'rehabilitation', I take inspiration from those fields where restoration is a professional activity framed by a body of codified knowledge with an elaborated terminology, which is otherwise lacking in the fledgling social scientific research on restorations: namely, restoration ecology and cultural heritage protection.

Restoration ecology is grounded in the distinction between the reference (or historical) system (corresponding to Kann's 'original system'), baseline system (Kann's intermediate system), model system (a projection of the desired outcome of restoration) and reference sites, which combine with the historical system to inform

the model system. The outcome of restoration (Kann's restored system) can be just the rehabilitation of a degraded baseline ecosystem, implying an increase in the ecosystem's biodiversity and productivity, or restoration as a variant of rehabilitation, where there is a similarity between the outcome and the reference systems. When restoring works of art and buildings, similarity alone is not enough: there should be continuity between the reference and restored systems, which implies the presence of a critical mass of survivals from the reference system in the restored system.

In the restoration of social systems, the most important surviving elements are human survivors from the original system. Drawing upon conceptualisations of restoration in the field of cultural and environmental heritage protection, two varieties of social restorations are distinguished. In token restorations, there is overlap (or demographic continuity) between the populations from the original and the restored systems (e.g. capitalist restoration in those countries where socialism was established after 1939). In type restorations, there is no such overlap (e.g. capitalist restoration in Russia and most other former Soviet Union republics (fSU)), as by 1991 nearly all contemporaries of the original capitalist system had already died out. Importantly, the opposition of token and type refers not to the colloquial sense of token, connoting 'superficial' or even 'fake'. Rather, it is used in the ontological and logical sense, where type refers to the general sort of thing and token to its particular concrete instances (according to Charles Sanders Peirce).[2]

However, demographic continuity only provides for the possibility of token restoration, meaning institutional continuity between the original and restored systems. Despite this possibility, token restoration may not take place if appropriate policies are not performed. The performance of restoration includes symbolic and legal actions that aim to construct continuity between the actual and the ancient social system. They include the restitution of property rights (or paying compensation) to the victims of revolution and retribution to still living or already dead revolutionaries. In the last case, retribution is only symbolical and includes the destruction or desecration of their sites of memory (*lieux de memoire*; Nora 1996). On the other hand, symbols and sites of memory of the ancient regime that were destroyed by the revolutionaries themselves are restored, supplementing them with those that symbolically reward the opponents of the revolutionary regime, or the losing counterrevolutionaries (see Stan 2009; Stan and Nedelsky 2013).

With no restitution of property rights, the transition to capitalism via privatisation can still be described as a capitalist restoration, provided a capitalist economic system existed before the establishment of state socialism. However, this is only a type restoration, which means that post-communist capitalist systems display a generic similarity to pre-communist capitalism, but there is no continuity of the economic system that existed in the same area many years ago. Token restoration of

[2] See https://plato.stanford.edu/entries/types-tokens/. Accessed 10 January 2023. Peirce referred to the difference between naming a class (type) of objects and naming the individual instances (tokens) of that class. The sequence A A A is that of three tokens of the same type (capital letter A).

capitalism is practicable only if there is a sufficiently large share of survivors from the original systems and their direct heirs.

After two or more generations have passed (which was the case in the republics of the fSU under communist rule from 1917 to 1921), this was no longer the case by 1989–1991. However, in some cases (e.g. Moldova, Albania and some republics of former Yugoslavia), there was no property restitution and thus also no token restoration, despite sufficient demographic continuity between populations of the original and restored systems. Market reforms in countries with no capitalist past amount to a capitalist rehabilitation of their economies. Capitalist and democratic rehabilitations are the broadest concepts, encompassing token and type restoration as their varieties.

The interrelation of my key concepts of social rehabilitation and social restoration (encompassing its two varieties) is visualised in Fig. 1.1, providing also an algorithm for identification of their cases. This interrelation is exemplified by the restoration of capitalism, which was a feature of post-communist transformations. However, the same theoretical logic applies to restorations of political regimes (e.g. democracy) or state independence, as will be explained in more detail in the second chapter of the next part of this book (see also Norkus 2023). So, now I can proceed to explain why, out of almost 30 country case studies of post-communist transformation, the Baltic countries were selected as paradigmatic cases of post-communist restorations.

The Russian and French revolutions are and will remain central cases for the comparative historical and social study of revolutions. In the fledgling research on restoration, the French restorations in 1814 and 1815 are and will remain central cases as well. However, this does not apply to the Russian post-communist restoration. Due to the long duration of the intermediate system, only type restoration of capitalism was possible in Russia (without any institutional continuity of original capitalism, established by the restitution of property rights). In the international system, contemporary Russia defines itself (and is internationally recognised) as the continuator of the Soviet Union, rather than claiming continuity of the Russian Empire. Restoration of the Romanov dynasty has no influential support as a recipe for post-communist rehabilitation of its political system.

The study of restorations in the Baltic states is much more instructive. Firstly, the Baltic restorations were the most all-encompassing in comparison with those in the other former communist states (because there was a ternary restoration of an independent state, of democracy and of capitalism). Secondly, they belonged to the most performance successful (at least, by 2020) token restoration group of cases, despite the considerable duration of the intermediate system. Thirdly, the restored Baltic states used the richest repertoire of practices to (successfully) claim and affirm their continuity with the states that became de facto extinct in the summer of 1940. Fourthly, the Baltic states belong to the first victims of the Soviet export of socialist revolutions, becoming Sovietised already in 1940. Therefore, by 1990 demographic continuity between populations in the original and restored systems was thinnest among all those countries where token restoration was performed. Therefore, they are the best benchmark cases disclosing critical or threshold values of demographic continuity when token restoration is still possible.

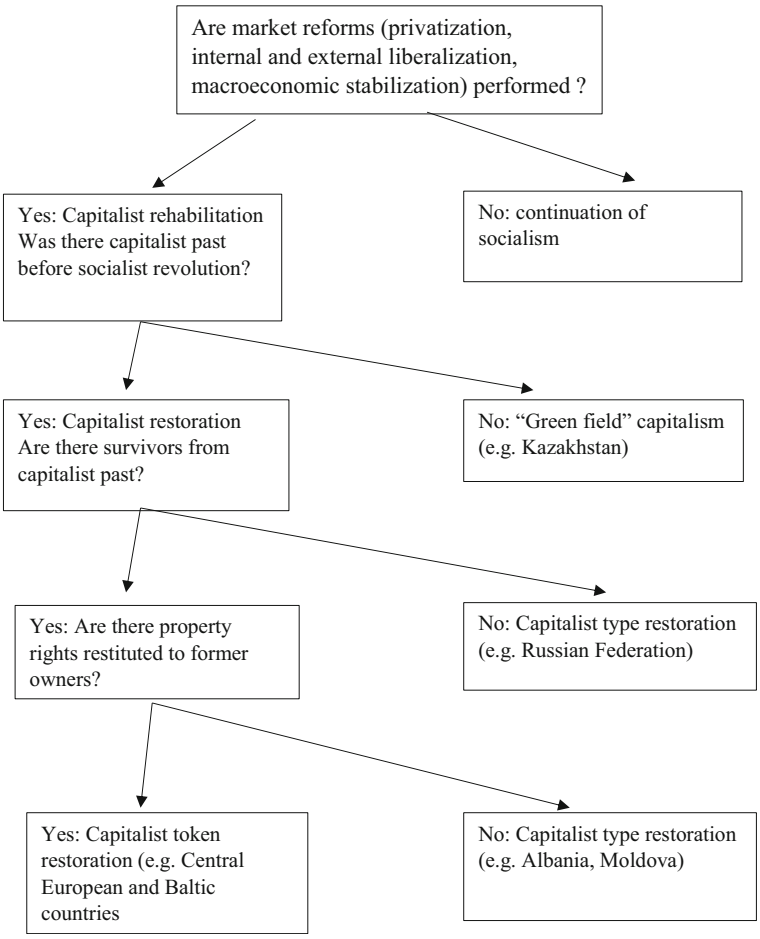

Fig. 1.1 The interrelation of social rehabilitation and two varieties (token and type) of social restoration, using capitalist restoration as an example. Author's own production

Of special interest are the shares of survivors from the original system in Latvia, due to its most consistent and resolute implementation of restorationist policies. Uniquely among all post-communist countries, they included restoration of the 1922 Constitution (*Satversme)* and the 1937 Civil Code. Importantly, by 1940 Latvia was no longer a democratic state because this constitution was suspended by the *autogolpe* coup of 15 May 1934, masterminded by the Prime Minister of Latvia Karlis Ulmanis (Ščerbinskis and Jēkabsons 2012; Norkus 2016). Thus, the post-communist restoration in this country involved not only restoration of the state's independence and capitalism but also of democracy with 56 years passing since its demise until 1990—the year when the first free and competitive election took place.

In 1990, the Latvian population had only 7.29% of people who were at least 15 years old in 1934 (born in 1919 or earlier), 10.77% who were at least 10 years old

(born in 1924 or earlier) and 22.23% who were born in 1934 or earlier (HMD 2022). These figures are not large, but based on them I would like to nevertheless claim that at least 7% of survivors from the original system who were aged 15 years or older at the time of its revolutionary breakdown, at least 10% of survivors who were at least 10 years old and at least 20% of survivors born before the breakdown are threshold values separating social systems where token restoration of the original system is sociodemographically possible from those where only type restoration can occur. These threshold values were performatively inscribed into the social ontology of post-communism by the near-unanimous recognition of the continuity of the restored Baltic states with their interwar namesakes by international community (with sole exception of Russia) and confirmed by the social and economic progress of the Baltic countries that is examined in detail in Parts III–V of this book.

This examination involves the repeated application of the outperforming original system test (OOST) and outperforming intermediate system test (OIST). The distinction between the restoration's endurance success and its performance success entails the division of these tests into measures of restoration endurance success and measures of restoration performance success. The assessment of the endurance success is based on the criterion of restoration endurance success (CRES):

CRES (criterion of restoration endurance success): ***Restored social system (C) is completely endurance successful if it endured longer than original social system A and intermediate social system B. If restored system endured longer only than original system A or intermediate system B, it is only partially endurance successful.***

By this criterion, the restored Baltic states have already proven their partial performance success because, as of 2023, they have endured longer (some 33 years) than their original independence (1918–1940, 22 years). However, the test of their complete endurance success will continue until 2040 when they will have endured longer than the complete period of foreign occupations (1940–1990), which was accompanied by a socialist revolution imported from abroad and imposed from above (Senn 2007). This is also the time when the ultimate assessment of their performance success can be assessed. This assessment is performed by the OOST and OIST guided by the criterion of restoration economic performance success (CREPS), criterion of restoration health performance success (CRHPS) and criterion of restoration somatic performance success (CRSPS).

The main idea behind these tests is that the performance success of modern restorations is indicated by an acceleration of economic and social progress in the restored system compared to the intermediate or original systems. Thus, the application of these tests involves the comparison of rates of economic, health and somatic human wellbeing progress under the restored, intermediate and original systems. Importantly, these varieties of human wellbeing progress have valid indicators: gross domestic product per capita at purchasing power parity (GDPpc PPP), life expectancy and human body height measurable on the ratio scale (and so allowing for cross-time comparisons). Also importantly, cross-national, authoritative

datasets are available, even if they do contain many data gaps or data of uncertain reliability (Engerman 1997).

These databases and datasets include the Maddison Project Database (MPD), Human Mortality Database (HMD), Human Life Table Database (HLTD) and Non-communicable Diseases Risk Factor Collaboration (NCD-RisC) databases or datasets. In the releases of these quantitative data sources, which were available at the time of the completion of this book, some important time series close with 2018–2019. Therefore, applying the OIST for the assessment of the actual performance success of Baltic restorations, we compare the first 28 years of restoration (1990–2018) with the last 29 years (1960–1989) of state socialism under Soviet occupation. This comparison is supplemented by the assessment of the early restoration success, based on a comparison of the 1973–1989 and 1989–2007/2008 periods. There is also another way to justify why I close my analysis with 2018, which should be perfectly acceptable to readers from the Baltic countries. In 2018, they celebrated the centenaries of their statehood. Thus, this particular anniversary also perfectly justifies the scope of the time windows in the cross-time comparisons.

These tests and criteria are described in the fourth chapter, which also contains a description of the complimentary tests together with an explication of reasons for their use. They include the American standard test (AST) to assess economic performance success, the Japanese standard test (JST) for assessment of health performance and the Dutch standard test (DST) to assess somatic progress. In the interwar period, international observers perceived Finland as the fourth Baltic country. Since 1940, their paths of development have diverged because a cruel, real-life experiment commenced after the Soviet occupation, wherein similar countries had to develop under different economic systems for a period of 50 years.

This is why, in the social imaginations of the indigenous populations of the post-socialist Baltic countries, Finland has been attributed both as the place of their lost future (in 1940–1990) and a real utopia (after 1940). Therefore, when monitoring and assessing the performance success of the Baltic restorations, general criteria (CREPS, CRHPS, CRSPS) and special (AST, JST, DST) performance success tests are supplemented by regional 'Finnish standard' tests. Applying these standards, the early, actual and ultimate performance success of the Baltic restorations is measured by the decrease of the lag behind Finland as of 1990; ultimate success is reached in this regard when this gap is closed (i.e. the other countries caught up) or it is reduced to its 1938 levels by 2040.

The lack of relevant cross-time comparable data from the interwar and late socialist periods is a formidable obstacle for the application of both general and regional criteria of restoration performance success to all formerly communist countries. For most post-communist countries, it is possible to find ready-made data in the authoritative sources listed above and belonging to international cross-country comparative research infrastructure. However, their information on the Baltic countries contains gaps or dubious data. The reason for these gaps is interruptions in the de facto continuity of the Baltic states. The most glaring data gaps were filled by original research, including the collection of primary historical statistics and the derivation of total output and life expectancy estimates. Much of

the primary data appears in LiDA, the Lithuanian digital archive of human studies and social sciences data.[3] These datasets are online supplements to this book.

The original research used in this book includes cross-time and cross-country comparable estimates of the GDPpc of the Baltic countries in 1913–1938, Estonia in 1950–1989 and a life table for Lithuania in 1925–1934 (excerpts are presented in the supplement of this book, containing also estimates on interwar Estonia and Latvia by Kalev Katus). Parts III and IV provide details of their derivation. I use NCD-RisC 2016; 2020 estimates in Part V. However, they are critically evaluated and compared with the available historical sources, including unpublished sources from archives that have escaped the attention of human biologists running the NCD-RisC databases.

The cross-time comparative quantitative analysis of the economic, health and somatic performance of the restored Baltic states is prefaced in Part II with a case-oriented qualitative comparative process-tracing of the de facto extinction of the independent Baltic states, struggles for their restoration and their ultimate success due to the failure of the August 1991 putsch to save the diminished Soviet empire. The post-communist Baltic states succeeded both domestically and internationally at achieving recognition of their continuity with the interwar Baltic states, despite the critically low values of overlap of populations of the interwar Baltic states and the late Soviet Baltic republics in 1990–1991.

Therefore, their restoration practices are exemplary (possibly also for would-be restorers in the future). They include the introduction of legislation to establish and maintain institutional continuity between the interwar and post-communist Baltic states, consistent transitional and retrospective justice policies (researched by Pettai and Pettai 2015), exclusion of Soviet-era immigrants from gaining citizenship rights and claims placed on Russia, as the successor state of the Soviet Union, for the restitution of interwar borders (in the case of Estonia and Latvia) and the payment of reparations for damages incurred during occupation (in the case of Lithuania).

Comparative analysis of Baltic social restoration practices in Part II also includes a discussion of cross-country variation in these practices, as well as an attempt at explaining this variation. Post-communist Latvia chose the most straightforward way of establishing continuity with interwar independent Latvia simply by reenacting its 1922 Constitution and interwar Civil Code. Estonia decided to construct an uninterrupted relay of legitimate state top-authority holders from June 1940, when the invading Soviets captured and made President Päts their puppet, to 1992, when the new Constitution of Estonia was enacted. This relay starts with the last Prime Minister of independent Estonia Jüri Uluots, who went into hiding after his dismissal on 20 June 1940; he considered himself as the Prime Minister provisionally acting as president, according to the 1937 Estonian constitution. It continues with Estonian governments in exile from 1944, which are retrospectively recognised as the sole legitimate authority in the restored independent Estonia.

[3] See https://lida.dataverse.lt/dataverse/HistatData_Baltic (accessed 10 January 2023).

The Lithuanian way of constructing continuity between the interwar and restored Lithuanian state has been retroactive legislation, recognising military leaders of the anti-Soviet resistance movement (1944–1953) as the sole, legitimate state authority between 1940 and 1990. They worked to establish an underground partisan state that preserved effective control over most of rural Lithuania until 1950. These activities culminated in the meeting of partisan commanders on 16 February 1949 where an underground provisional government of Lithuania was established under Jonas Žemaitis-Vytautas. According to legislation accepted by the parliament of restored Lithuania in 2009 and supplemented in 2018, Žemaitis-Vytautas and (after his capture and execution by the Soviets) his deputy Adolfas Ramanauskas-Vanagas are considered as the 'Heads of State of Lithuania' in 1949–1957.

However, although independence of the Baltic states was restored based on strict restorationism (the postulate of legal continuity between the interwar and post-communist Baltic states), this was not the only possible outcome. One of the aims of Part II is to demonstrate that a distinction between the two varieties of restoration (token and type) helps us to better understand the divisions and internal struggles within the Baltic independence movements in 1940–1990 themselves. According to my interpretation, these movements differentiated into orthodox tokenists (exponents of the legal continuity between the interwar and restored states) and heterodox typists, who accepted the restoration of independence as the establishment of new states, legally continuous with the Soviet Baltic republics rather than the interwar Baltic states.

Rein Taagepera's plan (advanced in the late 1960s) to upgrade the status of Soviet Estonia, Latvia and Lithuania from union republics to that of nominally independent 'popular democracies' (like Hungary or Poland) is an early example of typism (Taagepera 2013). Typism dominated in the Baltic popular fronts until late 1989, and the position of the Lithuanian National Communist Party under Algirdas Brazauskas was also typist. A tokenist approach to independence restoration in Estonia and Latvia was promoted by the Citizens' Committees movements in Estonia and Latvia and by the majority in the Lithuanian Reform Movement. By March–April 1990, popular fronts in Estonia and Latvia had also shifted towards tokenism. Due to favourable external circumstances (failure of the 1991 August coup in Moscow), tokenism could finally prevail.

However, Baltic tokenists had to accept compromises that violated their programme. These compromises included accepting the legitimacy of elections taking place under continuing occupation (the last Russian troops departed in the mid-1990s or (from Latvia) even later), failure to complement de-occupation with decolonisation (the repatriation of Soviet-era immigrants perceived as 'colonists') and acquiescence with the impossibility of reinstating the eastern borders of Estonia and Latvia as they were in 1940. A typist approach would have prevailed if the Soviet Union would have survived the August coup, forcing the governments of the rebellious Baltic republics to partly accept Soviet secession legislation, promulgated in April 1990 by the Soviet parliament. Type restoration of independence would have also only been possible if the Soviet empire would have had to face its terminal crisis some 10 or 20 years later (by 2000 or 2010), when sociodemographic

continuity between the populations of the Soviet Baltic republics and the interwar Baltic states would have approached zero, making occupation regimes climacteric.[4]

When assessing the economic performance success of the Baltic restorations (in Part III), the application of the OOST is of particular interest because the Baltic countries faced similar challenges in 1918–1922 and 1989–1992 due to the deep integration of their economies in the semi-closed (by 1913) or completely closed (by 1989) economic worlds of the Russian and then the Soviet empires. Importantly, by 1913 mainland Latvia (and to a lesser extent Estonia) belonged to the few industrialised areas of the Russian Empire, and by 1989 the GDPpc of Estonia, Latvia and Lithuania surpassed (according to MPD) output levels not only in the remaining 12 Soviet republics but also in the Soviet satellites in Central Europe.

During both periods, integration into the world economy was accompanied by drastic structural change. During the interwar period, in Estonia and Latvia, this was manifest as de-industrialisation and re-agrarianisation, mimicking Denmark's economic development strategy. During the post-socialist restoration period, there was de-industrialisation and expansion of the service sector, with the surviving industrial enterprises integrating into international commodity chains as subcontractors.

After the industrialisation of Lithuania and re-industrialisation of the other two Baltic countries during Soviet occupation, their economic convergence was complete by 1989. However, in the 1990s, new cleavage lines appeared, separating Estonia from the other two Baltic countries. In 1994–2008, Estonia displayed the strongest growth due to less transformational contraction of its economy in 1990–1993 and its early success in attracting FDI. Of major advantage was its geographic proximity to Finland, favouring closer economic integration between the two countries, while the other two restored Baltic countries did not have such a highly advanced patron. However, during the Great Recession of 2008–2011 (also known as the global financial crisis (the GFC)), Finland suffered a 'double-dip' crisis that depressed post-crisis growth in Estonia too. Therefore, by 2018, Lithuania was able to catch up to Estonia again, while Latvia had to bear the cost of the failure of its national banking sector, which in the 1990s had promised to bring the country within reach of Switzerland—the centre of high value-added financial services for the complete post-Soviet area.

All three Baltic countries passed the OOST, displaying higher annual output growth rates in 1989–2018 in comparison with the 1913–1938 period. The restored Baltic states also outperformed in 1989–2007 (Estonia and Latvia) or Lithuania (in 1989–2008) the late Soviet Baltic republics (in 1973–2008). The obstacle in being able to assess their actual economic performance success is a lack of economic growth data in 1960–1972 for Latvia and Lithuania. However, I was able to apply the OIST for the 1960–1989 and 1989–2018 periods to Estonia, using my own estimates of its growth in 1950–1998. They are based on the important contribution by Klesment et al. (2010), who claimed that the MPD estimates of Estonia's output per capita during the Soviet period are exaggerated and provided alternative

[4]The idea of a climacteric social system is explained in more detail in the Concluding Discussion.

estimates for 1950–1989. Accepting their claim only for the 1973–1990 period, I used their 'physical output index' to derive estimates of Estonia's GDPpc in 1950–1998 comparable to those in the MPD 2020 from a different (1973) benchmark. Based on these estimates, during the first three decades of restored independence, Estonia's growth was stronger than during the last three Soviet decades.

If the GDPpc of Latvia and Lithuania will continue to grow in 2018–2040 at the rates displayed in 2011–2018, they will successfully pass the ultimate OIST in 2040 and also catch up to Finland and decrease the lag behind the United States according to the AST. Estonia's growth rate in 2011–2018 is not sufficient for these achievements. However, based on the original research on the impact of the Great Recession on the labour markets of the Baltic countries (Morkevičius et al. 2020; see also Norkus 2018), I argue that despite the slowdown of Estonia's growth after the Great Recession, it is the best endowed to become an advanced technological frontier country by 2040. Proximity to Finland may have protected it from the negative long-term impact of outbound migration, which severely affected Lithuania and Latvia, depriving it of human capital embodied in the educated population of a younger age, which is migrating en masse to more advanced EU countries.

Indirect support for this claim may be provided by Estonia's present leadership according to the increase of female and male life expectancy in 1989–2018 (see Part IV, which presents life expectancy data and applies them to health performance success tests). By 2018, all three Baltic countries passed the OIST for actual health performance success. However, only Estonia was successful in decreasing the life expectancy gap behind Japan as of 1989 (i.e. passing the JST). Estonia was also the only Baltic country able to pass Finland's standard test for increase in life expectancy. Very differently, by 2008 Lithuania was the only token-restored capitalism country that failed to pass the OIST for early restoration health performance success.

Like in most socialist countries, life expectancy in the Baltic countries stagnated or declined (this applies to males) during the late socialist decades. In all three Baltic countries, male life expectancy decline also continued during the first years of restoration due to an increase in deaths from external causes (violence, car accidents, alcohol poisoning, etc.). However, in Estonia this trend was replaced by a steady increase in life expectancy already from 1996, standing in close correspondence with that of strong economic growth. Very differently, in Latvia and Lithuania male life expectancy stagnated or even further declined despite significant economic growth.

In Latvia, the male top life expectancy level under socialism was superseded only in 2008–2009, and in Lithuania only in 2012, when Lithuanian output per capita was 54.3% above the 1990 level. This suggests that in Latvia and Lithuania, the relationship between economic growth and life expectancy displayed the hysteresis effect: the return of life expectancy to the former level was possible only under a much higher GDPpc level than was needed to reach this level for the first time. The most probable cause of this effect was the particularly deep and long transformational economic recession in these Baltic countries. Nevertheless, life expectancy increase in 1989–2018 was larger than in 1960–1989, when it stagnated or declined after rapid growth in the 1950s.

None of the restored Baltic states were able to pass the OOST for health performance success. However, in this respect they did not differ from other post-socialist countries, where Stalinist socialism was imported after 1939. In nearly all of them, 1913–1938 coincided with the second phase of mortality transition ('receding pandemics'), marked by the rapid growth of life expectancy despite depressed economic conditions during this period. This phase continued in some of them under state socialism, making the ultimate passing of the OIST a very daunting task. However, this is not the case for Estonia and Latvia, where life expectancy increase in 1938–1989 was not very large because the possibilities to increase life expectancy by decreasing mortality from infectious diseases were largely exhausted already during the first period of independence, while World War II and the first postwar years were a time of major absolute regression (cp. Mertelsmann 2011).

During the interwar period, there was close correspondence between the economic and life expectancy rankings of the Baltic countries: Latvia took the top position, Lithuania was last and Estonia ended up in between. Remarkably, by 1938 the life expectancy of Latvian males and females was above Finnish levels. Estonian females enjoyed slightly higher life expectancy than their Finnish peers, and Estonian males were nearly the same. As by this time Finland already had an economic edge over the other Baltic countries, Latvia's top ranking in health expectancy can be explained by its leadership in building a welfare state due to the strong political position of the Latvian Social Democratic Workers' Party up to the authoritarian coup in 1934. In Finland, its advancement was halted by the political legacy of the Civil War in 1918, and in Estonia by that of the communist putsch in 1924, both legacies empowering rightist parties (Norkus et al. 2021).

Another remarkable feature that transpired in the comparison of life tables of all three Baltic countries during the interwar period is the larger gender gap between male and female life expectancy in Latvia and Estonia in comparison with Lithuania (in particular) and Finland. This pattern in data is explained by the early onset of demographic transition in Estonia and mainland Latvia (except for Eastern Latvia or Latgale). Differently from Western Europe, where it was driven by mortality drop, in the Baltic provinces (the Estonian, Livland and Kurland governorates of the Russian Empire), fertility decrease preceded or was simultaneous with mortality decrease. The drop in fertility did increase female life expectancy because death due to birth complications had been a major death risk factor for adult females before the rise of modern medicine and advancement of the welfare state, making obstetric services universally available.

I explain the early start of demographic transition as an outcome of land property rights arrangements created by the agrarian reform in the Baltic provinces in 1849–1868. According to my overall institutionalist argument, these arrangements created powerful incentives to postpone marriages and control fertility for both the advantaged (minority) and disadvantaged (majority) parts of formerly enserfed populations. Very differently, the agrarian reforms in Eastern Latvia and Lithuania (as well as in other provinces of the Russian Empire) discouraged the dissolution of extended families, allowing for the fragmentation of landed property and perpetuating the Malthusian dynamics of agrarian overpopulation.

I use the same argument in the last, fifth part of the book to resolve the 'Estonian antebellum paradox', which I have named so to connect it to the famous (in anthropometric history) 'antebellum paradox', referring to the decline of the height of Americans in the decades before the US Civil War (1861–1865) under conditions of rapid economic growth (Komlos 1995; Steckel 1995). There were similar paradoxes in the countries of Western Europe undergoing industrialisation and urbanisation too, where for some time heights were also in decline despite economic growth. The Estonian 'antebellum paradox' was a paradox of over-performance: according to the broadly used Baten and Blum (2015) dataset, Estonian males born during the last decade of the nineteenth century and who had grown up by 1914 were the tallest males in the world.

As in the early nineteenth century Estonia did not belong to the most economically advanced areas populated by people with European genetic stock, this may compromise the central idea in the anthropometric history of human height as a proxy for economic living standards. Presenting the findings of the first attempt to use anthropometric data of the Baltic countries for the aims of comparative socio-economic history, in Chap. 12, I hope to 'save' anthropometric history from the debacle unfolding on the shores of the Baltic Sea.

After statistical testing of the explanations advanced in work on the American version of the 'antebellum paradox' with the dataset, expanded with data on the Baltic countries, I found that a demographic explanation was the most promising: due to early demographic transition, most Estonian boys born in 1890–1899 were raised in small families, providing better care, nourishment and a more hygienic home environment for their few children than larger households in more economically developed countries. This explanation is corroborated by small N case-oriented comparisons, finding that the heights of males from mainland Latvia with similar agrarian reforms and demographic developments are very similar to those of their Estonian peers but different to those in Eastern Latvia, despite the similarity in genetic stock.

Part of the solution to the 'Estonian antebellum paradox' is the inventory of the available historical statistical anthropometric data, correcting errors in the Baten and Blum (2015) data on the height of Estonian males and checking the data quality in NCD-RisC (2016, 2020), which provides shorter (starting with other individuals born in 1896) but more encompassing data series on the former communist countries, closing with height data of 18–19-year-old males born in 2000–2001. Applying the OIST and OOST to this data, I found an acceleration of height increase over post-communist individuals in comparison with the last males to have grown up under socialism in all three Baltic countries. In Estonia and Latvia, there was also acceleration in comparison with males born in 1910–1922 who grew up during the first period of independence.

In the annual cohorts of individuals born after the restoration of independence, male body heights in the Baltic countries increased by more than 1 cm/decade, while this figure stagnated in the benchmark country of the Netherlands (0.20 cm/decade). If present trends will continue, passing the ultimate OIST in 2038–2040, Estonian males born in 2020–2022 will be taller than their Dutch peers. The replacement of

the ‘Dutch standard test’ by the ‘Estonian standard test’ may crown the confirmation of the somatic performance success of Estonian restoration using anthropometric data.

The concluding discussion provides explication of the broader relevance of the findings in my application of the historical sociology of restoration to post-communist Baltic transformations in the Baltic studies research field and outlines further venues for research within the framework of the comparative historical sociology of restorations.

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Part I
Towards the Theory of Modern Social Restorations

This part of the book presents the conceptual tools used in the comparative case study of the post-communist transformations in the Baltic countries in the framework of the theory of social transformations under construction. This presentation is limited to the bare essentials necessary for the purposes of this case study.[1] I start from an exposition of the pioneering contribution by Kann (1968), which did not receive a proper reception because of the unfortunate timing of its publication and other defects exposed in my survey. In the next two chapters (3 and 4), I present a revised version of Kann's framework, adapted for an analysis of restoration cases that Kann could not witness (post-communist restorations of capitalism and, in some cases, also restorations of democracy and independent statehood). In this revision, I also draw on the conceptualisation of restoration in the fields of natural and cultural heritage protection, where restoration of works of art, buildings and ecosystems is a professional activity, guided by an institutional codification of the key concepts and principles.

Distinctions between restorations in the proper sense and reconstructions (production of copies of extinct originals) in the protection of the cultural heritage and the ideas of ecological restoration and ecological rehabilitation in the management of natural heritage are of special interest, as they helps us resolve the difficulties in Kann's original framework. This is done in the third chapter. A further important source of inspiration is the work on the criteria of restoration success in restoration ecology. However, with an exception only being made for resilience, these criteria cannot be imported into the theory of social restoration because the paramount concern of this social science (encompassing both research on social revolutions and social restorations) with human wellbeing is not shared by biological ecology, which encompasses restoration ecology as its specialised field of applied knowledge.

In fact, restorations can happen at all levels of social reality. Mega-restorations refer to the claimed, achieved or unintended resurrection of past patterns of the

[1] For a more detailed exposition, including further empirical applications of this theory, see Norkus (2023).

international division of labour, and those of hegemony, dominance and inter-state alliances in world systems (Stråth 2016). The failed attempt at restoration of the international gold standard after WWI may serve as a well-known example (Eichengreen 1995). Attempted or accomplished restorations of empires are also cases of mega-restoration (Taagepera 1978a, 1978b, 1979). Macro-restorations are represented by restorations of nations, states, economic systems, legal and political regimes (Stepan 1986), and dynasties. Restorations of friendships, families, reputations, resumptions of interrupted careers are examples of micro-restorations.

Together with Kann, I focus on macro-restorations. However, differently from Kann, I limit the population of my restoration cases to modern restorations after modern revolutions, and start with the French Revolution of 1789. Before this revolution, there was no emic distinction between revolutions and restorations (revolutions were perceived, inscenised or presented by revolutionaries themselves as restorations of "the good old days"). It was the French Revolution that prompted the idea that it could be possible and right to overturn the existing social order by force on the grounds of abstract principles rather than historical tradition or existing law.

The population of modern revolutions can be divided into two varieties. One of them (called "bourgeois" in Marxist parlance) is represented by reenactments of the French Revolution of 1789. The other ("socialist" revolutions) descends from the Russian Revolution of 1917. These two revolutions are the only two modern revolutions that can be described as great revolutions. Both were driven by new universalist ideas of social justice and the rejection of tradition, including the existing domestic and international law. These revolutions could make themselves great by taking place in great powers strong enough to conduct revolutionary wars and to export their values. However, instead of becoming world revolutions, they only created great empires: the Napoleonic and the Soviet. Both of them were defeated by holy alliances of the endangered incumbent great powers, who harnessed the nationalism of the peripheral nations of these post-revolutionary empires. The arrival of nuclear weapons meant that a longer (Cold) war was needed to defeat the Soviet empire, which outlasted its founder, Joseph Stalin.

The real outcomes of both revolutions bore little or no similarity to the lofty promises of their ideologies. Instead of democracy, the French Revolution produced a terrorist Jacobin dictatorship , followed by Napoleon's military authoritarian rule. Instead of creating a society free from exploitation, oppression and alienation, the Russian Revolution and others of its ilk created totalitarian dictatorships. This was another reason why great post-revolutionary empires created by great modern revolutions did not endure. After their dissolution, restorations of the international and domestic order took place, encompassing the homelands of great modern revolutions and the neighbouring nations that succumbed to the export of revolutions. Domestic restorations in 1814–1815 restored legitimate dynasties, and those in 1989–1991 restored market economies based on private property over means of production (capitalism).

The most important concern of social restorations is the prevention or preemption of the recurrence of a revolution ("Never again"!) (cp. Stråth 2016; Koskenniemi and

Stråth 2014). This means that restorationists are determined to make the past revolution the last one. Therefore, the measure of restoration success is not the increase in similarity between the restored and original systems, but the capability of the restored system to outlive at least the intermediate social system. Efforts to increase the similarity between the restored and original systems can be dysfunctional for the achievement of this aim.

Even if aiming to make the restored system perpetual is a utopian idea, protracted stability of the restored system is testimony that its proponents were successful to some extent. A realistic measure of restoration success is the capacity of restored system C to endure longer than intermediate system B and original system A. However, this endurance depends on the success of C in outperforming A or B economically and socially, which is evidence of the progressiveness of restoration. Therefore, successful social restorations involve the improvement of the original system to make it resilient to new revolutions. This may be achieved not by reversing all additions made during the intermediate period and restoring the missing parts of the original system with their exact historical replica (mimicking architectural restorations), but by constructing an improved version of the original system.

Indeed, modern restorations succeed by outperforming revolutions on their promises. In the ideology of the French Revolution, such promises included constitutionalism, popular sovereignty, representative government, and equal civil and political rights. The hard core of socialist ideology, which is what drove socialist revolutions, consists of social citizenship rights protected by a universal welfare state. These ideas were implemented by enlightened counter-revolutionaries and frightened reactionaries, anxious to prevent and preempt the recurrence of revolutions.

Both the "bourgeois" revolutions, directly (by revolution export) and indirectly (by example) ignited by the Great French Revolution, and the "socialist" revolutions, sparked by the Great Russian Revolution, were humanist revolutions according to their ideology. Thus, in the fourth chapter, I argue that the use of quantitative measures of economic growth and human development for assessment of the success of modern social rehabilitations and restorations perfectly neutralises the bias favouring the prerevolutionary system, which may be imported by borrowing conceptual templates from cultural heritage management and restoration ecology or by adapting restoration success criteria used in these fields. The sole, recurrent normative concern common to the restoration of cultural artefacts, ecosystems and social systems is their resilience against new decay (for cultural artefacts), degradation (for ecosystems) or the recurrence of revolutions (for social macro-systems).

What is special about modern restorations is that they ensure their durability by implementing the agenda of modern revolutions in a more efficient way than the regimes created by revolutions and original systems (ancient regimes), which undermined themselves through their underperformance. An explication of the tests (OIST, OOST, AST, JST, DST) and of criteria (CRES, CREPS, CRHPS, CRSPS), guiding their application grounded in this idea, closes the conceptual part of the book, prefacing their application in the remaining four parts.

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Chapter 2
The Idea of Social Restoration

In fights between the factions of the victorious French revolutionaries in 1792–1799, the accusation of scheming to restore the monarchy was the most murderous claim that could be made. In power struggles over who would succeed Vladimir Lenin within the USSR (1924–1938), the indictment of plotting the restoration of capitalism was deemed most ruinous. This was the case in the infamous 'Moscow trials' of 1936–1938 where Kamenev, Zinov'ev, Bukharin and other rivals of Joseph Stalin were indicted for conspiring to dismember the USSR and to restore capitalism. The indictments were false, but after some 50 years the USSR was dismembered and capitalism was restored, as happened in France in 1814–1815 to the Bourbon monarchy.

Despite all the differences between the French (or using Marxist parlance 'bourgeois') and the Russian ('socialist') revolutions, they were productively compared in the comparative historical sociology of revolutions. Actually, comparison of these two revolutions has been seminal (cp. Sorokin 1925; Brinton 1965 (1938); Moore 1966; Paige 1975; Eisenstadt 1978; Tilly 1978; Skocpol 1979; Goldstone 2001) and remains paradigmatic in this academic enterprise. I believe that a comparison of anti-bourgeois and anti-socialist restorations can be just as productive for the extension of the sociology of revolutions by looking at the sociology of restorations.

Strangely, the work of the Austro-American legal scholar and historian Robert A. Kann (1906–1981) still remains the only attempt at an encompassing theorisation of social restorations (Kann 1961, 1968, 1972, 1974). Kann's main research area was the history of the Habsburg monarchy, while his comparative historical study was most probably inspired by the political interest in the possibility of the restoration of the Habsburg empire, even without the Habsburgs, as a federation or confederation of Central European states. In his large study (Kann 1968), he compares 11 selected cases from Western history, starting with the restoration of the Jewish homeland after their release from Babylonian captivity by the Persian king Cyrus the Great in 538 BC and closing with the restoration of the German Empire in 1871. Table 2.1 provides a complete list of Kann's cases.

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Table 2.1 Robert A. Kann's set of restorations. Question marks are inserted where Kann does not provide the chronology of the original or restored systems, and figures were inserted using data from standard reference works

No.	restorations	Original system (duration in years and chronology)	Intermediate system (duration in years and chronology)	Restored system (duration in years and chronology)	Restoration success (dichotomic: 1 = yes; 0 = no)
1.	Restoration of the Jewish homeland	41 (638–597 BC)	59 (597–538 BC)	674 (?) (538 BC–136 AD)	1
2.	First restoration of democracy in ancient Athens	33 (594–561 BC)	53 (561–508 BC)	97 (508–411 BC)	1
3.	Restoration of the Roman imperial republic	68 (201–133 BC)	12 (133–121 BC)	21 (121–100 BC)	0
4.	Justinian restoration of the Roman empire	35 (395–430)	88 (430–518)	53 (518–571)	0
5.	Ottonian restoration of Charlemagne's empire	115 (800–915)	47 (915–962)	844 (?) (962–1806)	1
6.	Transition from the Norman to the Angevin kings in England	69 (1066–1135)	19 (1135–1154)	331 (?) (1154–1485)	1
7.	Habsburg restoration of the Holy Roman Empire	35 (1215–1250)	23 (1250–1273)	18 (?) 1273–1291	1
8.	Counterreformation in Austria	31 (1490–1521)	55 (1521–1576)	72 (1576–1648)_	1
9.	The English restoration	67 (1558–1625)	35 (1625–1660)	360+ (1660–?)	1
10.	The French restoration	136 (?) (1653–1789)	25 (1789–1814)	34 (1814–1848)	0
11.	Second German Empire	158 (1648–1806)	65 (1806–1871)	47 (1871–1918)	0

I take from Kann the idea of restoration as the final component in a larger pattern of social change, featuring the sequence of original (A), intermediate (B) and restored (C) social systems, where the restored system affirms, constructs or claims continuity with the original (or ancient) system that was disrupted by the revolutionary transition from the original to an intermediate system. I share with Kann also an interest in the causal conditions of restoration success. Indeed, Kann not only provided the first conceptualisation of social restoration but also formulated at least two causal hypotheses, defining restoration success as the durability of restored systems. Successful restoration regimes endure. Restoration regimes fail if new

revolutions break out, although occasionally restoration regimes may be saved by foreign interventions. These are Kann's 'laws of social restorations':

1. Success of restoration is positively related to the duration of the original system.
2. Success of restoration is negatively related to the duration of the intermediate system.

These hypotheses can be statistically tested using the dataset in Table 2.1. In one test, I tested correlations between duration (in years) of A and C and B and C. Alas, both correlations (Pearson's r) are very weak. Besides, the correlation between the duration of B and C has the wrong sign (i.e. the correlation contradicted Kann's hypothesis). In another test, logistic regression was applied, coding restorations as successful (1) or failed (0) according to Kann's judgements, which in some cases seem to go against his own criterion of endurance of a restored system over more than one generation.

However, binary logistic regression misclassifies two out of four restoration failures and one out of seven restoration successes using duration of the original system as an independent variable, while the regression coefficient has the 'wrong' sign. Using duration of the intermediate system as an independent variable, the sign is correct, but regression misclassifies all failures as success cases, yet does not make mistakes for success cases. Most discouragingly, all the results of both tests are not statistically significant at the $p = 0.05$ or $p = 0.1$ level.

This could only be expected given the very small N size. Actually, Kann himself did understand his hypotheses as deterministic statements, describing the necessary conditions for successful restorations:

3. Restored system C cannot endure for at least two generations (70–80 years), which means its restoration is successful if original system A endured for less than one generation (35–40 years).
4. Restored system C cannot endure for at least two generations if intermediate system B endured longer than one generation.

Given this interpretation of Kann's hypotheses, his statements are not contradicted by cases where C failed to endure although A endured for at least one generation, or B endured less than one generation but C failed. This would apply only if Kann were interested in the sufficient conditions of restorations. However, under both interpretations, statement (4) is not supported by Kann's own data. The first restoration of the Jewish homeland (the second took place in the twentieth century), the first restoration of democracy in ancient Athens and the restoration of Catholicism in Austria did succeed, although the time gap between the original and restored systems exceeded 40 years.

There are no cases contradicting statement (3), but the real reason may be that he simply did not include sequences starting with original systems enduring less than one generation (like the First French republic of 1792–1799 or Napoleon's empire). This betrays one of the two defects in Kann's approach. One is conflation between the defining conditions of restorations (expressed by analytical statements) and causal conditions (described by empirical statements). Under the last interpretation,

Kann predicts the failure of belated restorations (those which take place later than the time span of one generation). Under the first interpretation, belated restorations are unthinkable, and the very word 'restoration' is misapplied in such cases. Both (3) and (4) are affected by this ambiguity, as Kann dismisses as irrelevant not only sequences starting with enduring original systems that are 'too brief' but also those with intermediate systems that endure 'too long'.

He proceeds in this way (Kann 1968: 404–405) dealing with the case of the restoration of Poland in 1918, which did claim continuity of the Polish–Lithuanian Commonwealth or the Kingdom of Poland as one of its two confederated states. In 1795, it becomes one of Europe's 'vanished kingdoms' (Davies 2012). Actually, it was then restored two times—as a vassal state of Napoleon's empire (in 1807) and as a vassal state of the Russian Empire (in 1815 by the Congress of Vienna). However, after the suppression of the attempted emancipation from Russian suzerainty in 1830–1831, the Kingdom of Poland existed only as an administrative unit within the Russian Empire.

On both counts, more than one generation had passed by 1918. If Kann would have included the restoration of Poland into his set of cases, he would have either grimly predicted the failure of this restoration or balked from his statement that after the passing of one generation, enduring restorations are impossible. Instead, he just dismisses Poland's case as irrelevant because the time gap between the extinction of the state and its restoration is deemed as 'too large', without providing the general reasons for how to distinguish between real (although possibly failed) and only notional restorations.

I accept Kann's assumption that the capability of the restored system to survive and endure is the most important manifestation of its success. The importance of endurance derives from the paramount aim of restoration to establish a system that will be safeguarded against the recurrence of revolution. I also accept his other assumption that demographic processes in general and the change of generations in particular are key parts in solving the puzzles of restoration. However, I draw a strict distinction between the definition of restoration and the assessment of its success and draw a distinction between the endurance success and performance success of restorations.

Secondly, Kann's set of cases is too heterogeneous in the temporal and substantive sense. Due to this heterogeneity, it would be ill-advised to simply drop the deterministic interpretation of his theory and expand the population of its cases to arrive at statistically significant results. Kann's set is too heterogeneous in the substantive sense because his cases include restorations of empires, political regimes, dynasties and even one case of a cultural restoration (the counterreformation in Austria). Other examples of such restorations may be the failed restoration of paganism as the state religion by the Roman emperor Julian (361–363), remembered for this reason in the Christian tradition as Julian the Apostate, as well as the restoration of liberalism (in the guise of neoliberalism) as the hegemonic Western ideology since the 1980s.

In temporal sense, it is too heterogeneous by including cases from four different epochs in Western history: ancient, medieval, early modern and modern. Kann does

not take into consideration the fundamental change in Western sociopolitical vocabulary and thinking, brought about by the French Revolution. This change was influentially analysed by the German historian Reinhart Koselleck in his 'threshold time' (German *Sattelzeit*; literal translation 'saddle time') theory between 1750 and 1850, during which the language of modernity emerged out of the language of 'ancient Europe' (Koselleck 2004 (1979)).

The modern meaning of restoration as a distinctive phenomenon, as opposed to revolution, arose only after the drama of the French Revolution. Kann both starts and closes too early, beginning with biblical times and ending with the establishment of the Second German Empire. On account of its too early start, pre-modern restorations dominate his set of cases, which are not distinguishable from pre-modern revolutions. Likewise, because of its too early closure, Kann leaves out the entire twentieth century, marked by numerous cases of democracy restoration during the second and third waves of democratisation (Huntington 1991).

Most importantly, Kann did not live long enough to witness the post-communist restorations, which refute his pioneering generalisations. Apparently, successful restoration of the Baltic states after some 50 years is the most conspicuous refutation of his theory (*pace* the prediction, implied by his theory, that their independence will not endure until 2070) because the original systems in the Baltic states endured for only 22 years (1918–1940), while the intermediate systems period lasted for 50 years. Because of the shift in the case population, Kann's conceptual framework needs to undergo a fundamental overhaul. In its original form, it cannot accommodate post-communist restorations because it commits to define them out of existence because of the too large (40–70 years) time gap separating the original and restored systems or to predict their failure at some time between 1990 and 2070, because they eventuated too late to succeed.

As a first step in this overhauling, I draw a distinction between the endurance and performance success of restorations. The endurance success of a restored social system means that it endures longer than its predecessors (intermediate and original regimes). Performance success means that it increases human wellbeing more than its predecessors and is thus progressive in the absolute (increasing rather than decreasing wellbeing) and relative (accelerating the increase of wellbeing) sense. The time for making the ultimate judgement on the endurance success of post-communist restorations will arrive when restored post-communist states and economic or political regimes will outlast their predecessors (by 2040–2060). However, their performance success (or progressiveness) can already be assessed for each period since the start of restoration.

Assessing endurance success, instead of accepting Kann's proposal of an absolute measure (70–80 years as a uniform waiting time for all restorations), I prefer to use a relative measure, where the minimal duration required for a restored system to qualify as an ultimate success is relative with respect to the duration of the original and the intermediate systems. This idea is expressed by the:

CRES (criterion of restoration endurance success): ***Restored social system (C) is completely endurance successful if it endured longer than original social***

system A and intermediate social system B. If the restored system endured longer only than original system A or intermediate system B, it is only partially endurance successful.

CRES implies that social systems where the last revolutions produced relatively enduring intermediate systems, as in the case of communist dictatorships that lasted for more than one generation, take a longer time to prove their lesser susceptibility to a new revolution. Generally, it is also a greater challenge to achieve endurance success when restoring long-lasting social systems than those that lasted only briefly (but long enough to educate their loyalists). If original system A lasted for a shorter time than its post-revolutionary successor B, then by the time the restored continuator system outlasts the original system, partial success of restoration can be celebrated. For the restored Baltic states this was 2012, when they had already outlasted the interwar Baltic states, which endured for only 22 years. However, even before that they could celebrate partial success of the restoration of their democratic regimes, which in interwar Lithuania endured for only 6 years (1920–1926), 14 in Latvia (1920–1934) and for 15 years in Estonia (1919–1934).[1]

Lastly, I draw a distinction between two varieties of restoration: type and token. This step is suggested by an exploration of how restorations are conceptualised in two fields of expertise (protection of cultural heritage and protection of natural heritage), where restoration is an actual profession. Next chapter presents what exponents of the theory of social restorations under construction can learn from these established fields.

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[1] In this chronology, the opening date refers to the year when the first free and competitive election took place, and the closing date refers to the year of an authoritarian coup.

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Chapter 3
Social Rehabilitations, Restorations and Their Varieties

Researchers of revolutions are challenged to distinguish social revolutions from related, intersecting but nevertheless different phenomena: reforms, revolts, riots, rebellions, strikes, social movements and civil war. Questions of definition are discussed in great detail in classical works on the sociology of revolutions, listed at the start of the previous chapter. As a result, there is a modicum of established vocabulary in the research on revolutions, even if revolution itself remains an essentially contested concept, and there is no universally accepted definition of revolution.

Authors writing about restorations use several terms that are related in their meaning: revival, reconstruction, reconstitution, resurrection, regeneration, renaissance, renewal, renovation, repair, restitution, reestablishment, etc. Are these terms synonymous or do they denote different phenomena? Answering this question, we find ourselves in a more difficult situation only because there has been no intense theoretical engagement with the idea of restoration.

Searches of the keyword 'restoration(s)' in Google Scholar, Clarivate Analytics and Scopus display the largest numbers of publications in the twin fields of cultural heritage management and natural heritage management. Understandably, an outsider would struggle to master this literature. However, in these fields, there is a kind of established or shared wisdom on what restoration is and what it is not. This wisdom is summarised in charters and primers, promulgated by national and international organisations (Society for Ecological Restoration (SER); the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) and others) of experts in ecological and/or cultural heritage conservation after prolonged discussions. They provide institutionally codified definitions of restoration, delimiting it from kindred albeit different phenomena. Knowledge of these discussions may protect fledgling research on social restorations from pitfalls or help researchers understand the common basic dilemmas when thinking about restorations of all kinds.

The community of experts in cultural heritage management is divided into the conservationists, who only approve of the protection from further decay of surviving

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damaged cultural artefacts or their remains, and the restorationists, who allow for their restoration, which means the removal of later additions or the insertion of missing elements. These changes are conceived as removals of damage to increase the value of the artefact. Paramount consideration in restoration is placed upon historical fidelity, which is the correspondence or closeness to the original before it was damaged by natural forces or human (intentional or unintentional) vandalism (Conti and Glanville 2007; Jokilehto 1999).

According to the still dominant view, inscribed in the Venice Charter adopted in 1964 by the Second International Congress of Architects and Specialists of Historic Buildings in Venice, the authenticity of restoration depends on the share of original parts (ICOMOS 1964). 'Approximately it can be stated that restored object should preserve no less than 60% authentics, so additions in the memorial object could make up to 40% or less' (Glemža 2002: 118). If the restored artefact includes no original parts, it is only a reconstruction, copy, simulacre or a fake, despite the similarity of its appearance or structure to that of the original.

The Venice Charter view strongly resonates with Kann's view that restoration of the original social system is not possible without the participation of survivors from the original social system. He even claimed that after the passing of one generation (35–40 years), restoration would no longer be possible. Kann's claim is contradicted by the actual success of the Baltic restorations, as well as by some of his own case studies (see Chap. 1). However, Kann's basic insight is sound: with no survivors from original system A, system C, affirming its continuity with this system despite its break by intermediate system B, cannot qualify as an authentic restoration of A. Demographic continuity, which implies the presence of a sufficiently large share of survivors from A at the moment of restoration, is the most important feature of real restorations, distinguishing them from similar but nevertheless different processes of social change. For this reason, restoration of the State of Israel in 1948 was not a real or authentic restoration, but that of the Baltic states in 1990–1991 was because the populations of these countries still included many surviving citizens of the Baltic states that were made de facto extinct in 1940.

Now there are two problems to consider. One has to do with terminology: how should systems that claim continuity of a prerevolutionary system but have no or too few survivors from it be designated? The other is substantive: what is the threshold value of the minimal share of survivors from A for C to qualify as a real restoration of A? Concerning the first question, one option would be to borrow terms from cultural heritage management and designate the event of 14 May 1948 in Tel Aviv as the 'reconstruction' of the Israeli state but call the events of 1990–1991 in the Baltic countries 'restorations' of the Baltic states.

However, in the English language, 'reconstruction' has no connotation of an orientation to the past. The act of demolishing a building in order to build a completely new structure without the slightest regard for historical fidelity to the antecedent buildings at the same place is as good a reconstruction as erecting an

exact copy of the building that used to stand at this place.[1] Therefore, I prefer the terminological distinction between two kinds of restoration, proposed and elaborated by Robert Elliot (1997): token restorations and type restorations. The type–token distinction was classically formulated by the great American philosopher Charles Sanders Peirce, referring to the difference between naming a class (type) of objects and naming the individual instances (tokens) of that class (e.g. see Wetzel 2008). According to Peirce, the sequence A A A is that of three tokens of the same type (capital letter A). Token restoration 'uses a past stage of an object as the model or template for shaping a later stage of that same object' (Elliot 1997: 101). So this meaning of 'token' has nothing to do with the colloquial sense of 'token', connoting 'superficial' or even 'fake'.

Token restoration involves continuity between earlier (past) and later stages of a given object and is concerned with its individuality and uniqueness. This kind of 'restoration implies that some actual object, which has fallen into disrepair, or which has been damaged or degraded, although not destroyed, is brought back to a condition that is much closer to its original condition' (Elliot 1997: 101). To provide an elementary example, if I write A on the board, erase it and write it again, I perform a type restoration of A. If instead of completely erasing A, I am just damaging it by erasing its 'legs' below the plank inside (and so transforming it into Δ) and then reattaching its two missing parts (to get A again), I perform a token restoration of A.

Token restoration is what experts in cultural heritage management call restoration as such, while type restoration is what they call reconstruction. 'Type-restoring occurs where some particular object has been destroyed or so degraded that it cannot be token-restored. Type-restoring involves the recreation of a type of object previously instantiated through the creation of a particular object exemplifying the same type' (Elliot 1997: 102). Using this terminology, I will describe restoration of the State of Israel in 1948 (as well as that of the Georgian or Sakartvelo state in 1990–1991) as type restoration. However, regarding the Baltic states, I will insist that they were token restored.

Elliot did distinguish token and type restoration as a contribution to the ongoing discussion in natural heritage management, which closely corresponds to that between conservationists and restorationists in the cultural heritage industry. Ecological conservationists are all for the conservation of still-surviving natural heritage (especially of its 'wild' parts) and reject the restoration of original ecosystems (forests, lakes, wetlands) devastated and degraded by human activities (deforestation, mining, pollution) as both undesirable and impossible.

Some of them argue that the very idea of human restoration of a natural ecosystem is an oxymoron because the concept of a natural ecosystem implies that it emerged without human intervention. Therefore, a restored ecological system can only be

[1] The removal of the remains of the Berlin Palace (*Stadtschloss*), destroyed in 1945, construction of the Palace of the Republic (*Palast der Republik*) in 1973–1976 by the authorities of the German Democratic Republic (GDR), its demolition after the reunification of Germany and reconstruction of the Berlin Palace in 2013–2020 is a perfect example of the latter sequence (Müller 2019).

considered a human artefact, pretending to be a natural ecosystem. Thus, restorations can only be fakes, simulacres or 'big lies', as far as original natural ecosystems are concerned (Katz 1992). This is also the point of Elliot's argument, who points out that almost all ecological restorations are type restorations and are thus not authentic.

Restorationists disagree, pointing to many cases of reputedly successful ecological restorations (e.g. the Everglades ecosystem in South Florida, in the United States). The Society of Ecological Restoration (SER) is an international association of experts and activists of ecological restoration. For the purposes of my research, the most interesting area of the SER's activities is the codification of the basic concepts and principles of ecological restoration. The first was *The SER Primer on Ecological Restoration*, published in 2002 and updated in 2004 as the *SER International Primer on Ecological Restoration* (SER 2004). They were commented or elaborated in Clewell et al. (2005) and Keenleyside (2012). The most recent texts of this kind are the *SER's Code of Ethics* (SER 2013) and two editions (2016 and 2019) of the *International Principles and Standards for the Practice of Ecological Restoration* (SER 2019), approved by the SER Science and Policy Committee and the SER Board of Directors. They reflect the state of the art in the field, where the most influential works include Allison and Murphy (2017), Van Andel and Aronson (2012) and Clewell and Aronson (2013).

These codifications contain many instructive distinctions. Of paramount interest is the distinction between ecological rehabilitation and ecological restoration. Ecological rehabilitation is just the improvement of a degraded ecological system by increasing its species diversity, structural complexity and productivity. Rehabilitation may lead to the creation of an ecosystem (e.g. a lake), which is a different kind of system compared to the original (e.g. a forest) but which is nevertheless superior compared to the degraded ecosystem (e.g. an abandoned quarry which emerged after deforestation and mining until the fossilised resources were depleted).

Ecological restoration is a variety of rehabilitation that aims to recreate the original ecosystem (e.g. a forest after deforestation or fire). Of course, it would be preposterous to demand that the restored forest should include some surviving trees from the original forest or consist of direct descendants of plants that grew in the original forest (e.g. by collecting the seeds of individual trees before cutting them down and preserving them until after deforestation). In this sense, almost all ecological restorations are type restorations. According to SER manuals, rehabilitation culminates in restoration if the new forest has a similar composition of plant and animal species. If this is the case, the lack of continuity (except for location) with the original forest does not detract from the historical fidelity of ecological restoration.

With proper modifications, the distinction between rehabilitation and restoration can be applied in the study of post-communist social transformations. Economic reforms called 'market transition' (including external and internal liberalisation, macroeconomic stabilisation and privatisation) were implemented as means of a capitalist rehabilitation of the economies of communist countries that had been in stagnation under the state socialist system since the 1970s. Political liberalisation and democratisation, including breaking the Communist Party monopoly over

political power, constitutional reforms and the introduction of free and competitive elections paved the way for a democratic rehabilitation of their political systems.

Rehabilitations (both capitalist and democratic, or only capitalist—in the countries where authoritarian state socialism was succeeded by authoritarian capitalism) took place in all former communist countries. However, in some of them (the former Central Asian republics of the USSR), there was no capitalism before state socialism, and only in a few of the former communist countries were there democratic regimes at some time before the communist takeovers. As there were no attempts to revert from state socialism to feudalism or a tributary mode of production (Haldon 1994; Amin 2011),4F in these countries there were only capitalist or democratic social rehabilitations.

Differently from cultural artefacts (but similarly to social systems), which can only decay until their next restoration, ecosystems are complex dynamic systems that develop and evolve, going through stages (called ecological succession) that are characteristic for each specific type of ecological system and leading to its mature state. The aim of ecological restoration is not to recreate the ecosystem as it had been just before its degradation but only to return the degraded system to its historical trajectory of change. This aim is inscribed in one of the first definitions of ecological restoration: 'restoration attempts to return an ecosystem to its historic trajectory. Historic conditions are therefore [the] starting point for restoration design. The restored ecosystem will not necessarily recover its former state, since contemporary constraints and conditions may cause it to develop along an altered trajectory' (SER 2004: 1).

In this context, the concepts of reference system, reference model and reference site, used in the SER 2019 manual, are of utmost interest. A 'reference ecosystem' is the designation of what Kann called the 'original system'. A 'reference model' refers to the model 'that indicates the expected condition that the restoration site would have been in had it not been degraded (with respect to flora, fauna and other biota, abiotic elements, functions, processes, and successional states). This condition is not the historic condition, but rather reflects background and predicted changes in environmental conditions' (SER 2019: 82). Thus, it is not the 'reference ecosystem' but the 'reference model' that is the benchmark for the success of ecological restoration projects. Reference sites refer to ecosystems that are used (in addition to the historical reference system) as benchmarks constructing the reference model.

These concepts help to rebut the caricaturing of social restorations (e.g. Bauman 2017) as retrospective utopias (or 'retrotopias'), longing for the 'impossible return of the past' and neglecting the irreversibility of socio-historical change and the dynamic world historical context. The point behind the distinction between 'reference system' and 'reference model' is that to succeed, ecological and social restoration projects must take into account the irreversible changes in the broader environment that took place between the collapse of the reference system and the onset of restoration, as well as changes in the environment that will take place during the realisation of a restoration project.

Therefore, the reference model (or model of a restored ecosystem) does not depict the historical or original system before its degradation, but the ecosystem that would

have evolved out of the historical reference system, had it not degraded, but would have moved along its counterfactual normal trajectory. This means that the reference model should be grounded in explicit or implicit or retrospective scenarios (see Norkus 2016, 2018), describing alternative counterfactual pathways of development of the reference system had it not suffered damage.

The concept of a reference site accounts for how the construction of a reference model can avoid becoming just an expression of fantasy and wishful thinking. This is 'an extant intact site that has attributes and a successional phase similar to the restoration project site and that is used to inform the reference model. Ideally the reference model would include information from multiple reference sites' (SER 2019: 82). In fact, it is not impossible to provide plausible counterfactual retrodiction for how a freshwater lake, which was damaged by 30 years of industrial pollution since the construction of a cellulose plant on its shores, would have looked like after 30 years had there been no pollution. The basis for this kind of counterfactual retrodiction provides us with knowledge on how similar lakes with no exposure to industrial pollution changed during a period of similar duration.

The relevance of these distinctions for theorising social macro-restorations should be apparent by now, helping us to understand the actual aims of the real proponents of most social macro-restorations. The aim of the most influential politicians in the restoration camp of France after 1815 (including King Louis XVIII) was not to take the country back to 1789, reversing all the changes that happened in 1789–1815, but rather to make France as similar as possible to what it would have been like by 1815, if revolution would have been avoided, allowing France to develop along its prerevolutionary trajectory, perceived by mainstream restorers as 'natural', 'historic' or 'normal'. In other words, their reference model was not identical to historical France before 1789, yet also reflected their beliefs about inevitable changes in the counterfactual non-revolutionary France of 1789–1814.

These beliefs were mainly informed by the observation of England (which provided asylum for Louis XVIII and many French 'white émigrés'), which for them served as a 'reference site' for supposedly 'normal' or 'historic' development (Bigand 2010; Cubitt 2007; Mellon 1958). The acceptance of parliamentary representation in the 1814 Charter instead of reversal to absolute monarchy was based on the implicit concession that a similar institution should have emerged by 1814 if the course of the history of France would not be disturbed and (temporarily) derailed from its 'historic' trajectory by the crime or catastrophe of revolution. Differently from restorers of damaged buildings or artworks, the architects of social restorations design an improved version of damaged institutions.

In the Baltic restorations (the same applies to other post-communist restorations), the state of Baltic societies in 1940 or 1934 (there were divisions in the restorationist camp regarding the exact status quo date) was the reference system in the minds of most participants of the independence restoration movement. However, very few (if any) proponents of the restoration of independence included all the specific features of the economic and political systems of the interwar period in the restoration reference model, or their vision of a desirable future. Had this been the case, the governments of the Baltic countries during the period of extraordinary transitional

politics in 1989–1995 would have pursued re-agrarianisation and de-urbanisation policies and reduction of the welfare state to its pre-1940 scale. In fact, policies such as these were not even considered, because their knowledge (rather fragmentary, selective and idealising) of pre-1940 conditions was only one source for the reference model for restoration of independent states (Tamm 2016).

Another source of ideas shaping this model were ideas (not always clear or coherent) about what these countries had lost during 50 years of forced 'straying off' from their natural historic trajectories of development. These ideas were suggested by taking small, advanced Western countries (mainly Nordic—Finland, Denmark and Sweden) as of 1990 as reference sites for inferences about what the Baltic countries would have been like by this time had there been no Soviet occupation and externally imposed state socialist development. 'For Baltic Popular Front activists, who generally painted their inter-war years in bright colours, it was obvious that the conditions of the post-war republics would have been much better, comparable to Nordic development, if history had been more favourably disposed to the Baltic area' (Karlsson 2002: 182). Therefore, the Baltic restorations (like most others) were not only about the recovery of their lost past (before 1940) but also about the recovery of their lost past futures (in 1940–1990). With a reference model of this kind, the new power elites could be and were very selective about the legacies of the intermediate Soviet system.

They accepted those parts that were perceived as generically modern (shared by both capitalist and state socialist modern societies) and rejected those which were perceived as alien impositions, which had to be replaced by local original survivals or by borrowing from reference sites. As a result, the land property rights regime, inherited from Soviet times, together with collective farms, was radically dismantled, with the restitution of property rights to previous owners as of June 1940 or their legitimate heirs. However, the restored states did not dismantle their inherited Soviet welfare state institutions (like the pension or education systems) but reformed them, adapting to capitalist market economy needs and conditions. The assumption was that similar institutions (only much better) would have emerged anyway, had 'historic' development not have been derailed by Soviet occupation. Similar attempted recoveries of past futures lost in 1945–1989 or 1948–1989 took place also in other post-communist transformations in countries with a record of capitalism or democracy before their socialist revolutions.

The constitutional doctrines of the restored Baltic states assert their identity to their interwar-era namesakes. They define the de facto extinctions of the Baltic states in 1940–1990 as mere occupations, differing from that of Norway or the Netherlands by Nazi Germany in 1940–1945 only in terms of duration. The practical implications of this doctrine continue in the form of the denial of citizenship rights to immigrants into Estonia and Latvia from other Soviet republics and claims upon the Russian Federation as the continuator state of the occupant power (the Soviet Union) to return border territories that were detached in 1944–1945 and to pay reparations for damages incurred under occupation (see Part II).

Instead of considering the doctrine of the continuity of the Baltic states as legal fiction, I prefer to consider it as an expression of a basic sociological fact about the

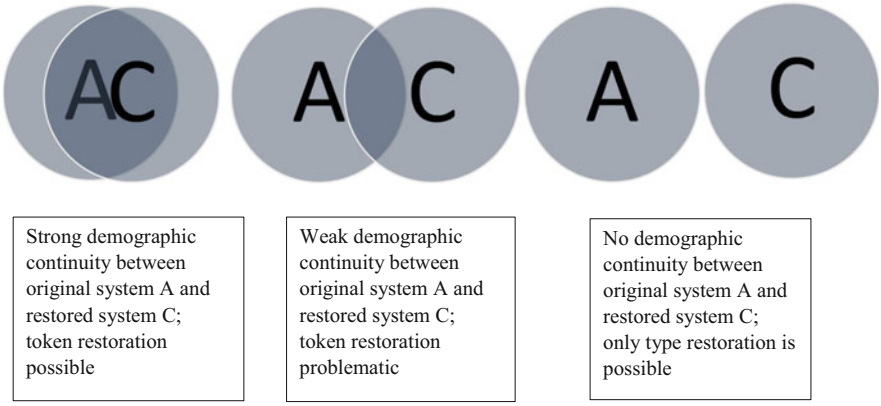

Fig. 3.1 Relation between survivors from original system A and the population of restored system C in token and type restoration. Author's own production

post-communist Baltic countries. Under this approach, the conceptualisation of restorations in the sociology of restorations should assume real continuity and identity of the Baltic states over time, despite the 50 years of foreign occupation and change in their economies and societies during this period. To quip, the sociological reality of the Baltic restorations, which implies continuity and identity between the interwar and contemporary Baltic states, is of similar importance in the sociology of restorations as is belief in the bodily resurrection of Jesus Christ in the Christian faith. This faith promises universal bodily resurrection, and the warrant that this promise will become truth is the belief that Jesus did resurrect as a human.

That's why the analysis of these cases can provide the solution to the second problem, related to distinction between two varieties (token and type) of restoration. This is the problem of a suitable threshold value of the minimal share of survivors from A (original system) for C (restored system) to qualify as a real restoration of A. This problem is visualised in Fig. 3.1 containing Venn diagrams representing the relation between the population of original system A at the moment of its destruction and the population of restored system C at the moment of its restoration.

When the intermediate system endures less than one generation, survivors from the original system (represented by the intersection of populations of the original and restored systems) may still make up a considerable part of the population of the restored system. All the key actors of the French restoration in 1815 were socialised under the *Ancien Régime*, so restoration was performed by the survivors of this regime. Napoleon (1769–1821), Charles-Maurice de Talleyrand-Périgord (1754–1838), Joseph Fouché (1759–1820), Alexander I of Russia (1777–1825), Arthur Wellesley first Duke of Wellington (1769–1815), Klemens Metternich (1773–1859), Robert Stewart (Viscount Castlereagh, 1769–1822), Francis I of Austria (1768–1835) and Frederick William III of Prussia (1770–1840) (with only a partial exception for Metternich, who was a 16-year-old in 1789)—all the above

were adult men by the time of the outbreak of the revolution, with 47.4 being the mean age of this small sample (Ballard 2012).

The same applies to both Bourbon kings of Restoration France—Louis XVIII (1814–1824) and Charles X (1824–1830), who were known as the Count of Provence (1755–1824) and the Count of Artois (1757–1836) before taking their crowns, were younger brothers of the ill-fated Louis XVI (1754–1793, reigned in 1774–1792). Actually, both of them together with their closest entourage did survive the revolution and post-revolutionary times in emigration, returning in the wagons of the victorious armies of the sixth anti-French coalitions, as the Bonapartist propaganda claimed in 1814–1815. With life expectancy at birth in France by 1816 close to 40 years, its 14.6 million male population in 1815 included 35.9% of survivors from prerevolutionary times who were at least 10 years old in 1790 and 29.7% who were aged 15 or older in this year. In the 15.7 million female population in 1815 (France at its 1861 borders), the shares of survivors aged at least 35 and 40 from the times before 1790 were 30.4% and 37.0% respectively. Counting all males born before 1790, who were at least 15 years old in 1815, their share in the total male population was 49.6%, while in the female population of France in 1815, the share of their peers was 51.7% (Vallin and Meslé 2001).

Very differently, according to HMD (2022), in the population of Russia proper by 1992, only 1–2% of witnesses of the Russian Revolution were still alive, counting as such persons who were at least 10 years old (in 1917; no adult participants were alive in 1992). Even if we take the most permissive count, there was no noticeable overlap between the populations of prerevolutionary and post-socialist Russia. In the East European countries, the situation was significantly different. The share of the population born before 1948 made up nearly one third of the total population, with more than 20% receiving basic socialisation (complete by the age of 10; see Gaitán 2009) before the socialist revolution. This included most of the first heads of states and governments under post-communism, e.g. Tadeusz Mazowiecki (1927–2013), Ion Iliescu (b. 1930), József Antall (1932–1993), Árpád Göncz (1922–2015), Vytautas Landsbergis (b. 1932), Algirdas Brazauskas (1932–2010), Waclav Havel (1936–2011) and Zhelyu Zhelev (1935–2015) (Roszkowski and Kofman 2008).

However, how much overlap is necessary for the restoration of an extinct state, political regime or economic system to still be possible? Answering this question, the Baltic states should be considered as paradigmatic cases, simply because among all the cases of post-communist transformations, they have the least disputable status of being successful restorations, although demographic continuity between the restored and original system was rather tenuous in 1989–1991. Rather than posing a problem, the Baltic cases provide clues for how to solve the issues of minimal threshold values or having a critical mass of survivors.

As it was already pointed out in the Introduction, the shares of survivors from interwar independence times in Latvia by 1990 can serve as a benchmark for finding minimal demographic continuity (intersection of populations of original and restored systems; cp. Figure 3.1) due to its most consistent, resolute and successful (as of 2023) implementation of restorationist policies. Abstracting threshold shares from Latvia as a paradigmatic case of restoration, for token continuity to be valid, the

population of the restored state should include at least 7% of survivors from the original system who were 15 years or older at the time of its de facto extinction, at least 10% of survivors who were at least 10 years old at this time and at least 20% of survivors who were born under the original system.

The cruel custom of tribal societies to kill all boys and males of the vanquished groups older than 10–15 years of age, as reported by anthropologists and human ethologists (Keeley 1996: 83–88; Edgerton 1992: 66; Eibl-Eibesfeldt 1979), may provide seemingly macabre but nevertheless very firm support for the choice of 10 or 15 years of age as threshold age values to distinguish the surviving members of the original society from the 'children of the revolution'. The share of survivors who were at least 15 years old at the termination of the original system is most important for ensuring 'living continuity' between the original and restored systems, as it includes persons who completed their basic socialisation under the 'ancient regime' and are thus the least susceptible to being implanted with new values, attitudes and loyalties. At the same time, they are dangerous to the new regime as bearers and transmitters of cultural legacies perceived as impediments for its complete triumph.

Importantly, the threshold values are abstracted not from shares of survivors in the Latvian population in 1990 from Latvia in 1940 but from Latvia in 1934, because reenactment of Latvia's Constitution of 1922 in post-communist Latvia, suspended by Ulmanis' authoritarian coup on 15 May 1934, also served in the restoration of democracy in Latvia. There is continuity not only between the Latvian state and capitalism as of 1940 and since 1990 but also between Latvian democracy as of 1934 and since 1990. As a matter of principle, the distinctions between social rehabilitation and restoration as well as between two varieties of restoration apply not only to transformations of socio-economic systems or political economies but also to changes in political regime.

The establishment of democracy in a country with no democratic past amounts to a democratic rehabilitation of its political system. For token democracy restoration to take place, there should be demographic continuity between populations under the original and restored democracies. Besides that, the original regime should endure sufficiently long to educate its loyalists. This condition, emphasised by Kann (1968), cannot be neglected, even if his minimal duration threshold (35–40 years) is too high. Instead, I abstract both minimal duration of the original system and demographic continuity values from Latvia's case, which provided proof of the possibility of a token restoration of democracy by deed, simply by reenacting its 1922 Constitution after a break of 56 years.

This happened on 4 May 1990, when the democratically elected Supreme Soviet of the Latvian Soviet Socialist Republic passed the declaration on the Restoration of Independence of the Republic of Latvia and partly reintroduced its interwar constitution (Jundzis 2017a, b). On 6 July 1993, its full reintroduction by the first assembly of the newly elected parliament (*Saeima*) followed, and since this time the Latvian democratic political system continues to function according to its good, old constitution. Accepting Latvia as a paradigm case, the minimal duration of the original democracy to make this kind of token restoration possible is 14 years. Conveniently, this is the duration of democracy in the ill-fated Weimar Republic (1919–1933).

Acceptance of this threshold value qualifies democracy restoration both in West (in 1949) and East (in 1989) Germany as token restorations.

The Latvian case of democracy breakdown much earlier than the communist takeover is not an exception but the rule. At the time when WWII broke out, democratic regimes were defunct in all the countries where they had been established as part of the Versailles rehabilitation of international order (Berg-Schlosser and Mitchell 2001, 2002; Lee 2008 (1987)). This provides us with a reason to describe the transformation as not only a post-communist but a post-totalitarian rehabilitation. However, because of the lack of demographic continuity in other formerly communist countries, token restoration of democracy was possible in only five: East Germany, Estonia, Latvia and the two successor countries of Czechoslovakia.[2]

The socio-demographic possibility of token restoration does not mean that this kind of restoration is in fact performed. Post-communist Slovakia and Croatia exhibited sufficient demographic continuity between the populations of the (nominally) independent states of Slovakia (1938–1945) and Croatia (1941–1945) and those of Slovakia and Croatia in 1989 and 1991, and token restoration was possible. However, unlike the situation in the Baltic states, the Slovaks and Croats established new states, denying continuity with their namesake states that existed in the World War II era. They were created as satellite states of Nazi Germany, so any affirmations of continuity would not have brought any advantages. Therefore, streets were not renamed and monuments were not constructed to commemorate Ante Pavelič (the head of fascist Croatia), Jozef Tiso (his Slovakian equivalent) or other important World War II Slovakian and Croatian nationalist activists, who were then decimated by communists. Despite the socio-demographic possibility of token restoration of the pre-communist states, the new states of Croatia and Slovakia were established, which indicates type restoration.

The distinction between token and type restorations helps to illuminate the difference between the restoration of capitalism in Russia (and most other fSU republics) and in countries where socialist revolutions did take place after 1940. The difference is that in the latter countries, the transition to a market economy included the restitution of private property lost during the revolution or compensation for its loss. This is a distinguishing feature of the token restoration capitalist economic system because restitution of private property rights constructs institutional continuity between pre-communist and post-communist institutional orders.

As a matter of principle, the rights of former owners or their heirs may be ignored, privatising state assets, consisting of nationalised and newly created wealth, despite the availability of survivors in numbers at or above the Latvian thresholds. This was what happened in the 1990s in Moldova, Albania and some former Yugoslavian republics (Bazyler et al. 2019). In Restoration France (1815–1830), the owners

[2] Another candidate is Hungary, which on final count cannot qualify as a democratic country because of the too short duration of its original democratic system. Democracy restoration in Lithuania and Poland also belongs to type variety, because it did break down too early (in 1926) to leave critical mass of survivors by 1989–1990.

dispossessed during the French Revolution received only compensation for their lost properties. Even in the Baltic countries, this was only possible as an outcome of political struggles during 'extraordinary politics' of 1988–1991 over the different modes of independence restoration (see Part II). However, with the nearly complete dying out of survivors (after two or more generations have passed, which was the case in fSU republics under communist rule from 1917–1920), restitution of property rights and so token restoration of capitalism becomes legally and politically impracticable because of difficulties in identifying all legitimate heirs and resolving conflicts among them, exacerbated by the conflicts between claimant heirs and present users.

SER codifications provide an elaborate system of qualitative and quantitative criteria for the assessment of success of ecological restoration projects. The recent version (SER 2019) contains an elaborate scale, with its values ranging from minimal (18 points) to complete (90 points) success. Many indicators in this scale are very suggestive. According to older SER codex (SER 2004), restoration is successful, if (1) the restored and reference systems have a similar biotic community structure, which means that assemblages of species in both systems are very close; (2) the restored ecosystem 'consists of indigenous species to the greatest practicable extent'; (3) this assemblage includes all functional groups (primary producers and consumers) 'necessary for the stability and/or continued development of the restored ecosystem'; (4) 'the physical environment of the restored ecosystem is capable of sustaining reproducing populations of the species necessary for its continued stability or development along the desired trajectory'; (5) the restored system functions normally for the type of ecosystems and stage of ecological succession it actually represents; (6) the restored system is 'suitably integrated into a larger ecological matrix and landscape'; (7) external threats to the 'health and integrity of the restored ecosystem' are reduced or eliminated; (8) 'the restored ecosystem is sufficiently resilient to endure the normal periodic stress events in the local environment that serve to maintain the integrity of the ecosystem'; and (9) the degree of self-sustainability of the restored system is not less than that of the original system and 'has the potential to persist indefinitely under existing environmental conditions' (SER 2004: 3–4; Higgs 1997).

One very important consideration is the removal of invasive species to make the biological species composition of the reference and restored systems as similar to each other as possible (SER 2004: 3–4). It resonates with the ideas of radical Baltic restorationists, who insisted that restoration of independence should include decolonisation—the departure of Soviet-era emigrants, who were considered as 'colonists' in the Baltic republics (e.g. Par Latvijas dekolonizāciju 2002). The restoration of capitalism leads to the re-emergence of socio-economic classes of capitalists and small entrepreneurs that had been extinguished by the socialist revolution, simplifying the social structure much like what happens during the degradation of ecosystems. The re-emergence of extinct classes increases the socio-economic heterogeneity or diversity of society, bringing it back to prerevolutionary levels.

However, the importation of restoration success criteria from restoration ecology into the sociology of restorations would lead us astray. Conceptual frameworks for cultural and environmental heritage protection are marked by the assumption of the superior value of the original or reference system. In these frameworks, the intermediate system can only be conceived as decay. When it comes to architecture, a restored work of art cannot surpass the original in terms of its value.[3] A restored ecosystem may occasionally be more productive (producing more biomass) than the reference system. This may be sufficient to attest the success of the rehabilitation of an ecosystem.

For the success of restorations, experts in ecological restoration consider superior productivity of the restored ecosystem as irrelevant, focusing on the increased biodiversity, similarity to the reference system (historical fidelity) and resilience as the most important issues. Acceptance of the normativity of the historical past is a distinguishing feature of social restoration. However, historical fidelity or maximal possible similarity with the original system cannot be considered as a criterion of its success, because to endure the restored system should perform better than both the original and the intermediate systems. So, successful restoration should not include restitution of the features of the original system that made it vulnerable to revolution in the first place.

All considered, only criterion (8) (resilience) from the SER list can be included on the list of obligatory yardsticks for evaluating the success of social restorations. Again, the reason is the preoccupation of restorations with the prevention or preemption of revolutions. Usually, they break out when the state, political regime or economic system suffers a shock (unexpected stress event). However, the same system may succumb to shock after surviving unscathed a much stronger shock of the same type, and social systems of the same kind may display very different ranges of vulnerability to shocks of a different kind. This kind of variation is related to differences in their resilience (Scheffer 2009).

CRR (criterion of restoration resilience): ***A successfully restored social system is more resilient in comparison with the original system both in the sense of its capacity for rapid recovery after shocks and its lesser vulnerability to systemic change, shifting it into an alternative equilibrium.***[4]

I will discuss in more detail the relevance of this criterion for deeper knowledge of the Baltic restorations in the Concluding Discussion.

[3] Only Eugène Emmanuel Viollet-le-Duc (1814–1879) was, with his idea of stylistic restoration, of a different opinion (see Conti and Glanville 2007; Jokilehto 1999; Munoz-Vinas 2005).

[4] For more details, see Norkus (2023). In this book, CRR will be applied only in the Concluding Discussion.

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Chapter 4
The Performance Success Criteria and Tests of Social Restorations and Rehabilitations

When it comes to restoration of capitalism, which is the distinctive feature of post-communist restorations, the token restoration of capitalism is a variety of rehabilitation that can draw on the survivals from its capitalist past (survivors infested with a capitalist economic culture) and construct continuity with this past by the restitution of property rights. However, the simple transfer of restoration success criteria and other conceptual templates from restoration ecology and cultural heritage management may expose my project to the reproach that it has an anti-revolutionary bias in general and an anti-socialist bias in particular.

Therefore, I prefer to assess rehabilitated and restored social systems by criteria tailored to their distinctive features. The most important consideration is that differently from ecosystems, the enfranchised constituent members of social macrosystems belong to the same biological species (*Homo sapiens*). Therefore, the evaluation of restoration success should be based on the philosophy of humanism, considering the increase of human wellbeing as the ultimate guideline for the assessment of the quality of social systems. This philosophy underlies the ideology of both great modern revolutions. The protagonists of both revolutions aspired to emancipate all of humankind, including its emancipation from material destitution, which implied hunger and premature death (cp. Fogel 2004). Very differently, pre-modern social upheavals, retrospectively described by some researchers as revolutions too, did not make any such humanist promises.

Indeed, the right to life precedes all other human rights in all 'great' ideological documents of modern revolutions, starting with the US Declaration of Independence (1776) and ending with the UN Universal Declaration of Human Rights (1948), with avoidable death from hunger and illness being the most blatant violation of this most basic human right. John Komlos and Brian Snowdon (2005: 125) provide illumination on this point:

> The extent to which a socio-economic system can provide an environment (broadly conceived) propitious to the growth of the human organism, for its healthy development, so that that organism can reach its biological growth potential, is arguably a useful indicator of the

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humanistic nature of that system. This perspective emphasizes that human beings are sentient, and that there is a human right to health.

While the French Revolution promised progress simpliciter, the Russian Revolution and its exported clones promised the acceleration of progress and a more equal distribution of its fruits. Communist revolutions were launched in the belief that the continuance of capitalism could bring only absolute and relative impoverishment to the toiling masses (according to the teachings of Karl Marx in *Das Kapital*), except their members, belonging to the 'worker aristocracy' in some of the strongest imperialist powers, prevailing in the fight over the world's division into formal and informal empires (according to Vladimir Lenin's amendments, see Lenin 2008 (1917)).

The existing socialist regimes promised high economic growth levels, allowing them to catch up to the most economically advanced countries in only a brief period of time and to create an economic foundation for a level of human flourishing without precedent in human history. In the third Programme of the Communist Party of the Soviet Union (CPSU), adopted in October 1961 at its 22nd Congress, building communism was operationally defined as catching up to and overtaking the United States by 1970 or by 1980 at the very latest (Programme of the Communist Party of the Soviet Union. 1961). The Soviet empire surely would not have dissolved had this promise been realised in 1990 or 2000.

The ultimate cause for the demise of communism was the failure to deliver on the promise to accelerate economic progress and the social development of countries where Communist parties had established their rule.[1] Measuring the performance of post-communist regimes by the same yardsticks that communist regimes applied to themselves allows us to find out whether the allegedly doomed capitalist system, after its restoration, was able to perform better on these promises. So, when assessing the success of modern social restorations by measuring and comparing the contribution of modern revolutions and modern restorations towards the increase of human wellbeing, I will only take modern revolutions on their own terms.

The promises of communism to accelerate economic growth in particular and increase human wellbeing explain why its ideas had especially strong appeal among impatient intellectuals of underdeveloped countries, looking for recipes on how to accelerate the economic and social development of their countries that were progressing too slowly (according to their perceptions) in the framework of capitalist institutions or due to the perceived surviving elements of feudalism. A modern restored regime can succeed in enduring longer than intermediate post-revolutionary and original systems only by displaying even more rapid growth. Therefore, capitalist restoration demonstrates its success not by close similarity between restored and original capitalism (their belonging to same variety) but by the capacity to achieve higher economic growth rates in comparison with both original and intermediate economic systems. This is the idea behind the criterion of restoration economic performance success:

[1] In China, the communists remain in power because they manage to deliver on their promises.

CREPS (criterion of restoration economic performance success): ***Restored social system C is economically successful if the growth of the output*** **per capita** ***in C accelerates in comparison with intermediate system B or original system A.***

Application of this criterion (the same holds for the next two) involves two tests: the outperforming intermediate system test (OIST) and the outperforming original system test (OOST). The acceleration of economic growth in the restored system in comparison with its immediate antecedent is necessary just to prove its economic superiority. Acceleration in comparison with the original system is necessary to prove that restoration is not just a return of the past system, which already succumbed to revolution once, but is the creation of its improved version. The economic success of restoration is complete if C accelerates in respect to both A and B. In the case of partial success, C accelerates only with respect to B or C. If C outperforms only B but not A, partial success of restoration can mean only its success as rehabilitation. For countries with no capitalist past, the application of CREPS is limited to OIST, which means that only the test of capitalist rehabilitation performance success can be done.

When selecting criteria of rehabilitation and restoration performance success, an important consideration is the availability of time series of the cross-country and cross-time comparable datasets, encompassing as many countries under rehabilitation or restoration as possible. For the assessment of restoration economic performance success, Maddison Project Database data on the historical GDPpc at purchasing power parity (PPP) provide appropriate information (MPD 2013, 2018, 2020). However, GDP only allows a comparison of the productive capacity of societies. The relationship between production and human wellbeing is mediated by distribution, which may be more or less equal, and provides governments with ample possibilities to divert the use of output for aims that otherwise counteract growth in human wellbeing (e.g. military buildup).

After much pondering, I selected human body height and life expectancy at birth as two direct measures of human wellbeing, which combine all three advantages: validity, comparability (cross-country and cross-time) and availability of data.[2] These indicators are used measuring the health and somatic performance success of social rehabilitations and social restorations. Both for CRHPS and CRSPS, the reservations hold that the performance success of a restoration can be only partial by C outperforming only B or A. For countries with no capitalist past, only comparison of the post-communist and communist period makes sense testing only for rehabilitation success.

[2]For life expectancy, the most authoritative data sources are Human Mortality Database (HMD) (2022) and the Human Life Table Database (HLTD) (2022). For the period after 1960, World Development Indicators (WDI) is another broadly used data source. For older periods, data of the Clio-Infra project are usable (Zijdeman and Ribeiro da Silva 2015 and Ribeiro da Silva 2015a, b). As a last alternative (in the sense of usability when no other data is available), Gapminder data is valid (Lindgren and Johansson 2014; Lindgren 2020).

CRHPS (criterion of restoration health performance success): ***Restored social system C is health successful if the increase of life expectancy in C accelerates in comparison with intermediate system B or original system A.***

CRSPS (criterion of restoration somatic performance success): ***Restored social system C is somatically successful if the increase of mean human body height in C accelerates in comparison with intermediate system B or original system A.***

Life expectancy discloses the extent to which a specific socio-economic system is able to satisfy basic needs, which are crucial for maintaining health. These are adequate nutrition, basic education, clean water supply, basic housing and healthcare needs. 'Physical stature is an important complement, illuminating the extent to which a socio-economic or political system provides an environment—broadly conceived—propitious to the physical growth and longevity of human organisms, so that they can reach their biological growth potential' (Komlos and Snowdon 2005: 125).

There is an important difference between the two measures. Life expectancy discloses how well human basic needs were satisfied during the lives of individuals during all the biological phases of their lives. However, the bodies of humans grow most intensely during childhood. The most rapid growth takes place during the first 3 years of life, after which it slows down and briefly accelerates during adolescence (in the 13th–15th years of life). Growth is completed between 20 and 25, with height increases between 18 and the year of the end of growth (this varies individually) being insignificant (Bogin 2001). Thus, human height mainly indicates the biological living standard for children during a particular historical period—how good it was to be a child (and to lesser extent, an adolescent) at that time.

The difference in mean heights of consecutive generations indicates how much biological standards of living increased or declined. If fully grown adults are on average taller than their parents or grandparents, this indicates that as children they had a better childhood. There are individual caps on stature growth, depending on one's genetic background. How much of this growth potential is realised depends on the social environment of growth: Are children undernourished or malnourished (their diet lacks the proteins, vitamins and minerals which are essential for normal growth)? Do they frequently suffer from diseases? Must they engage in physically exerting labour from their early years (instead of playing or going to school)? If so, children do not grow to the full extent that their genetic endowments allow. Therefore, some authors propose an even more specific interpretation of stature, arguing that it is an indicator of the nutrition-exertion-climate-disease environments of children (NECDEC; see Grubb and Hansen 2002).

The discovery of this indicator led to the rise and development of anthropometric history (Baten 2017; Bogin 2001; Fogel 2004; Komlos 1995a, b; Steckel 1995, 2013). The distinctive feature of anthropometric history is 'historicisation' of the observed variation in anthropometric data of specific human populations. More specifically, anthropometric historians do not accept explanations of variation in mean height in these populations based on stable (on the historical time scale, which is different from that of evolutionary biology) differences in the genomes of the

human population before testing the causal arguments explaining this variation based on the features of their social environment.

Height is the most useful variable for cross-time comparisons of the biological standards of living of children, when the composition of a population is not significantly affected by immigration. If the identity of a population's genome can be assumed, then increases or decreases of mean height indicate improvement or deterioration of the social environment in which children grow. Its application for cross-country comparisons is more problematic because differences in the mean height of populations in different countries can be explained by genomic differences. To control for these differences, it is advisable to limit the scope of cross-country comparisons to populations with similar genetic endowments.

The advantage of this indicator is that reliable data on its value exists for many countries. This applies only to the male population because the main source of this data is conscript measurements.[3] Therefore, its application will be limited to males. This book offers one of the few attempts at systematic use of this promising indicator for the comparative exploration of the consequences of post-communist transformation on human wellbeing (see also Komlos and Kriwy 2002; Costa-i-Font and Kossarova 2014).

Differently from CRES, three criteria of performance success allow continuous monitoring of the economic, health and somatic performance of restoration by comparing the period extending from the most recent moment of systemic change, inaugurating C, with increasingly longer periods of similar duration in the history of B and A. Early economic success of the post-communist restoration of capitalism during this period, delimited by the start of market reforms in 1989–1991 and the Great Recession in 2008–2011, can be assessed by comparing economic growth rates during this period with those during late socialism, which is known as the 'stagnation era' in fSU republics. I will call this comparison by application of the OIST the 'assessment in the first retrospective'. It is supplemented by the assessment in the second retrospective, where the early restoration period is compared with the late period in the history of the original system, applying the OOST.

In addition to the assessment of early success by using the OOST and OIST, I provide assessment of actual success, comparing the performance of restored capitalism during the complete period of post-communist restoration with the last three decades of state socialism (1960–1989; OIST). The publication of data takes due time. Basing my assessment of economic success on the Maddison Project Database (MPD), I had to stop at 2018, as this is the last year in its most recent release (MPD 2020), and the time series of height data in the NCD-RisC (2020) closes with 2019. When looking at somatic success, there is the additional complication that it takes time for humans to grow up. So by now, only relatively few post-communist

[3] Actually, Non-communicable Diseases Risk Factor Collaboration (NCD-RisC) (2016) datasets provide data on both sexes. However, compilers of this source warn users about the low reliability of this data, as reflected by very broad confidence intervals for female heights for most countries (especially for the period before WWII). The other most broadly used source (Baten and Blum 2015) provides data only on males.

individuals who have grown up entirely under restored capitalism (born in 1990–2001) could be compared with the last individuals who grew up under socialism. However, because of the happy coincidence of the 100th anniversary of the independence of the Baltic states (2018) correlating with the terminal dates for which data is available, limitation of the assessment of the actual performance success of the Baltic restorations to the 1990–2018 (or 1990–2019) period cannot impair its salience.

Performance success of the capitalist restoration in the Baltic and East European countries can continue to be monitored until 2040, when the duration of the restored capitalist system (1989–2040) will have outlasted that of the complete totalitarian era (1940–1989). Its starting point was the infamous Molotov–Ribbentrop Pact signed on 23 August 1939, which destroyed the *cordon sanitaire* encapsulating Stalinist socialism within Soviet borders according to the peace treaties of 1920–1921 and exposed East European countries to the export of the Russian Revolution. So the upcoming 100th anniversary of the Molotov–Ribbentrop Pact (in 2039) seems to be a most appropriate timepoint for the assessment of the ultimate performance success of the Baltic restorations. The latter date can be conveniently rounded to 2040, pandering to the mental habit demonstrated by social scientists to structure their data by decades.

Besides the symbolism of this date, there are important substantive reasons for the ultimate application of the OIST when measuring the economic and social progressiveness of capitalist restoration by its outperformance of the whole totalitarian era instead of only the state socialist system in the strict sense (1940–1941, 1944–1990). Even though 1938 was not the last year of the capitalist economic system or state independence in the Baltic countries,[4] the war years (1939–1945) stand in greater continuity with the socialist transformations from 1945 than with the preceding period. The operation of a market economy in the Baltic countries under Nazi occupation remained suspended, subordinating it to all-encompassing state regulation.

There is another important reason to close the time window on the original system in the cross-time comparison with 1938, even though the Baltic countries did survive as independent states during the subsequent one and a half years. This applies in particular to the assessment of the economic performance success, guided by CREPS. In 1939, the Baltic economies were severely affected by the outbreak of WWII, interrupting their trade with the United Kingdom. War-related difficulties led to contraction of their economies, continuing in the next year. Therefore, 1938 is the top year of their economic performance during the interwar period. An additional complication applies to Lithuania: its borders changed twice in 1939. In March 1939, it lost the Klaipėda (Memel) region to Nazi Germany but was granted the Vilnius

[4] Some historians (e.g. Ilmjärv 2004) argue that the Baltic countries lost their state independence already in the autumn of 1939, when Soviet military bases were established in all three countries, making the formerly independent countries Soviet protectorates.

region by the USSR in October of the same year. Thus, statistical data for this year is either only fragmentary or difficult to interpret.

Therefore, for application of the OOST to establish early (as of 2007–2008) and actual (as of 2018–2019) performance success of capitalist restoration, GDP growth and life expectancy rates during the early and actual restoration periods are compared with those in 1913–1938, which is another self-contained period in Baltic economic history. I would claim that this exercise also has added theoretical value, stretching the concepts of economic, health and somatic progress to their limits. Mainstream economics still assumes that there are no limits to economic growth; thus, there are no reasons to expect the acceleration of economic growth under restored capitalism. However, the increase of life expectancy and human height has a genetic ceiling, although all former attempts to specify these in numeric values were falsified by actual somatic and health progress (Oeppen and Vaupel 2002). An important finding arising from the application of the OOST to life expectancy and height increase data to country population including all post-socialist countries (see Norkus 2023) is that in most East European countries, growth rates were highest in 1913–1938, which was marked by comparatively slow economic growth.

Generally, countries where the socialist period coincided with phases of health and demographic transitions, characterised by the rapid increase of life expectancy, cannot be expected to surpass this achievement if the genetic potential of further increases of life expectancy and height were nearly exhausted by the time of the reversal to capitalism. On the other hand, there was also broad variation among socialist countries in their economic and human development progress. Restored capitalism countries with growth rates only slightly surpassing the weak growth rates of the socialist era may fail to reduce the economic and human development lag behind advanced capitalist countries with no socialist detour in their histories. However, the reduction of this lag cannot be overlooked in a meaningful theoretical articulation of the idea of what makes a restoration successful. To recall, the promise of 'really existing socialism' was to catch up and overtake advanced capitalist countries. After failing to deliver on this promise, economically and socially successful restorations can at least be expected to reduce this lag.

This is the rationale behind the supplementation of the tests based on general criteria of economic and human development performance success (CREPS, CRHPS, CRSPS) by a further three special tests. While the general tests apply to all modern restorations (including the 1815–1848 period), the special tests are more tightly anchored in world historical time and apply only to former communist countries. They are motivated by the observation that some former communist countries (with weak growth performance under state socialism and original capitalism) would remain backward even when passing both the OIST and OOST according to the CREPS, CRHPS and CRSPS.

AST (American standard test): ***Post-socialist restoration of capitalism is economically successful if at the end of the restoration period (2040–2050), the GDPpc of the formerly poor communist country is at least 55% of the US value,***

and the GDPpc of the formerly communist middle-income country is at least 70% of the US value.[5]

The use of the United States as a benchmark country is validated by the application of long-term comparisons in my project, encompassing nearly the whole twentieth and early twenty-first centuries. While the economic fortunes of other advanced countries did change significantly during the twentieth century, the status of the United States as a world economic champion has remained stable during the last century and will most probably remain so into the twenty-first century (OECD 2018). Substantively, the AST identifies the economic success of restoration with being able to escape the middle-income trap (MIT). The increase or decrease of the output per capita lag behind the United States is a proper indicator to monitor the economic success of restoration continuously during its complete period. No decrease in the GDPpc lag behind the United States indicates the economic failure of restoration, while a reduced lag means that the country is on the track to success, which in the case of ultimate success culminates in crossing the threshold separating middle-income and high-income countries.

The numerical threshold values are drawn from present discussions (Glawe and Wagner 2016; Im and Rosenblatt 2015; Eichengreen et al. 2012, 2014) on the middle-income trap (MIT), which looms as a threat for countries after they escape from the poverty (or simply Malthusian) trap (Oded 2011). Ye and Robertson (2016) specify the middle-income range as lying between 8% and 36% of US GDPpc, Bulman et al. (2017) suggest 10–50% of the US level range and Woo (2012) defines middle-income countries as those with GDPpc between 20% and 55% of US per capita income. A lower threshold value (55%) applies to countries with a GDPpc value around 20% of that in the United States by 1989. A 70% value applies to countries that were middle-income countries by this time and connects to the long-term economic and social development plans of new EU members. This suggests that mean EU economic and social indicator values would be reached already by 2030. In recent decades, GDPpc in the EU was at 70% of the US level, and there is no compelling evidence to expect that the EU lag behind the United States will decrease or increase. Thus, convergence with the EU mean by 2040 or 2050 is a sufficient condition to assess the capitalist restoration as ultimately economically successful.

JST (Japanese standard test): ***Post-communist restoration of capitalism is health successful if during the restoration period (1990–2040 or 1990–2050), the life expectancy gap separating the population of a former communist country from that of Japan at the start of this period will decrease by its end.***[6]

[5] The 2050 date is appropriate for most fSU republics, where state socialist system was established from 1929.

[6] For Central and South Eastern European countries (former USSR satellites and former Yugoslavian republics), 1989–2039 may be a more appropriate time window.

Japan has been the established world champion in life expectancy among both males and females since the early 1980s and will preserve this leading position until the end of the present century, according to UN DESA (2019) projections. There is no difference in the availability or quality of male and female life expectancy data. Therefore, the JST can be used on both male and female subpopulations and on the total population encompassing both sexes.

DST (Dutch standard test)*: Post-communist restoration of capitalism is somatically successful if during the restoration period (1990–2040 or 1990–2050), the male mean height gap separating the population of a former communist country from that of the Netherlands at the start of the period decreases.*[7]

In this criterion, the mean height of Dutch males is used as a benchmark, as since 1985–1986 males from the Netherlands remain world height champions, rising to this position from being only 12th in the ranking in 1914 (Roser et al. 2019). A high 'height genes' concentration alone does not explain why they are height champions. Their position is rather a reflection of improvement and then stable high levels of the wellbeing of children and juveniles. Thus, a decrease of the 'height gap' behind the Netherlands would be a reliable indicator of progress in this area. The application of this test is limited to male height data because of the unreliability of female height data.

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Part II
Restoration Success Against the Odds: Baltic States as Laboratories of Modern Restorations

No serious theory of modern revolutions is possible without close comparative scrutiny of the French and the Russian revolutions. For research on fascism, such central cases are Mussolini's Italy and Nazi Germany. This study is grounded in the assumption that the Baltic states are paradigmatic cases of modern restorations. It may appear that the centrality of French and Russian revolutions for comparative historical sociological research on revolutions implies that the historical sociology of modern restorations should also start with a comparison of the French and Russian restorations. However, this shortcut would lead research on restorations astray.

The centrality of the Bourbon restorations is out of question (see Norkus 2023). However, the far too long duration of the intermediate post-revolutionary system makes the Russian reversal very different from its French counterpart. By 1991, socialism was already climacteric in most republics of the fSU, including Russia proper (the Russian Federation). Therefore, the establishment of institutional continuity with the original system was not even attempted.

It was not possible while attempting (now failed) democratic rehabilitation of Russia's political system, because Russia was not a democratic country before the Bolshevik takeover in October 1917. Before that, five elections of the State Duma (in 1906, twice in 1907 and in 1912) took place, but this institution was not a real parliament. Russia remained an absolute monarchy until the February revolution in 1917. Election of the All Russian Constituent Assembly in November 1917 could inaugurate the era of democracy in Russia. However, the Constituent Assembly only met for some thirteen hours (on 18–19 January 1918) before being dispersed by the Bolsheviks, and did not appoint a government (Radkey 2019 (1990)). So, the attempted democratisation of Russia in the 1990s under Boris Yeltsin (President of the Russian Federation in 1991–1999) was conducted not as a re-democratisation (Stepan 1986), but as a 'green field' democratisation or the building of a new democracy.

Market reforms were much more successful in Russia, replacing centrally planned state socialism with a capitalist economy, which displays many astonishing similarities with the Russian capitalism of 1913. Both original and restored Russian capitalism exemplify the same variety of coordinated market economy, which can be

described as state monopolist capitalism (Hall and Soskice 2001; Norkus 2012: 125–126). However, despite many similarities between the original and restored systems, this was only a type restoration of capitalism because restitution of property rights was not even considered, although at least one object of potential restitution did survive: land.

On the one hand, by 1917, there were no clearly defined private property rights for a significant portion of agricultural land in Russia because it remained as the communal property of peasant village communities (*obshchina*). Most land with clearly defined private property rights was owned by noble landlords, who were among the first targets of revolutionary and then Stalinist terror. On the other hand, by 1991, restitution of prerevolutionary property rights (or paying compensations for their loss) either lacked political support from pivotal political forces, or was hardly possible because of difficulties in identifying legitimate heirs and resolving entitlement conflicts between them. Therefore, a mass privatisation of state assets as the key element in the building of capitalism followed, giving no consideration to the rights of owners that had been dispossessed by the socialist revolution. This was denationalisation without re-privatisation. The sole exception was partial restitution of the property rights of the Orthodox Church.

In both political and economic spheres, the Baltic reversals were the very opposite of the process in Russia. Restorationalism was implemented most consistently in Latvia, which lives under the Constitution (*Satversme*) of 1922 and the Civil Code that was adopted in 1937. The constitutional doctrines of all three post-communist Baltic states claim their legal continuity of the interwar Baltic states. They define the de facto extinctions of the Baltic states in 1940–1990 as mere occupations, differing from occupations of Norway or the Netherlands by Nazi Germany in 1940–1945 only in terms of duration.

I will explain in detail why Estonia and Lithuania only partly followed the Latvian example of reenactment of interwar constitutions and other legislation. Most importantly, the privatisation of state assets was prefaced or conducted in parallel with re-privatisation, including restitution of property rights to surviving assets that had been nationalised in 1940–1949 to former owners or their heirs (or the payment of compensation in cases where this was not possible). In this way, institutional continuity was established between the economic systems of the interwar and post-socialist periods.

Decisive and encompassing character of the Baltic restorations, including restoration of the nation states, democratic political regimes and capitalist socio-economic systems, makes the Baltic countries paradigmatic cases of post-communist restorations, imparting general or even universal significance to their historical experiences during the 'short twentieth century', framed within the outbreak of World War I in 1914 and the dissolution of the Soviet Union in 1991 (Hobsbawm 1994). It is also important that the Baltic states were both products and victims of the Russian Revolution. Their emergence as independent states was made possible by the dissolution of the Russian Empire in 1918. Peace treaties with Soviet Russia in 1920 inaugurated international recognition of the Baltic countries as independent states.

However, spawned by the Russian Revolution, they also became its victims when in 1939 the Soviet Union resumed its export that culminated in the restoration (by 1940) and expansion (by 1945) of the Russian Empire. This bitter experience shaped the identities of the contemporary Baltic states, making them perfect epitomes of the idea of social restoration. All their domestic and foreign policies are now subordinated to the aim of averting or preventing the recurrence of 1940, which was a revolution imposed from abroad. My main thesis in this book is that modern restorations are about making social systems safe and resilient to the recurrence of the revolutionary catastrophe that destroyed the original system. It is inspired by participant or insider observer experiences of post-communist Baltic restorations. According to my experiences and observations up to this day, the Baltic restorations are marked by the pervasive (and sometimes obsessive) concern to prevent or preempt the recurrence of the catastrophe of 1940. [1]

This means that the success of restoration is measured not based on similarities among the restored and original system. Restoration implies building an improved, less fragile version of the original system, where improvement means making it invulnerable to a new revolution (most probably prefaced by foreign invasion and occupation). The improvement is indicated by the better economic and social performance of a restored social system in comparison with both the original and intermediate systems, the superior level of international safety and the greater resilience to internally and externally generated shocks. By 2018, which was the centenary of the Baltic countries as independent nation states, the Baltic restorations were largely successful in meeting this challenge. I will provide an audit of their economic, health and somatic performance during the restoration period by applying the OOST and OIST tests described in Part I. This is the purpose of Parts III, IV and V, as well as of the Concluding Discussion.

Describing this success as success against the odds, I refer to the rather scant demographic continuity between the Baltic populations at the time of the breakdown of democracy (1926 in Lithuania, 1934 in Estonia and Latvia) and at the time of their restoration (1989–1990). The demographic continuity between 1940 and 1990 is not that much better. To recall, in 1990, the Latvian population had only 7.29% of people who were at least 15 years old in 1934 (born in 1919 or earlier), 10.77% who were at least 10 years old (born in 1924 or earlier), and 22.23% who were born in 1934 and earlier (HMD 2022). For Estonia, these numbers were 7.03%, 10.64% and 21.79%. In Lithuania's population as of 1990, only 3.01% were at least 15 years old in 1926, 5.19% at least 10 years old and 11.70% were born in 1926 or earlier. The shares of survivors from 1940 were markedly, but not much higher: 10.76, 16.13 and 28.26% for Estonia, 11.74, 17.32 and 29.91% for Latvia and 10.76, 15.92 and 27.61% for Lithuania (HMD 2022).

[1] In the social imaginary of indigenous Baltic populations, this catastrophe is comparable only to that of the Holocaust in the social imaginary of people with a Jewish identity. Due to the insistence of the world-historical uniqueness of the Holocaust by many influential opinion-makers and gatekeepers, this sometimes leads to difficult communication between exponents of the Baltic and Jewish communities concerning historical memory.

The success (by 2018) of Baltic token restorations validates my downward revision of Kann's tenet that no successful restoration is possible after the passing of at least one generation (thirty-five to forty years). The endurance and performance success of Baltic restorations by 2018 indeed validates the use of the Baltic magnitudes of demographic continuity across the rupture imposed by intermediate system as the limit or the threshold values in this downward revision. This is another reason for the paradigmatic status of the Baltic restoration cases in the theory of modern social restorations under construction. Acceptance of this status entails also revision of Kann's claim that successful restoration is possible if the original system endured at least thirty-five to forty years. According to Baltic precedents, some twenty years is sufficient to educate a generation of loyalists of original system.

I start this part of the book with the argument (in Chap. 5) that demographic continuity did indeed matter for the success of Baltic token restorations. This chapter focuses on the period of 'extraordinary politics' in 1988–1991, demonstrating that the availability of survivors from the interwar independence years was critically important for the very pursuit of the 'tokenist' strategy of independence restoration, even though it did not predetermine its ultimate prevalence as proponents of this strategy had to compete with the 'typist' alternative. In this way, I also show how the central distinction between type and token restorations promotes a deeper historical understanding of this period, providing new illumination of already known facts. In Chap. 6, I provide a comparative analysis of the practices of the three Baltic states in constructing continuity with their interwar forerunners. The concluding Chap. 7 offers a comparative discussion of property restitution policies in the three Baltic countries, prefacing the comparative analysis of the economic, health and somatic performance of the restored Baltic states in the remaining parts of this book.

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Chapter 5
Demographic Continuity and Constitutional Politics in the Baltic Restorations

The idea of making a distinction between token and generic restorations was suggested by a reading of the excellent PhD dissertation (defended at the University of Columbia) by the Estonian political scientist Vello Pettai 'Framing the Past as Future: The Power of Legal Restorationism in Estonia', who process-traced the struggle between the two wings of the Estonian independence movement in 1988–1991 (Pettai 2004, 2007). One wing was represented by the Estonian Popular Front, led by the most distinguished Estonian scholars, artists and other public figures, who were part of the establishment of late Soviet Estonia, many of them belonging to the Communist Party. They advocated the restoration of independence using the framework of Soviet institutions.

This would involve winning the election to the Supreme Soviet of the Estonian Soviet Socialist Republic (ESSR), building a government that would then negotiate Estonia's secession from the Soviet Union, using its constitutional right as a union republic. Uniquely among the communist federations (and federations generally), this kind of right was granted to union republics in the Soviet constitutions of 1936 and 1977. In turn, the independent Estonia, emerging out of a successful secession (Third Republic), would be a new state, the successor to the Estonian Soviet Socialist Republic (Second Republic, since 1940) with no immediate connection to the First Republic of Estonia (1918–1940) (Pettai 2004: 156–160).

Their opponents consisted of anti-Soviet dissidents (many of them former political prisoners), or members of the 'anti-systemic' opposition. Their breakthrough came with the establishment of the Estonian Citizens' Committees (ECC) movement on 24 February 1989. Its aim was to convene the Congress of Estonia as the only legitimate legislative body entitled to restore the independence of Estonia. In their view, the Supreme Soviet of the ESSR was not a legitimate authority entitled to restoring the independence of Estonia because it would have been elected under continuing occupation (marked by the presence of the Soviet Army on Estonian soil), in accordance with the laws of an occupying power (the Soviet Union), and by an electorate that included many persons unauthorised to vote (immigrants from the other Soviet republics after 1940 and members of the Soviet military). The Congress

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of Estonia had to be elected only by legitimate voters, who included citizens of the Republic of Estonia as of June 1940 and their offspring (Taagepera 1993: 58–60).

The initiative was a huge success, sparking the network of Citizens' Committees, which registered 845,000 residents of Estonia (including children registered by their parents) out of an estimated 910,000 residents who qualified as citizens of the Republic of Estonia in a total population of 1.569 million (1990). In all, 590,000 qualified voters participated in the election to the Congress of Estonia, held on 24 February 1990, or 98% of all adults who registered and 91% of all adults who qualified (Taagepera 1993: 174). There were 1,164,603 adults in Estonia, who were entitled to participate in the election to the last Supreme Soviet of Estonia on 18 March 1990, of whom 911,903 did actually participate (Nohlen and Stöver 2010: 574).

In neighbouring Latvia, a twin movement of the Citizens' Committees emerged, achieving only somewhat slightly less success (in terms of numbers of persons registered). At the election to the Latvian Republic Citizens' Congress on 8–24 April 1990, there were 678,862 citizens and 28,910 applicants who participated (Jundzis 2011: 210), from a total number of 806,974 who were registered by the time of the election (Jundzis 2017b: 275). This equalled 41.2% of the adult population of Latvia (1,960,638 in a total population of 2.668 million; voter turnout—1.593,018) who were entitled to participate in the election to the last Supreme Soviet of Latvia on 18 March 1990 (Nohlen and Stöver 2010: 1122).

I would argue that the key to the success of both movements was the presence of a critical mass of survivors from the interwar period, who already had citizenship rights of the Estonian and Latvian republics. Had the liberalisation and democratisation of the Soviet Union started some 20 or 30 years later (in the 2010s or 2020s), it would have certainly sparked an independence movement in the Baltic countries either way (as can be expected in the Russian Tatarstan or Sakha (Yakutia) republics after Putin's demise). However, with no survivors from the interwar years, it is difficult to imagine the rise of the utterly vital grass-roots movement needed to register (second and third generation?) descendants of citizens of republics that had been made extinct 60 or 70 years earlier.

However, what would have resembled sheer extravagance or otherworldliness in Soviet Estonia in 2010 or 2020 was not yet so in 1989, with so many survivors from the interwar republics amid their offspring and immigrant population. Time matters, as it has the power to shape perceptions of what is just and what is unjust. As long as the indigenous population of Estonia (the same applies to Latvia and Lithuania) included so many citizens of the interwar republic with living memories of the Soviet invasion and brutal Stalinist repressions, immigrants from the other Soviet republics could only be perceived as illegitimate settlers or colonists.

However, this kind of perception would not be so obvious after the attrition of survivors and generational change, making the Russian-speaking population consist mainly of persons born in this land and so entitled (by *jus solis*) to consider this country as their homeland. Had the struggle for independence in the Baltic countries been launched and won some 20–30 years later, it would have succeeded only in

promising and granting citizenship rights to all the permanent residents of Estonia, as the Estonian Popular Front had proposed in 1988–1989.

Counterfactual restoration of independent Estonia in 2010 or 2020, based on the principles and promises of the Estonian Popular Front in 1988–1989, would have been a restoration of Estonia's independence, too. However, this would have been a very different variety of restoration, one that can be described as a 'type restoration', involving no establishment of institutional continuity with the historical interwar Baltic states. This means that the struggle between the two wings of the independence movements in the Baltic countries in 1988–1990 can be described as a struggle between proponents of token (Citizens' Committees movements) and type (popular fronts) restorations, or simply between tokenists and typists.

Alternatively, the very opposition between token and type restorations can be considered simply as a generalisation of the opposition of the ideas fostered by Citizens' Committees movements and popular fronts regarding restoration of independence. Generalisation makes this opposition applicable to cases of other countries and situations, involving not only the restoration of statehood. Andres Kasekamp (2010: 166) describes the Citizens' Committees approach to independence restoration as 'fundamentalist'. Due to the favourable circumstances created by the failure of the August putsch in 1991, the fundamentalist approach triumphed in Estonia and Latvia. The most conspicuous expression of this triumph is citizenship legislation in these two Baltic countries, which excludes Soviet-era immigrants. Of course, they are entitled to apply for citizenship as immigrants who settled here after the restoration of independence. In both countries, the granting of citizenship is conditional on passing language and 'political literacy' tests. In Latvia in the 1990s, there were also annual naturalisation quotas, which were later abolished (Agarin 2010).

Another expression of the triumph of the token or fundamentalist approach is the territorial claims made by Estonia and Latvia upon the Russian Federation (see Map 5.1). Defining themselves as identical to interwar Estonia and Latvia, the post-Soviet Baltic states considered as part of this identity those territories that were negotiated with Soviet Russia when entering into the peace treaties of Tartu (2 February 1920; Estonia and Russia) and Riga (11 August 1920; Latvia and Russia). This territorial identity was violated in 1944–1945 when the Jaanilinn/Ivangorod and Petseri/Pechory areas were ripped away from Estonia, and the Abrene/Pytalovo area was taken away from Latvia. Thus, the territory of Estonia contracted from 47,450 to 45,228 km^2, or by 4.68% (Estonija 2008: 15), and that of Latvia from 65,685 to 64,573 km^2, or by 1.69% (Nacionālā Enciklopēdija Latvija 2018: 37).

The size of the share of survivors from the original system depends only on the duration of time that has passed since its extinction and on the demographic situation. Generally, their share decreases under the conditions of high birth rates (which was not the case in Estonia and Latvia) or high immigration, which usually involves a population of a younger age (and this indeed did apply). The increase of life expectancy among advanced-age generations also slows down the attrition of survivors, making demographic continuity last longer. Larger shares of survivors mean a larger number of stakeholders in the restitution of nationalised property or

Map 5.1 Border changes of the Baltic countries in 1939–1991. Source: author's own production, credits to Vaidas Morkevičius for his assistance. Dotted lines denote interwar borders (if they differ

those who perceive it as just. It is they who make 'the impossible return of the past' (Démier 2012) practicable via the restitution of ancient property rights, decreasing transaction costs in identifying legitimate claimants and solving their conflicts, which are unavoidable between successors who are not immediate heirs.

However, higher shares of survivors only provide the possibility for enacting a token restoration. Differently from type restorations, which happen because of the generic similarity between original and restored systems, token restorations are enacted by performing a selection of actions from a broad repertoire, which are appropriate to affirm or establish continuity with the claimed original system. Sticking to a token or fundamentalist restoration still left a large menu of different ways of enacting a restoration or building identification with interwar statehood. The choice between these methods depended on the specific domestic and international conditions existing in particular countries.

The idea of excluding the immigrant population from gaining citizenship had strong support among the indigenous populations because they had strong reasons to fear that in the type-restored Estonia and Latvia, political parties representing the Russian-speaking minority (making up 33% of the total population in Estonia and 40% in Latvia as of 1990) would have a decisive political influence. This would force the restored independent state to gravitate in foreign politics towards Russia as the successor state of the Soviet empire, hollowing out their independence.

So while the still strong (by 1989–1991) demographic continuity with the interwar Baltic states accounts for the very possibility of a tokenist approach to the restoration of independent states, the presence of such large shares of an immigrant population explains why the Estonian and Latvian tokenists upheld the exclusion of immigrants from citizenship as a means of constructing continuity between restored states and their interwar antecedents. Exclusionary citizenship legislation and claiming the borders according to the peace treaties of 1920 were sufficient (and thus had substitutes) as a means of constructing continuity. However, they could be perceived necessary only under the specific Estonian and Latvian demographic conditions, making the indigenous population feel as if they were on the brink of becoming minorities in their own countries.

Thus, the composition by age of the populations of Estonia and Latvia explains why the tokenist or fundamentalist approach to the restoration of independence received stronger support than the typist alternative represented by popular fronts until the early 1990s, when they (on the eve of the last elections to the last Supreme Soviets of the Baltic Soviet republics in February–March 1990) embraced tokenism as well. Nevertheless, the exclusion of Soviet-era immigrants from citizenship rights or declining to accept the administrative boundaries between the fSU republics as

Map 5.1 (continued) from borders since 1991 (solid line)). 1 and 2 are parts of the interwar territory of Estonia and Latvia detached in 1944–1945; 3 is the Vilnius region (under Poland's control in 1920–1939); 4 is the Klaipėda region (part of Lithuania in 1923–1939 and since 1945)

independent state borders was a disponible political option. There were alternative ways (substitute policies) of constructing continuity with interwar statehood.

The comparison of these Estonian and Latvian practices of restoration with how it was performed in Lithuania supports this argument. Unlike its neighbours, Lithuania accepted the administrative boundaries of the Lithuanian Soviet Socialist Republic as its state borders and granted citizenship rights to the entire permanent population of Lithuania at the time (11 March 1990) the restoration of independence was proclaimed. However, this does not mean that the Lithuanian restoration of an independent state was not of the token variety. Influential political forces existed in Lithuania, which advocated exclusion of the Russian-speaking 'colonists' from citizenship rights and even repatriation to their homelands.

Their ultimate failure on this front was related to the political expediency calculations of Lithuanian political leaders during the years of 'extraordinary politics', based on the very different ethnic composition of Lithuania's population, marked by the absolute (approximately 80%) dominance of ethnic Lithuanians. Feeling no imminent danger of 'becoming a minority in their own land', ethnic Lithuanians (differently from the majority of ethnic Estonians and Latvians) did not support politicians who advocated the exclusion of Soviet-era immigrants from citizenship.

Lithuania's decision not to perform restoration in the Estonian and Latvian ways, i.e. restricting citizenship only to survivors from interwar Lithuania and their offspring, was intimately related to the restored state's acceptance of the administrative boundaries of the Lithuanian Soviet Socialist Republic as its state borders. Bluntly put, they were accepted because under Soviet occupation, Lithuania's territory had expanded from 59,731 km^2 (as of 15 June 1940) to 65,300 km^2, or by 9.32%. This is much less than the territory of Lithuania (88,111 km^2) according to the peace treaty with Soviet Russia, signed on 12 July 1920 in Moscow, and border agreements with Latvia and Germany, which the interwar Republic of Lithuania claimed as its legitimate territory in 1924 (Pakštas 1968: 461). However, differently from restored Estonia and restored Latvia, restored Lithuania did not claim its borders according to the 1920 Moscow Peace Treaty as a definition of its territorial identity, as during the interwar years it became involved in a conflict with Poland over a large part of its claimed territory.

According to the peace treaty between Poland and Soviet Russia signed in Riga on 18 March 1921, the border between Poland and Soviet Russia was established east of the Soviet–Lithuanian border, making the establishment of Lithuania's eastern border an issue of Lithuanian–Polish relations. Poland used its military superiority to seize Vilnius and draw the border line on its terms. This border was internationally recognised by the Allied powers on 18 March 1923. Lithuania did not recognise this decision until March 1938, when Poland forced it, by ultimatum, to establish diplomatic relations (Butkus 2019).

Ultimately, Lithuania did become a beneficiary of the Molotov–Ribbentrop Pact, being rewarded for its unyielding position in the conflict over Vilnius, which in 1920–1938 was one of many frozen international conflicts in Eastern Europe, undermining the Versailles rehabilitation of international order. Until the signing

of the treaty between Lithuania and Poland on 26 April 1994, confirming the present borders between the two states, the secret protocols of the Molotov–Ribbentrop Pact and the Soviet–Lithuanian Mutual Assistance Treaty of 10 October 1939 were the only international law acts providing grounds for Lithuania's control over Vilnius. According to this treaty, Lithuania did receive together with Vilnius only a small part of the territory which it had been assigned according to the Moscow Peace Treaty of 12 July 1920. After Lithuania's annexation in 1940, its territory was augmented, including some additional areas with an ethnically Lithuanian population.

The most valuable addition was the Klaipėda region that had been separated from Germany according to the Treaty of Versailles in 1919. As compensation for the loss of Vilnius, it was attached to Lithuania since 1923 as its autonomous province. Lithuania's rule was supervised by the signatory powers (Great Britain, France, Italy, Japan) of the Klaipėda Convention, signed on 8 May 1924 in Paris. The signatory powers repeatedly intervened to censure Lithuania's government, based on complaints of encroachment upon the rights of the German minority and voiced by its political parties and supported by the German government. However, they did not protest when, on 22 March 1939, Germany forced Lithuania to sign a treaty transferring the Klaipėda region back to German rule, and Great Britain even recognised this change de jure on 15 May 1939 (Plieg 1932: 222–223).

In 1945, the Klaipėda region was attached to the Lithuanian SSR, while the neighbouring part of Eastern Prussia became the Kaliningrad (formerly Königsberg) Oblast of the USSR, according to the Allied powers' Potsdam agreements. However, the status of the Klaipėda region was not explicitly regulated in these agreements. Aside from Germany's refusal to claim its territories east of the Oder–Neisse line, the Soviet decision to attach the Klaipėda region to occupied Lithuania remains as the sole legal basis of its belonging to today's restored independent Lithuania. With such a complicated history and shaky international legal foundations for Lithuania's eastern and western borders, it was simply politically unwise for the government of the restored Lithuanian state to insist on the illegality of all territorial changes under Soviet occupation made after 15 June 1940.

The instability of Lithuanian interwar borders made application of the Estonian and Latvian example of state continuity construction by exclusionary citizenship legislation a difficult (if not impossible) endeavour. Taking under its control Vilnius and the surrounding area in late October 1939, the independent Republic of Lithuania immediately recognised the citizenship rights of those who were then inhabitants (or their offspring) of the new territories under its control before 1920, excluding 'Polish colonists'—persons who had settled there between October 1920 and September 1939, when these territories were 'under Polish occupation'. Another category within the population with no rights to Lithuanian citizenship was war refugees who had arrived in the Vilnius area in September–October 1939.

By May 1940, there were 97,893 persons in the Vilnius area without Lithuanian citizenship (Žepkaitė 1990: 54), or 20.3% from the total of 482,500 persons who were living in Lithuania's newly acquired territory by the end of 1939 (Gaučas 1978: 66). Some 'Polish colonists' would have certainly acquired Lithuanian citizenship according to the naturalisation laws of interwar Lithuania, if it would have outlasted

June 1940, like so many 'Russian colonists' in the restored independent Estonia and Latvia after 1991. However, in 1989–1991 it would have been most definitely politically counterproductive to launch discussions on how to sort out people within the population of Eastern Lithuania based on who is entitled to register as a Lithuanian citizen and who is not. This would have only further fuelled the separatist mood among the Polish minority of Lithuania and complicated relations with Poland, from whom Lithuania expected support for the restoration of its independence.

Finding itself deprived, by lucky circumstance, of options to construct its identity with the interwar Republic of Lithuania through territorial claims or exclusionary citizenship politics, restored independent Lithuania chose another path. Already after the international recognition of its restored independence, Lithuania confronted Russia as the successor of the USSR with demands to compensate damages incurred during occupation. These demands were voiced for the first time in the referendum on 14 June 1992, where it was coupled with the demand to immediately withdraw Russian troops from Lithuania. On 13 June 2000, the Lithuanian Seimas accepted the Law on Compensation of Damage Resulting from the Occupation by the USSR. An expert commission was established to calculate the size of the damages (Žalimas 2003: 153).

This commission could use the conclusions of an earlier commission that functioned in 1996–1997 under the Minister of the Economy Vincas Babilius, which estimated the damage of the Soviet occupation in 1940–1990 to the sum of 667.7 billion US dollars at the current rate. The new commission estimated damages for the 1990–1993 period, including also the few years after restoration of independence, when the Russian military was still on Lithuanian soil. In the new estimate, the experts distinguished between direct (20 billion 2000 US dollars) and indirect (780 billion US dollars) damages (Satkauskas 2003).

Until now (2022), Lithuania remains the only Baltic (and more generally the only post-communist) state to have officially filed for reparation of damages incurred under Soviet occupation. In Latvia, a standing commission of historians was established to estimate the damage of the Soviet occupation, producing a series of reports and conducting an international conference (Prikulis 2012). Important archive discoveries were made producing evidence that Latvia's contribution to the USSR budget was always larger than transfers therefrom (Krūmiņš 2017: 289–298). However, there was no attempt to promulgate legislation of the Lithuanian type, and Estonia remained completely aloof regarding further work on the estimation of occupation damages after the release of an early initial report (Salo 2005). It seems that the self-assertiveness of the Baltic countries in the reparation issue stands in reverse relation to their occupation-related territorial losses: Estonia, which lost the largest slice of its territory (as a percentage of its territory in June 1940), is the least self-assertive. Lithuania, which made gains and had no losses, is the most assertive. Latvia, which lost a somewhat smaller part of its territory than Estonia, lies in the middle—it is progressing towards an official damage estimate but is not yet voicing its damage reparation claims.

The reason for these differences is the Russian refusal to even consider border corrections in favour of Estonia and Latvia. Given this refusal, the addition of any further claims to this basic restitutive concern is pointless. Yet, for Lithuania, which has no territorial conflict with Russia or permanent altercations with Russia on alleged violations of the rights of its Russian-speaking minority, the case for reparations is a convenient (and optimal) way of perpetually affirming its continuity and identity with the interwar Republic of Lithuania (arguably, Russia could pre-empt Lithuanian reparation claims by refusing to recognise the legitimacy of Lithuania's possession of Klaipėda).

The most basic acts of continuity construction made by the Baltic states were of course the independence restoration acts of all three states and their constitutions. Being certain of the support of the absolute majority of the Lithuanian population, the Lithuanian Popular Front (called the Lithuanian Reform Movement (LRM); *Lietuvos Persitvarkymo Sąjūdis*) under the leadership of Vytautas Landsbergis and Romualdas Ozolas pressed ahead first, not making an issue of questions that were so tantalising to activists from the Estonian and Latvian Citizens' Committees movements: does running as a candidate (or voting) in the election to the supreme soviets (parliaments) of Soviet republics imply recognition of their legitimacy and collaboration with the occupying power? Are such parliaments entitled to restore de jure or de facto interwar states? The leaders of the LRM did not perceive any problems, considering the Soviet institutions merely as a prop that could be abandoned at the moment when the ultimate aim—winning power and proclaiming independence—would be achieved (Laurinavičius and Sirutavičius 2008: 502–540).

The day after (11 March 1990) the first meeting of the newly elected parliament (*Seimas*) of Lithuania (which was the last legislature of Soviet Lithuania, becoming the first legislature of restored independent Lithuania), it proclaimed restoration of the independence of the Lithuanian state, affirming its continuity with the Lithuanian state that had been established in 1918–1920. Besides these references, legal continuity of the post-Soviet Lithuanian state and the interwar Republic of Lithuania was constructed by reinstating, at the same meeting on 11 March 1990, the last Constitution of interwar Lithuania, promulgated on 12 May 1938. A subsequent act passed on the same day replaced this constitution with a Provisional Constitution, which was 'a hybrid of that of 1940 and the extant Constitution of the LiSSR' (Misiunas and Taagepera 1993 (1983): 333). It remained in force until the referendum of 25 October 1992, when the new permanent constitution was accepted. It can in turn be described as another 'hybrid' of the super-presidential 1938 and parliamentary 1922 constitutions, establishing a semi-presidential democracy in Lithuania (Norkus 2013), fortunately surviving at the time of publication in 2023.

By reinstating and then immediately abolishing the 1938 Constitution, the deputies of the Lithuanian Supreme Soviet were not concerned whether it was legally possible to reintroduce the 1938 Constitution. They also had no concerns or doubts about their right to replace it with a different constitution in the way this was done. From the legal point of view, once the 1938 Constitution was reinstated, it could be changed only by proceeding according to its regulations. A three fifths majority was necessary to make any such changes, and the President of the Republic of Lithuania

had to endorse these changes. However, on 11 March 1990, Lithuania had no (and could not have) a president elected according to the Constitution of 12 May 1938.

The procedures followed by the supreme soviets of Estonia and Latvia, where popular fronts won constitutional majorities (supported also by a significant proportion of Russian-speaking voters), were similar but more guarded and gradual. Instead of proclaiming restoration of Latvian independence outright, the Latvian Declaration on the Restoration of Independence of the Republic of Latvia (*Deklarācija par Latvijas Republikas neatkarības atjaunošanu*), accepted on 4 May 1990 by the newly elected parliament, only proclaimed the beginning of its restoration. It contains an extensive historical preamble, which relates the main historical facts on how Latvia lost its independence, ending with a summarising statement that 'according to international law, the incorporation of Latvia into the Soviet Union is invalid. Accordingly, the Republic of Latvia continues to exist de jure as a subject of international law and is recognised as such by more than 50 nations of the word' (cit. According to Deksnis and Talavs 2015: 226).[1] It also very clearly describes the role of newly elected parliament: 'to restore de facto the free, democratic and independent Republic of Latvia' (cit. According to Deksnis and Jundzis 2015: 227), which is the only legally coherent interpretation assuming its continuing existence de jure at the moment when the declaration was issued.

In the same document, the newly elected Latvian Supreme Council declared the annulment of the declaration on the accession of Latvia to the Soviet Union that had been accepted by the puppet legislative in 1940 and reinstated the Constitution of Latvia (*Satversme)* of 1922. In the next sentence, this constitution was suspended until the adoption of its new edition, except for four articles: 'Latvia is an independent democratic republic' (Art. 1); 'The sovereign power of the State of Latvia is vested in the people of Latvia' (Art. 3); 'The territory of the State of Latvia, within the borders established by international agreements, consists of Vidzeme, Latgale, Kurzeme and Zemgale' (Art. 4); and 'The Saeima shall be elected in general, equal and direct elections, and by secret ballot based on proportional representation' (Art. 6) (cit. According to Deksnis and Jundzis 2015: 227).

These articles are singled out because according to the 1922 Constitution, they could be changed only by a national referendum. The declaration closed with the regulation that until the end of the transitional period, constitutional norms of the Latvian SSR and other Soviet legislation may be applied, as far as they do not contradict Articles 1, 2, 3 and 6 of the Constitution of Latvia cited above. The end of the transition period is described as the first session of the new Saeima (parliament). Setting the example for Estonian legislators, the declaration closes by proclaiming the Latvian–Soviet Peace Treaty of 11 August 1920 as the basis for future relations with the Soviet Union, with details to be negotiated by a special government commission (see also Blūzma et al. 1998; Jundzis 2017a, b).

[1] https://www.voltairenet.org/article203424.html; http://likumi.lv/doc.php?id=75539. Accessed 10 January 2023.

The newly elected parliament of Estonia stated that the interwar Republic of Estonia continues to exist de jure and proclaimed the beginning of its de facto restoration (*restitutio ad integrum*) on 30 March 1990, postulating that it would continue until fully legitimate authorities (constitutional organs) of the republic could be formed. In order to complete the restoration of independence, during the transitional period the country would be governed according to provisional constitutional rules. The tacit assumption was that completion of the restoration of independence would be possible only after the occupation of Estonia would end after the withdrawal of the Soviet army. This assumption was imposed by the Committee of Estonia, which was the executive body of the Estonian Congress, before the Supreme Council (Graf 2007: 401).

However, provisional constitutional rules for the transitional period were promulgated only on 8 May 1990, broadly following the Latvian precedent. Namely, it restored the pre-Soviet name of the state (the Republic of Estonia) and reinstated five out of six articles of the first chapter (General dispositions) of Estonia's 1937 Constitution (enacted on 1 January 1938), starting with Art. 1: 'Estonia is an independent and sovereign Republic wherein the supreme power of the State is held by the people' (cit. According to Graf 2007: 482). Most daringly, on 16 May 1990, the Estonian parliament announced that relations between the Republic of Estonia and the USSR should be based on the Tartu Peace Treaty of 2 February 1920, which implied Estonia's territorial claims upon the USSR or the RSFSR due to changes made to Estonia's administrative borders during the Soviet times (Graf 2007: 483–484).[2]

There were three reasons for Estonia's and Latvia's preference for taking a gradual approach to state independence restoration. Firstly, counter to what the Lithuanian leaders expected, the restored independent Lithuania was not immediately recognised by the US and other Western states. Their expectation was based on the policy of nonrecognition of the annexation of the Baltic states, which will be discussed in the next chapter. However, in the spring of 1990, the United States was anxious to endanger the position of Gorbachev, and West Germany needed him to be in government until the German reunification was complete (Spohr-Readman 2008).

Secondly, the Soviet government imposed economic sanctions, stopping the delivery of oil and fuel and reducing gas supply to Lithuania by 80%. Understandably, the newly elected leaders of Estonia (Chairman of the Supreme Council Arnold Rüütel, Prime Minister Edgar Savisaar) and Latvia (Chairman of the Supreme Council Anatolijs Gorbunovs, Prime Minister Ivars Godmanis) preferred to avoid sanctions for their republics or even the imposition of direct presidential rule by Gorbachev. This was the main demand of the local 'interfront' movements, supported by the directors of enterprises that employed a predominantly Russian-speaking workforce and reported directly to ministries in Moscow. Wisely, the Balts consistently upheld the tactic of staging non-violent resistance, depriving Soviet

[2] https://web.archive.org/web/20190928001523/http://estonia.news-city.info/docs/sistemsf/dok_iersnz.htm. Accessed 10 January 2023.

conservatives in Moscow of pretexts for counter-measures (Misiunas and Taagepera 1993 (1989): 329–336; Taagepera 1993: 177–207; Bleiere et al. 2014: 437–457).

The third and most important reason was the opposition of the citizens' congresses, which were parallel or shadow legislatures, contesting the right of supreme councils to proclaim complete restoration of independence, as they were elected under the conditions of continuing Soviet military occupation and with the participation of 'colonists'. Considering themselves as the only legitimate bodies capable of restoring the independence of the Baltic states in a legally 'clean' way, the congresses nevertheless abstained from proclaiming restoration of independence themselves. They correctly calculated that Moscow would not enter into negotiations on the issue of de-occupation, and they were barely able to govern. Thus, they reserved for themselves the role of the top or spiritual moral authority, leaving matters of practical politics to the governments appointed by the supreme councils, despite their 'sinful' origins.

Inadvertently, the leaders of the citizens' congresses mimicked the stance of the medieval Catholic Church regarding secular authorities. This parallel may also help us better understand how many leaders of Citizens' Committees movements (e.g. Mart Laar, the future Prime Minister of Estonia in 1992–1994 and 1999–2002) could run for (and win) seats in the supreme councils, considered by themselves as illegitimate. To recall, the medieval Catholic Church did not self-restrict the extent to which it exercised spiritual power, with many Catholic bishops also exercising secular power in their bishoprics, while the Catholic popes ruled over the Papal States and continue to rule the State of the Vatican City even now.

Meanwhile, the principled standpoint of the citizens' congresses was that restoration of independence should be preceded by de-occupation, meaning withdrawal of the Soviet Army, and could be completed only by a government elected through the participation of legitimate citizens alone. The popular front governments were considered just as provisional transition governments for negotiating the withdrawal of the Soviet Army and organising (in collaboration with the Citizens' Committees) truly legitimate elections with participation of only 'genuine' citizens (Pettai 2004: 177–195).

The *modus vivendi* between the self-perceived legitimate, albeit powerless, citizen congresses and governments, appointed by semi-legitimate (legitimate because of the democratic character of election but illegitimate because of the foreign occupation status and the participation of immigrants) supreme councils, was based on the acceptance of the basics of the tokenist approach by popular fronts on the eve of elections to republican legislatures in February–April 1990. This was affirmation of the continuity and identity of the newly restored states with the interwar Baltic states, implying that the Baltic states are sovereign states under foreign occupation, so that Soviet legislation on the secession of union republics does not apply to them.

According to this legislation, which was passed by the USSR Supreme Council on 3 April 1990, two thirds of the permanent residents of seceding republics should approve secession by referendum. After a 5-year transition period, the referendum had to be repeated, if this was demanded by at least one tenth of the USSR citizens

permanently residing in the republic's territory. The conduct and results of both referendums were subject to 'examination' by the union parliament, which was entitled to impose a repeat referendum in case of 'irregularities'. The territories densely populated by non-titular ethnic groups received the right to secede from the seceding republics themselves (Van Elsuwege 2008: 50). Under the terms of this law, Estonia and Latvia had a realistic chance to secede only if secession would be supported by a large part of the immigrant population, which thus could not be excluded from having citizenship rights.

Clearly, the establishment of independence of the Baltic republics under the Soviet 1990 law could produce only a type restoration of the Baltic states. They would be new independent states, defining themselves as the successor states of these republics but not as continuators of the interwar states. Basing on the thesis of the continuity restored in the Baltic states with their interwar counterparts, the new governments of the Baltic republics insisted that relations between them and the Soviet Union government was not an issue of domestic Soviet law but of international law. The standoff was almost miraculously resolved by the failure of the August putsch in 1991.

The outcome was miraculous from the viewpoint of the pro-independence forces in the Baltic states because they could not influence the outcome of the power struggle between Boris Yeltsin's supporters in the capital city of the agonising USSR during the 3-day putsch (19–21 August 1991). In addition, restoration of independence could be completed on the best possible terms for the Baltic countries, with no further cost and sacrifices. Meanwhile, 'as Marju Lauristin would later reveal, many Popular Front leaders in the summer of 1991 believed that the independence process would still take many years and therefore would eventually require additional concessions from Estonia' (Pettai 2004: 194).

In Estonia's case, these August days were miraculous also because two competing authorities in Estonia—the moral (represented by the Committee of Estonia) and the actual political (the Supreme Council with its popular front majority)—managed to achieve consensus (through the efforts of Marju Lauristin, who together with Edgar Savisaar led the Estonian Popular Front) on the text of the declaration about the restoration of independence and how the restoration should be completed. Endorsed by the leaders of the Committee of Estonia, the declaration was accepted and proclaimed by the Supreme Soviet on 20 August 1991, which is now celebrated in Estonia as its independence restoration day (Pettai 2004: 196–197; Taagepera 1993: 200–206). Stating that the coup d'etat in the USSR made the restoration of independence of Estonia by negotiation impossible, it 'reaffirmed' the independence of Estonia, declared the will to restore Estonia's diplomatic relations with other countries and ruled the establishment of the Constitutional Assembly to finalise the Constitution of Estonia. This assembly was to include the members of the Supreme Council of Estonia and those of the Congress of Estonia, abiding by the parity principle (Graf 2007: 447).

The next day, on 21 August 1991, the Supreme Council of Latvia adopted a constitutional law, On the Statehood of the Republic of Latvia, proclaiming the end of the transitional period and restoring de facto independence. However, most

articles (except those that were enacted by the 4 May 1990 Declaration) remained suspended until the first session of the newly elected fifth Saeima on 6 July 1993. In making its decisions, the Supreme Council of Latvia did not consult with the Committee of Latvia, which was the standing organ of the Latvian Citizens' Congress elected in April 1990, single-handedly making all decisions of a constitutional character. Even before the August 1991 crisis, it formed a work group of 22 deputies to elaborate a new edition of the 1922 Constitution, following the rulings of the 3 May 1990 Declaration. However, in the end a new edition was not drafted, and the 1922 Constitution was restored unamended (Bleiere et al. 2014: 454–66; Blūzma et al. 1998; Jundzis 2017a, b).

The fifth Saeima, which fully reinstated the Latvian constitution, was elected only by citizens of Latvia as of 1940 and their offspring, so the key demand of fundamentalist tokenism was implemented. Its self-numeration as the fifth Saeima communicates that it is considered as a successor to the fourth Saeima, elected on 3–4 October 1931, and dissolved after the coup of 15 May 1934 by the Prime Minister Karlis Ulmanis. The coup marked the end of the democracy period in the interwar Republic of Latvia, preceding by 5 years the loss of independence. Karlis Ulmanis (who was a qualified agronomist) did not bother to legalise his power by promulgating a new constitution. The ministerial cabinet with Ulmanis as prime minister simply usurped the legislative powers of the Saeima, in blatant violation of the 1922 Constitution. No elections or plebiscites took place during his dictatorship. Thus, full reinstatement of the 1922 Constitution of Latvia marked the completion of the restoration of democracy in Latvia as well.

All three Baltic states were 'velvet' authoritarian regimes by June 1940 (Łossowski 1972; Polonsky 1975). Parliamentary democracy collapsed in Lithuania already in 1926, replaced by the dictatorship of Antanas Smetona. Ulmanis' self-coup in Latvia was preceded by the self-coup of Prime Minister of Estonia Konstantin Päts on 12 March 1934 in Estonia. Smetona and Päts in Lithuania were lawyers, and so their regimes were meticulously implemented, in the legal sense, functioning according to super-presidential constitutions promulgated on 28 January 1937 (in force from 1 January 1938) in Estonia and on 12 May 1938 in Lithuania (Kasekamp 2010; Plakans 2011).

The authoritarian features of the Lithuanian (which does not even contain the word 'democracy' in its text) and the Estonian constitutions made the Latvian way of constructing continuity between the restored and interwar states impractical, as the reinstatement of these constitutions would have contradicted the aim of not only restoring state independence but also democracy. Therefore, the Constitution of Lithuania of 12 May 1938, reinstated on 11 March 1990, was in force for only 1 hour, replaced by a provisional and then the standing new constitution, adopted by referendum on 25 October 1992.

For similar reasons, the Constitutional Assembly of Estonia decided not to take the Latvian route, reinstating its complete 1937 Constitution, already partly reinstated by the Supreme Council of Estonia on 8 May 1990. Instead, it drafted a new constitution, which was enacted after the referendum of 28 June 1992. However, those drafting this new document made every effort to ascertain that acceptance of

the new constitution would correspond to the 1937 Constitution and would therefore be constitutional in itself. For this aim, the preamble of the 1992 Constitution contains reference to Art. 1 of the 1937 Constitution, thus retrospectively recognising it as the only valid legal framework in 1940–1992.[3] According to Art. 1 of this constitution, 'Estonia is an independent and sovereign Republic wherein the supreme power of the State is held by the people'.[4]

With the referendum of 28 June 1992 interpreted as the act of the supreme power of the Estonian people, the acceptance of the new Constitution of 1992 proceeded according to the 1937 Constitution, i.e. in a fully constitutional and legal way. Taking this legal construction of Estonian constitutional lawyers at face value, the deepest foundation of this legality is the continuity between the Estonian people who lived under the 1937 Constitution in 1938–1940 and the people who voted for the new constitution in 1992. The presence of surviving citizens of Estonia in 1940 amid the population of Estonia in 1992 proved to be the most important prop and embodiment of the continuity between both constituencies, making the introduction of the new constitution correspond to the 1937 Constitution. My distinction between a token restoration (based on demographic continuity) and a type restoration is just a sociological language translation of the legal thinking of Estonian constitutional lawyers, also providing an explication and clarification of its tacit assumptions.

Of course, only surviving citizens of Estonia as of June 1940 and their offspring voted in the constitutional referendum on 28 June 1992, followed by the parliamentary elections on 20 September 1992. This election produced a legislature that was completely legal from the viewpoint of activists in the Citizens' Committees movement. This was indeed the triumph of fundamentalist tokenism. Nevertheless, the fundamentalists had to compromise on at least three points.

Firstly, at the time of the constitutional referendum in Estonia and the elections of the first 'clean' legislatures in Estonia and Latvia to replace the transitional supreme councils of 1990–1992, elected according to Soviet legislation, all three Baltic republics were still under foreign occupation (Pettai 2004: 104). Russian troops remained stationed in their territory. Lithuania got rid of them by late summer in 1993. Estonia and Latvia signed agreements for their withdrawal the following year, with the last troops withdrawing from Estonia in September 1995. In Latvia this took place only in 1999, as Russia negotiated the right to operate the Skrunda radar station until its replacement was built in mainland Russia (Simonsen 2001). To recall, the original idea of the Estonian and Latvian fundamentalist tokenists was that de-occupation should precede the election of a government entitled to represent the states de facto extinguished by Soviet occupation in 1940.

Second, the fundamentalist tokenist programme included decolonisation, meaning the removal of 'civil garrisons' of the occupier power—Russian-speaking

[3] https://www.president.ee/en/republic-of-estonia/the-constitution/index.html. Accessed 10 January 2023.

[4] https://en.wikisource.org/wiki/Constitution_of_the_Estonian_Republic_(1938). Accessed 10 January 2023.

immigrants (Par Latvijas dekolonizāciju 2002; Pettai 2004: 202; Agarin 2010). Their example was the repatriation of French colonists from Algeria in 1961–1962 and the Portuguese from Angola and Mozambique after 1974. The idea was that the Estonian and Latvian restorations should also involve a reversal to the ethnic composition of the population, approximating the interwar situation. This achievement would have placed the Baltic restorations on par with those ecological restorations that succeed to clean degraded ecological systems from 'invasive species' (see Chap. 3).

However, this did not happen. Repatriation was not an attractive prospect for immigrants because the economic situation in their homelands was even worse than in the Baltic countries in the 1990s. Later, on account of the relative economic success of the Baltic countries (see Chap. 9), repatriation became even less attractive in comparison with having resident status in the restored Baltic states. At the same time, despite their economic success, the Baltic states still were not rich enough to finance repatriation programmes, involving paying the prospective repatriates compensation for their property, pensions and other entitlements. Instead, Estonia and Latvia strategically opted for integration of their Russian-speaking immigrants instead of repatriation. Naturalisation requirements were not eased, with being able to at least speak the indigenous languages remaining a necessary condition for citizenship. However, the authorities did increase the share of subjects taught in Estonian and Latvian at minority schools to enable the offspring of immigrants to satisfy this condition by default (Agarin 2010).

Thirdly, tokenists had to accommodate Russia's refusal to restore the 1940 borders. There was no possibility of perennially sticking to territorial demands in the way Lithuania did with its demands of compensation for damages incurred under occupation because the EU and NATO did not accept new member states with open territorial claims upon neighbouring states. Confronted with the difficult choice between holding onto their position in the territorial dispute with Russia and acceding to Western alliances, both countries preferred the second alternative, signing border agreements with Russia that legalised the present border configurations. However, the Estonian-Russian border treaty remained unratified by Russia, protesting against the one-sided amendment (containing reference to the 1920 Tartu Peace Treaty) by the Estonian parliament during its ratification proceedings.

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Chapter 6
The 'Baltic Question' and Retroactive Politics in the Baltic Restorations

Of course, survivors from the interwar republics of Lithuania, Latvia and Estonia were not single survivals from the interwar years in 1990, helping make the continuity of the Baltic states and societies a sociological reality. The next and no less important asset of tokenist restoration politics in 1988–1991 was the survival of the Baltic states de jure as persons in international law. Knowledge of this legal fact was the main source of inspiration of fundamentalist tokenist restoration politics in the Baltic countries. The main cause of the de jure survival of the Baltic states was the US policy of non-recognition of the annexation of the Baltic states, dating back to 23 July 1940.

On this day, Sumner Welles, the US acting Secretary of State, made a statement refusing to recognise the pending annexation of the Baltic states as Soviet republics and condemned their occupation by the Soviet Union. This statement was a manifestation of the 1932 Stimson Doctrine, proclaimed after Japan's occupation of Northeastern China (Manchuria). In this doctrine, enunciated by Henry L. Stimson, the US Secretary of State, the United States committed to non-recognition of international territorial changes that were executed by military force (L'hommedieu 2008; Vitas 1990). By this act, the United States rejected Soviet attempts to legalise the annexation as the 'voluntary' self-incorporation of three independent states.

These attempts involved staging fake elections (there was a single list of candidates to vote for and no fair vote count) to elect 'people's assemblies'. As their first acts, they proclaimed the Baltic states as 'Soviet Socialist Republics', asking Moscow to accept them as additional three republics of the USSR. While some local communists could rejoice at this fulfilment of their party programmes, the broader populations were deeply shocked as the accession to the USSR was not part of the programme of the list of 'people's deputies', proclaimed during the election campaign as 'people's legislatives'. The Soviets were greatly assisted by the 'silent submission' of Baltic dictators, who not only failed to order military resistance but did not even voice any diplomatic protest (Ilmjärv 2004).

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While Smetona was able to flee to neighbouring Germany, Ulmanis and Päts were captured. The Soviets left them for a month in their presidential offices, forcing them to sign new legislation. In Lithuania, the Soviets took advantage of Lithuanian Prime Minister Antanas Merkys, who was the acting president after Smetona's flight. This gave the policies of the puppet governments a cloak of legality, although many acts signed by the captive heads of state were unconstitutional, including the organisation of fake elections and self-abolition of independent states (Bleiere et al. 2014: 241–260; Laar and Hiio 2018, 1: 189–212; Senn 2007).

Swift abolition of the state independence of the Baltic states by 'people's assemblies' prompted diplomatic legacies of the Baltic countries to refuse to comply to the orders of the 'ministers of foreign affairs' of the puppet governments to hand over buildings and documents to Soviet diplomats and to return home (for imprisonment or shooting). In refusing compliance, Latvian and Lithuanian diplomats followed secret instructions they had received before the Soviet invasion. The Latvian government appointed its minister in London Kārlis Zariņš as the head of its diplomatic corps (with the authority to appoint new representatives). The Lithuanian foreign minister Juozas Urbšys authorised Stasys Lozoraitis for the same role, who was the Lithuanian representative in Rome, representing Lithuania both in Italy and the Vatican City. The Estonian consul in New York Johannes Kaiv took up this function for his state in the United States (Piirimäe 2014: 7–18).

Of course, the legacies of the Baltic states could survive and embark on the mission of giving testimony of their continuation only so long as there were states that recognised their mandates, following the United States in pursuing a non-recognition policy of the Soviet annexations. The practical implications of this policy were the arrest of accounts of the Baltic states held in the banks of states that stuck to a policy of non-recognition and preservation of the status of Baltic state diplomatic missions and their heads. They were allowed to use interest from the arrested funds of the Baltic governments to run the activities of these legations, including the issue of personal documents that continued to be recognised by most Western countries right up until the restoration of independence. The policies of the United Kingdom were similar, whereas Nazi Germany recognised the annexation of the Baltic countries. Democratic Sweden followed its lead in exchange for the Soviets' promise to compensate its companies and citizens for property losses due to the nationalisations and to pay the debts of the Baltic countries to the Swedish government or private companies (Mälksoo 2003).

From December 1941, the United States and the Soviet Union became allies in the anti-Hitlerite coalition, while the United Kingdom was made a Soviet ally following Hitler's attack on his former strategic partner in June 1941. However, neither US President Franklin Roosevelt nor British Prime Minister Winston Churchill renounced the policy of non-recognition of the annexation of the Baltic states. Roosevelt only gave a vague promise to Stalin to reconsider this policy after World War II if the Soviet Union would be able to ascertain the free will of the Baltic peoples to join the USSR in genuine plebiscites. 'In the end, Washington disregarded the so-called political realities and did not recognise the annexation of the Baltic states, although for a time (1943–1945) the decision hung in the balance.

The scales may have been tipped by Stalin's stupidity or negligence' (Medijainen 2008: 28).

In 1945–1947, on the agenda of relations between the Soviet Union and Western powers, the 'Baltic question' was overshadowed by many new issues, related to the fates of many other East European countries 'liberated' by the Red Army, not to mention the 'German question'. When the tensions over these questions escalated into the Cold War, the 'Baltic question' remained a bone of contention between the Soviet Union and the allied Western powers, among many other issues, until its very end. This secured the de jure survival of the Baltic states until 1990, with several remaining legacies of these countries serving as their de facto survivals, along with the still significant shares of survivors from the first independence (Piirimäe 2014: 115–156; Piirimäe and Mertelsmann 2012).

In his insightful paper, famous Estonian American political scientist Taagepera counterfactually argues that by making the Baltic states nominally independent satellite states instead of annexing them, the Soviet Union would have not only made its post-World War II relations with the Western powers less complicated (Taagepera 2013). In the long run, this would have most probably saved the USSR from disintegration in 1990–1991, as only in the Baltic republics did the population majorities resolutely support separation from the Soviet Union, receiving international support for their cause. The Transcaucasian republics may be another case with separatist majorities.

However, because of conflict over the Nagorno-Karabakh region, Moscow had strong levers to enforce on Armenia and Azerbaijan membership in the reformed federation as a better alternative, compared to the prospect of perpetual confrontation as independent states. For Georgia, these levers were the Abkhazia and South Ossetia issues—the populations of these autonomous regions of Georgia preferred direct subordination to Moscow rather than life in the independent Georgian state. With no Baltic example or precedent, separatist movements in the Transcaucasian republics barely had any chances to prevail (Suny 1993, 2011).

In the same paper, Taagepera (2013) reports about his own attempt (together with a group of young Estonian political activists) in the late 1960s to save (without knowing about it at this time) the Soviet Union from its pending disintegration in 1990–1991. Taagepera and his associates argued that it may be in the interests of the Soviet Union itself to resolve the inveterate 'Baltic question' by granting to its Baltic republics the status enjoyed by so-called 'popular democracy' states like Hungary, Poland or Bulgaria: that of a Soviet satellite state with internationally recognised independent state status. Generally, Soviet diplomacy after Stalin's death cared a great deal about the legal formalisation of Cold War divisions (Khudoley 2008). The *Neue Ostpolitik* (New Eastern Policy) of the FRG from 1969 included normalisation of relations between two German states and recognition of the border between Poland and Germany established at the Potsdam Conference of Allied powers in 1945. In this way, the 'German question' was resolved more or less according to Soviet wishes. Taagepera reasoned that the leaders of the Soviet Union could be attracted by the prospect of getting rid of the last remaining problem related to the international legal status of its Western borders. The solution of the Baltic question

in the way proposed by Taagepera would have increased the number of seats under Soviet control in the UN and international organisations, which would have been an additional attractive feature.

For the Baltic nations themselves, the main bonus would be stopping immigration from other former Soviet republics, even if this came at the cost of granting citizenship rights to the Russophone immigrants already settled within the borders of the Baltic republics at the very moment of their secession. The realisation of Taagepera's plan would have involved recognition of the legitimacy of the regime change in June 1940, even including preservation of the power monopoly held by the Communist Party. It would have amounted to the establishment of new Baltic states rather than a restoration of the status quo of June 1940. And of course, no property restoration would have to occur, preserving the socialist economic system. The implementation of Taagepera's plan would have only led to a type restoration of the independent Baltic states; his ideas help illuminate the distinction between token and type restoration.

Taagepera's plan for the restoration of the independent Baltic states was met with an outcry of indignation from the older generation of Baltic emigrants. He was exposed to ostracism from the majority of his Estonian compatriots in emigration. According to Taagepera's ironic retrospective comment, this contributed greatly to the success of his academic career, as expulsion from the political and social activities of the Estonian emigrant community meant he could dedicate more time to academic research.

Importantly, Taagepera's plan was not a purely intellectual venture addressing only the Estonian emigrant audience—the author had no illusions about its reaction. This was a political action, addressing those who held power in the United States and in the USSR. Namely, Taagepera himself did everything possible to expose his plan to publicity, trying to get published in the most-read American newspapers. Taagepera's associate Helmo Raag used his contact with Zbigniew Brzezinski to get his plan read by officials in the US State Department, where it received (according to Taagepera's report) a favourable reception (Taagepera 2013: 27–28).

However, to get a chance at realisation, Taagepera's plan needed the favourable attention of the Soviet government. However, this side perceived it only as a sophisticated and therefore very dangerous ideological diversion—Taagepera was included on the list of persons who were forbidden to visit Estonia (Taagepera 2013: 40). Retrospectively, while Stalin's rash annexation of the Baltic countries was one of his greatest blunders, predetermining the failure of the Soviet Union to survive Gorbachev's perestroika, the implementation of Taagepera's plan was possibly the last chance to correct it.

In fact, Soviet leaders had a strong interest in the resolution of the 'Baltic question'. However, they expected that this question would be resolved during the 'Helsinki process', culminating in the signing of the Helsinki Accords during the meeting of the Conference on Security and Co-operation in Europe held on 30 July–1 August 1975 after 2 years of negotiations (Morgan 2018). Alas, they miscalculated, as the United States continued with its policy of non-recognition. Baltic émigré organisations used further meetings of this conference to keep

providing the Baltic question with publicity. 'It seems that Brezhnev and other Soviet leaders became victims of their own propaganda campaign: they mistakenly believed that the post-Second World War borders in Europe had become inviolable in Helsinki and that occupation of some territories by the Soviet Union during the Second World War, including the Baltic states, had been recognised by the West' (Khudoley 2008: 65).

Taagepera opined that his plan appeared too late to have any chance of practical success. This was the early Brezhnevist period, with its increasingly rigid conservatism, ultimately earning it the fame of the 'stagnation era'. Nikita Khrushchev was the last Soviet leader (before Gorbachev with his perestroika) able to make daring experiments. However, he also sincerely believed that the communist utopia could be realised and was self-intoxicated by propaganda about the exemplary resolution of the 'national question' in the Soviet Union via the implementation of Leninist national policy. The last point applies also to Gorbachev (Lewin 1991 (1988)).

Although most historians still stick to the principle that history does not have a subjunctive mode, others accept the use of counterfactual and alternative history to explore historical junctures by explicating the futures that were lost by history taking the course it actually took. Accepting its use for this purpose, Taagepera's retrospective comments about the viability of his plan can be expanded by the consideration that restoration of the independence of the Baltic states would have been most probable in the event of a power struggle among Stalin's associates, where Lavrentiy Beria (1899–1953) would have emerged as the winner.

During some 4 months (March–June 1953), when he was the most powerful member in the triumvirate of Stalin's successors (including also Malenkov and Khrushchev), Beria did attempt to reverse Stalin's policy of Russification and to reinstate *korenizatsiya* (nativisation). This meant the promotion of the representatives of the titular nations of the union and autonomous republics in the nomenklatura of these republics. This reversal was perhaps most swift in the Baltic republics, where local cadres were not trusted at the higher levels of the administrative hierarchy (Knight 1993: 186–191; Wydra 2007: 165–166).

Beria is known of having personally interrogated the captive Lithuanian partisan leader Jonas Žemaitis-Vytautas after his arrest on 30 May 1953 (the operatives were instructed to capture him alive at any cost) (Gaškaitė-Žemaitienė 2006: 43; Eidintas et al. 2019: 127–134). It is impossible to know the political role proposed for Žemaitis by Beria, if the latter had emerged victorious out of the coup d'etat organised by Nikita Khrushchev. In fact, Beria himself was arrested only a month later (on 26 June 1953). Beria is known for proposing to solve the 'German question' by agreeing to the restoration of capitalism in East Germany in exchange for the neutrality of united Germany (Gaddis 2005: 105–106; Knight 1993: 191–194).

It perhaps is not too reckless to speculate that the next step towards the solution of the 'Baltic question' could have been to grant the Baltic republics a status similar to that of other Soviet satellite states in Europe—exactly what Taagepera had proposed in vain more than one decade later. After all, for the author of the best scholarly study on this controversial Soviet politician, 'it is not all that hard to imagine him as a "policeman-turned-liberal" in the same genre as Iurii Andropov, Brezhnev's

successor as party leader in 1982' (Knight 1993: 226). But, again, this would have amounted only to a type restoration despite the still overwhelming overlap between populations in 1940 and by 1953. In reality, a token restoration of the Baltic states took place at the time when attrition of demographic continuity between the interwar and late Soviet Baltic populations was approaching its limits.

Most certainly, constitutional law is not the only tool or medium used by the contemporary Baltic states to affirm their continuity with the interwar Baltic states. Among other things, it is inscribed into the institutional chronology of these Baltic countries, disclosed in the official self-presentation of state offices. For example, the political system of the restored independent Republic of Latvia is functioning according to its 1922 Constitution; thus, its parliament (Saeima), elected on 6 October 2018, is identified as the 13th, with numeration starting from the first Saeima elected on 7–8 October 1922.[1] Accordingly, the Cabinet of the Ministers appointed on 23 January 2019 under Krišjānis Kariņš is numbered as the 40th, counting from the first provisional government under Karlis Ulmanis, established on 18 November 1918.[2] And so, the President Egils Levits, elected on 29 May 2019, is considered the 10th or 12th president of Latvia, counting from Jānis Čakste, elected on 7 November 1922.[3]

The chronological list of Lithuanian parliaments (Seimas) is based on the same principles, starting with four parliaments from the interwar period and closing with the 13th Seimas, elected in October 2020.[4] Uniquely among the Baltic states, the list includes (as the fifth Seimas) the 12th Supreme Soviet of the Lithuanian Soviet Socialist Republic, elected in February–March 1990, which proclaimed restoration of independence on 11 March 1990. In the Estonian and Latvian lists, the supreme Soviets that were elected according to Soviet legislation and restored independence under the watchful and worried gaze of the citizens' congresses are counted separately and are not included into the overall numeration. The Estonian list closes with the 14th parliament (Riigikogu), elected on 3 March 2019, with overall numeration starting with the first parliament elected on 27–29 November 1920.[5]

According to the Estonian official list of heads of state, published at the president's office website, restored Estonia can boast of an uninterrupted lineage. It starts

[1] https://www.saeima.lv/en/about-saeima/history-of-the-legislature. Accessed 10 January 2023.

[2] https://www.mk.gov.lv/en/history-cabinet-ministers. Accessed 10 January 2023.

[3] https://www.president.lv/en/former-presidents-latvia. Accessed 10 January 2023. The actual list of Latvian presidents on this website also includes Pauls Kalniņš, who was the Speaker of the 4th Saeima, disbanded by Karlis Ulmanis, and Deputy Speaker Jāzeps Rancāns. They are listed as acting presidents in 1944–1945 and 1947–1969. This interpretation is based on Latvia's 1922 Constitution, which stipulated that the speaker was required to fill in the position of acting president, as and when necessary. After the death of Kalniņš in 1945, this status was claimed by his deputy Rancāns. However, these claims were accepted only by some of the Latvian exile community (see below in the main text of this chapter).

[4] https://www.lrs.lt/sip/portal.show?p_r=35357&p_k=1. Accessed 10 January 2023.

[5] https://www.riigikogu.ee/en/introduction-and-history/history-riigikogu/. Accessed 10 January 2023.

with Konstantin Päts, prime minister of the provisional government, appointed on the day of Estonia's independence proclamation (24 February 1918), and closes with President of Estonia Alar Karis, elected on 31 August 2021. There is no gap for the period of de facto extinction of the independent Estonian state in 1940–1991 because the Estonian way of constructing the identity of its state includes retroactive recognition of the authority of various office-holders, who claimed authority during this period.[6]

Monarchic legitimists applied the same reasoning in the years of the French Revolution and Napoleon's empire, who considered entitled members of the deposed dynasty as legitimate rulers, who had been impeded from exercising their legitimate authority by 'usurpers' in possession of real power. In the view of the French Bourbon legitimists, Louis XVI did not cease to be the King of France after his deposition on 21 September 1792. After his execution, the legitimate ruler of France (as Louis XVII) was his son Louis (1785–1795), who never ruled, and after his death in a republican prison, legitimacy passed onto the brother of Louis XVI Count of Provence. According to the Bourbon legitimist perception (as well as in his own self-perception), he was the King of France Louis XVIII also in the years when real power was in the hands of the usurper Napoleon (Mansel 2011). Besides the actual constitution, continuity between the Estonian state in 1918–1940 and that since 1991 is bolstered by the image of succession of the top level of authority, with not a single day lapsed during the period when the Estonian state had no legitimate holder of supreme authority in opposition and parallel to the Soviet usurpers.

According to this Estonian legitimist narrative, after the Soviets (17 June 1940) took the President of Estonia Konstantin Päts into captivity and made him their puppet, the legitimate head of state became the last prime minister of independent Estonia, Yuri Uluots, who went into hiding after being dismissed from office. In fact, this was Uluots' own self-perception, shared by many of his compatriots. It was based on a ruling in the 1937 Constitution, where it was outlined that when the president of the republic cannot perform his duties, they are taken over by the prime minister. Importantly, Uluots' authority was not just symbolical. When in February 1944 Uluots called all able-bodied men born in 1904–1923 to report for German military service, up to 38,000 draftees heeded his call, helping the Germans defend Estonia from Soviet invasion for more than 6 months (Misiunas and Taagepera 1993 (1983): 48–49, 60; Smith 2001: 36).

Uluots used this authority to appoint an Estonian government under Otto Tief on 18 September 1944, just before the German departure. Tief's government attempted to take under Tallinn its control, with its small volunteer military force clashing both with German and Soviet forces. Estonian forces seized government buildings and replaced the flag of Germany with the Estonian tricolour in the Pikk Hermann flag tower. However, they could not prevail over the advancing Red Army, who captured Tallinn on 22 September 1944. Tief's government went into hiding. Most of its

[6] Heads of State (president.ee). Accessed 10 January 2023.

members (including Tief) were caught, executed or deported by the Soviets, and only a few were lucky enough to flee to Sweden (Laar and Hiio 2018, 1: 226–234).

Surely Uluots and Tief understood that a small Estonian power will not be able to hold onto Tallinn. What reasons then motivated their actions? Most probably, they simply decided to reenact the events of late February 1918, when a group of Estonian politicians, then in hiding from the Bolsheviks, proclaimed Estonian independence on 24 February 1918 making the most of the power vacuum created by the flight of the Bolsheviks from the advancing German military. Taking Tallinn, the Germans did not recognise the Estonian government that had gone into hiding. However, its emissaries approached Allied governments, urging them to support Estonia's independence in expectation of or after Germany's defeat, making appeals to the very fact of the proclamation of Estonia's independence, even if it had only symbolic meaning on 24 February 1918 (yet remains celebrated as the Estonian Independence Day until now) (Raun 2001 (1987): 104–107).

In 1944, it looked as if history was repeating itself, the difference being that now the Germans were fleeing and the Soviets were advancing. Having no illusions about their intentions, Estonian politicians calculated that the largely symbolic act of the restoration of Estonia's independence could increase the chances of its real restoration at the expected peace conference regulating postwar settlement. The Warsaw Uprising, which was still not ultimately crushed at the time of the outbreak of its twin in Tallinn, may have served as another example and source of inspiration for Estonian insurgents because the political (mis)calculations of the Estonian and Polish insurgents proved to be very similar. This time however, their expectations were disappointed. Although the United Kingdom and the United States did not grant formal recognition to the Soviet annexation of the Baltic states, the Baltic question was not discussed at the Yalta (4–11 February 1945) or the Potsdam (17 July–2 August 1945) conferences, where their leaders discussed key issues concerning postwar settlement in Europe (Piirimäe 2014).

This is what Estonian politicians, attempting to restore the Estonian state based on the assumption that the Estonian constitution of 1937 was still in power, could not know in September 1944. Uluots, who was suffering from gastric cancer by this time, departed for Sweden after appointing Tief's government, where he died on 9 January 1945. August Rei, who was foreign minister in Tief's government, assumed the role of acting president, receiving the support of its members who managed to emigrate from Estonia. This decision was substantiated in the 1937 Estonian Constitution, which ruled that when the prime minister could not perform his duties (and Tief was under Soviet arrest), they were to be fulfilled by the eldest member of the government (Made 2008).

On 12 January 1953, Rei appointed an Estonian government under Johannes Sikkar in Oslo, making Estonia the first and only Baltic state with a government in exile, which is another established practice to perpetuate the legal continuation of de facto extinct states. It was not successful in getting international recognition, nor were its successors. After the death of Rei in 1963, the position of acting president was taken by Prime Minister Aleksander Warma (Made 2008). He was succeeded by Tõnis Kint in 1970, and Kint by Heinrich Mark in 1990. After Rei's death, a single

person assumed the duties of both acting president and prime minister, bearing the title 'Prime Minister in the duties of the President'. However, in 1990 these offices were separated again, with Heinrich Mark continuing as the acting president (1 March 1990–8 October 1992) and Enno Penno as prime minister (1 March 1990–-7 October 1992) (Maasing 2018: 101–106). When Estonian independence was also restored in Estonia itself on 20 August 1991, for nearly a year Estonia had two governments (one in Estonia, another in exile) claiming legitimacy.

It seems like the members of the Constitutional Assembly working on the new Constitution of Estonia in 1991–1992 did not take the Estonian government in exile seriously. Otherwise, the Assembly could have used its services to resolve a legal difficulty, which Assembly members perceived as an insurmountable obstacle for reinstatement of the 1937 Constitution. This was the prime concern to the leaders of the Congress of Estonia, with their legalistic frame of mind, who were the main supporters of its reintroduction. According to the 1937 Constitution, in nominating presidential candidates, a major player was the Upper Chamber of the parliament. However, some of its members were appointed by the president. As by 1991 almost all members of the Upper Chamber in 1940 and Konstantin Päts were dead, there was a legal impasse. There appeared to be no legal way of electing a new Estonian president if the 1937 Constitution would be reintroduced (Taagepera 1994: 216).

In principle, it could be resolved simply by asking Heinrich Mark, the incumbent Prime Minister in the duties of the President of the Republic of Estonia of its government in exile, to appoint new members to the Upper Chamber. However, this solution was never considered. Nevertheless, after election of the first President of restored Estonia Lennart Meri, the latter invited the acting president in exile Heinrich Mark to participate in the inauguration ceremony on 8 October 1992. At the ceremony, Mark handed over his credentials to the incoming president. In turn, Meri made a speech thanking Estonia's government in exile for maintaining the legal continuity of the Estonian state (Made 2008:140; Maasing 2018: 107). In this way, the embarrassment of Estonia's having two governments, which continued for more than 1 year after the complete de facto restoration of its independence in August 1991, was ultimately resolved.

As the restored Latvian and Lithuanian states had no governments in exile, they were spared of similar perplexities in the construction of their continuity with their interwar predecessors. However, Lithuania followed Estonia's example of retroactive legalisation of authorities that had made attempts between 1940 and 1990 to restore the de facto extinct state in 1940; they will be discussed shortly below. Latvia displayed least activity in this kind of legislation for two reasons. Firstly, reinstatement of the 1920 Constitution made the additional construction of acts of state continuity redundant. Secondly, in the years 1940–1990, struggles for the restoration of independence in Latvia never progressed to the extent that a government effectively claiming control over the country or its part was ever established.

Among Latvian emigrants, there were attempts to establish a government in exile under the Chairman of the Latvian Central Council Bishop Jāzeps Rancāns, who was Deputy Speaker of the Latvian Parliament at the time of Ulmanis' coup in 1934 and presented himself as the 'acting president' of the Republic of Latvia (Deksnis and

Beķere 2017: 238). However, they were never finalised due to resistance from Latvian diplomats in exile, who considered themselves as the sole legitimate representatives of the de jure surviving Latvian state. There was a similar conflict between the Estonian government in exile and its surviving diplomatic legacies (Made 2008).

Lithuania can boast of even two domestic attempts at independence restoration, providing rich historical material for the tokenist legitimist narrative on continuity of the Lithuanian state in 1940–1990. While Estonian patriots did attempt to restore independence using the vacuum of power created by the retreat of the Germans in 1944, Lithuanian insurgents did so in June 1941, using the flight of the Soviets as their opportunity. They seized the Kaunas radio station and on 23 June 1941 proclaimed the restoration of Lithuanian independence under a provisional government. Actually, it had already been secretly formed in Berlin on 22 April 1941 by the Lithuanian Activist Front (LAF), which prepared for the anti-Soviet uprising in collaboration with the German intelligence service (Misiunas and Taagepera 1993: 47–48; Žaldokas 2011).

The leader of the LAF, the former minister of Lithuania in Germany Kazys Škirpa, took the position of prime minister. However, the Germans did not allow him or other members of the provisional government to depart to Kaunas to take up their responsibilities. Nevertheless, under acting Prime Minister Juozas Ambrazevičius, the provisional government was able to establish its authority over the complete territory of Lithuania up to early August 1941, when it was disbanded by the Germans (Brandišauskas 2006 [2002]). Anniversaries of the Kaunas insurrection were celebrated during the first decade after the independence restoration in 1990. However, the reputation of its many activists is tarnished by participation in the Jewish Holocaust. Therefore, its memories became overshadowed by the glory of the anti-Soviet resistance war, waged in 1944–1953 (Girnius 1990; Gaškaitė et al. 1996; Pocius 2009), which culminated in the restoration of the Lithuanian state in the guise of an underground partisan state.

This is how contemporary Lithuanian historians (Gailius 2006a; Vaitkevičius and Petrauskienė 2019; Vaitkevičius 2020) interpret the declaration signed by eight Lithuanian partisan leaders, representing all the regions of Lithuania, in a bunker in Minaičiai (Radviliškis District Municipality) during their meeting on 2–-22 February 1949 (Eidintas et al. 2019: 101–112). They are supported by Lithuanian experts in constitutional law, including the Chairman of the Constitutional Court (in 2014–2021) of this country, Dainius Žalimas (2011). The declaration was signed on 16 February 1949, on the occasion of the 31st anniversary of the proclamation of Lithuanian independence. The Minaičiai meeting and signing of this declaration completed the formation of a Lithuanian underground partisan state, which had started in 1946.

This makes the Lithuanian case unique among the Baltic countries. In all three, armed underground anti-Soviet activities started immediately after the Red Army reconquered them from Germany in 1944–1945. In all these reconquered territories, Soviets proclaimed mobilisation to the Red Army, which most young men fit for military service attempted to avoid by going into hiding. However, in Estonia and Latvia, there was little manpower to mobilise in the first place, as in these countries

most males of draft age complied when German occupation authorities proclaimed their mobilisations in 1943–1944. The key factor for successful mobilisation was the support of interwar-period influential political leaders who survived Soviet repressions. They made young Estonians and Latvians believe they would be fighting for the restoration of the independence of their homelands, even though the Germans did not make any promises of this kind. Latvian and Estonian SS legions were created and engaged in heavy fighting against the Red Army on the Eastern front (Kott et al. 2017).

After all of this fighting, armed anti-Soviet movements had few human resources to rely on because the most patriotically motivated members of the young generation, who were determined to fight for the independence of their homelands, had already been killed in action by 1944 or had retreated with the German army. Thus, the formations of Estonian and Latvian anti-Soviet 'forest brothers', who continued their activities until the late 1950s, were rather small and scattered and did not attempt to establish centralised organisational structures beyond the regional level. They acted only locally under leaders who can be described as warlords (Anušauskas 2006 (2002); Laar 2007; Turčinskis 2017).

Very differently, Lithuanian political elites who survived the Soviet deportations in 1944–1945 encouraged the Lithuanian youth to shirk German mobilisation, and so the German attempt to build Lithuanian SS units failed. By the end of the war, the forests of Lithuania were full of young men, hoping to live to see the independence of Lithuania restored at the expected peace conference or until war between former allies in the anti-Hitlerite coalition would break out. Due to the scale and vitality of the anti-Soviet military resistance, most rural areas of Lithuania were characterised by a classical situation of divided or dual sovereignty: Soviets exercised their authority in the daytime, while the partisans were in control at night. Regionally centralised command structures had emerged already by 1946 (Girnius 1990; Gaškaitė et al. 1996; Gaškaitė-Žemaitienė 2006).

The centralisation of the Lithuanian partisan movement was completed by Jonas Žemaitis-Vytautas, who was in command of partisans in Western Lithuania, successfully organising the all-Lithuanian summit of partisan commanders in Minaičiai in February 1949. At the summit, the partisan movement was given the title of the Lithuanian Freedom Fight Movement (LFFM; *Lietuvos laisvės kovos sąjūdis*; LLKS) and included three regional commands: Western Lithuania (Jūra), Southern Lithuania (Nemunas) and Eastern Lithuania (King Mindaugas). The declaration of 16 February 1949 proclaimed that the Council of the LFFM was the highest political body of the nation. Until the 'end of occupation', the double role of the partisan high command and the provisional underground government was given to the Presidium of the LFFM, with Žemaitis-Vytautas taking the office of its chairman, equivalent to that of the head of the underground state. It was also explicitly stated that after the liberation of Lithuania, the chairmen of the Presidium of the LFFM Council would take up the position of acting president of Lithuania and would appoint its provisional government (Eidintas et al. 2019; Vaitkevičius and Petrauskienė 2019).

Only the Polish underground state (known as the Polish Secret State) of 1939–1944 can serve as a parallel to the underground institutions created by

Lithuanian partisans. However, the Polish underground state subordinated itself to the Polish government in exile, followed its instructions and received some support in arms and equipment transported by the Allied air force. Very differently, the LFFM Council took the central role for itself. There were no regular communications between Lithuanian partisans and political centres in emigration. Only a few emissaries managed to break through the 'iron curtain' and come back. As the Cold War took off, American and British secret services made several attempts to establish contact with anti-Soviet partisans in Lithuania and the other Baltic countries, redirecting their activities to the collection of intelligence information. They failed because the British secret service was infiltrated by a network of Soviet spies around Kim Philby (Mockūnas 1997).

Even before construction of the Lithuanian partisan state was finalised, most partisan commanders conceived themselves as officers of the Lithuanian Army. Partisans wore the uniforms of the Lithuanian interwar army and adopted its ranks. There was a ladder of promotions, with Žemaitis-Vytautas receiving the rank of general. Partisans also established their system of military decorations. Both promotions and decorations were meticulously documented, with many partisan archives escaping seizure by the Soviet secret police until the restoration of Lithuanian independence (Vaitkevičius and Petrauskienė 2019: 34–37). The surviving partisan archives also contain detailed financial documentation. Where they could afford to do so, partisans did pay the food or accommodation they received from their supporters in the civilian population. These impressive remains of the clandestine 'bunker bureaucracy' provide conclusive evidence that there was indeed an underground partisan state, not just 'bands' as Soviet propaganda insinuated (Gailius 2006a; Vaitkevičius 2020).

The declaration of 16 February 1949 proclaimed the ultimate aim of the partisan struggle to be the restoration of the Lithuanian parliamentary republic of 1920–1926. This idea is symptomatic of the partisans' critical attitudes towards the dictatorship of Antanas Smetona (1926–1940), which is well documented in extant sources (Pocius 2020). This attitude was related not only to the foreign policy of the nationalist regime during the last 2 years of its existence (1938–1940), involving three capitulations: yielding to the Polish ultimatum in March 1938 to renounce from claims upon Vilnius, which was the official capital according to Lithuania's constitutions; surrendering to Germany in March 1939 over the 'Klaipėda question'; and 'silent submission' to the Soviet occupation in October 1939–June 1940. Partisans were also critical of the widening divide between the military and administrative elite of independent Lithuania and the 'common people', which made parts of the Lithuanian population vulnerable to communist propaganda (Pocius 2020).

Therefore, partisan leaders envisaged the restored independent Lithuanian state as being more socially just and cohesive and thus more resistant to any new attempts to undermine the restored independent Lithuanian state from within. The declaration of 16 February 1949 stated that 'social care is not a matter of individual citizens or organisations alone, but it is rather one of the priority tasks of the State' (Art. 19).[7] Agrarian reform was also promised as one of several reforms to be implemented

soon after liberation: 'a rational settlement of the social problems and the reconstruction of the State economy are linked to the reform of agriculture, municipalities and industry, which shall be implemented at the very outset of independent existence' (Art. 20). Thus, restoration of independence was coupled with reforms, which were meant to create a better and more resilient Lithuanian state, compared to what existed in 1940 (Pocius 2020).

On 12 January 1999, the parliament of the restored Republic of Lithuania (Seimas) passed a law, stating in its second article that 'the Council of the Movement of the Struggle for Freedom of Lithuania, having adopted the February 16, 1949 Declaration (included with a facsimile copy of the original), constituted the supreme political and military structure, leading this struggle and was the sole legal authority within the territory of occupied Lithuania'. [8] The next article states that 'The February 16, 1949 Declaration by the Council of the Movement of the Struggle for Freedom of Lithuania shall constitute a legal act of the State of Lithuania'. These statements were retroactive recognition of the restoration of the Lithuanian state on 16 February 1949.

The validity of this interpretation is supported by the next decision of the Lithuanian parliament (dated 12 March 2009), which proclaimed Jonas Žemaitis acting president of Lithuania from 16 February 1949 until his execution by the Soviets on 26 November 1954.[9] Now this status of Jonas Žemaitis-Vytautas is firmly established in the official historiography of Lithuania, as documented by textbooks for primary and secondary schools, written according to the obligatory guidelines set by the Ministry of Education, Science and Sport of Lithuania. According to this narrative, Brigade General[10] Jonas Žemaitis-Vytautas is the fourth President of the Republic of Lithuania, following Antanas Smetona (1919–1920 and 1926–1940), Aleksandras Stulginskis (1920–1926) and Kazys Grinius (1926). This is of course much more than the posthumous achievement of the leader of the Breton royalist rebels Georges Cadoudal (1771–1804), who was posthumously named the Marshall of France by the restored Bourbons.

In 2018, the Lithuanian Seimas also inserted Žemaitis' deputy Adolfas Ramanauskas-Vanagas into the official outline of the history of the Lithuanian state. The occasion was the state reburial of Vanagas' remains, after a grave was found and the identity was confirmed by biological anthropological expertise (Anušauskas 2018). On 20 November 2018, the Lithuanian parliament passed another retroactive law, stating that from the execution of Jonas Žemaitis on 26 November 1954 until the execution of Adolfas Ramanauskas-Vanagas himself

[7] https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.90678?jfwid=n3s633r96. Accessed 10 January 2023.

[8] https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.90678?jfwid=n3s633r96. Accessed 10 January 2023.

[9] https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.339103. Accessed 10 January 2023.

[10] Together with Adolfas Ramanauskas-Vanagas, he received posthumous promotion to this rank in 1998.

on 29 November 1957, he was the 'top official of the Lithuanian state surviving at this time and Head of the Lithuanian state in the fight against the occupation'.[11] This formulation allows the situation that subsequent partisans (next in the partisan hierarchy, surviving Adolfas Ramanauskas-Vanagas) can be retroactively appointed as heads of state in Lithuania. Antanas Kraujelis-Siaubūnas (who committed suicide during his attempted arrest on 17 March 1965), who is celebrated as the last acting Lithuanian partisan, may be the last possible candidate (Šyvokienė 2019).

What are the legal implications of the assumption that the Lithuanian state not only survived as a legal person of international law, represented by its foreign legacies, but also continued to exist de facto, represented by Lithuanian partisans and even had its acting president with emergency powers? Firstly, this means that partisans who committed acts of terror against Soviet institution employees and their families cannot be indicted—especially in cases when these acts were committed according to verdicts handed down by partisan courts. Next, surviving Lithuanian citizens who worked in the repression apparatus at the time when there were surviving top officials of the independent Lithuanian state, continuing its de facto existence underground, have to be prosecuted for high treason, especially if they committed specific acts against representatives of the partisan underground state (Gailius 2006b).

The first minister of internal affairs of the repeatedly restored independent Lithuanian state (March 1990–August 1991), Marijonas Misiukonis (2018), who started his career as a KGB officer, had to suffer these implications of the doctrine about partisans as legitimate agents of the continuing Lithuanian state, when he was prosecuted in 2009–2016 for participating in the operation to capture Antanas Kraujelis-Siaubūnas in 1965. He was ultimately acquitted by the court of the last instance (the Supreme Court of Lithuania) but only because its judges allowed Misiukonis' defence to persuade them that the defendant (who was at this time a junior KGB officer, playing a minor role in the operation) could not have been aware of Kraujelis' status as a partisan, judging him simply as a dangerous brigand (Šyvokienė 2019).

There is a broader question that remains hotly discussed by historians and the media in all the Baltic countries but is most topical in Lithuania because of its official doctrine of partisan leaders as holders of legitimate authority under Soviet occupation (e.g. see Kasperavičius 2001; Tininis 2001; Truska 2001; Putinaitė 2007; Šopauskas 2016). Generally, the doctrine of state continuity under Soviet occupations implies that members of the Lithuanian Communist Party and officials in the Soviet administration (with the possible exception only of its rank and file workers) were collaborators and traitors. Thus, they are subject to criminal prosecution in the same way as members of the local pro-Nazi parties and movements were prosecuted in Belgium, Norway, the Netherlands and other West European countries after World War I (Gailius 2006a, b).

[11] https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/10feae80ee2f11e89d4ad92e8434e309. Accessed 10 January 2023.

Actually, this is what most radical tokenists in all three Baltic countries demanded in 1989–1991. The difficulty of this demand was that members, functionaries and even leaders of communist parties in the Baltic countries made an important (if not decisive) contribution to the restoration of independence, with many of them continuing their careers in the service of the restored independent state. The career of Algirdas Brazauskas, who was the last first secretary of the Lithuanian Communist Party in 1988–1990 and then the freely elected president of the restored Lithuanian independent state in 1993–1998, provides perhaps the most conspicuous illustration of this complexity. Most perceptive communist functionaries did understand the criminal law implications of the assumption of state continuity and therefore advocated only type restoration. Indeed, the definition of restored states as new states still did imply moral responsibility for serving the politically and economically regressive regime (as in the East European states which remained independent) but not for the crime of high treason.

According to most influential researchers, when approaching how the paradox of the restoration of Lithuanian independence by collaborators and traitors should be resolved, the line in time is drawn between two periods (Gailius 2006a, b). In the first, membership in the Communist Party (or even in the Komsomol as its youth organisation) was still an act of high treason and collaboration justly prosecuted by the partisans. In the later period, it remained morally reproachable but ceased to be a criminal act. According to another influential argument (e.g. Genzelis 2008), by avoiding membership in the Communist Party, Lithuanians would leave vacant positions of responsibility for immigrant Russians, who in fact dominated quantitatively both in the Lithuanian Communist Party and in the Soviet administration in 1944–1953. In the long run, this could only end in the emergence of an ethnic division of labour (closely resembling the situation which existed in Lithuania by 1914), with Lithuanians reduced to taking low-skilled manual jobs, and all leading positions in administration and higher education occupations being taken by the Russian-speaking minority. This would have greatly complicated the restoration of Lithuanian independence in the way it eventually unfolded or would have made it impossible altogether.

The theory grounding this book (see Part I and Norkus 2023) implies that, indeed, all persons who were born in the Republic Lithuania (as well as in the other Baltic republics) and were adults at the time of occupation may be considered as guilty of treason or collaboration if they joined the Communist Party and took positions of responsibility. However, it does not allow considering minors, who were still not adults by 1940 according to the law of agency, as traitors or collaborators. In particular, concepts of high treason or collaboration cannot be applied to persons, who were born and socialised after the complete establishment of the Soviet regime.

For Estonia and Latvia, this involves all persons born after de facto extinction of these states in 1940. For Lithuania, the year 1950 can be considered as a critical date because the Lithuanian underground partisan state did not survive long after its centralisation was completed in 1949. Indeed, centralisation made it easier for the Soviet secret police to disrupt or take under its control communication between top partisan leaders. Only those who did go into self-isolation (including Žemaitis

himself and his deputy Vanagas) avoided arrest or killing for a longer time. Žemaitis was not able to perform his duties already from December 1951, when he suffered a cerebral haemorrhage and was paralysed (Eidintas et al. 2019: 119). Prolonging the existence of the Lithuanian underground state until 1957 by its retroactive legislation, the Lithuanian parliament may provide a huge symbolic award to perished Lithuanian leaders and create a moral inconvenience for those Lithuanians who did join the Communist Party in 1953–1957, but it cannot overturn the fact that neither Žemaitis nor Vanagas exercised any power in 1951–1957.

In fact, the entire partisan underground state was already paralysed by this time, as on 25–28 March 1949 (only a month after the summit of leaders of the partisan underground state), the Soviets launched a mass deportation campaign in all three Baltic countries, which was the largest among all that had been conducted since June 1941. A total of 27,929 people (8407 families) were deported from Lithuania (Strods 1997), including many volunteer activists from the civilian population, who provided military partisan units with effective infrastructural power. In all three Baltic countries, the threat of deportation broke the passive resistance of farmers against collectivisation, bringing a decisive breakthrough in the Stalinist transformation of the received economic system. However, in Lithuania it also undercut the sinews of power of the underground partisan state, demonstrating its inability to protect the population under its claimed sovereignty and intimidating the remaining population from continuing to support the partisans.

The underground partisan state did not recover from these blows to its grass-and-roots basis shortly after its centralisation. The next (and last) deportation campaign in October 1951, which hit only Lithuania, destroyed its remainders. However, before 1949–1950 the presence of the partisan underground state in the complete territory of Lithuania was very strong, except for its eastern regions that were part of Poland in 1920–1939 and the Klaipėda region, where most of the population fled together with the retreating German army. This provides strong reasons to consider 1950 as an alternative date for the establishment of the communist regime in Lithuania—almost at the same time when this happened in those East European countries where the Russian Revolution was exported after World War II.

Thus, among the former communist countries, Lithuania is unique for its protracted war of resistance in 1944–1953, delaying the establishment of the communist regime by one decade. This provided Lithuania with a larger share of survivors from the pre-communist system, making the continuity between the pre-communist and post-communist social systems more solid. This accounts for the pioneering role of Lithuania in the dismantling of the Soviet internal empire, inaugurated by its bold proclamation of the restoration of independence on 11 March 1990.

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Chapter 7
Property Restitution and Privatisation in the Baltic Restorations of Capitalism

The Baltic restorations certainly deserve the status of paradigmatic modern restoration cases not only because they happened at the time when the share of survivors socialised under the original system was already approaching the critical threshold, separating token or 'true' restorations from reversals of a different kind. Only in Lithuania (if we accept the partisan underground state thesis) was the situation less dramatic. The determined affirmation in the legislation of contemporary Baltic states of their identity with states de facto extinct 50 years ago but still internationally recognised de jure is another reason. The most important reason to consider them as paradigms of modern restorations however is the following: the post-communist development of the Baltic countries was even more decidedly restorational than that of the French Bourbons in 1815–1830. Therefore, they may be much more instructive for the theorisation of modern restorations.

Like the Baltic countries, France was occupied twice during the post-Napoleonic reversal (in 1814 and 1815–1818). However, while foreign occupation served to import revolution into the Baltic countries (Senn 2007), to France it brought the Bourbon restoration in 1814–1815 (and democracy restoration to Austria and Germany in 1945). The post-Napoleonic occupation of France did not encompass the entire territory of France, and its sovereignty was never questioned. It was only limited during the partial occupation (extending to strategic locations) of France in 1815–1818. Very differently, the Soviet occupiers completely destroyed the Baltic states, which survived only de jure due to non-recognition of their annexation by key Western powers. Under both de facto and de jure continuity of the French state, the French restorations in 1814–1815 involved only restoration of the prerevolutionary political regime and a 'legitimate' dynasty in the surviving state, which for some time was ruled by 'illegitimate' usurpers of various sorts.

The restored regime was a constitutional monarchy, resembling that which existed in France from 3 September 1791, when the National Assembly adopted its first written constitution, until 21 September 1792, when this constitutional monarchy was succeeded by the First Republic. There was no *restitutio ad integrum* or reversal to the status quo in 1789. Remnants of the feudal system (of feudal rights

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existing as of 4 August 1789) were not restored. Expropriated 'enemies of the people' or their heirs received only financial compensation if their possessions were already sold by the state at the time of the Bourbon comeback (Démier 2012).

Importantly, the restored regime did not retaliate by expropriating the post-revolutionary elite, which comprised many buyers of the possessions of the expropriated prerevolutionary elite. Even members of Napoleon's family were allowed to hold onto possessions that were deemed their private property in 1814. Napoleon himself was no exception, dying on 5 May 1821 in exile with ample private means to generously reward his closest loyalists in his last will (Roberts 2014: 798–804). Only after Napoleon's Hundred Days in 1815 were Bonapartist officials and military officers purged, and surviving members of the National Convention who had voted for the death sentence for Louis Bourbon in 1793 were punished (Démier 2012).

In comparison with the French restoration, which is commonly perceived as a classical or ideal typical case of modern restorations, the Baltic restorations were much less compromising with respect to the legacies of Soviet occupation. They were much more encompassing and radical despite an intermediate period twice as long (50 years vs. 25 years) in duration. Besides the restoration of independent states, the Baltic restorations included restorations of democratic political regimes that were already defunct at the time of their Soviet occupation. This is most obvious in the case of Latvia, where restoration of the independent state was completed by the reinstatement of its democratic Constitution of 1922, broken by the authoritarian coup enacted on 15 May 1934 by Prime Minister Karlis Ulmanis.

With too few survivors from the first Lithuanian democracy in 1920–1926, the restoration of democracy in Lithuania was a type restoration. In 1932–1934, the Estonian democracy suffered a severe crisis, related to struggles over acceptance of a new constitution, which had to correct the perceived shortcomings of the super-parliamentary constitution of 1920 (Kasekamp 2000). Due to the authoritarian features of the 1937 Constitution and the tarnished reputation of the 1920 Constitution, democracy was restored on the foundation of the new 1992 Constitution.

Most importantly for the thematic focus of this book, Baltic restoration involved the restoration of a market economy based on private ownership of the means of production (capitalism). This restoration included the restitution of property rights or compensation of former owners, while the post-Napoleonic restorations did not involve the restoration of feudalism as the socio-economic system. The accomplishment of three restorations at once makes the Baltic restorations the most pronounced and sociologically interesting case of modern restorations. The ternary character of restoration makes the Baltic restorations unique also in comparison with other post-communist restorations, which mostly involve the restoration of capitalism and only in a few cases (Czechia, Slovakia, Poland, Hungary) also the restoration of democracy.

Property restitution was a central issue in the post-communist restorations because the Marxist variety of socialism considers private property over means of production as the key evil of capitalist societies, while proponents of the French Revolution and its clones in other countries only fought against the inheritable legal

privileges of the noble estate and serfdom. Therefore, socialist revolutions violated private property rights on a much larger scale in comparison with the French Revolution and its clones. However, as it happens, it is much easier to reverse socialist nationalisations than it is to conduct more limited property redistribution, as was the case in the French type (bourgeois) revolutions. This was related to the very different fate of nationalised property. During the revolutions of the French type, it was sold off to new proprietors. In the revolutions of the Russian type, it remained permanently as state property, although a significant proportion (first of all, housing) was allocated to new individual users.

Paradoxically, the socialist system did not have determined defenders because nearly all members of the population could expect to win from its dismantling, at least in the short run: by participating in the mass privatisation of public property, represented by state and cooperative enterprise assets. Among all the participants of privatisation, members of the former communist elite (nomenklatura) were best qualified to become members of the new capitalist class because they had the political, intellectual and social capital necessary to identify and to appropriate the most profitable assets (Szelenyi and Szelenyi 1994; Eyal et al. 1998; Szelényi and Mihályi 2019). The third (in Russia) or already second (in most East European countries) generation of nomenklatura defected ruined socialism because being a member of the capitalist class under restored capitalism was much more attractive than membership in the service class under state socialism (Norkus 2014: 485–493). The 'defence of socialism' was never an issue or bone of contention in any of the violent conflicts (with the Yugoslavian wars as the most notorious case) that unfolded during the capitalist reversal.

Among capitalist restorations, the Baltic restorations are the most instructive example illuminating the meaning and implications of the divide between type and token restorations. To recall (see Chap. 2), token capitalist restorations are represented by countries where restitution of the private property rights of former private owners preceded or took place simultaneously with the privatisation of public property. Type restorations are represented by countries where privatisation proceeded without restitution, or very limited restitution took place after most public assets had already been privatised. This was limited to a few retrospective adjustments in the results of already nearly complete privatisation.

Importantly, some cases of privatisation without restitution (Albania, Moldova) and those of only corrective post-privatisation restitution (Montenegro, Serbia, Northern Macedonia, Bosnia and Herzegovina) are in countries where a socialist revolution occurred after 1940 (Bazyler et al. 2019). They demonstrate that demographic continuity between pre-socialist (or pre-totalitarian) and post-socialist societies is a necessary, but not a sufficient, condition of token restoration. Metaphorically, the choice was between considering the post-communist condition as a palimpsest from which communist-era texts were to be cleaned and then using it as a clean sheet on which to write a completely new text once more, or as a palimpsest to be cleaned in order to recover ancient text (property rights before communist nationalisation), which should be restored before making additions. There was no strict demographic determinism regarding which one of these choices

was taken, provided that communist nationalisation did not take place two generations prior, which made restoration of the ancient text (i.e. property rights) impractical.

The question of whether restitution in the countries that still had a considerable share of survivors from pre-communism happened or not depended on the particularities of the local configuration of the political field. Arguably, the absence of property restitution in Moldova (Gorton 2001) was related to its self-definition as a new state, composed of two parts with a very different political history in 1918–1940. On the other hand, the context of the simultaneous restoration of an independent state and democracy can be expected to favour radical private property restitution policies. Indeed, this is what happened in the Baltic states (or so I will argue). However, there were marked differences in the restitution policies even between these three most conspicuous cases of modern restorations. Therefore, the case study of Baltic capitalist restorations helps to replace the dichotomy of token and type restoration with a more differentiating picture, which discloses differences among countries that belong to the token variety of restoration.

These differences are related, firstly, to the extent to which restitution took into account the interests of present individual users of the once nationalised private property. Secondly, there were cross-country differences in the role accorded to compensation payments and to restitution in kind, satisfying the interests of former owners and their heirs (Kuti 2009: 127–204). To recall, under the Bourbon restoration, restitution in kind took place only if nationalised assets were still state property as of 1814. Otherwise, only financial compensation was paid. Under post-communist restorations, restitution in kind prevailed because most nationalised assets remained state or collective property by 1989. However, there were cross-country differences in the choice between these restitution modes.

Thirdly, these differences were related to the share of assets, which was subject to restitution, in the total mass of assets which were subject to property reform, encompassing restitution (reprivatisation) and privatisation. With the exception of a few countries (Poland, former republics of Yugoslavia), where family farms survived as the dominant economic agricultural units, agricultural production in the socialist economies was based on collective farming. Collective farms were established during forced collectivisation. Restoration of capitalism in the agricultural sector involved decollectivisation and restitution of land ownership rights to former owners or their heirs (Swain 1999). However, on the eve of socialist nationalisation and collectivisation, formerly socialist countries widely differed in the level of their urbanisation and industrialisation (Aldcroft 2006; Berend 1998; Kaser and Radice 1985, 1986a, 1986b).

So, in the countries which were at this time mainly rural and still not industrialised (e.g. Bulgaria, Romania), relatively less real estate (besides land) was nationalised and was thus subject to reprivatisation. In these countries, many former owners or their heirs migrated to cities during the socialist period and were no longer employed in the agricultural sector at the time of capitalist restoration (Verdery 2003). However, there were a few countries (East Germany, Czechia, Hungary) where urbanisation and industrialisation were advanced before socialism.

In these countries, reprivatisation encompassed not only land but a significant share of urban real estate (residential houses and industrial objects) (Blacksell and Born 2002).

Conflicts of interest between present users and former owners were strongly present in all token restoration countries. There were two typical cases or situations of such conflict. Firstly, on many plots of land formerly used in agriculture or forestry, individual and communal houses, industrial objects and real estate objects were constructed during the socialist period. Their present users were interested in becoming owners of the land on which their property was located, while former owners had a stake in restituting their land property rights and claiming the real estate on their land as their legitimate possessions. Secondly, there were conflicts of interests between the present apartment tenants in nationalised houses and the former owners. Apartment tenants in newly built houses could use privatisation vouchers or certificates to buy these apartments, receiving them for free. Tenants in denationalised houses were now at risk of being evicted (Pettai and Pettai 2015: 202; Kuti 2009: 250–263).

The ways of resolving these conflicts did follow a certain continuum. Refusing restitution was the extreme option on one side. This amounted to the implicit recognition of the legitimacy of revolution according to the principle *ex factis jus oritur* (the law arises from the facts). The opposite option was restitution in kind. This was the first preference of former owners and their heirs themselves. The middle option was monetary (more preferable) compensation or compensation by privatisation certificates (less preferable). In both cases, the problem was assessment of the value of nationalised property, including the contribution of value-increasing investments during the socialist period.

There was also the special case of compensation in kind, when instead of the original object of property, a former owner or heir could receive another object of the same kind (e.g. a forest or plot of land) at a different location. Restitution in kind could be unconditional, or it was limited by restrictions related to its use by the owners. In particular, there could be a restriction on the restitution of agricultural land, providing that it would have to be farmed by the owner personally. The owners of restituted real estate property could be forbidden from evicting the inhabitants (former owners) during some specific time or increasing the rent as a way of forcing them to leave (Pettai and Pettai 2015; Kuti 2009; Swain 1999; Alanen et al. 2001).

The choice between different restitution policies was one of the most hotly contested issues in party politics during the first post-communist decade. Generally, in countries with strong ex-communist parties, the interests of present users received more consideration (Bulgaria, Lithuania, Romania, Slovenia), while in those where anti-communist parties won the first free election, the interests of former owners received precedence (Czechoslovakia, Hungary, Estonia, Latvia). Changes of political fortune were accompanied by the adjustment of initial policies, which in the case of the initially pro-owners bias involved mitigation in favour of the present users. Where the initial favourites were the present users, adjustments took the interests and voices of former owners into consideration.

What were the restitution policies in the Baltic countries and why was Lithuania's position on the restitution policy continuum different to that of Estonia and Latvia? In answering these questions, I can draw on the research on Baltic restitutions in the excellent monograph by Pettai and Pettai (2015), who considered property restitution in the context of the broader problem of transition and retrospective justice. Bazyler et al. (2019: 123–131; 213–223; 225–239) provide an update and meticulous details about restitution legislation of all three countries along with a broader international context.

In all three Baltic countries, the early victory of the tokenist strategy of state independence restoration predetermined their commitment to property restitution, as claiming state continuity but denying continuing validity of rights would have involved a performative contradiction. Therefore, the basic framework for property restitution was worked out very early after the proclamation of independence restoration. In Estonia and Lithuania, this was done even before August 1991. Namely, basic property restitution legislation was accepted by Estonia's parliament already on 19 December 1990, with the Lithuanian Seimas following suit on 18 June 1991 and 16 July 1991. Latvia's Saeima did this on 30 October 1991 (Bazyler et al. 2019; Pettai and Pettai 2015: 201–213; Kein and Tali 1995; Nissinen 1999; Pakalniškis and Vaitkevičius 2013).

In all three countries, restitution started with the registration of the claims of former owners and their heirs. Initially, rather tight deadlines for accepting such claims had been established, aiming to collect all claims during 1 or 2 years. The hope was to complete reprivatisation before privatisation, in order to avoid situations when formerly nationalised property is sold for certificates to new owners. However, this turned out not to be possible. The deadlines for lodging claims were repeatedly extended, with restitution and privatisation advancing in parallel.

In Estonia, some 132,400 property objects were claimed, and most of these claims (97.7%) were satisfied. Most of these claims were about land, with 57.1% of Estonia's total land area becoming involved in restitution. In addition, some 6000 apartment buildings and 25,000 apartments were returned, encompassing 2.6% of all dwelling stock. These changes in property produced approximately 75,000 forced tenants, who were protected by eviction limitation and rent controls, which remained in force until December 2004 (Pettai and Pettai 2015: 204–206).

Lithuanian restitution offices received 866,657 land property and around 3000 residential property restitution claims; 96.1% of land property claims were satisfied, with 62.3% of total land area becoming involved in restitution. Approximately 1200 residential buildings and 7150 apartments were returned to former owners or their heirs and 30,000 residents became forced tenants. However, this made up only 0.7% of the total dwelling stock. This is a very small figure in comparison with Latvia, where 22,152 residential properties were claimed and 15,138 (69.9%) of such claims were satisfied. In this way, 7.0% of dwelling stock (10,321 apartment buildings, 78,046 apartments) was affected by restitution, and 230,000 forced tenants were created (Pettai and Pettai 2015: 204–206). Unfortunately, Latvian privatisation or statistical offices did not produce summary data on land property restitution.

Differences in the scale of real estate restitution across the three Baltic countries reflect those in the level of urbanisation and overall modernisation across them as of 1940. Despite significant progress in urbanisation during the interwar period, in 1939 the urban population accounted for 32.8% of the total population in Estonia, 34.2% in Latvia and 19.1% in Lithuania—in 1938 (in 1939 Lithuania lost Klaipėda but regained Vilnius, making the share of the urban population surge to 23.1% by the end of that year) (Norkus and Markevičiūtė 2021: 627–636). However, all larger cities in Lithuania (except Kaunas) and Estonia suffered from bombing and military activity during World War II, while the largest city in the Eastern Baltics, Riga, mainly escaped both kinds of damage. Also importantly, by this time in the cities of Estonia and Latvia (except for Eastern Latvia), Estonians and Latvians already made up the majority of the population. In many Lithuanian cities and towns, Jews were still the largest ethnic group. They were nearly completely exterminated under German occupation.

Most survivors emigrated to Israel and the West, with a small Lithuanian Jewish minority mainly consisting of immigrants from other Soviet republics still existing in 1990. Meanwhile, original Lithuanian restitution legislation considered only actual citizens of Lithuania and permanent residents to be legitimate claimants. This excluded not only the surviving heirs of Jewish owners from the interwar period but also Lithuanian emigrants, who included most of the interwar Lithuanian urban elite. Later the requirement of permanent residence was dropped, but that of citizenship remained. This meant that most emigrants and heirs of Jewish owners remained excluded. Only in 2011, yielding to international pressure, did the Lithuanian government modify its restitution legislation, extending restitution to communal property of interwar Jewish religious and secular organisations (Bazyler et al. 2019: 226).

Rather differently, Estonian and Latvian legislation gave rights to reclaim property to emigrants who were citizens of these countries at the time of Soviet occupation in 1940, as well as to their heirs (Bazyler et al. 2019: 123–131, 213–223). They actively participated in restitution, making up a significant proportion of claimants to the restitution of property rights over real estate in Riga (Nissinen 1999: 105–109; Krastiņš and Krūmiņš 2017: 404–409). To protect present tenants, rents were regulated and eviction limitations were imposed, extending to 8 years in Latvia and 7 years in Estonia (Pettai and Pettai 2015: 204–206). Although in Lithuania the group of people affected by the restitution of dwellings was the smallest, it was backed by legislation which was the most generous. The 1991 restitution law provided a 10-year-long protection period against eviction. Even before this term had passed, a new law accepted in 1997 obliged owners who did not negotiate terms of withdrawal with their forced tenants to sign rental agreements with municipalities. They then sublet apartments to the existing tenants. The difference between the sum in rent paid by the tenant to the municipality and the rent paid by the municipality to the owner was then compensated by the central government from a special fund (Pettai and Pettai 2015: 204–206, 211–213).

However, the differences between Estonia and Latvia on the one side and Lithuania on the other are largest in the field of land property restitution. All three

countries committed to the restitution of land property to former owners. In all of them, the main obstacle to the consequent implementation of this policy was the abortive Soviet agrarian reform, which began in 1989, allowing the establishment of individual family farms (with a maximum area of 50 ha) on collective farm land. Within around 2 years, a significant number of such farms were established in all three republics. In Lithuania, by the autumn of 1991 when the founding of further farms according this law was stopped, there were already 5139 family farms, established according to this law, with a total area of 86,387 ha and 16.8 ha in mean area (Treinys 2008: 65). In Latvia, by 1 November 1990 there were 7296 such farms, using 151,888 ha of land (20.81 ha mean area) (Boruks 2003 (1995): 609). Among all the republic laws on the establishment of family farms, Estonian law (accepted on 6 December 1989) was unique in providing priority rights to former land owners, partly pre-empting the contradictions between this law and later legislation on the encompassing land restitution.

However, even in Estonia, newly established family farms were rarely located on land that farmers were entitled to reclaim according to restitution legislation as former owners or legitimate heirs. Thus, this late Soviet reform foreordained the interests that clash between the present land users and former owners. The former were bona fide capitalist farmers, as the opportunity to establish family farms was an attractive proposal largely to the most entrepreneurial collective farm members. In comparison with those farmers who were forced to start individual farming due to the dissolution of collective farms in 1992–1993, they also had better starting conditions, as in 1989–1991 the founders of new farms usually received credits which they did not need to repay because of the hyperinflation outbreak in 1991, and many of them could buy tractors and agricultural equipment at state-subsidised prices. Clearly, there was sore picture of conflict brewing between pioneering private agricultural entrepreneurs and the holders of historical property rights.

In Lithuania, there was an additional complication because of the law of the Lithuanian Supreme Council accepted in July 1990, which obliged the administration of collective and state farms to award their workers with 3 ha individual plots for each family. By this time, collective and state farm members were already entitled to use 0.6 ha individual plots, while the actual size of possessions was usually much larger but depended on the 'good will' of the administration. With this law, the leaders of the restored independent Lithuania still under Moscow's grip calculated a way of winning broader support from the rural population and of undermining the power of the collective and state farm administrations. They were perceived as the main supporters of the competing national communist party, which in its turn was suspected of acting as Moscow's 'fifth column' (Norkus 2012b; Treinys 2008).

When land restitution did start the following summer, it was politically disadvantageous to take this land back only a year after having just granting it. Meanwhile, the 1990 July law decreased the total area of the land fund available for restitution and created another conflict between former owners and present users who had a stake in making their former individual plots a permanent possession. No similar law was accepted in Estonia and Latvia, where restitution policy was

decidedly (in comparison with Lithuania) in much greater favour of the interests of former land owners and their heirs.

Due to land property restitution, by the end of the first post-communist decade, small farms were the dominant type of economic unit in the agricultural sector, as they had been in 1940. This outcome was expected and congratulated in 1988–1991 by fundamentalist tokenists in the Baltic countries, who idealised the rural societies of the Baltic countries, perceiving family farms as strongholds of traditional cultural values (Alanen 2004; Alanen et al. 2001). The only difference was that the mean size of family farms emerging out of the dissolving collective farms was smaller than that in 1940, despite lower levels of employment in agriculture (Norkus 2012b, 2014: 339–396).

One reason was that in many cases, ownership of land was divided between different heirs during restitution. Another was that many new farmers were employed in collective farms far away from the places where their restituted lands were located. With no capital to re-establish family farms at their native places, they had to survive from the output of their individual plots, which they now had to rent from their owners or their heirs (except for Lithuania, where these plots could be privatised). Over the course of time, larger farms also appeared, conglomerating plots of land rented from many small landlords. Most were absentee landlords, living in cities, with the rental income from their inherited possessions playing only a minuscule role (Norkus 2014: 378–379).

Some larger agricultural firms did survive but only in Lithuania. These were partnerships established as successors of former collective farms and were usually headed by their former directors. As a matter of principle, in all three countries the former workers of collective farms were allowed to establish such companies after restoring their land property rights and receiving their share of the collective farm assets, partitioned according to how many years they had worked at the collective farm. This option appealed to older members of collective farms with no heirs to work on the reclaimed lands. However, in Estonia and Latvia, nearly all such partnerships went bankrupt because of the consistently neoliberal economic policies of the governments in these countries, opening their markets to imported agricultural production (usually subsidised) from EU countries (Krūmiņš 2007: 259–263; Krastiņš and Krūmiņš 2017; Holt-Jensen and Raagmaa 2010).

In Lithuania, some were able to survive due to changing governments, when the first parliamentary election after the restoration of independence on 25 October 1992 was won by the successor party to the Lithuanian National Communist Party, which governed Lithuania in 1992–1996. As in issues related to the restoration of urban properties, in their agrarian policies, the ex-communists promoted the interests of the present land users against those of historical owners and their heirs. While the reforms implemented by the LRM government in 1990–1992 were not reversed, establishing path dependence for further reforms, the ex-communists did make policy corrections to help larger agricultural firms survive.

Besides protective tariffs on agricultural imports, which benefited individual farmers as well, they imposed further restrictions on the restitution of property rights, favouring actual land users. Firstly, these rights were not restituted to the

heirs of former owners who neither intended nor had the necessary competence to farm the restituted land themselves. Secondly, land was not restored if it was of vital importance for the economic activity of joint stock companies (e.g. being the location of their production facilities) (Aleknavičius 2008; Poviliūnas 2008; Treinys 2008).

After the election debacle in the autumn of 1992, the core of the Reform Movement of Lithuania *(Lietuvos Persitvarkymo Sąjūdis*) was transformed into the greatest and most influential Lithuanian rightist party (Lithuanian Conservatives/ Homeland Union), who won in the next election in 1996. The Conservatives attempted to correct these perceived 'distortions' in the land restitution process. A new law on restitution was accepted in 1997, strongly prioritising the interests of former owners and their heirs (Bazyler 1997: 230; Pettai and Pettai 2015: 208–209). Restrictions on the restitution of land economically used by partnerships were removed, exposing them to extortionist rent demands because such companies did not receive permission to buy land and no rent ceilings were introduced. The problem of a shortage of land available for restitution due to the privatisation of former individual plots of land and lands used by farms newly established in 1989–1991 was resolved, allowing former owners and their heirs to receive compensation in kind as plots of land of the same area in other locations in Lithuania (Norkus 2014: 371–372).

Thus, in Lithuania the political comeback of the ex-communists caused the pendulum to swing from favouring the interests of former owners to securing the advantage to present users, giving all land reform efforts a typist touch. So long as the fundamentalist tokenist forces remained in government during the complete restoration market reform period in Estonia and Latvia, there were no comparable pendulum swings during restitutional land reform in these countries. A basic framework for land reforms was established by the Law on Land Reform in Estonia accepted on 17 October 1991. Prudently, acceptance of legislation on the dismantling of collective and state farms (partitioning of their assets between former workers) was postponed until the land claims of former owners could be collected (Maide 1995; Alanen et al. 2001).

In Latvia, major change was brought about by the reintroduction of the Civil Code of 1937 in 1992, which allowed inheritances to be partitioned among a larger number of heirs (Krastiņš and Krūmiņš 2017: 422). This complicated the situation of many former members of collective and state farms, who considered re-establishing farms on restituted family lands. The assumption guiding the Estonian and Latvian approach to resolution of the conflicts of interest between owners and present users was that such conflicts should be regulated privately, by home owners buying the land out, or vice versa. In many situations, this kind of solution was difficult to implement in practice, involving protracted and costly litigation (Grūtups and Krastiņš 1995; Krastiņš and Krūmiņš 2017: 404–409).

The restitution of land ownership rights was a major factor driving the restoration of agricultural capitalism in all three Baltic countries. Therefore, the system of economic relations that emerged out of the restorational agricultural reforms of the early 1990s rather closely resembled the pre-1940 arrangements and was related to

the prewar system via personal continuity. While most farmers who did farm their farms in 1940 or in 1949 were simply too old by 1992 to resume farming on their restituted farm possessions, this was done by their sons or other close relatives. However, any similarity between pre-1940 Baltic agrarian capitalism and its restored version increasingly attenuated during the first two decades of the twenty-first century, when EU ascension made the Baltic countries attractive to large agrobusiness conglomerates operating cross-nationally. They started to buy up land, concentrating into large landholdings, industrialising agricultural production (Holt-Jensen and Raagmaa 2010: 132–133; Poviliūnas 2008: 337–338).

However, the rise of large-scale industrial agricultural production after 2000 only took place in relatively few areas (mainly in Lithuania and Latvia) with the most fertile soils and advantageous locations. This was one of the factors contributing to the increasing cross-regional differentiation in terms of intensity of land use for meeting agricultural production aims. While in the interwar Baltic states (as well as in the Soviet years), this was the main purpose attributed to land in all regions, in the restored Baltic states, there is ongoing differentiation into areas of intensive agricultural production and those where subsistence farming prevails, along with the recreational residences of the urban population (Blacksell and Born 2002; Holt-Jensen and Raagmaa 2010).

There is no reason whatsoever to deplore these developments. The demise of large industrial agricultural production and its subsequent territorial reorganisation, concentrating it in the regions of top productivity and minimising the imprint of human productive activities to levels characteristic for protected areas, is a highly ecologically progressive development, contributing to reducing climate change. One of the leitmotifs of green movements, which were extremely influential during Gorbachev's perestroika years, was criticism of collective industrial farming for its extremely heavy environmental imprint. The green movement rapidly declined in the early 1990s, when the collapse of Soviet large industry and industrial agriculture surpassed the greens' demands. Tellingly, all three Baltic countries are highly rated in international indices measuring the condition of the natural environment. In 2012, Latvia even scored second (next to Switzerland) in the Environmental Performance Index (EPI), regularly published by the Yale and Columbia universities at the World Economic Forum.[1]

The role of property rights restitution was much less important in the capitalist transformation of the industrial and services sectors. On 31 March 1992, the Latvian Supreme Council accepted a resolution 'On the acceptance of requests from owners (physical persons) of nationalised and other unlawfully expropriated real estate (enterprises and other ownership objects)'. Requests were accepted for 3 months. On 30 March 1993, the law 'On restitution of the property rights for enterprises and other property objects' was accepted (Krastiņš and Krūmiņš 2017: 409). The

[1] https://sedac.ciesin.columbia.edu/data/set/epi-environmental-performance-index-pilot-trend-2012. Accessed 10 January 2023; https://en.wikipedia.org/wiki/Environmental_Performance_Index#2012. Accessed 10 January 2023.

potential beneficiaries of this legislation were the owners of 49,000 industry and services enterprises that had been nationalised in 1940 (Krastiņš and Krūmiņš 2017: 408).

As many of them were joint stock companies with many owners, the Law of 30 March 1993 stipulated that instead of restitution in kind, former stock owners should be compensated with stock options or certificates allowing them to participate in the privatisation of other public enterprises. In fact, this was the most usual method of compensation for former owners or their heirs because there were very few willing to run the enterprises after their repossession. One famous case is the publishing house Valters und Rapa, founded in 1912, which also owned a network of bookstores in interwar Latvia (Krastiņš and Krūmiņš 2017: 409). It resumed its activities under the ownership of the heirs of the owners of its stock capital from the interwar years. However, such cases are more commonly an exception. Many Latvian industry enterprises that were available for privatisation in 1993 had been founded before 1914. However, there were comparatively few claimants for reprivatisation or ownership rights compensation according to the Law of 30 March 1993—only 1108 requests were presented in early 1990 (Krastiņš and Krūmiņš 2017: 409).

The situation was not much different in Estonia—there were few legitimate claimants to reprivatise industrial property (Kein and Tali 1995; Terk 2000). In both countries, the reasons lie in the peculiarities of the ethnic division of labour that existed before the externally imposed socialist revolution. In interwar Estonia, many owners in industry, banking and other services belonged to the German minority. Most of its members repatriated in 1939 before the Soviet occupation, the remainder doing this in 1940–1941. Their property was taken over by the Estonian state, with compensation promised (but not paid due to subsequent political changes) in an agreement between the Estonian and German governments. This liability was inherited by the Soviet occupiers, who also had too short a time to deliver. After 1991, the German government did not pressure the government of restored independent Estonia to pay the surviving members of the German minority or their heirs what the last government of independent Estonia had promised them in 1939.

The situation and fate of the German minority in Latvia was similar (Bleiere et al. 2014: 213–216). However, besides Germans, in Latvia there was another ethnic minority over-represented among the owners of industry and services (trade, transport) enterprises: Jews. Their property was nationalised by the Soviets, while they themselves were exterminated by the Germans and their local assistants, with few not-too-distant heirs surviving until 1990–1991 to advance their property restitution claims (Bazyler et al. 2019: 2013–215). In Lithuania, where Jews dominated among private owners in industry and services, Lithuanian legislation excluded them from restitution because very few of their surviving heirs lived in Lithuania in 1990, and citizenship and residence was mandatory for restitution.

Also importantly, in all the Baltic countries, authoritarian nationalist governments in the late 1930s perceived the over-representation of minorities in business and the absence of a strong national capitalist class as a social and political problem. In Latvia, Ulmanis perceived this as a problem, along with the strong presence of

foreign capital as well (Stranga 2017: 85–90). To solve these problems, the Estonian and Latvian states expanded the state sector investing in new industrial projects and nationalising (this was most characteristic for Latvia) 'strategic' industrial objects by paying their foreign and domestic owners compensation (Aizsilnieks 1968: 652–658; Kõll and Valge 1998). Further plans could include their privatisation by selling at preferential prices to 'deserving' members of the national elite (Stranga 2017: 9).

However, the occupation in 1940 prevented them from realising these plans, while the bloated state sectors just made it easier for Soviet puppet governments to accomplish the encompassing nationalisation of industry and services (Žagars 1978). The industrial policies of the Lithuanian government were very similar, except that it promoted industrialisation by providing credits and tax exemptions for Lithuanian cooperative unions, thus helping them to outcompete private capital owned by Jewish minority (Vaskela 2014: 139–187).

The extinction of German and Jewish minorities greatly decreased the number of potential claimants for restitution of their ownership rights. The effect of prewar state-led industrialisation and prewar nationalisation was the same. Therefore, differently from the restoration of capitalism in the agricultural sector, restitution of property rights did not play a noticeable role in the restoration of capitalism in industry. Differently from the restored class of family farmers in 1990, the new urban capitalist class in the Baltic countries showed only very tenuous continuity with the capitalist class of the interwar years. The reason was that most assets up for privatisation in the industrial and service sectors in the Baltic countries were newly created from state investments during the socialist period.

After clearing restitution issues (denationalisation or reprivatisation), the remaining part of public property could be privatised using these four methods: (1) sale to outsiders, (2) management buyouts, (3) employee buyouts and (4) massive use of privatisation securities (voucher privatisation) (Mickiewicz 2010 (2005): 162–167). Among these methods, the fourth method was preferentially used in Lithuania in 1991–1992. 'It is somewhat unfair that countries such as the Czech Republic and Russia have been highlighted in the analysis of the international experience of voucher privatization, while the massive voucher privatization in Lithuania has been viewed for some reason as being less interesting or worthy of analysis' (Terk and Reid 2011: 32).

After the comeback of the ex-communists (former national communists) in the autumn of 1992, this policy was supplemented by the second method, as employees received preferential rights to buy the assets of their enterprises. As a result, property rights remained dispersed, with no main owner able to supervise enterprise administration. In most cases, the managers used this situation for asset-stripping, leading to the decline and collapse of most privatised enterprises and property losses experienced by their new owners, who also lost their jobs. In some cases, top management was able to privatise the enterprises under their administration (Pakalniškis and Vaitkevičius 2013).

More than 75% of large industrial and transport enterprises in Lithuania had already been privatised by the end 1994 (Terk and Reid 2011: 32). This is the year

when privatisation of large enterprises really got underway in Estonia and Latvia. An important cause for the delay was the larger size of urban real estate and land property, as well as industrial objects, which were potential objects of restitution claims. To recall, differently from Lithuania, the Estonian and Latvian governments did not use the shortcut of excluding former citizens of Latvia, who did not preserve or did not restore their original citizenship and did not return home after restoration of independence of their original homelands. In fact, emigrants or their heirs could not easily restore their citizenship, as this was not permitted in the citizenship legislation of their new homelands, while all three restored independent Baltic states only grudgingly allowed dual citizenship, fearing that its introduction could be used by the citizens of Russia. Therefore, the collection and processing of restitution claims took a much longer time, using more administrative resources than in the case of Lithuania.

In Estonia and Latvia, there was a protracted debate on the best method for the privatisation of property remaining after restitution. In Estonia, advocates of 'economic' privatisation (sale to outsiders paying 'real' money) clashed with the supporters of 'political' privatisation following the Lithuanian model (selling out state property for vouchers) (Kein and Tali 1995). The Latvian government favoured the latter method. However, its application was delayed because of disagreements over whether privatisation should be organised by a single government body or whether it should be entrusted to different ministries in control of the objects of privatisation (Nissinen 1999: 79–95; Krastiņš and Krūmiņš 2017: 431–438). In 1993 Estonia established the Estonian Privatisation Agency (EPA) after the example of the Treuhand agency in Germany, which privatised the property of the former East German state (Terk 2000). Latvia followed this example the following year. However, voucher privatisation was dominant in Latvia, while in Estonia sale to outsiders became the main method, selling large industry and infrastructure objects at public auctions and by direct sale to strategic investors (Terk and Reid 2011).

Using this method, Estonia was more successful in attracting foreign capital. As a result, foreign direct investments (FDI) in 1993–1995 in Estonia were US$ 579 million, with US$ 439 million in Latvia and only US$ 134 million in Lithuania. If one takes FDI per capita, the difference is even more impressive: during these 3 years, Estonia accumulated 366, Latvia 143 and Lithuania only US$ 42 per capita (Aslund 2002: 435–436). Besides introducing capital and new technologies, a higher level of foreign ownership facilitated access to foreign markets. This was probably the most important factor for Estonia's early economic success. Among the three Baltic countries, restorational contraction of the economy was least pronounced in Estonia and was followed by strong recovery growth (since 1995) from a higher starting point.

The Estonian and Latvian capitalist economies of the late 1930s can be described as state corporatist capitalism due to the strong position of the state sector and the attempted introduction of the corporatist system by both Ulmanis and Päts, following the example of Mussolini's Italy (Bleiere et al. 2014: 175–176; Kõll and Valge 1998: 46–94). The Lithuanian variety of capitalism can be described as being of the state cooperativist variety because of the paramount role of cooperative unions in the

organisation of economic life (Norkus 2014: 205–226, 259–276). On final count, all these varieties can also be characterised as subvarieties of an agrarian coordinated capitalist market economy (Plakans 2011: 334–335; Hall and Soskice 2001; Norkus 2012a).

The variety of capitalism that emerged out of the rubble of the Soviet centrally administrated economy is variously described in research literature (Bohle and Greskovits 2012; Drahokoupil 2008; Myant and Drahokoupil 2011; Norkus 2012a; Woolfson and Sommers 2014) as the neoliberal Baltic model or neoliberal (Friedmanian) capitalism. These are the distinguishing features of the Baltic neo-liberal (Friedmanian) capitalism (Norkus 2012a: 242–269):

1. The maintenance of macroeconomic stability as the uppermost goal of economic policy, with no active independent monetary policy (money supply management) by a central bank
2. The dominance of foreign banks in commercial banking
3. Foreign investment-driven growth
4. No active industrial policy
5. Flat tax rates
6. Marginal role of social inclusion and equality considerations
7. Low levels of collective bargaining coverage[2]

Differences between the interwar and post-communist models are related to structural changes in the economies of the Baltic countries during the period of Soviet occupation. By the end of the interwar period, the absolute majorities of the economically active population in the Baltic countries were still employed in agriculture, which also contributed the largest share to total output. By the end of the Soviet period, they were thoroughly urbanised industrial countries. Agriculture already played a minor role in both respects.

Therefore, restoration of family farms as the dominant type of economic unit in agriculture was not sufficient for restoration of the same variety of capitalism that existed in the Baltic countries as of 1940. It would also be out of date in the changed international environment, marked by globalisation and related neoliberal economic policies. However, rigorous application of restitution policies (especially in Estonia and Latvia, where they were part of the policy package of the triumphant tokenist fundamentalism) created continuity between post-Soviet and interwar economic institutions, which is just as substantial as that between the interwar and restored state institutions.

[2] As of 2009, 10% in Lithuania, <20% in Latvia and 25% in Estonia and unionisation figures at 7.6% in Estonia, 10% in Lithuania and approximately 18% in Latvia (Norkus 2012a: 247).

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Part III
Three Phoenixes from the Ashes I: Economic Progress of the Restored Baltic States in Cross-Time Comparison

By 2007, the Baltic countries had earned the reputation of 'Baltic tigers' for displaying the highest growth rates among all the former socialist countries in 2000–2007. This already provides evidence that the Baltic restorations did indeed produce improved versions of the original systems. This is the message behind the phoenix metaphor in the title of this and the next parts of the book: to rise like a phoenix from the ashes means to emerge from a catastrophe stronger, smarter and more powerful.

Arguing that the contemporary Baltic states are indeed phoenixes from the ashes, I had to struggle with huge gaps in the information available on the socio-economic history of the interwar Baltic states. These gaps needed to be filled by original research. It is the presentation and discussion of these findings that makes up the bulk of the next part of the book. I start with a cross-time comparison of economic growth performance during three epochs in the history of the Baltics from the last century of their history: the original independence period (1918–1940), foreign totalitarian occupations (1940–1990) and the restored independence period (since 1990).

The pertinence of a comparison of growth performance during the restored independence period and the preceding foreign occupation period should be obvious. State independence may have intrinsic value, but its economic progressiveness can only be proven by accelerated economic growth in comparison with the previous period. Comparison of economic growth performance during both independence periods may be highly illuminating for both of them because 'the challenges of the restored Baltic republics in 1991 also resembled the challenges of the 1920s. New state structures and institutions had to be constructed, economic recovery was a first priority and, last but not least, the new elite faced the challenge to integrate national minorities who once controlled the political and economic life of the region' (Van Elsuwege 2008, 1: 89).

Indeed, a comparison of these challenges was the explicit agenda of two scientific conferences in 1992, which took place almost simultaneously in Paris and Stockholm. At the Paris conference (Demm et al. 1996), the presenters were asked to compare the origins, causes and consequences of the independence of the Baltic

states in 1918–1919 and 1990–1991. The Stockholm conference (Johansson 1994) focused on a comparison of the economic challenges of integration into the world market faced by the Baltic states both in the 1920s and the 1990s.

The celebration of the first and second anniversaries of restorations of independence were occasions to continue such cross-time comparative work. Latvian scholars published several ground-breaking contributions (Seleckis 2000; Krastiņš 2001 (1996); Zīle 2001), drawing a critical balance of the first decade of restored independence and using the achievements of the first decade of interwar independence from 1918 to 1928 as the benchmark against which the post-socialist condition could be evaluated. Estonian scholars published a collection of articles titled *Two Beginnings: The Republic of Estonia – 1920s and 1990s* (Ant 1998) celebrating the 80th anniversary of Estonian independence, and then repeated the feat for the 90th anniversary (Valge 2008; Kukk 2008). Norkus (2014) is the Lithuanian contribution to this field. [1] The present and next parts of the book continue this line of cross-time comparative research, using the benefits of longer hindsight, but focuses on the dimensions of long-term change, amenable to conducting a quantitative comparison.

As far as the Baltic states may be deemed as paradigmatic cases of modern restorations, the highlighting of their economic and human development progress helps clear the sociological concept of restoration of its unfortunate association with failure and doom, inscribed into the connotation of the historical concept of restoration through research on the history of France and other European countries in 1815–1848. The use of the Baltic countries as cases of successful restorations in contrast to the mainly failed post-Napoleonic restorations serves to break this thinking blockade. This cannot be expected from a comparison of the French and Russian restorations because Russia's performance was ambiguous.

In the case of economic progress, acceleration (higher growth rates in comparison with the intermediate or original system) may be achieved after steep and deep output decline thanks to very rapid recovery growth. In other cases, the trajectory of post-communist economic growth may not include very rapid recovery growth just because there was no drastic output contraction during radical economic reforms, related to disparities in the social cost. The restoration pathway involving less economic contraction can be expected to be less painful, accompanied by lower or no decline in life expectancy and human stature. Actually, this was the rationale behind the discussion between exponents of 'gradualist' and 'shock therapy' modes of market reforms in the early 1990s (cp. Norkus 2012). Changes in life expectancy provide an even better measure of the cost of radical institutional reforms than changes in economic output, as this cost is calculated in lost years of human life.

This comparison of the Baltic countries allows testing this hypothesis because they display relevant variation. All three countries conducted market reforms using the 'shock therapy' mode, differing only in the sequence of liberalisation, macroeconomic stabilisation and privatisation. All three countries started from internal and

[1] See also Lauristin (2011).

external liberalisation. However, Lithuania then became preoccupied with privatisation (including restitution or reprivatisation), postponing macroeconomic stabilisation (stopping inflation) for the concluding phase of market reforms. Estonia and Latvia conducted macroeconomic stabilisation simultaneously with liberalisation, introducing privatisation at a much slower pace.

I start with a discussion about the economic growth of the Baltic countries in 1913–1940 (Chap. 8). It is based on original research (published in Norkus and Markevičiūtė 2021). Comparing this growth with that during the restored independence period, I can draw on the ready-made MPD 2020 data. OECD extrapolations help to assess the prospects of the Baltic countries to pass the ultimate OIST (CREPS) and American standard tests. This is main issue in Chap. 9, starting with a comparison of the growth performance of the Baltic countries during the first three decades of restored independence and the late Soviet period.

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Chapter 8
Output Growth in the Baltic Countries in 1913–1938: New Estimates

Assessing the economic performance success of restorations by OIST, it is possible to draw on the MPD (2020) data for the 1973–2018 period. However, MPD does not provide data for the years 1913–1938. This does not mean that there is no output data on the Baltic countries during this period. During the interwar years, Estonian and Latvian economists calculated national income for many years, almost completely covering the second decade of independence. There are three such estimates (for 1924, 1938, 1939) for Lithuania as well. However, they are not strictly comparable due to the lack of standard calculation methodology. Some were used in the first attempt at a cross-time comparable measurement of total output of the Baltic countries in 1913–1928, which was published in the third (and last) edition of the survey *The Economic Forces of the World*, released by Dresdner Bank (1930), and remains a broadly used source in historical statistics. In this publication, estimates of national income in national currencies were converted to German Reichsmark (RM) at gold parity.

Colin Clark is deservedly celebrated for starting a new era in cross-country and cross-time comparison of total and per capita output 80 years ago (in Clark 1938), when he published his landmark comparison of the national income of 28 countries on a purchasing power parity (PPP) basis. Clark used 1929 as his benchmark year and the United States as the numeraire country. Therefore, following contemporary usage, we will designate his monetary measurement unit (which he called the 'international unit' or IU) as '1929 international $' (int$) or '1929 international Clark $' (C$ 1929). In Clark's famous ranking, the Baltic countries share company with poorer countries, and Lithuania with 80 C$ 1929 per capita closes the list (Table 8.1).

Clark's estimates refer to a 1925–1934 national income mean value and do not help us compare the growth performance of the included countries. Joan R. Roses and Nikolaus Wolf (2010: 187–190) published estimates of the GDP (in GK$ 1990) for 1922, 1929 and 1938 for many European countries in *The Cambridge Economic History of Modern Europe*. Table 8.2 provides a ranking of most European countries by GDPpc according to Maddison (2008), expanded by estimates from Roses and

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Table 8.1 National income per capita (in int$ 1929) of 27 countries in 1925–1934. Data source: Clark (1938: 66). Clark himself provides only the national income value per head of occupied population. National income per capita calculated by the author, dividing Clark's 1925–1934 national income annual mean totals by populations as of 1930, provided by Maddison (2008). For reader's convenience, the names of Baltic countries are in bold (also in other tables in this chapter)

Rank	Country	National income per capita (in int$ 1929)	Rank	Country	National income per capita (in C$ 1929)
1.	United States	533	**15.**	Spain	226
2.	Canada	500	**16.**	Norway	216
3.	United Kingdom	477	**17.**	Czechoslovakia	193
4.	Switzerland	481	**18.**	Hungary	177
5.	New Zealand	385	**19.**	Greece	145
6.	Australia	381	**20.**	Finland	138
7.	The Netherlands	333	**21.**	Italy	131
8.	Ireland	309	**22.**	**Latvia**	**131**
9.	France	304	**23.**	**Estonia**	**127**
10.	Sweden	300	**24.**	Poland	122
11.	Denmark	285	**25.**	Romania	104
12.	Germany	271	**26.**	Bulgaria	87
13.	Belgium	253	**27.**	**Lithuania**	**80**
14.	Austria	242			

Wolf (2010: 190) for Estonia and Latvia in 1922–1938 and Poland in 1922.[1] They provide a brighter picture of the international standing of Estonia and Latvia after the first decade of independence (in 1929) than Clark did in 1938 (to recall, his estimate refers only to a 1925–1934 annual mean).

According to Clark's ranking (see Table 8.1), these countries markedly outperformed only the South-Eastern (Balkan) European countries, standing nearly at the same level with Poland and other South European countries (except for Greece). According to the Roses and Wolf (2010) ranking, the distance separating Estonia and Latvia from South-Eastern Europe was greater, with their GDPpc in GK $ 1990 outpacing that of Bulgaria and Romania two and more times. They outperformed Central Europe (Hungary and Poland) and South European countries, except for Italy, and were on an equal level with Ireland.

Importantly, Estonia and Latvia in their view displayed strong positive growth dynamics not only in comparison with the 1922 level but also in terms of relative ascendancy or improved ranking position; Latvia rose from 18th position in 1922 to 15th in 1929 and to the tenth by 1938, trailing just behind Norway, France and Sweden. Estonia fell from 13th position to 14th in 1922–1929 and then rose to 11th place by 1938. Estonia and Latvia (except for 1922) were also richer than Finland, while Clark (1938) presented the opposite view.

[1] For unreported reasons, they also do not accept the Maddison (2008) estimates for Poland in 1929 and 1938 but accept all remaining estimates.

Table 8.2 European country ranking by GDPpc in 1922–1938 according to Roses and Wolf (2010: 190). GDPpc values (except for Estonia, Latvia and Poland) are from Maddison (2008)

1922			1929			1938		
Rank	Country	GDP per capita	Rank	Country	GDP per capita	Rank	Country	GDP per capita
1	United Kingdom	4637	1	Switzerland	6332	1	Switzerland	6390
2	Switzerland	4618	2	Netherlands	5689	2	United Kingdom	6266
3	Netherlands	4599	3	United Kingdom	5503	3	Denmark	5762
4	Belgium	4413	4	Denmark	5075	4	Netherlands	5250
5	Denmark	4166	5	Belgium	5054	5	Germany	4994
6	France	3610	6	France	4710	6	Belgium	4832
7	Germany	3331	7	Germany	4051	7	Sweden	4725
8	Sweden	2906	8	Sweden	3869	8	France	4466
9	*Austria*	2877	9	Austria	3699	9	Norway	4337
10	Norway	2784	10	Norway	3472	10	**Latvia**	**4048**
11	Italy	2631	11	Italy	3093	11	**Estonia**	**3771**
12	Ireland	2598	12	Czechoslovakia	3042	12	Finland	3589
13	**Estonia**	**2311**	13	Ireland	2824	13	Austria	3559
14	Spain	2284	14	**Estonia**	**2802**	**14**	Italy	3316
15	Finland	2058	15	**Latvia**	**2798**	**15**	Ireland	3052
16	Czechoslovakia	2006	16	Spain	2739	16	Greece	2677
17	Greece	1963	17	Finland	2717	17	Hungary	2655
18	**Latvia**	**1929**	18	Hungary	2476	18	Poland	2396
19	Portugal	1430	19	Greece	2342	19	Spain	1790
20	Poland	1382	20	Poland	1994	20	Portugal	1747
21	Yugoslavia	1057	21	Portugal	1610	21	Bulgaria	1595
			22	Yugoslavia	1364	22	Yugoslavia	1356
			23	Bulgaria	1180	23	Romania	1242

(continued)

Table 8.2 (continued)

1922			1929			1938		
Rank	Country	GDP per capita	Rank	Country	GDP per capita	Rank	Country	GDP per capita
			24	Romania	1152			
			25	Albania	926			
No data for Albania, Bulgaria, Hungary, Romania						No data for Albania and Czechoslovakia		

For Estonia, Roses and Wolf (2010) provide a brighter picture than the estimates by Estonian historian Jaak Valge (2003). In 1932, Juhan Janusson published calculations of the Estonian national income at current prices in the national currency (Estonian crown; EEK) and its structure in 1928–1930 (Janusson 1932). He later revised and extended this pioneering work, covering the 1929–1936 period (Janusson 1937). Arvo Horm (1940) extended this time series even further by 2 more years (1937–1938). After a long break, Jaak Valge (2003) extended the time series covered in interwar publications backwards, including also the 1923–1928 period.

Janusson's calculation is grounded on the assumption that only agriculture, industries, crafts and real estate create added value. Transforming Janusson's calculation of national income in 1929–1938 into that of GDP for the same period, Valge also included the service sector. Valge converted estimates in EEK into GK$ 1990, so uniquely for Estonia we have output estimates comparable with those in the MPD and those provided by Roses and Wolf (2010). Thus, for the year 1929, estimates by Roses and Wolf are greater than Valge's figures by 28.4% and by 37.4% for the year 1938 (Table 8.3).

Roses and Wolf (2010) provide no estimates for Lithuania. On this country, only 'guestimates' by Lithuanian historian Gediminas Vaskela (2014: 116) for 1938 (1800–1900 GK$ 1990) and calculations by Adomas Klimantas and Aras Žirgulis (2020: 249) for 1937 (2064 GK$ 1990) are available. No MPD comparable output estimates are available for Latvia, except for Vaskela's (2014: 113) guestimate that, in 1938, Latvia's GDP could have been approximately 2800 GK$ 1990.

Roses and Wolf also do not provide estimates for 1913. However, inclusion of this year is necessary to provide a realistic picture of the economic progress achieved by the Baltic countries after their separation from Russia. The real measure of economic progress in the interwar independence period is how much their economies grew after recovering from the devastation of the war in comparison to the highest level achieved under foreign rule on the eve of World War I. Using 1922 as the base year, we cannot avoid an overestimation of their achievements because, at this time, recovery growth was still incomplete.[2]

New measurements are also needed because the available estimates became outdated following new releases of the MPD in 2013 and 2018. In the MPD 2018 release, following the practices of the Penn World Tables (PWT), MPD 2018 provided two estimates for each year: real GDP per capita at constant national prices, obtained from national accounts data (RGDPNApc), which is commended for cross-country comparisons of growth, and current year GDP per capita (CGDPpc), preferred for cross-country comparisons of economic standards of living (Bolt et al. 2018; Feenstra et al. 2015).

Following this approach, we (Norkus and Markevičiūtė 2021) derived the estimates of the CGDPpc and RGDPNApc in 1913, 1922, 1929 and 1938 for all three Baltic countries. To make them comparable with Roses and Wolf's (2010) results,

[2]However, according to our findings (see below), Lithuania may be an exception.

Table 8.3 National income and GDP of Estonia in 1923–1938. Data sources: Valge (2003: 2211, 2719, 2721, 2276). GDP per capita in EEK calculated from total output and data on Estonia's population in Valge (2003: 2721)

Year	National income at current prices in mil. EEK (Janusson (1932, 1937) and Horm (1940)	GDP at current producers' prices in mil. EEK (Valge (2003))	GDP at constant producers' 1929 prices in mil. EEK (Valge (2003))	GDPpc at constant producers' 1929 prices in EEK	GDPpc in GK$ 1990 Valge (2003)	GDP as % (1929 = 100) (Valge 2003)	GDPpc as % (1929 = 100) (Valge 2003)
1923	Nd	377.6	419.6	378.0	1811	82.3	83.0
1924	Nd	458.2	545.5	489.46	2337	106.9	107.1
1925	Nd	506.3	532.9	477.20	2280	104.5	104.5
1926	Nd	532.6	566.6	507.13	2422	111.1	111.1
1927	Nd	478.5	525.8	471.0	2249	103.1	103.1
1928	Nd	498.9	514.3	461.28	2201	100.8	100.9
1929	342	510.1	510.1	456.85	**2182**	100.0	100.0
1930	315.0	484.1	543.9	487.91	2330	106.6	106.8
1931	260.0	415.4	519.3	464.72	2219	101.8	101.7
1932	224.0	361.0	494.5	441.78	2110	96.9	96.7
1933	249.0	381.4	560.9	499.14	2385	110.0	109.3
1934	259.0	391.4	575.6	511.75	2443	112.8	112.0
1935	284.0	417.3	613.7	544.10	2598	120.3	119.1
1936	318.0	470.8	611.4	541.16	2585	119.9	118.5
1937	342.0	533.1	658.1	582.32	2779	129.0	127.4
1938	376.0	552.5	650.0	574.63	**2745**	127.4	125.8

we selected 1922, 1929 and 1938. Like Roses and Wolf (2010), we used the indirect or econometric method, instead of the direct approach, including construction of historical national accounts in the system of national accounts (SNA). Admittedly, the direct method is the 'king's road' in historical national income estimations. However, only using the indirect approach, it is possible to cover years with scarce data for construction of national accounts. In particular, this applies to 1913. The SNA framework is crafted to monitor economic activities in nation states. However, the territories of Estonia, Latvia and Lithuania were not even separate administrative units by 1913. The territory of Estonia was divided in two (Estland and Livland) and that of Latvia into three (Kurland, Livland and Vitebsk) provinces (governorates) of tsarist Russia. The territory of Lithuania also includes part of the German empire (the Memel/Klaipėda area), in addition to parts of the Kaunas, Vilnius and Suvalkai provinces of the Russian Empire.

We used a method that seems to be becoming the standard indirect approach in similar primary data situations. This method was pioneered by Robert C. Allen (2000) and then used by Malanima (2010), Arroyo Abad et al. (2012), Alvarez-Nogal and Prados de la Escosura (2013), Ridolfi (2016), Malinowski (2016) and Malinowski and Van Zanden (2017). This method involves the use of a model wherein GDP per capita is estimated from its values in benchmark countries and from data about real wages, food self-sufficiency and agricultural employment, using urban population data as a proxy. Importantly, this method was used in constructing the most recent releases of MPD (2018, 2020) by Bolt, Inklaar, de Jong and van Zanden to fix many data gaps. This point may provide some reason to claim that our estimates are better in terms of methodological compatibility with the recent MPD versions than the Roses and Wolf (2010) results.

In earlier research, our method was applied mainly to pre-industrial economies. However, under closer consideration, many of them were early industrialising economies (in fact, Malanima (2010) closes with the year 1913). There is no clear line separating 'pre-industrial' from 'industrialising' countries, and the Baltic countries were just late industrialisers. As our data (see the next section) shows, in 1913 Lithuania was a completely pre-industrial economy, and Latvia was apparently crossing the threshold separating pre-industrial from industrial economies, while Estonia was a case in between. What was peculiar about them (and should make them interesting cases to the broader research community interested in economic growth and comparative development) is the reversal of the master industrialisation process and re-agrarianisation in the interwar period.

The Groningen Growth and Development Centre (GDDC) experts used this method to calculate the output values for most African countries (since 1950) in MPD 2018 and MPD 2020. Primary data availability for the Baltic countries in 1913 and 1922 are not much better than for African countries in the 1950s, but we could use the GDP data of 13 European countries as benchmarks. However, GDDC experts used only one country (South African Republic). In addition, we empirically calibrated the model by replacing the assumption of complete food self-sufficiency with empirically estimated values and measured labour productivity in industry and agriculture in the Baltic countries for the relevant years. Therefore, we believe that

our results for the Baltic countries in 1913–1938 are no less reliable than GDPpc values in MPD 2018 and MPD 2020, derived using the same method.

However, briefly after the ultimate publication of our estimates (in Norkus and Markevičiūtė 2021), the GDDC experts did reverse to the older approach used by Maddison, providing only one GDPpc estimate (conceptually closer to RGDPNApc) but changing the base year. Table 8.4 contains a recalculation of the GDPpc for the Baltic countries from their values for 13 European countries in the MPD 2020 in 2011 GK$.[3] The equivalents of these figures in 1990 GK$ are available in Norkus and Markevičiūtė (2021, Table 19).

Our GDP per capita figures for Estonia in 1938 (3796 int$ 2011) may be an underestimate. It corresponds to 2377 GK$ 1990 (see Norkus and Markevičiūtė 2021, Table 19) and thus makes up 86.6% of Valge's estimate for 1938. For 1929, our estimate (2015 GK$ 1990) makes up 92.3% of Valge's (2003) fig. (2182 GK$ 1990). Both of Valge's estimates are within 95% confidence intervals for our estimates (1522.37 at the lower end and 2667.64 at the upper end for 1929; 1848.19; 3058.31 GK$ 1990) for 1938 and do not disagree dramatically with ours. However, Valge's estimates may nonetheless be more reliable because they are grounded in historical national accounts (Janusson 1932, 1937; Horm 1940). Therefore, the increase of Estonia's output by 25.8% in 1929–1938, as implied by Valge's estimates, may be closer to the truth than the 17.4% growth implied by our own estimates. Applying Valge's growth rate in 1929–1938 to our estimate for 1929, we receive 4068 int$ 2011 as an alternative estimate for 1938.

Our estimate for Lithuania in 1938 (3619 int$ 2011, which is equivalent to 2267 GK$ 1990) is higher than that of Klimantas and Žirgulis (2020) for 1937 (2064 GK$ 1990). However, the last estimate is deeply within the boundaries of the 95% confidence interval of our estimate (1761.3 lower, 2917.2 upper bound). Even more importantly, it is known that 1936–1938 was a time of very rapid growth in Lithuania's economy (Dargis 1978). Even if we do not accept Dargis' (1978: 93) judgement that Lithuania's national income increased in 1938 by 18.23% in comparison with the previous year, the 10% annual growth estimate is firmly validated by data about the increase in Lithuania's budget income and foreign trade in 1937–1938. Assuming this kind of increase makes our estimate for 1938 nearly coincide with Klimantas and Žirgulis' (2020) result.

The main aim of the economic output measurement at the PPP is to facilitate cross-national comparison of economic wellbeing and growth performance. The real meaning of our estimates and their plausibility transpires when we use them to establish the position of the Baltic countries in the European or worldwide country ranking and to compare our ranking with the received rankings. Therefore, we included into rankings not only our benchmark countries but also all European countries with relevant GDPpc data available in the MPD 2013 and 2018, some 'Western offshoot' countries (Australia, Canada, the United States) and Japan.

[3] Due to recalculation, these figures do not coincide with those in Norkus and Markevičiūtė (2021), which are in 2011 Gini, Eltetö, Köves and Szulc international $ (GEKS$ 2011).

Table 8.4 GDPpc (in 2011 int$) of Baltic and selected comparator countries in 1913–2018. Data sources: MPD (2020); author's own calculations (credits to J. Markevičiūtė for assistance); Valge's (2003: 2726) alternative figure for Estonia in 1938

	1913		1922		1929		1938	
Rank	Country	GDPpc	Country	GDPpc	Country	GDPpc	Country	GDPpc
1	United States	10,108	United States	10,010	United States	11,954	United States	10,526
2	Australia	8220	Australia	8072	Switzerland	9920	United Kingdom	9988
3	United Kingdom	8212	United Kingdom	7391	Netherlands	9068	Switzerland	9609
4	Switzerland	8172	Netherlands	7331	United Kingdom	8772	Australia	9382
5	Canada	7088	Switzerland	7182	Australia	8389	Denmark	9185
6	Belgium	6727	Belgium	7034	Denmark	8089	Netherlands	8368
7	Netherlands	6454	Denmark	6641	Canada	8074	Germany	7960
8	Denmark	6236	Canada	6046	Belgium	8056	Sweden	7812
9	Argentina	6052	Argentina	5796	France	7508	Belgium	7702
10	Germany	5815	France	5754	Argentina	6961	Canada	7246
11	France	5555	Germany	5310	Sweden	6476	France	7119
12	Austria	5523	Sweden	4868	Germany	6457	Norway	6794
13	Uruguay	4838	Austria	4586	Austria	5896	Argentina	6491
14	Chile	4836	Norway	4570	Chile	5679	Finland	5721
15	Sweden	4581	Ireland	4141	Norway	5581	Austria	5673
16	Norway	4415	Italy	3928	Uruguay	5128	Uruguay	5273
17	Ireland	4361	Uruguay	3870	Italy	4889	Chile	5070
18	Italy	4057	Chile	3814	Czechoslovakia	4849	Italy	4981
19	**Latvia**	**3834**	Spain	3427	Ireland	4501	Ireland	4865
20	Finland	3365	Finland	3280	Finland	4331	Czechoslovakia (1937)	4594
21	Hungary	3344	Japan	3244	Spain	4173	Latvia	4527
22	Czechoslovakia	3341	Czechoslovakia	3198	Hungary	3947	Venezuela	4289
23	**Estonia**	**3341**	Greece	3129	**Latvia**	**3766**	Greece	4267

(continued)

Table 8.4 (continued)

	1913		1922		1929		1938	
Rank	Country	GDPpc	Country	GDPpc	Country	GDPpc	Country	GDPpc
24	Spain	3067	**Latvia**	**2964**	Greece	3733	Japan	4257
25	Poland	2772	**Lithuania**	**2595**	Japan	3665	Hungary	4232
26	**Lithuania**	**2650**	Mexico	2562	Poland	3374	**Estonia**	**3796 or 4068 (Valge)**
27	Japan	2431	**Estonia**	**2470**	**Estonia**	**3234**	**Lithuania**	**3619**
28	Russia	2254	Portugal	2279	Peru	3041	Poland	3478
29	Mexico	2004	Peru	2144	Venezuela	2942	USSR	3427
30	Portugal	1992	Venezuela	2000	**Lithuania**	**2620**	Peru	3068
31	Greece	1876	Yugoslavia	1551	Portugal	2566	Portugal	2785
32	Venezuela	1750	Brazil	1301	Mexico	2424	Spain	2636
33	Peru	1645	USSR	974	USSR	2209	Mexico	2479
34	Former Yugoslavia	1551	Romania	561	Yugoslavia	2002	Bulgaria	2389
35	Albania	1293	Hungary	nd	Bulgaria	1956	Yugoslavia	1991
36	Brazil	1046	Albania	nd	Albania	1476	Brazil	1643
37	Romania	767	Bulgaria	nd	Brazil	1465	Romania	701
38	Bulgaria	nd	Poland	nd	Romania	681	Albania	Nd

	1989		2008		2014		2018	
Rank	Country	GDPpc	Country	GDPpc	Country	GDPpc	Country	GDPpcc
1	United States	36,756	Norway	76,522	Norway	82,216	Norway	84,580
2	Switzerland	33,316	Switzerland	56,055	Switzerland	59,485	Ireland	64,684
3	Canada	30,458	United States	50,276	Ireland	52,651	Switzerland	61,373
4	Denmark	29,108	Ireland	49,583	United States	51,664	United States	55,335
5	Norway	28,942	Netherlands	44,841	Australia	47,867	Australia	49,831
6	Japan	28,601	Australia	44,422	Denmark	44,241	Netherlands	47,474
7	Sweden	27,933	Denmark	44,246	Netherlands	44,205	Denmark	46,312
8	France	27,576	Sweden	42,190	Germany	43,922	Germany	46,178
9	Australia	27,407	Canada	41,896	Canada	43,607	Sweden	45,542
10	Finland	27,012	Austria	40,965	Sweden	42,476	Canada	44,869
11	Belgium	26,690	Germany	40,715	Austria	41,338	Austria	42,988
12	Netherlands	26,612	Finland	401,30	Belgium	38,228	Belgium	39,756
13	Germany	26,393	Belgium	38,117	Finland	36,858	Finland	38,897
14	United Kingdom	26,164	France	36,762	Japan	36,537	Japan	38,674
15	Austria	26,078	United Kingdom	36,265	France	36,527	France	38,516
16	Italy	25,454	Italy	35,943	United Kingdom	36,436	United Kingdom	38,058
17	Spain	18,359	Japan	35,496	Italy	32,829	Italy	34,364
18	Ireland	17,343	Spain	32,844	Spain	30,819	Spain	31,497
19	Portugal	16,533	Greece	28,908	Czechoslovakia	25,976	Czechoslovakia	29,601
20	Greece	16,117	Portugal	25,591	Portugal	24,423	Poland	27,455
21	**Latvia**	15,661	**Estonia**	**24,429**	**Estonia**	**24,146**	**Estonia**	**27,409**
22	**Estonia**	**15,473**	Czechoslovakia	24,257	Poland	23,266	**Lithuania**	**27,371**
23	**Lithuania**	**14,693**	**Lithuania**	**20,880**	**Lithuania**	**23,252**	Portugal	27,036
24	Czechoslovakia	13,976	Hungary	20,381	Greece	22,344	Hungary	25,623
25	Venezuela	12,750	**Latvia**	**20,342**	Hungary	22,040	**Latvia**	**24,313**

(continued)

Table 8.4 (continued)

	1989		2008		2014		2018	
Rank	Country	GDPpc	Country	GDPpc	Country	GDPpc	Country	GDPpcc
26	USSR	11,336	Poland	19,012	Chile	21,335	Greece	23,451
27	Hungary	11,003	Chile	18,804	**Latvia**	**20,751**	Chile	22,105
28	Argentina	10,393	Argentina	18,520	Venezuela	20,317	Uruguay	20,186
29	Uruguay	10,305	Venezuela	18,019	Argentina	19,183	Romania	20,126
30	Chile	10,005	Romania	16,347	Uruguay	19,160	Former USSR	19,539
31	Bulgaria	9908	Former USSR	16,227	Former USSR	18,730	Argentina	18,556
32	Yugoslavia	9887	Uruguay	14,870	Romania	18,515	Bulgaria	18,444
33	Mexico	9392	Mexico	14,808	Mexico	15,856	Former Yugoslavia	16,558
34	Poland	9060	Bulgaria	14,762	Bulgaria	15,711	Mexico	16,494
35	Brazil	8333	Brazil	13,164	Brazil	15,258	Brazil	14,034
36	Romania	5942	Former Yugoslavia	13,125	Former Yugoslavia	14,627	Peru	12,310
37	Peru	5160	Peru	8813	Peru	11,186	Albania	11,104
38	Albania	3948	Albania	8522	Albania	9808	Venezuela	10,710

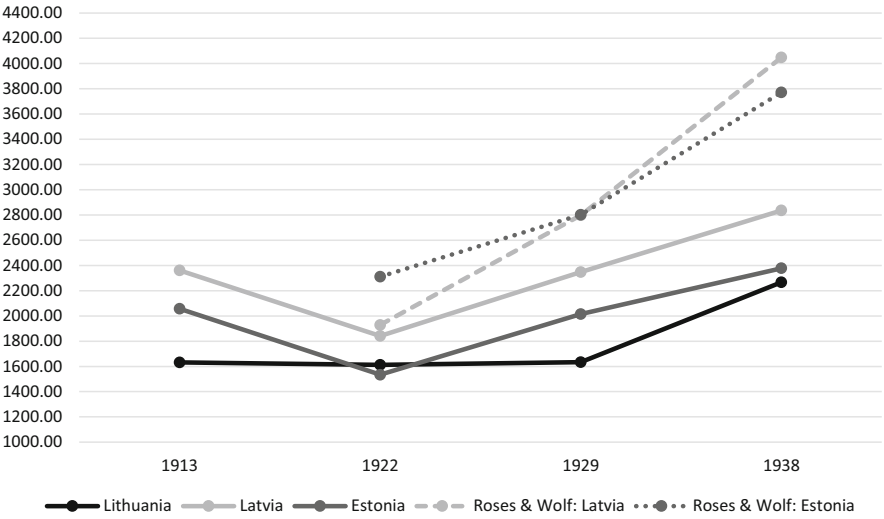


Fig. 8.1 Changes of GDPpc (in 1990 GK$) of the Baltic countries in 1913–1938. Author's own production. Data sources: Roses and Wolf (2010: 190); author's own calculations (credits to J. Markevičiūtė for assistance)

To facilitate the appraisal of the reliability of our findings, we also included some Latin American countries because some scholars have argued that interwar Latin American together with East European countries belonged to the same (peripheric) structural level of the world economy (e.g. Aldcroft 2006; Berend 1998, 2006; Janos 2000; Szlajfer 1990; Turnock 1997, 2006). To provide a long-term perspective, the table includes output data for the 1989–2018 period, which will be used when applying the OOST in the next chapter. However, many of the former communist countries (first of all, new states) are absent from the table because MPD 2020 only provides data for the last decades.

Our estimates break new ground by establishing the standing of the Baltic countries in the international context as of 1913. They disclose that the GDPpc level of Latvia surpassed the all-Russia mean by 70% and approached the levels of Norway and Ireland in 1913. Estonia had near parity with Finland, while Lithuania was markedly (17.6%) above the all-Russia mean. However, both countries lagged behind Latvia, which surpassed all the East European countries. None of the Baltic countries were poor by American standards (with a GDPpc less than 20% of that in the United States according to the AST), although Lithuania was not far away from the poverty threshold in 1913–1929, which was less than 2023 int$ 2011 in 1913, 2002 in 1922 and 2391 in 1929.

Next, our findings do not support the picture of Estonia and Latvia as star growth performers in interwar Europe, emerging from Roses and Wolf's (2010) estimates (see Fig. 8.1). They also contradict their claim that in 1929–1938, growth performance of Estonia and Latvia was stronger than Finland's. The growth of the Baltic countries was relatively weak for the interwar period. By relative weakness, we

mean the lack of advancement of the Baltic countries in the ranking order as of 1938 in comparison with their international standing in 1913.

After the loss of the Russian market (see below), all three Baltic countries pursued the 'Denmarkisation' of their economies during the independence period to become rich food-exporting countries (Kõll 1994). While they possibly could succeed at this endeavour in the longer term, by 1938, the success of this economic policy was still limited. If Denmark's food production exceeded domestic food consumption by up to three times, in the Baltic countries, the ratio of total food production to total domestic food consumption (food sufficiency) did not surpass 1.2 times by 1938 (see Norkus and Markevičiūtė 2021, Appendix 11).

For Estonia and Latvia, the overall pattern is one of long recovery after the destruction brought on by World War I, accomplished by the end of the first decade of independence. The next (and last) decade was one of considerable growth, which, however, did not lead much above (more than 20%) the 1913 RGDPNApc level. The output per capita increase (up to 40% above the 1913 level) by 1937–1938 was much more pronounced in Lithuania but was limited to the second decade of independence. Although all three Baltic states pursued policies of 'Denmarkisation', the lag separating them from Denmark and the other Nordic countries increased during the interwar independence period, and we did not find a conspicuous improvement of the place of Latvia in the international ranking by 1938, as Roses and Wolf claim (cp. Table 8.2). Whether 'Denmarkisation' would have succeeded in the longer term can only be speculated upon.

The data in Table 8.4 display a weak but discernible pattern of regional convergence. In 1913, the GDPpc of Estonia and Lithuania were 87% and 69% of the CGDPpc of Latvia, respectively. In 1938, these figures were 83% and 80%. If Lithuania was still rather far behind Latvia, it was catching up with Estonia, with Lithuania's GDPpc growing most strongly (3.65% annually, with 2.07% for Latvia and 1.80–2.58% for Estonia) in 1929–1938 after Lithuania's stagnation during the first decade, which also needs an explanation.

Explanation of these patterns in data should start with the reporting of the policies of the Russian Minister of Finance (in 1892–1903), Sergei Witte, who increased protective tariffs to defend Russia's fledgling industries from the competition of foreign companies. Another aim was to attract foreign direct investment (FDI), as after tariffs were increased, Western companies exporting to Russia could profit from its huge market only by establishing their subsidiaries beyond the customs wall. Latvia (especially Riga) was the most attractive place for such FDI because of its geographic location and qualified workforce (Karnups 2013).

Together with the Estland province, the Kurland and Livland provinces were known as the Baltic provinces of the Russian Empire that enjoyed considerable autonomy, which included a legislation different from the core of Russia (Plakans 1995). However, only members of the small but economically and socially dominant German minority (primarily landlord nobles) had participation rights in the self-governmental bodies, while the indigenous Latvian population remained nearly completely excluded until World War I.

However, it shared the Lutheran Protestant religion with the Baltic Germans, becoming inculcated by this powerful socialisation agency exhibiting many common features of mentality, summarily described by sociologists as the Protestant ethic (Norkus 2022, 2012: 222–241). One important feature was high literacy rates. Due to the zeal of Lutheran ministers to enable their parishioners to fulfil their religious duty of reading the Holy Scripture, compulsory elementary education in Latvian was introduced in the eighteenth century. As a result, according to the 1897 Russian population census, the Estland, Livland and Kurland provinces had the highest literacy rates in tsarist Russia (Raun 2017).

They included the territories of both Estonia and Latvia. However, Latvia had an important advantage over Estonia (and Finland)—the ice-free ports of Riga, Liepaja (Libava) and Ventspils (Windau). After completion of the Rīga-Orel, Moscow-Rīga, Rīga-Pskov-Rybinsk (with Russia), Liepāja-Romny (with Ukraine) and Moscow-Ventspils railway links, this advantage offset by far the advantages of greater closeness to Saint Petersburg enjoyed by Estonia and Finland. In 1913, 28.2% of total exports and 20.6% of total imports of the Russian Empire went through Latvian ports (Skujeneeks 1927: 677).

However, Latvia did not become simply a Russian transit area (Krūmiņš 2017). Somewhat paradoxically, the Russian economic policies of the early twentieth century that were used to industrialise the latter by attracting FDI to Russia, while defending its huge market with protective tariffs, were most successful not in inland Russia but in Latvia, transforming it (and to a lesser extent also Estonia) into the first largely industrialised region in the Russian Empire. Due to the advantages of its geographical location, an established reputation as the hub of Baltic trade and the social capital of Riga's (mainly German) economic elite, Latvia's ice-free Baltic seaports were extremely successful in attracting FDI investments to establish many large and technologically advanced production sites for the inland Russia market. Considering this industrial production as Latvia's export, this country can be considered the first case of export-oriented, FDI-driven industrialisation, promoted by World Bank and IMF experts as the 'king's road' for achieving growth since the late twentieth century.

Another Latvian advantage was Riga's long history of trading with the rest of Europe, creating a strong entrepreneurial (mainly German) elite with easy access to commercial credit and good knowledge of market opportunities in both Russia and Europe. 'Foreign capital did select Latvia as its operational centre in the Russian Empire because of its geographic proximity, congenial environment, and availability of skilled middlemen and consultants among local entrepreneurs' (Netesin 1980: 237). This selection helped Latvia to become the third largest (after Saint Petersburg and Moscow) industrial centre of imperial Russia. Its specialisation was industrial production for the Russian market using imported raw materials and semi-manufactured goods that were not or could not be produced in Russia itself (Netesin 1980; Krūmiņš and Šiliņš 2017; Krastiņš 2018: 17–73). Contemporaries perceived it as the 'Belgium of the East' (Hiden and Salmon 1991: 76–77). Concerning the size of the disparity between Latvia and the all-Russia per capita output mean, the data about cross-regional differences in per capita industry and trade turnover in Russia

may provide an important clue; in Kurland and Livland, the values of this indicator were two times above the all-Russia mean (Netesin 1980: 55).

In 1913, 63% of Latvia's total industry output was exported to Russian regions, 11% was exported to foreign countries and only 26% was sold in Latvia (Krastiņš 2018: 72). In our time, this kind of industrial output marketing structure is displayed by the most successful newly industrialising countries, such as South Korea or Taiwan (e.g. see Amsden 1989; Birdsall et al. 1993). Expanding this analogy, we should note that a significant part of Latvia's export industrial production was relatively technologically advanced by this time. Riga was where the first Russian planes and cars were designed and produced, together with a large proportion of railway carriages and other railway equipment (Krūmiņš and Šiliņš 2017: 43–44). The largest factory in Riga, Provodnik, a Russian–French joint venture, offers a good representation of the profile of pre-World War I Latvia's 'entrepôt industry'. In 1913, it employed 13,500 workers and produced 55 million roubles worth of production, 95% of which was exported to inland Russia and abroad (Karnups 2013: 26).

A pertinent reservation is that our findings reflect conditions in mainland Latvia, encompassing Kurland and the southern part of Livland, which together with the lands of contemporary Estonia in the seventeenth to early eighteenth centuries were ruled by Sweden and were then annexed by Russia in 1721. They preserved broad internal autonomy, used by a German minority to perpetuate its social privileges and foster cultural connections with German-speaking lands in Central Europe, which contributed to the appeal of Riga as an operational centre for international business interested in the Russian market. However, around 30% of the Latvian population lived in Eastern Latvia (Latgale), which had been under Polish–Lithuanian rule since the sixteenth century and was annexed by Russia in 1772. By 1913, its level of socio-economic development was closer to Eastern Lithuania. No such marked cross-regional disparities existed in Estonia, but they were characteristic of Lithuania, where Eastern Lithuania and the larger part of Western Lithuania (Samogitia) were less socio-economically advanced than its central and south-western areas.

The discussion of the pre-World War I Latvian phenomenon of the 'entrepôt industry' also provides a clue of where to look for the causes of Latvia's relative decline during the interwar period, meaning both the lack of advancement (*pace* Roses and Wolf 2010) in the international output per capita ranking and the decrease in the disparity between Latvia and Lithuania. The operation of this industry was interrupted immediately after the outbreak of World War I, stopping the import of necessary components (Aizsilnieks 1968: 30–32; Netesin 1980: 170–173). With the German military approaching Riga in 1915, by 1917 nearly all Latvian industrial equipment was evacuated to inland Russia. According to the regulations of the peace treaty between the newly established independent Republic of Latvia and Soviet Russia on 11 August 1920, it should have been returned, but only 1% actually came back (Krastiņš 2018: 81).

Among the Baltic countries, Latvia's territory was the most severely devastated by military activity. With the exception of the West Estonian archipelago, which was seized by a German fleet in a landing operation in October 1917, Estonia remained

nearly unscathed by military action. Lithuania's territory was an area of military activity for a rather brief time (summer–early autumn 1915), with the German military ousting Russian troops in mobile warfare. Military activity then moved to Latvia, where some 24% of its territory became the location of positional warfare for more than 2 years. On 7% of its territory, more than 50% of buildings were destroyed, and on 17%, the losses amounted to 10–50%.

While these landscapes resembled those in Eastern France, which were locations of positional warfare on the German Western Front, their economic rehabilitation took much longer. Differently from France, the newly established independent state of Latvia did not receive reparations from Germany, and there were no parts of its territory unscathed by military activity that could provide an economic basis for recovery of the devastated lands. During the independence war of 1918–1920, most of its territory was devastated once again by the Red Army. That army was repulsed with the help of German volunteers, who mutinied in autumn 1919, plundering everything that remained up for grabs before their final departure to Germany. Latvia emerged from the independence war heavily indebted, and as a young state with an insecure future, it could not borrow cheaply on international credit markets.

The Russian market became closed to industrial production of the Baltic countries due to the autarkic economic policies of the Soviet government, implemented using the state monopoly of foreign trade. This behaviour was first experienced by its neighbour Estonia because it was the first to make peace with the Bolsheviks, and the greater part of its industry was not evacuated. In 1920–1922, the Estonian government allocated generous credits to revive enterprises that were in operation before World War I for Russian markets, in the expectation that they would shortly open again. Those hopes were dashed, plunging the country into a severe financial and economic crisis in 1924 (Valge 2006). Another painful experience was that the industrial products of the Baltic countries could not compete in Western markets, also being out-competed in the markets of newly established East European states, which were difficult to access because of the economic nationalist policies of their governments (Kofman 1997 (1992)). If in 1914 only 26% of Latvian industrial production was locally consumed, by 1927 it was able to export only 11.7% of its production (Karnups 2017: 116).

The majority of Latvia's industrial work force, which in 1915–1917 was evacuated to inland Russia together with industrial equipment, did come back, serving as the most important asset for the partial restoration of industry, working for the internal market (Krastiņš 2018: 79–86). However, briefly before the outbreak of the world economic crisis of 1929–1933, the gross output value of Latvian industry (at gold parity) was only 47% of its 1913 scope (Buševics 1930: 129). Urbanisation did not recover to the 1914 level even by 1939. The excess labour force moved back to agriculture, which was possible due to agrarian reforms that were implemented in all three Baltic countries beginning in the early 1920s.

They targeted large landlords, who in 1919 owned 48.12% of total land in Latvia, 46.93% in Estonia and 26.20% in Lithuania (Vaskela 1998: 57). The aims of this reform were mainly political and social. The political purpose was to undermine the economic power basis of the socially dominant national minorities (German in

Estonia and Latvia and Polish in Lithuania). The social purpose was to provide for the rural and part of the urban working class, making them small landowning farmers, immune to radical leftist (communist) agitation.

While agrarian reforms did succeed in their political and social aims, making partial de-industrialisation of the Baltic countries relatively painless, their economic consequences were controversial. In contrast to the warnings made by critics of agrarian reform (e.g. see Sering 1921), there was no decrease in the total agricultural output. However, most of the output produced on these small new farms was for the consumption of farmers and their families, while agricultural production on the large estates and farms of the pre-World War I era was commercially oriented. In a relatively short time, small farmers of the Baltic countries discovered their comparative advantages in animal husbandry (Kõll 1994). Its products (butter and bacon) became the main export articles of all three Baltic countries during the second decade of independence. During the first decade, they were able to maintain their balances of payments by exporting flax, wood and wood products, which also remained the second most important (after butter) export commodity of Latvia during the second decade of independence (Krastiņš 2018: 99).

Therefore, the interwar Baltic countries were economically successful in the sense of what success means for minimally developed peripheral countries—surviving in the world market as exporters of a few basic commodities (Williamson 2011). However, this form of success also means belonging to low-income countries, because such production creates relatively low added value. These structural characteristics of their economies, which are shared by all three Baltic countries (with Estonia and Latvia becoming more similar to Lithuania during the interwar years), explain their relatively low GDP per capita levels in 1922–1938 and their regional convergence pattern disclosed by our analysis.

Assessing the reliability of our findings about Lithuania's GDPpc levels as of 1913 (see Table 8.4), it is important to consider that the Russian government perceived Lithuania primarily as an area of military activity in the coming war with Germany, consciously underinvesting into its infrastructure (Meškauskienė 1963). Due to restricted local economic opportunities, Lithuania became an area of intense emigration, some 25% of its population (600,000) leaving the country in 1868–1914 (Truska 1961: 79). An important centre of Lithuanian immigration was its neighbour Riga, where Lithuanians were the second largest (after Latvians) national group among industry workers in Riga. According to data about the ethnic composition of employees working for the 259 largest industrial enterprises of Riga in 1908, ethnic Latvians made up 48.83%, Lithuanians 27.47%, Russians 14.68% and Germans 5.96% (Netesin 1958: 18).

Two remarkable findings about Lithuania's growth performance in 1913–1929 need further explanation. First, Lithuania's economy experienced an early recovery to prewar levels that was accomplished by 1922. Second, there was protracted stagnation after this recovery, lasting until 1929 (see Fig. 8.1). Concerning the first point, it should be taken into consideration that because of the absence of notable industry before World War I, Lithuania did not suffer from de-industrialisation. It was an underdeveloped agrarian country before World War I and remained such in

the interwar period, exchanging its peripheral status in the Russian Empire for an analogous position in the capitalist world economy, with a strong economic dependence on Germany. During the German occupation in 1915–1918, the German administration overtaxed Lithuanian farmers, commandeering horses and livestock. However, these losses could be promptly recouped after the war.

On account of its strategic calculation to establish a client buffer state on the border with Eastern Prussia, the German government provided the Lithuanian government with a 100 million RM loan early in 1919. In exchange, Lithuania remained in monetary union with Germany until 2 October 1922. The loan enabled Lithuania's government to pay its bills in the difficult year of 1919 without overtaxing its population. Importantly, this debt did not need to be repaid because it was nearly extinguished by German hyperinflation by 1923 (Daščioras 1971, 1986). Before its outbreak in 1922, the monetary union with Germany enabled Lithuanian farmers to profit from a high demand for food in postwar Germany and satisfied Lithuania's demand for investment goods, necessary for postwar reconstruction at beneficial prices, providing Lithuania with very favourable terms of trade in 1919–1922.

As in Latvia, military activity in Lithuania damaged its infrastructure. However, by 1918 it had already been reconstructed by the German administration itself, which needed roads to connect Germany with troops on the front line. As the Russian administration avoided investing in Lithuania's infrastructure before World War I for the same reason, the German military was forced to do so itself. Thus, during the German occupation in 1915–1918, 458 km of railways (265 km wide-gauge and 193 km narrow-gauge) was constructed (Šalčius 1998: 226; Lastas 1981: 70–71) together with telegraph and telephone lines. This work amounts to more than the total railway construction during the independence period of 1918–1920 (cp. Matyckas 1968: 241–242; Meškauskas 1992: 199–201). Therefore, and perhaps uniquely, Lithuania after World War I had a much better railway and road network than before the war.

The next favourable factor contributing to the rapid postwar recovery of Lithuania was the huge Lithuanian diaspora. The main reason for emigration before World War I was limited economic opportunities in Lithuania. Most of the 600,000 persons who emigrated in 1868–1914 left for the United States, where in 1899–1914 alone US immigration authorities counted 252,594 persons of Lithuanian ethnicity (Eidintas 2005: 61). Interrupted by World War I, the flow of remittances flooded the country starting in 1919, and some 20,000 emigrants returned to their homeland, looking for investment opportunities for their savings. With such favourable circumstances for rapid recovery, how then can we explain the prolonged economic stagnation in the following years? Did stagnation exist at all?

First, after termination of the monetary union with Germany, high inflation was replaced by deflation, plunging Lithuania into a prolonged economic crisis, culminating in 1925–1926 (Daščioras 1975: 56; Dirvelė 1961). The crisis manifested itself as a contraction of the amount of money in circulation, exorbitantly expensive credit, bankruptcy of many newly founded businesses (many of them founded by returned American Lithuanians) and a decrease of Lithuania's exports in 1924, followed by

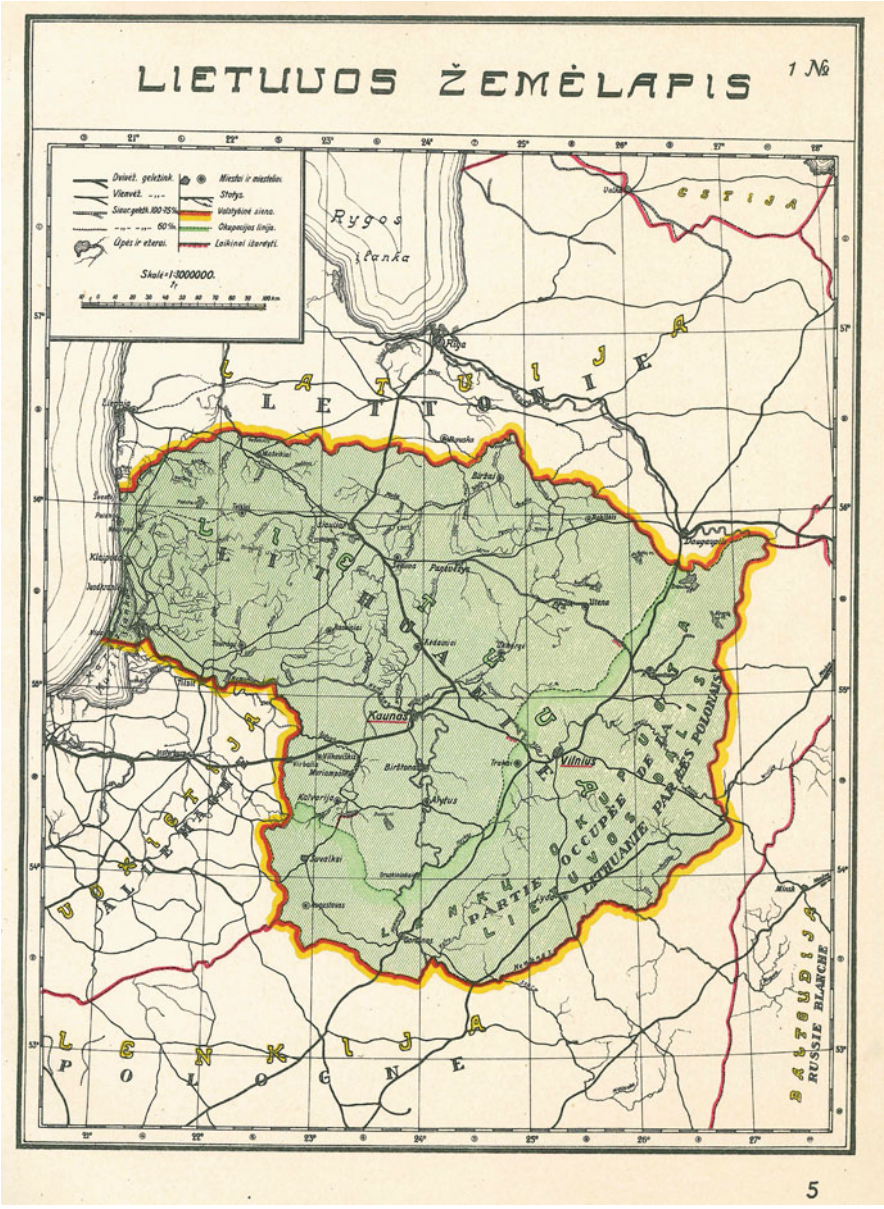
stagnation until 1928 (Vaskela 2011). Because imports did decrease less than exports, Lithuania's gold and hard currency reserves were depleting. Only the continuing inflow of emigrant remittances from the United States saved the newly introduced Lithuanian currency from devaluation.

The main cause of the economic crisis was the sudden loss of Germany as Lithuania's only food export market at this time. After the introduction of the Lithuanian national currency, the litas (LTL), Germany was not able to pay for Lithuanian food imports until 1924, while after the end of the German mark's hyperinflation, Germany imposed heavy food import duties and introduced sanitary border controls to protect its own farmers and landlords in neighbouring East Prussia (Daščioras 1975, 1983, 1986). It took Lithuania several years and considerable investment to develop food industry capacities to produce milk and meat products that could penetrate the demanding, faraway British market and successfully compete with established insiders there (see Glemža 1972). Until then, Lithuania could pay for imports only from revenue earned from exporting flax and forest products and from emigrant remittances.

Many researchers consider the economic crisis in 1925–1927 an important contributing cause of the authoritarian coup in Lithuania on 17 December 1926, which ousted the left-of-centre government that had governed Lithuania since June 1926 (e.g. see Butkus 2007; Eidintas 2015; Lopata 1998; Norkus 2016). While the electorate's discontent with economic difficulties contributed to the defeat of the incumbent Lithuanian Christian Democratic Party, the victorious coalition of the Peasant Popular Union and Social Democratic Party of Lithuania was not able to balance the budget without cutting defence expenditures and discharging a large part of the military. Protecting their jobs, angered officers plotted a coup and then gave over rule to a civilian government under the Lithuanian Nationalist (*tautininkai*) party.

However, the above are only conjunctural or proximate causes explaining the delay of the sustained growth of independent Lithuania's economy beyond its 1913 level. There were also deeper structural obstacles. The most important of these was partition of Lithuania's territory in the wake of the conflict with Poland over Lithuania's historical capital Vilnius (see Senn 1966; Briedis 2012). Map 8.1 provides Lithuania's official map, which until 1938 decorated the classrooms of all Lithuanian schools and the rooms of its government offices. According to this map, around 40% of its claimed 88,111 km^2 population was 'under foreign occupation' (Pakštas 1968: 461).

In this map, the eastern and southern borders of Lithuania are marked according to the Soviet–Lithuanian Peace Treaty of 12 July 1920 (see also Chap. 5). They were not recognised by Poland's government, which after the ultimate victory in the Soviet–Polish war of 1919–1921 established its control over Grodno and Vilnius with adjacent territories. Poland's main argument was the ethnic composition of the population in the contested territories, the Poles being a majority in larger cities and their surrounding territories. Along with the historical argument that Vilnius was the historical capital of the Grand Duchy of Lithuania, Lithuanians argued in terms of economic geography. Drawing on rich evidence, they contended that independent



Map 8.1 Official map of Lithuania's borders in 1923–1938 (in Lithuanian and French). Source: Finansų ministerija. Centralinis statistikos biuras 1928: 5. https://archive.org/details/lietuva-skaitmenimis-1918-1928-1928. Accessed 10 January 2023). Public Domain Mark 1.0 The eastern and southern territories are marked as the 'Polish occupied part of Lithuania'. The claimed state borders are rimmed in orange. The de facto border with Poland is rimmed in dark green and is designated as an 'occupation line'

Lithuania is not viable economically without Vilnius as the economic centre of gravitation of its claimed territory. This claim is the subject matter of two studies published by Lithuanian experts (Klimas 2018 (1917); Rimka 1922 (1918)), which remain useful as sources for historical statistics.

Polish authors (e.g. Studnicki 1922; Gorzuchowski 1928; Wielhorski 1928) did not contradict Lithuanian arguments about the economic indispensability of Vilnius for the Lithuanian state. Quite the opposite, they provided additional evidence in its support. They did however draw very different political conclusions from this argument: Lithuania can survive economically only by reconciling with Poland and entering with it into an economic and political union, which may mean confederation, federation or just autonomy inside Greater Poland. Observing Lithuania's economic difficulties after the dissolution of the German–Lithuanian monetary union in 1922 discussed above, they interpreted them only as confirmation of the thesis that a truncated 'Litwa Kowienska'[4] is not economically viable. They predicted that it would collapse economically in the near future, at which point the last large Lithuanian forests would be cut down and exported to earn hard currency to pay for Lithuania's imports (e.g. Gorzuchowski 1928: 22–23). Wielhorski (1928: 205) even argued that 'generally, cultural, economic life and wealth of Lithuania's population decreased over the last 25 years, becoming even more primitive in comparison with their condition by the end of the last century'.

Lithuania considered itself at war with Poland until 1928. Until 1938, there was no traffic or direct trade between Poland and Lithuania, which meant total economic separation of eastern Lithuania from the interwar independent Republic of Lithuania. Arguably, the postwar recovery of Estonia and Tallinn would have been much longer and more difficult if, because of some political reasons, Tallinn and Riga would have been excluded from their political borders. Despite the structural damage to Lithuania's economy imposed by the loss of eastern Lithuania, doomsday forecasts of its grim economic future were belied by its finding a place in the international division of labour, allowing for sustainable growth and the upgrading of its economic structure during the second decade of Lithuania's independence.

An important contribution to Lithuania's economic achievements during this period was made by the economic integration of the Klaipėda (Memel) region. While it constituted only 4.3% of interwar Lithuania's actual territory (55,670 km^2), and its population (141,650 according to a census dated 20 January 1925) was 6.4% of Lithuania's total population in this year (Pakštas 1968), its economic significance exceeded these figures because it was the only port in Lithuania, and it was ice-free. Inhabited by a mixed German–Lithuanian population, it was detached from Germany by the Versailles peace treaty, and in 1920–1923, it was under the administration of France. In 1923, Allied powers recognised Vilnius as legitimately being a part of Poland, compensating Lithuania by transferring the Klaipėda (Memel) region under its sovereignty, which was granted broad territorial autonomy and self-government rights.

[4]This mocking designation of independent Lithuania was used in the Polish press of this time.

However, while Klaipėda was a large asset for independent Lithuania's long-term economic development, its economic integration was another challenge for Lithuania's still very weak economy in the 1920s. Although output per capita in the Klaipėda region exceeded that in mainland Lithuania by up to 50% (Vaskela 2014: 89), the taxation rights of Lithuania's central government were limited by the Klaipėda Convention, signed by Lithuania in 1924 with the United Kingdom, France, Italy and Japan, strongly protecting the fiscal rights of local government (Kalijarvi 1937; Plieg 1962; Žostautaitė 1992).

Instead of receiving transfers from the Klaipėda region to its central budget, Lithuania's government had to heavily invest in the reconstruction of the Klaipėda port (Gaigalaitė 1979: 56) and in connecting it to mainland Lithuania's transport network. Until 1932, when construction of the Šiauliai–Klaipėda railway branch was concluded, Klaipėda could be reached from Kaunas by railway only via a bypass crossing the territory of Latvia and could not compete without government subsidies, with Königsberg, Danzig and Liepāja as loading and landing ports for Lithuania's exports (Lastas 1981: 72).

Before World War I, industry in Klaipėda specialised in processing timber shipped down the Nemunas River from eastern Lithuania and Belarus, which then was mainly sold on the German market (Pfeiffer 1918; Meškauskas 1992: 19–20; Willoweit 1969, 1: 406–412; Žukas 2010). As this traffic ceased after the partition of Lithuania's historical territory between Poland and independent Lithuania, Klaipėda's large timber industry could not contribute to Lithuania's economy. Out of the 42 sawmills operating in the Klaipėda region in 1913, only two worked in 1926. Therefore, the export of timber and timber products from Klaipėda Port made up only 5% of its total exports in 1912 (Gaigalaitė 1979: 56).

In later years, Klaipėda's timber industry gradually recovered, the number of sawmills increasing to six in 1930 and then to 18 in 1937 (Willoweit 1969, 2: 640–641). This increase became possible after the Soviet Union decided to supply it (partly for political reasons) with timber at preferential prices since 1931, while the Lithuanian government provided exclusive lower railway fares for this deal (Mel'tyukhov 2015: 388–389; 408–409). Overall, it took several years for Klaipėda's regional economy to exchange its role as a timber-processing industry centre in the advanced industrial economy of Germany for the role of independent Lithuania's 'little Riga' (Willoweit 1969, 2: 632–652).

By identifying Klaipėda as Lithuania's 'little Riga', we pinpoint the structural and functional similarity between the position of the region in Lithuania's agrarian economy in the 1930s and that of Riga (and other Baltic ports) in the economy of the Russian Empire before World War I. In addition to serving (since 1932) as Lithuania's only export and import port, Klaipėda also hosted newly emerged industrial sectors, producing consumption goods (textiles, rubber products and fertilisers) for Lithuania's market using raw materials imported from abroad and profiting from its protectionist economic policies in the 1930s (Meškauskas 1992: 161–162; Walter 1939: 68–82). However, in this comparison, the adjective 'little' should of course be emphasised because of differences in scale and the brief duration

of Klaipėda's new prosperity. Nazi Germany re-annexed the city in 1939, while the next year the Soviet Union did the same with Lithuania itself.

According to textbook wisdom in classical development economics, with Estonian economist Ragnar Nurkse (1907–1959) as one of its founding fathers (see Kattel et al. 2009), economic modernisation involves moving the labour force from less-productive employment in agriculture to industry, provided the rise in the productivity of agriculture is sufficient to maintain an urban population and exports (see Kuznets 1966, 1971; Ros 2000: 69–133; Shirmai 2015: 73–130). This movement happened in Latvia and to a lesser extent in Estonia in the late nineteenth and early twentieth centuries.

Uniquely, some features of the precocious industrialisation of Latvia anticipated the export-driven industrialisation of the newly industrialising countries in the twentieth century (Kiely 1998; 97–114; McCombie and Thirlwall 1994; Weiss 2011). They include FDI as the main source of investments (instead of internal accumulation, advocated by classical development economics) and specialisation in the production of relatively technologically advanced products, using the comparative advantage of an abundant supply of skilled labour.

The case of Latvia's (and to a lesser extent Estonia's) early rise and subsequent decline is not unique in the turbulent economic history of the late nineteenth–early twentieth centuries. Latvia shares its record of early enrichment and ensuing decline with Argentina, Uruguay and Chile, which by 1914 had GDPpc at PPP levels as high or even higher than those of Scandinavian countries (Williamson 2011: 146–168; Hofman 2000: 7–29). In the case of the precocious relative richness of some Latin American countries, the long-term unsustainability of their affluence may be explained by insufficient diversification of their economies, making them all too dependent on the price shocks in demand for their basic export commodities. However, changes in the economic fortunes of the Baltic countries can only be explained by taking into account factors and forces that transcend the boundaries of narrowly conceived economic history.

The main factor was the imperial expansion of Russia. Since the seventeenth century, the 'great strategy' of this expansion (LeDonne 2004; Lieven 2000) was the conquest of territories presently enclosed within the borders of Estonia and Northern Latvia to gain access to the Baltic Sea. This aim was achieved by the Russian victory in the Northern War of 1699–1725. The grip of Russia over the eastern shores of the Baltic was expanded and consolidated by the partitions of the Polish–Lithuanian Commonwealth, when by 1795 Russia had annexed the remaining parts of Latvia (Latgale and Kurland) as well as almost the whole territory of Lithuania.

Another factor is nationalism, which is a political movement claiming for territorial ethnocultural minorities the right to live in politically independent nation states (Smith 2010: 9, 25–30). Arising in the second half of the nineteenth century, Baltic national movements used the situation created by the defeat of the Russian Empire in WWI and its dissolution in 1917–1918, followed by the defeat of its vanquisher power Germany, to establish and consolidate independent nation states. During the interwar period, all three Baltic nations used the institutions of the modern state to foster the development of national 'high cultures' in the vernacular languages

(Kasekamp 2010; Plakans 2011). As Russia embarked on building an autarkic centrally planned economy, there was no possibility for restoration of Latvia's and Estonia's entrepôt industrial economies.

Thus, the industrialisation of Estonia and Latvia did not survive beyond WWI. The price paid for the integration of newly established independent nation states into the world market was their partial de-industrialisation, causing them to more closely resemble underdeveloped agrarian countries from the eastern European periphery (including Lithuania). The rather slow growth of both countries in the interwar years simply reflects this structural transformation of their economies. The loss of the Russian market after WWI had a depressing effect on the economic growth of the Baltic countries not dissimilar to that which the dissolution of the Habsburg monarchy had on its constituent lands (e.g. see Berend 1998: 228–229; Pasvolsky 1928). 'While the mechanisms are not clear, specialists point to the profound structural weaknesses in the region after imperial collapse and the rise of protectionism as new states instituted their own tariff regimes' (Good 1996: 76).

The new development pathway of Baltic countries, inspired by the success story of Denmark, which did economically modernise by building export-oriented highly productive agrarian capitalism grounded in family farms, was violently interrupted by the Stalinist export of the Russian Revolution, making the Baltic states parts of the restored Russian Empire once again in 1940. Under Soviet occupation, the Russification policies of the Soviet authorities and mass immigration from other Soviet republics (Misiunas and Taagepera 1993 (1983): 214–218, 264–295) made the Baltic peoples worry about their survival in the Soviet Russian 'melting pot'. Therefore, the interwar period remained in the historical memories of indigenous populations as a kind of 'golden age', although our findings do not support the narrative of this time as being an 'economic miracle', as is revealed in some émigré literature and a number of publications from the post-communist years (e.g. see the influential account by Laar 2002).

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Chapter 9
Baltic Economic Growth Under Foreign Occupations and Restored Independence

In this chapter I argue that those looking for the times of an "economic miracle" on the eastern shores of the Baltic Sea are better advised to direct their sights upon the period of restored independence of the Baltic countries instead of the interwar years. Growth rates of the restored Baltic countries in 1989–2018 were much higher than in 1913–1938. In 1913–1938, Estonia's economy grew at a rate of 0.79%,[1] and under restoration at 1.99%. For Latvia, growth rates were 0.67% and 1.53%, for Lithuania—1.25% and 2.17% accordingly.

A longer retrospective allows comparing not only the challenges, but also the performance in meeting these challenges, as well as the outcomes of development during periods of similar duration. It also allows for a comparison of the performance of the restored Baltic States with that of the Soviet occupation regime. As time passes by, the periods being compared become increasingly longer. However, the MPD data currently available only allows making a comparison of the economic performance of the late (stagnation) period of the Soviet system (1973–1989) and the early restored independence period until the Great Recession, which engulfed Estonia and Latvia in 2008, and Lithuania a year later. The exception is Estonia, where Klesment et al. (2010) estimated Estonia's GDP in 1950–1989 in 1990 US$ at PPP. Based on their research, for Estonia in 1950–1998, I am not using the ready-made MPD (2020) data, but my own estimates, as Klesment et al. (2010) estimates are not directly comparable with those in the actual MPD (2020) release.

Besides the three Baltic countries, Table 9.1 provides output per capita and annual growth rates of the Finland and the USA. The US data are provided because of the benchmark role of this country in the alternative version of the restoration economic success test (the American standard test; AST). Finland is included because of its role as a benchmark in the social imaginary of the indigenous Baltic populations. This role is especially strong in Estonia, as Finns and Estonians understand each other's Finno-Ugric languages (with the scale of differences

[1] Accepting Valge's (2003) estimate for 1938.

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Table 9.1 GDPpc (in int$ 2011) and its annual growth rates in the Baltic countries, Finland and the USA in 1950–1990

	Estonia			Latvia		Lithuania		Finland		US	
	GDPpc 2011 int$	Physical output index 1980 = 1.0	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %
1950	4108	0.287	Nd	Nd	Nd	Nd	Nd	6779	2.65	15,240	7.35
1951	4523	0.316	10.10	Nd	Nd	Nd	Nd	7286	7.48	16,125	5.81
1952	4881	0.341	7.92	Nd	Nd	Nd	Nd	7450	2.25	16,444	1.98
1953	5182	0.362	6.17	Nd	Nd	Nd	Nd	7415	−0.47	16,917	2.88
1954	5525	0.386	6.62	Nd	Nd	Nd	Nd	7973	7.53	16,512	−2.39
1955	6470	0.452	17.10	Nd	Nd	Nd	Nd	8284	3.90	17,370	5.20
1956	7114	0.497	9.95	Nd	Nd	Nd	Nd	8440	1.88	17,397	0.16
1957	7543	0.527	6.03	Nd	Nd	Nd	Nd	8751	3.68	17,406	0.05
1958	8288	0.579	9.88	Nd	Nd	Nd	Nd	8725	−0.30	16,946	−2.64
1959	9261	0.647	11.74	Nd	Nd	Nd	Nd	9172	5.12	17,900	5.63
1960	9691	0.677	4.64	Nd	Nd	Nd	Nd	9931	8.28	18,057	0.88
1961	10,149	0.709	4.73	Nd	Nd	Nd	Nd	10,613	6.87	18,175	0.65
1962	10,163	0.71	0.14	Nd	Nd	Nd	Nd	10,869	2.41	18,976	4.41
1963	10,535	0.736	3.66	Nd	Nd	Nd	Nd	11,148	2.57	19,514	2.84
1964	11,451	0.8	8.69	Nd	Nd	Nd	Nd	11,647	4.48	20,360	4.34
1965	12,238	0.855	6.87	Nd	Nd	Nd	Nd	12,226	4.97	21,390	5.06
1966	11,723	0.819	−4.21	Nd	Nd	Nd	Nd	12,471	2.00	22,529	5.32
1967	12,525	0.875	6.84	Nd	Nd	Nd	Nd	12,667	1.57	22,842	1.39
1968	12,797	0.894	2.17	Nd	Nd	Nd	Nd	12,900	1.84	23,691	3.72
1969	12,940	0.904	1.12	Nd	Nd	Nd	Nd	14,151	9.70	24,195	2.13
1970	13,198	0.922	1.99	Nd	Nd	Nd	Nd	15,266	7.88	23,958	−0.98
1971	13,970	0.976	5.85	Nd	Nd	Nd	Nd	15,565	1.96	24,394	1.82
1972	12,911	0.902	−7.58	Nd	Nd	Nd	Nd	16,654	7.00	25,414	4.18
1973	13,799	0.964	6.88	12,506	Nd	12,103	Nd	17,669	6.09	26,602	4.67

1974	14,343	1.002	3.94	Nd	Nd	Nd	Nd	18,109	2.49	26,286	−1.19
1975	14,500	1.013	1.09	Nd	Nd	Nd	Nd	18,237	0.71	25,956	−1.26
1976	14,915	1.042	2.86	Nd	Nd	Nd	Nd	18,104	−0.73	27,058	4.25
1977	14,801	1.034	−0.76	Nd	Nd	Nd	Nd	18,100	−0.02	28,001	3.49
1978	14,056	0.982	−5.03	Nd	Nd	Nd	Nd	18,425	1.80	29,286	4.59
1979	14,242	0.995	1.32	Nd	Nd	Nd	Nd	19,657	6.69	29,949	2.26
1980	14,314	1.0	0.51	13,739	Nd	12,734	Nd	20,640	5.00	29,611	−1.13
1981	13,326	0.931	−6.90	13,970	1.68	13,190	3.58	20,935	1.43	30,056	1.50
1982	13,799	0.964	3.55	14,190	1.57	13,654	3.52	21,495	2.67	29,210	−2.81
1983	14,042	0.981	1.76	14,376	1.31	13,718	0.47	21,944	2.09	30,158	3.25
1984	14,214	0.993	1.22	14,682	2.13	13,796	0.57	22,486	2.47	32,076	6.36
1985	13,083	0.914	−7.96	14,273	−2.79	13,287	−3.69	23,148	2.94	33,023	2.95
1986	13,928	0.973	6.46	14,539	1.86	13,667	2.86	23,621	2.04	33,850	2.50
1987	14,371	1.004	3.18	14,360	−1.23	13,831	1.20	24,519	3.80	34,730	2.60
1988	14,171	0.99	−1.39	14,875	3.59	14,851	7.37	25,644	4.59	35,863	3.26
1989	15,473	1.081	9.19	15,661	5.28	14,693	−1.06	27,012	5.33	36,756	2.49
1990	14,900	0.923	−3.70	15,806	0.93	13,809	−6.02	26,884	−0.47	36,982	0.61

Data sources: Latvia, Lithuania, Finland, the USA: MPD (2020) and the author's own calculations (annual growth rates). Physical output index: Klesment et al. (2010: 44); Estonia's GDPpc and annual growth rates: 1950–1989 are the author's own calculations from the MPD (2020) benchmark value for Estonia in 1973 (13,799 int$ 2011) and physical output index values. GDPpc for 1990 derived from the 1989 value and UNECE growth value for 1990 according to Klesment et al. (2010: 44)

comparable to that between Russian and Ukrainian), and because the economies of both countries have been closely integrating during the post-Soviet period.

Actually, during the interwar years, Western observers and travellers perceived and described Finland as the fourth Baltic State, since it too had emerged from Russian domination along with the other three countries under similar circumstances (e.g. Gibbons 1939; Graham 1927; Polson Newman 1930). The populations of the post-Soviet Baltic countries perceive Finland as a kind of "real utopia" or picture of the "lost future" because of their Soviet occupation, which Finland was able to avoid fighting in the Winter War of 1939–1940 and the Continuation War in 1941–1944. 'One of the beliefs that helped sustain the peoples of the three Baltic states reincorporated into the Soviet Union at the end of the Second World War was that they had enjoyed a prewar living standard comparable to that of the Finns' (Kirby 1995: 379). According to our (see Table 8.4) and Valge's (see Table 8.3) results presented in the former chapter, this was not the case by 1938. In this year, Lithuania's GDPpc made up 63.3%, Estonia's 71.1% and Latvia's 79.1% of the Finnish figure. Finnish historian Timo Myllyntaus (1992) came to a similar conclusion in his study of the standard of living in Estonia and Finland in the 1930s.

However, in 1913, Latvian output per capita still was above the Finnish value, and Estonia was very close to parity with Finland. After 50 years under the state socialist system, the lag behind Finland became much larger for all three Baltic countries. Namely, in 1989, the Lithuanian GDPpc only reached 54.4%, the Estonian 57.3%, and the Latvian 58.0% of the Finnish level (see Table 8.4). Importantly, the economic history of Finland is well researched. Therefore, findings gained from the macroeconomic measurement of Finland's growth provide useful benchmarks (Hjerppe 1989) for estimating the output of other Baltic countries in cross-time and cross-country comparable measurement units.

In addition, there are important comparative studies of the development of the Estonian and Finnish economies from the interwar years up to the restoration of Estonia's independence, which provide additional illumination on the impact of the loss of independence on the economic growth of the Baltic States (Ahde and Rajasalu 1992; Lugus and Vartia 1993). An important circumstance is that among all advanced capitalist countries, Finland was the most deeply involved in trade with the USSR during the Cold War due to its special relations with the Soviet empire, imposed on Finland by the Finno-Soviet Treaty of 1948. This did amount to partial restoration of integration of Finnish and Russian economies before 1918, interrupted in 1918–1948. Fairly advanced integration of Finnish and Soviet economies makes Finland in 1948–1990 a bit like (only in economic terms) another "Soviet republic with a capitalist economic system". Therefore, a comparison of Baltic countries with Finland helps to estimate the net (depressing) effect of the establishment of the state socialist economic system on the economic progress of the Baltic countries.

Therefore, in this chapter discussing the prospects of the Baltic countries to ultimately demonstrate (by 2040) the economic performance success of restoration, I will supplement the application of the OIST in the CREPS and the AST with the "Finnish standard" test, which is tailored to the Baltic countries. Under the strict version of this test, the economic success of restoration is indicated by complete

convergence with (or catching up to) Finland by 2040. Under a more permissive version, complete success would mean the reduction of the GDPpc lag behind Finland to its extent in 1938.

Among all three tests of economic performance success (the OIST according to the CREPS, the American and the Finnish standard), the OIST may appear as being the easiest one to pass. However, although economic growth of the Soviet Baltic republics was no match to capitalist Finland, it was nevertheless quite formidable in comparison with other socialist countries. Taking MPD 2020 data at face value, in 1989, Estonia with its 18,779 int$ 2011 GDPpc was the second or third richest socialist country (MPD provides no data on East Germany), surpassed only by Slovenia (19,837). Its position in the ranking order in 1973 is the same (Estonia 13,799, Slovenia 15,079 int$ 2011). So, according to MPD 2020 (as well as all earlier versions), in 1973–1989, Soviet Estonia was richer than Hungary and Czechoslovakia. Perceiving this as an overestimation (Klesment et al. 2010: 34–35), Estonian researchers provide an alternative estimate.

It is based on the composite physical output index of Estonia in 1950–2000. The index includes four subindexes for industry, agriculture, transport and construction. Soviet-era statistical data on the output in kind of key products (collected and published in Klesment and Valge 2007) are used as primary information. Estonian researchers constructed separate indexes for each key product. For example, key products in industry are oil shale, shale oil, peat, peat briquette (energy), pig iron, steel, electric motors, power transformers (heavy industry), cotton fabric, linen fabric, wool fabric, cotton yarn (light industry), lumber, veneer, paper, cardboard, cellulose (timber industry), bricks, cement, lime, window glass and roof tiles (construction materials). A sectoral index was then computed as a geometric average of the individual key product indices. However, key agricultural products are aggregated by calculating the energy content of different products.

Aggregating sectoral indices into a composite index, they are weighted according to shares of sectors in the national income, calculated by the Soviet Estonian statistical office according to Soviet material product system (MPS) methodology (47–53% for industry, 17–27% for agriculture, 7–9% for construction and 4–5% for transport). For the 1980–1990 period, Estonian researchers could validate their index comparing its values with that of the monetary index (in roubles), based on the independent Estonia's statistical office recalculation of national income in the SNA framework (Eesti Statistika 1992). The researchers admit that their index can underestimate the output during the last socialist decades, when the service sector share did increase, which is not reflected in the physical output index.

The final values from the composite physical output index are calculated by taking the physical output in the selected base year (1980) as a unit (1 or 100%) and expressing the output in other years as its fractions or multiples. Suspecting the MPD of an overestimation bias, the Estonian researchers used GDPpc data published in the United Nations Economic Commission for Europe (UNECE), taking the GDPpc value for Estonia in 1990 (6444 US$ 1990) as a benchmark from which GDPpc values (for 1950–1989) could be derived.

Thus, GDPpc values for the 1950–1989 period are derived by multiplying the 1990 GDPpc monetary value by the physical output value in the respective year (1990 = 0.92 or 92%). They also provide annual growth rates. The Estonian researchers calculated physical output index values up to the year 2000. However, they have not been used to estimate GDP for the 1990–2000 period; given the structural change of the economy (increase of the service sector share), physical output-based estimates very heavily underestimate real output. For this period, Estonian researchers used ready-made UNECE estimates (in 2005 US$) from 2010 release, but converted them to 1990 US$ according to the consumer price index.[2]

In my own calculations, I accept at face value the physical output index values provided by the Estonian researchers. However, their other steps cannot be replicated because the current release of the UNECE database (UNECE 2021) provides GDPpc values for Estonia and the other Baltic States only from 1995 (in US$ 2010 at PPP). The 1990 value has gone, and the same happened with GDPpc values for the early 1990s in the World Bank World Development Index (WDI) database. According to my searches in the WDI online archive, the WDI 2012 May release is the last one to provide total output data for all three Baltic States in the early 1990s (World Bank 2012). In later releases, GDP data for Estonia are provided from 1994, and for the other two Baltic countries—from 1995. Currently, the MPD (2020) is just the sole internationally authoritative source providing output data on the Baltic countries for 1973–1994.

The disappearance of output data for 1990–1993 from the UNECE and World Bank databases can only be explained by the doubts of the publishers of this data regarding its reliability. That said, the UNECE (2010) GDP data may not be the best benchmark choice for the retrospective derivation of output in 1950–1989. However, there is nothing sacrosanct about the MPD figures either. I share the suspicions of Klesment et al. (2010) that the MPD overestimated Estonia's growth performance. However, my scepticism is limited to the MPD (2020) data on the 1980–1990 period. The reason for this scepticism is the large disparity which MPD (2020) (as well as its earlier versions) claims about the relative output levels of particular Baltic countries in 1989–1990. According to MPD (2020), in 1989, Lithuanian GDPpc (14,693 int$ 2011) made up 78.2% of Estonia's GDPpc fig. (18,779), and Latvian GDPpc (15,661) was 83.4% of Estonia's value.

These claims are not supported by other sources. According to estimates made by the Estonian Institute for Market Research, published already after the restoration of independence (Eesti konjunktuuriinstituut 1991: 20), in 1989, Latvia was the richest Baltic republic with 2844 roubles (at current prices) per capita of national income. Estonia (2780) was at near parity, and only Lithuania's national income (2584) was noticeably smaller, reaching 93.0% of the Estonian figure. All three republics had a national income well above the USSR mean (2342). Table 9.2 provides data about

[2] http://www.measuringworth.com/ppowerus/. Accessed 10 January 2023.

Table 9.2 National income per capita of the Soviet Union republics (1965) as a percentage of the USSR mean level according to Soviet statistics

Rank	Union republic	National income per capita, USSR = 100%	Rank	Union republic	National income per capita, USSR = 100%
1.	Estonia	144.75%	8	Armenia	73.46%
2.	Latvia	140.27%	9	Kazakhstan	70.47%
3.	Russian Federation	111.17%	10	Georgia	69.20%
4.	Lithuania	101.82%	11	Kyrgyzstan	62.73%
5.	Ukraine	101.82%	12	Uzbekistan	61.94%
Na	USSR	100%	13	Azerbaijan	59.78%
6.	Moldova	87.0%	14	Turkmenistan	58.10%
7.	Belarus	81.20%	15	Tajikistan	54.98%

Source: Kiuberis (1974: 25)

the size of national income per capita of the Soviet republics in 1965 (the USSR mean = 100%).

This ranking broadly corresponds to that of MPD (2020) for 1973, except that Lithuania lags much further behind the other Baltic countries. There is no contextual information suggesting that the level of prices in Estonia was lower than in the other Baltic republics in the 1980s (this would validate the claim that national income at PPP was larger), or about the structural differences between their economies. Quite the opposite, the last Soviet decade was a period of economic convergence of all three Baltic countries, due to Lithuania's catching up on growth (Meškauskas 1992).

However, I do not consider the MPD estimates for 1973 incredible just because they make Estonia appear wealthier than Czechoslovakia and Hungary. If this were the main concern with MPD estimates, then it is common to all three Baltic republics, which are presented in all MPD releases as being wealthier than these Central European countries (see Table 8.4 above). In 1973, Estonia with its 13,799 int$ 2011 is presented as the wealthiest, followed by Latvia (12,506 or 91% of Estonia's size) and Lithuania (12,103, 87%), while Czechoslovakia's GDPpc (11,223) made up 81.3% of Estonia's figure. Pondering on the credibility of these figures, it may be useful to take a long-term perspective (see Table 8.4) and notice that in 1913, there was exact parity between Hungary and Estonia, while Latvian output was still larger than that in Czechoslovakia. In 1938, there was still near parity between Latvia and Czechoslovakia (in 1937), as well as between Hungary and Estonia.

While the economic growth of all state socialist economies did slow down from the late 1960s, in 1945–1965, it might still have been economically more advantageous to be part of the formal Soviet empire (enclosed within the borders of the USSR) rather than a satellite state. From the 1970s, the USSR did subsidise (by delivering energy and other resources below world market prices) rather than exploit its satellites (Steiner 2017: 210). However, back in the late 1940s and the 1950s, a more classical relationship of exploitation of colonial peripheries by the metropolis did exist (Janos 2000: 265–268). Certainly, the Baltic countries were

exploited too (Kukk 2019: 77–79). However, due to the advantages of their geographical location, educated work force and developed infrastructure, the re-annexed Baltic States (first of all, Estonia and Latvia) simply took up their positions as more developed "entrepôt industry" regions, the same ones they had as parts of the Russian Empire in 1914.

This time this position was not related to their appeal to foreign investors interested in the Russian market as locations to place their subsidiary companies inside Russian borders. The Potsdam agreements entitled the victorious Allied powers to make parts of Germany under their occupation pay war reparations. Along with industrial products, the Soviet occupational authorities shipped entire dismantled factories from East Germany (Nettl 1951). A large part of this machinery landed in Estonia and Latvia, so the industrial equipment that had been dismantled, evacuated to inland Russia in 1914–1915 and was not returned in the early 1920s was substituted by machinery seized in Germany in 1946–1950.

There were many reasons for the selection of these particular places (Vaskela 2013). Firstly, part of this machinery could only be transported by sea, and the ports of the Baltic countries were the closest destination. Secondly, many Baltic cities had developed infrastructure (an electricity grid, railway junctions) to locate this equipment. Thirdly (and most importantly), despite the wartime population losses, an educated workforce was still available that possessed the linguistic and other skills necessary to efficiently operate this transferred German industrial equipment. Local labour was still insufficient because of war-related population losses, but the demand could be satisfied by employing demobilised Soviet soldiers. In this way, the Soviet reindustrialisation of the Baltic countries served the secondary purpose of planting "civil garrisons" of Soviet occupants, inaugurating the Russian colonisation of the Baltic countries, which continued until the restoration of their independence.

However, from a purely economic point of view, the huge influx of immigrants (mainly of a younger age) could only accelerate the economic recovery of the territories devastated by war. In Estonia, the north-eastern part of the country (today's Ida-Viru County) became the area of the most intense immigrant settlement. The reason for this was Moscow's decision to invest (from 1946) into the development of the oil shale industry to supply Leningrad with gas and electricity (Holmberg 2008). While this industrial project can be considered an example of colonial exploitation (Kukk 2019: 79–85), according to the rules of national accounting, its realisation could only boost the GDP of Estonia.

It is necessary to provide these details to assess the credibility of my estimate of the GDPpc for Estonia in 1950 (4108 int$), which along with other GDPpc values for the 1950–1989 period is derived from my benchmark value (13,799 int$ 2011) in 1973, using composite physical output index values from Klesment et al. (2010: 44). It is very close to Valge's (2003) estimate for 1938 (4068 int$, according to my conversion from 1990 to 2011 int$). Different from Klesment et al. (2010: 46) and Mertelsmann (2006: 261), I do not consider Estonia's GDPpc recovering to 1938 values already by 1950 as being so incredible. According to MPD (2020), GDPpc did recover to the pre-war level by 1950 in most socialist countries that have data available, including Czechoslovakia, Poland and (most importantly) the USSR itself.

The opposing opinion is based on the evidence that real wages and the standard of living in Estonia in the 1950s was still far below the last interwar period (Mertelsmann 2006: 135–165). However, standards of living are directly related to disposable (personal) income as a component of GDP, but not to the complete GDP. A distinguishing feature of state socialist economies (especially in their earlier phases) was the drastic increase of share capital formation (investment) in GDP to the detriment of its part allocated for consumption. Therefore, the standard of living could have remained below the interwar level until the 1960s, as Mertelsmann (2006: 57) argues despite the marked increase in GDP levels. Another important thing to note, the national income of the Baltic republics could remain much below their GDP size on account of transfers to the central budget and expenditure to maintain Soviet military forces, which were massively present on their territories (Krūmiņš 2017a). This did indeed imprint features of colonial exploitation on economic relations between the central administration of the Soviet empire and the Baltic republics.

However, the comparative advantages of the Baltic countries did continue to play a part even under the socialist economic system. They included educated populations with a strong work ethic, which survived even under the conditions of a socialist economy, where shirking and petty theft were merely attractive survival strategies. The advantages of their geographic location also continued to matter. Planners in Moscow perceived an economic rationale in locating those industries running on imported equipment and producing technologically complex production with higher added value specifically in the Baltic countries (Krastiņš 2018; Meškauskas 1992; Meškauskas and Meškauskienė 1980; Tomson 1999; Kahk 1997).

This may explain why the Baltic countries' edge in GDP levels over the Soviet mean in 1938 increased during occupation, despite colonial exploitation. In 1938, Lithuanian GDPpc was 6% above the USSR mean, the Estonian—by 19% and the Latvian—by 39% (it may be appropriate to repeat the reservation that differences in standards of living were much more considerable due to the larger share of capital formation and military spending in the USSR). In 1989, the Lithuanian GDPpc surpassed the Soviet mean by 30%, the Latvian—by 38% and the Estonian—by 36.5% (see Table 8.4). This also explains why the GDPpc levels of the Baltic republics surpassed that of the Soviet satellites in Central Europe (except (probably) for East Germany, which is missing in all MPD releases).

The trend of group convergence between the Baltic countries, already discernible in the interwar period, continued in the Soviet years. Lithuania remained behind the northern Baltic republics, but the GDPpc gap did decrease due to the industrialisation of Lithuania since the late 1950s (Meškauskas 1992; Meškauskas and Meškauskienė 1980). Out of all the three Baltic republics, Lithuania gained most from Moscow's policies, which made them locations of "entrepôt agriculture" in the 1970s–1980s. Due to the failure of Soviet agriculture to feed the Soviet population, the Soviet government had to import (from 1963–1964) large quantities of grain from the USA, Canada and other cereal exporters (Brada 1983).

A majority of these imports were used in animal husbandry to satisfy increasing demand for meat and milk. Again, the availability of sea ports for the import of large

quantities of bulk goods, together with the advantages displayed by the Baltic republics in animal husbandry productivity (persisting from the interwar independence years despite collectivisation) prompted Moscow's planners to allocate a large part of these imports as inputs into the agriculture of the Baltic republics, making them important food suppliers for Soviet metropolitan centres (Krūmiņš 2017a: 966–967). These indirect subsidies did favour the Baltic republics, allowing them to keep and increase their output edge over the Soviet mean GDPpc level.

Nevertheless, the Soviet Baltic republics did not avoid the general slowdown of economic growth, known as late Soviet stagnation. Growth was most rapid in 1950–1960 (8.96% annually), slowing down to 3.14% in 1960–1970 and coming to a near standstill during the last decade of socialism (0.82% in 1970–1980, and 0.87% in 1980–1989). These figures conceal large fluctuations of growth rates across particular years, including those with negative growth (e.g. in 1966, 1972 and 1977–1978). According to Klesment et al. (2010: 44–46), they were most probably caused by crop failures. Indeed, because of the still considerable contribution of agriculture to total GDP (approximately 20%), its level still remained very sensitive to annual variation in weather conditions.

GDPpc data for the restored independence period (see Table 9.3) also display alternation between years of positive and negative growth. However, during this period recurring output contractions are related to changes in the market conjuncture (or human-made causes). After the end of restorational recession (in 1993–1994), these instances of conjuncture change have been related to economic crises arising abroad and then engulfing the small open economies of the Baltic countries. The sole exception may be the interruption in recovery growth in Latvia in 1995, caused by the bankruptcy of the largest private bank (Banka Baltija) (Krastiņš 2017: 810–816).

All data in Table 9.3 are from MPD (2020), except for Estonia in 1990–1998, which are my own recalculations. 1989 is the last year for which GDPpc value is derived from the 1973 benchmark and Klesment, Puur and Valge's composite physical output index. Starting with 1990, the GDPpc values are derived from annual growth rates, provided by the Estonian researchers according to UNECE (2010). According their information, GDPpc in 1990 did contract by −3.7%, in 1991—by −9.8%, in 1992—by −13.4%, and in 1993—by −5.8%, while 1994 was the first year of recovery growth (0.6%). When deriving GDPpc values from the 1989 benchmark (15,473 int$ 2011) and UNECE (2010) growth rates, we arrive at 15,409 int$ 2011 for 1998.

In this year, my time series converge with the original MPD (2020) values. Namely, for the year 1998, MPD (2020) provides a value of 15,593 int$ 2011, which is quite close to my estimate. Therefore, from 1999 onward, I accept MPD (2020) values. For 1999, UNECE provided an 0.7% annual growth rate. My value for 1998 and the MPD (2020) value for 1999 imply −0.5% growth, which almost exactly corresponds to the annual growth value provided by the WDI 2021 (−0.4%) for 1999. MPD (2020) values for 1998 and 1999 imply −1.65% growth for 1999, so my growth (and WDI 2021) values are near the mean of the UNECE (2010) and MPD (2020) growth values for 1999.

Table 9.3 GDPpc (in int$ 2011) and its growth rates in the Baltic countries, Finland and the USA in 1990–2040

	Estonia		Latvia		Lithuania		Finland		USA	
Year	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %
1990	14,900	−3.70	15,806	0.93	13,809	−6.02	26,884	−0.47	36,982	0.61
1991	13,440	−9.80	13,775	−12.85	12,999	−5.87	25,175	−6.36	36,464	−1.40
1992	11,639	−13.40	9411	−31.68	10,241	−21.22	24,220	−3.79	37,240	2.13
1993	10,964	−5.80	8439	−10.33	8621	−15.82	23,944	−1.14	37,762	1.40
1994	11,030	0.60	8704	3.14	7830	−9.18	24,798	3.57	38,807	2.77
1995	11,758	6.60	8709	0.06	8299	5.99	25,762	3.89	39,391	1.50
1996	12,628	7.40	8947	2.73	8794	5.96	26,637	3.40	40,413	2.59
1997	14,307	13.30	9773	9.23	9593	9.09	28,240	6.02	41,723	3.24
1998	**15,409**	7.70	10,430	6.72	10,382	8.22	29,715	5.22	43,073	3.24
1999	15,335	−0.48	10,708	2.67	10,336	−0.44	30,987	4.28	44,576	3.49
2000	16,807	9.60	11,310	5.62	10,807	4.56	32,690	5.50	45,886	2.94
2001	17,697	5.30	12,104	7.02	1, 607	7.40	33,482	2.42	45,878	−0.02
2002	18,589	5.04	13,015	7.53	12,491	7.62	33,987	1.51	46,266	0.85
2003	19,772	6.36	14,142	8.66	13,918	11.42	34,607	1.82	47,158	1.93
2004	20,804	5.22	15,371	8.69	14,996	7.75	35,889	3.70	48,493	2.83
2005	22,519	8.24	17,070	11.05	16,418	9.48	36,787	2.50	49,655	2.40
2006	24,579	9.15	19,129	12.06	17,916	9.12	38,161	3.74	50,490	1.68
2007	26,178	6.51	21,042	10.0	20,138	12.40	39,999	4.82	50,902	0.82
2008	24,429	−6.68	20,342	−3.32	20,880	3.68	40,130	0.33	50,276	−1.23
2009	20,538	−15.93	17,582	−13.57	17,983	−13.87	36,663	−8.64	48,453	−3.63
2010	20,713	0.85	17,140	−2.51	18,664	3.79	37,615	2.60	49,267	1.68
2011	21,997	6.2	18,428	7.51	20,243	8.46	38,432	2.17	49,675	0.83
2012	23,026	4.68	19,405	5.30	21,303	5.24	37,704	−1.89	50,394	1.45

(continued)

Table 9.3 (continued)

	Estonia		Latvia		Lithuania		Finland		USA	
Year	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %	GDPpc 2011 int$	Growth rate %
2013	23,436	1.78	20,129	3.73	22,274	4.56	37,246	−1.21	50,863	0.93
2014	24,146	3.03	20,751	3.09	23,252	4.39	36,858	−1.04	51,664	1.57
2015	24,493	1.44	21,488	3.55	23,889	2.74	36,836	−0.06	52,591	1.79
2016	24,857	1.49	22,092	2.81	24,743	3.57	37,239	1.09	53,015	0.81
2017	26,254	5.62	23,133	4.71	26,157	5.71	38,367	3.03	54,008	1.87
2018	27,409	4.40	24,313	5.10	27,371	4.64	38,897	1.38	55,335	2.46
2040 (OECD forecast)	44,526 (62.30%)		41,857 (58.56%)		44,945 (62.88%)		51,345 (71.84%)		71,472 (100%)	
2040 Target according OIST	≥60,210 (84.24%)		≥54,087 (75.67%)		≥59,787 (83.65%)		Na		Na	
Growth rate in 2018–40 to pass OIST		3.64		3.70		3.62				
OECD predicted growth rate in 2011–18		2.23		2.50		2.28		1.27		1.17
Mean (compound) annual growth rate in 2011–18		3.19		4.04		4.40		0.17		1.55

Percents in brackets in the lower 4–5 rows express GDPpc values in %% of the US size. Data sources: MPD (2020) for Latvia, Lithuania, Finland, the USA and Estonia in 1999–2018; GDPpc values for Estonia in 1990–1998 are derived from the 1989 benchmark (see Table 9.1) and UNECE growth values, as reported in Klesment et al. (2010: 44). Growth rates are the author's own calculations, except for Estonia in 1990–1998. OECD forecast for 2040: OECD (2018)

Availability of the GDPpc data series for Estonia in 1950–1989 allows applying the OIST not only for the 1973–1989 and 1989–2007/8 periods, but also for the longer intervals of 1960–1989 and 1989–2018. This makes restored independent Estonia successfully pass the OIST for actual economic performance success of capitalist restoration, as its GDPpc increased at an annual rate of 1.62% in the 1960–1989 period and at a 1.99% rate in 1989–2018. However, this rate would be still too low to ultimately pass the OIST by 2040 because during the whole totalitarian period, the Estonian annual growth rate was 2.70%.

The economic growth pattern that emerges out of the 1989–2018 period data is that of rapid growth after a steep and deep GDP decline during the period of radical capitalist restoration reforms. The decline reached its lowest point in 1993 (Estonia and Latvia) or 1994 (Lithuania). The subsequent growth was punctuated by two major economic crises coming from abroad. The first of them (in 1999) originated from Russia, where the government defaulted on its debts in 1998. By this time, the restored Baltic States were still deeply involved in trade with the former metropolis and other former Soviet republics. By 2018, the situation had changed radically, with EU countries becoming their main trade partners.

This transformation stands in close parallel to the interwar years, when by 1938 exports to the USSR had decreased to 5.0% for Estonia (Pihlamägi 2007: 222), 3.4% for Latvia (Valsts statistiskā pārvalde 1939: 180–183) and 5.7% for Lithuania (Centralinis Statistikos Biuras 1939: 252). For imports, the share coming in from the USSR in 1938 was 4.9% for Estonia (Pihlamägi 2007: 220), 3.7% for Latvia (Valsts statistiskā pārvalde 1939: 175–178) and 6.9% for Lithuania (Centralinis statistikos biuras 1939: 252). In 2018, Russia's share in the foreign trade of Estonia was 6.4% for exports and 8.7% for imports (Eesti Statistika 2022). In Latvia, Russia's share was 8.9% for exports and 8.4% for imports (Centrālā statistikas pārvalde 2020: 174), and in Lithuania—14.0% for exports and 14.2% for imports (Statistikos departamentas prie Lietuvos Respublikos Vyriausybės 2019: 81).

In the interwar years, the main cause of the drop in eastern trade were autarkic Soviet policies, making the USSR mainly interested in the import of industrial investment goods, which the Baltic countries could not supply. Under restoration, a major factor was the political determination of the restored Baltic States to reduce their economic dependence on the former metropolis. They were helped in these efforts by the Russian counter-sanctions on the EU, as a response to sanctions imposed in 2014 to punish Russia for aggression against Ukraine. By 2018, Russia remained an important trade partner only for Lithuania due to a lack of suppliers of energy resources at cheaper prices. Yet, by 2018, all three Baltic States were secure from the shockwaves of further economic crises originating from Russia.

During the original independence period, only two Western countries (Germany and Great Britain) served as major foreign trade partners of all three Baltic countries, taking up to 60% of their exports and providing the same share of imports (Hinkkanen-Lievonen 1984; Pihlamägi 2007). Foreign trade of the restored Baltic States is much more diversified, with Finland and Sweden becoming major trade partners of Estonia, while Lithuania became Latvia's most important trade partner

(Koyama 2020: 18–20). The increase of trade between the Baltic countries themselves is another important difference from the interwar years, when projects to establish a common Baltic market came to nothing (Remess 2017; Romas 1934). Under restoration, its emergence was simply the (beneficial) collateral effect of joining together into a much larger common European market (Terk 2011).

Deep integration into global financial, goods and commodity markets made the Baltic countries vulnerable to the Great Recession, which hit Estonia and Latvia in 2008, and Lithuania in 2009. The decade between the Russian crisis in 1999 and the Great Recession was that of most rapid growth under restoration and even from the entire economic history of the Baltic countries (with a possible exception for the 1950s). This growth was driven by foreign investments, which Estonia succeeded in attracting already in 1994–1999, becoming the growth leader among the Baltic countries and earning the reputation of 'a shining star from the Baltics' (Hansen and Sorsa 1994).

Due to Estonia's milder transformational crisis and early spurt, the long-run inter-Baltic convergence trend broke down. By 2000, there was a new north-south gap emerging among the Baltic countries. In 1913–1938, the dividing line separated underdeveloped Lithuania from the more advanced Latvia and Estonia. Now this divide moved to the north, separating Estonia from other two Baltic countries. By 2000, Latvian GDPpc made up 67.3% and Lithuanian—64.3% of Estonia's GDPpc (see Table 9.3). So, the output gap between Estonia and the other Baltic countries became much larger than the gap between Latvia as the Baltic leader in 1938 and the other Baltic countries, when Estonia's GDPpc made up 89.8% and Lithuania's output per capita was 79.9% of the Latvian value (see Table 8.4).

However, after the Russian 1999 crisis, foreign investments flooded all three Baltic countries (Koyama 2020: 20–22). As soon as it became clear that all three Baltic countries will be accepted into the EU together (this happened in 2004), foreign investors became interested not only in Estonia, but in the other two countries as well. Scandinavian banks bought up almost the entire banking sector (with the exception for Latvia), providing local producers with cheap credit (Dombrovskis 2017: 671–674). After EU accession, the Baltic countries received generous subsidies to modernise their infrastructure. Abundant and cheap foreign capital drove up economic growth in the Baltic countries close to the two digits level, earning all three the reputation of "Baltic tigers" by 2008.

During the interwar independence period, the 1913 output per capita level was surpassed only during the second decade of independence. Our estimates (see Table 8.4) do not allow specifying the exact point in time when this happened, but recovery to the prewar level took at least 17 years, as in 1929, in all three Baltic countries the output per capita level still was below the 1913 mark. During the years of restored independence, Estonia's output per capita surpassed the 1989 level in 2000, while Lithuania achieved this in 2004 and Latvia—in 2005, so in only a slightly shorter time (15–16 years). Protracted duration of the recovery periods both after the establishment of independent states in 1918 and their restoration in 1990–1991 can be explained by the severity of challenges that the Baltic States

faced both in 1918–1920 and in 1990–1991. The ones from the interwar years were already discussed in the preceding chapter.

During the restoration period, Latvia faced perhaps the largest challenges again, indicated by displaying the slowest recovery and the loss of its top rank according to output per capita among the Baltic countries, which it had in the interwar and last Soviet-era years (see Tables 8.4 and 9.3). The main cause of the exceptionally strong contraction of the Latvian economy in 1992–1994 was structural distortion of its economy by "socialist over-industrialisation", and hosting more (in comparison with the other Baltic countries) all-union enterprises, many of which were part of the USSR military complex. Although such enterprises belonged to sectors that were technologically advanced (electrotechnical equipment, instruments, radio electronics) and predominantly manufactured end products, they were dependent on wide networks of subcontractors in the Soviet Union and produced their output mostly for the Soviet market. Although it was technologically sophisticated, it was outdated by world-level standards (Krastiņš 2018).

The survival of such enterprises was not impossible. That could happen only under a purposeful industrial policy, aiming to attract high-quality FDI, and to promote the formation of industrial clusters (cp. Porter 1998 (1990); Drahokoupil 2008). The governments of the freshly restored Baltic States lacked the necessary expertise and resources, being overwhelmed by the many challenges of the still continuing period of "extraordinary politics". The lack of political will could have played its role too, as most of these kinds of enterprises were perceived as "civil garrisons" of the occupying Soviet empire. They employed mainly Russian-speaking immigrants and were managed by Russian-speaking directors, serving as strongholds of Interfront and the pro-Moscow Communist Party of Latvia during the final confrontation in 1990–1991 between the centre in Moscow and the Popular Front government.

After victory, the Latvian government did not perceive itself as obliged to help such enterprises. The unspoken expectation that liquidation of such enterprises may encourage return migration of their unemployed workers to their homeland republics also existed, thus contributing to restoration of the ethnic variety and population structure of Latvia before 1940. By the time restitution was complete and a workable institutional framework to attract foreign investments (1994–1995) was established, most of these enterprises were already defunct, including ones such as VEF, which in 1986 employed 19,489 employees, Radiotehnika (14,054), Alfa (7675) and Kommutators (7239) (Krastiņš 2018: 306).

The changes Latvian industry underwent in 1991–1999 were remarkably similar to those in 1913–1925. To recall (see Chap. 8), by 1913 Latvia (and to a lesser extent Estonia) was one of the most industrialised areas of the Russian Empire, producing goods for its huge markets. During the interwar years, Latvian industry consisted mainly of small- and medium-sized enterprises, producing for the domestic market. 'Concerning the number of industrial enterprises, interwar Latvia's industry model was reproduced: the number of enterprises with a modest number of employees increased. In 2000, the number of enterprises with less than fifty employees increased to 4,735, those with 50–249 employees increased to 521, while there

were only 117 enterprises with more than 250 employees. Within the space of a few years, the huge enterprises of the Soviet years became defunct' (Krastiņš 2018: 263).

All three Baltic States suffered from the Vanek-Reinert effect: when two nations at widely different technological levels integrate on free market terms, the first casualty is the most advanced economic activity in the less advanced nation, leading to partial de-industrialisation of the relatively weaker economy (see Tiits et al. 2006: 73). However, the early success of Estonia in attracting FDI alleviated the impact of this effect on the country's economy. When foreign capital arrived in Latvia and Lithuania, enterprises possessing technological capabilities in middle- to high-tech level manufacturing were already bankrupt, their equipment was stripped away for alternative uses in services and low-tech level production (e.g. domestic or gardening appliances for local markets) and large parts of the labour force were deskilled. Foreign investments were directed to banking, telecommunication, and infrastructure monopoly sectors and did not contribute significantly to the maintaining or upgrading of export-oriented production capabilities.

Those surviving and start-up Lithuanian and Latvian enterprises that were able to enter foreign markets could only do this by joining consumer-driven international commodity chains as subcontractors for low-skill labour-intensive products. Thus, these countries entered the "low road" development path, characteristic of semi-periphery countries. Differently, some middle- and high-tech enterprises (e.g. in electronics) in Estonia became subsidiaries of transnational corporations early on, joining international commodity chains in positions and on conditions not unlike the former communist countries of Central Europe (Kalvet 2004). The overall development trajectory of the Baltic countries can be described as a 'detour from the semi-periphery to the semi-periphery' (with a partial exception for Estonia), slightly paraphrasing Ivan Berend's description (Berend 1996): after some 50 years of relative isolation from the CWS, the restoration of capitalism brought them to the same positions they were in before World War II.

The indicator of the restoration of the interwar world-systemic position of Latvia and Lithuania is their almost unchanged position in the international GDPpc ranking during the interwar and restored independence periods (see Table 8.4). The weakness of the GDPpc indicator is that some oil and gas exporting countries (with Saudi Arabia and the Persian Gulf states serving as the most conspicuous examples) belong to high-income parties, although their economies belong to the CWS periphery according to their structure. Therefore, this indicator should be supplemented by an analysis of their export structure using the classification proposed by Bela Greskovits and Dorothee Bohle (Greskovits 2005; Bohle and Greskovits 2007), who applied it to data from the Comtrade database of the UN Statistics Division.

Depending on whether the exports are dominated by (1) heavy-basic, (2) light-basic, (3) heavy-complex or (4) light-complex production, four types of countries can be distinguished. Heavy-basic production (1) consists of agricultural products, oil, gas, electricity, coal, metals, paper, rubber and plastic. Light-basic production (2) is deemed to include timber and its products (including furniture), textile, footwear, etc. Heavy-complex production (3) consists of chemicals (other than pharmaceutical products), vehicles and heavy industrial machinery. Light-complex

production (4) is considered to embrace pharmaceuticals, electronic and electrotechnic equipment and light products from the machinery manufacturing industry.

Unlike the classic "dependence theory", assuming a dualism between the centre and the periphery, and Wallerstein (1974), who introduces an intermediate semi-peripheral position, I argue that the number of structural positions in the CWS is not fixed. Instead, the number of these positions grows with every new Kondratieff wave (Norkus 2016, 2017). With every new technological revolution at the core of the CWS, former carrier industries are degraded to "traditional" ones, and are moved out of the countries at the centre of the capitalist world economy. At the time of the third Kondratieff wave (1873/95–1940/50), encompassing the two decades of independence of the Baltic countries, the CWS core countries produced steel, fertilisers and other chemicals themselves. Only the textile industry had already relocated to semi-peripheral countries, which exported not only raw materials but also technically simple (e.g. processed food or timber products) industrial products.

At the time of the current fifth Kondratieff wave (since 1985–1990), when capitalism was restored in the Baltic States together with their independence, it was not just basic-light (e.g. textiles) and heavy-basic (e.g. steel or oil processing) industries that had moved out of the CWS core. They were followed by industries producing technologically complex heavy industry (e.g. cars) and light industry (e.g. electronics). Thus, countries hosting carrier industries of the previous (fourth) Kondratieff wave (1940/50–1980/90) took up the newly emerged semi-core position in the CWS under the global conditions of the fifth Kondratieff wave, specialising in manufacturing heavy-complex and light-complex products.

Countries specialising in the manufacture of heavy-basic and light-basic products can be classified as belonging to the periphery and semi-periphery. Restored capitalism countries with the best macroeconomic performance (the Czech Republic, Estonia, Hungary, Poland, Slovakia) managed to reintegrate into the CWS, taking up a semi-core position. The collapse of the Soviet empire coincided with the upswing of the fifth Kondratieff wave, marked by a move out of the CWS core not only of branches of industry characteristic of the second and third Kondratieff waves, which had still not relocated at this time, but also by the offshoring of industries characteristic of the fourth Kondratieff wave.

Transnational corporations (TNC), operating from the CWS core, bought industrial enterprises in post-communist countries that produced technologically complex products in communist times, which were nevertheless not competitive on the world market, and modernised them, providing them with capital and know-how (see e.g. Myant and Drahokoupil 2011; Nölke and Vliegenthart 2009). After modernisation, they started to work for the international market, preserving or creating work places for a highly skilled workforce. They enabled resident countries to gradually acquire capabilities for genuine technological innovation, which is a distinctive feature of technological frontier countries belonging to the core of the CWS.

Like the Central European states, at the end of the state socialist period, there were many enterprises in the Baltic countries producing technologically complex production. The sector included not only industries representative of the declining

fourth Kondratieff wave, but also those of the ascending fifth Kondratieff wave. However, they were not competitive on the world market, and produced mainly for the needs of the Soviet military machine. Almost all of these technologically advanced industries were lost during the capitalist restoration. The sole survivors were industries representative of the first three Kondratieff waves. They include food, textiles, and wood processing industries that already existed or were created (in the case of Lithuania) during the interwar independence period, producing basic-light or basic-heavy production.

The return to the pre-communist position in the CWS is most conspicuous in the case of Latvia, which during the interwar independence period did pay for imports by selling processed food (butter and bacon) and timber products. Remarkably, during the first two decades of post-communism, the timber industry was the most successfully developing industry in Latvia, providing 30–40% of total exports (Remess 2017: 736; Krūmiņš 2017b: 43). New large enterprises emerged only in this branch. After an initial decline, the food industry also recovered, steadily increasing its contribution to exports (Krastiņš 2018: 263). The contribution of instruments and machine production declined, reflecting Latvia's failure to attract high-quality FDI.

Different from Latvia, which established the profile of an exporter of light-basic products, produced by the carrier industries of the first Kondratieff wave (1780–1825/30), Lithuania's profile in international trade is marked by heavy-basic industrial products, related to technologies invented and made prominent in the times of the second (1825/30–1873/95) and third (1873/95–1940/50) Kondratieff waves. Like Latvia and Estonia, at the end of the intermediate communist period, Lithuania had many enterprises producing technologically complex production, including those which were representative of the ascending fifth Kondratieff wave. As in Latvia, they were all lost during the restoration of capitalism. However, survivors included some large enterprises built in the Soviet years that produced basic-heavy products—fertilisers and fuel, which continue to be the most important Lithuanian export articles (Norkus 2014: 258–277).

Until the closure of the Ignalina Nuclear Power Plant in 2009, Lithuania was a regionally important exporter of electricity, which also belongs to the same class of products, although it is not heavy. Among the newly established enterprises in the service sector, the most successful business story in the restored independent capitalist Lithuania is Girteka: founded in 1996, it has since grown into one of the largest logistics companies in Europe, operating a fleet of 4000 trucks and employing 7000 truck drivers (Segers and Suliokas 2017). The line of continuity with interwar Lithuania is represented by the Lithuanian food industry, which continues to be an important contributor to Lithuania's exports, sometimes using modernised production facilities built in the interwar years.

The semi-core position of restored independent Estonia is indicated by the higher share of light-complex products among its exports. Although modest in comparison with the CWS core countries, the share of high-tech products in Estonia's exports exceeds those of the other Baltic countries. Products classified as "electrical machinery" and "telecom apparatus" according to the SITC classification took top positions

in Estonia's exports in 2008, while "cork and wood" was the largest position in Latvia's, and 'petroleum and petroleum products' in Lithuania's export sector (Gligorov et al. 2009: 147–148). The most important single contributor was Eesti Erickson, a producer of telecommunication equipment, the Estonian subsidiary of Sweden's Ericsson group. In 2015, this was the largest Estonian enterprise, with an annual turnover of 1.196 million Euro, employing 1400 employees (Krastiņš 2018: 271).

When determining the position of a particular country in the international division of labour hierarchy, it is important to take into consideration that under conditions of contemporary global capitalism (and differently from the interwar years), intra-industrial trade (the export and import of goods belonging to the same product groups between two countries) plays an increasing role in international trade. Most production sites in the former communist countries are only parts or segments of regional or global commodity chains. The higher level of FDI investment in Estonia indicates the deeper involvement of this country in such chains. This does not necessarily indicate the high position of the country in the CWS hierarchy, as MNC usually outsources segments in production chains that create low added value, while the most productive segments remain in the homeland countries.

While none of the Baltic countries host even a single high-tech MNC, serving as a hub site of its activities (and therefore does not qualify for a core position), it is known that the share of intra-industrial trade in Estonia's foreign trade is higher than it is in the other Baltic countries, and there is evidence that it serves as an offshore site for segments creating relatively high added value both in industry and services. 'Estonia's added value to imported (semi-manufactured) products amounted to approximately 40% of its industrial production's export as early as at the beginning of the 2000s, while Latvia's corresponding figure was below 20%' (Terk 2011: 175).

By the time of the onset of the Great Recession in 2007, the reintegration of the Baltic countries into the global economy was complete, and they too received a full-force hit in 2008–2009. In fact, its impact was exacerbated by the overheating of the Baltic economies on its eve. Financial inflows from abroad served to support domestic consumption, bloating current account deficits. Wage increases overtook growth in productivity and undermined their competitive position (Dombrovskis 2017: 670–681). During the crisis, the Baltic countries earned fame for restoring macroeconomic equilibrium by means of internal devaluation, or decreasing nominal and real wages. The aim was to maintain the currency peg, which has been the central institution of the Baltic neoliberal model since the early 1990s, to enable them to join the Euro zone. They succeeded at both aims. Estonia became a member of the European Monetary Union on 1 January 2011, Latvia on 1 January 2014 and Lithuania on 1 January 2015 (Kattel and Raudla 2013; Norkus 2018).

However, success was achieved at considerable social cost, with unemployment surging to 20%. Implementing strict austerity policies, Latvia closed nearly 50% of the country's schools and hospitals (Dombrovskis 2017: 699–700). The outcome was an unprecedented wave of emigration (up to 7–8% of the population of Latvia and Lithuania emigrated in 2008–2011), made possible by the open borders and common labour market of the EU (Woolfson and Sommers 2014a). The possibility

to emigrate meant the Great Recession of 2008–2011 had no systemic consequences. This makes the Great Recession of the restoration years very different from the interwar Great Depression. It was of a similar scale, and the Baltic governments conducted very similar economic policies in a vain effort (except for Lithuania, which did not devalue) to keep their national currencies in line with the gold standard (Kuokštis 2015).

In interwar Estonia, the spreading discontent within various social groups in light of the deterioration of their economic situation brought enormous political success to the Vaps Movement (the Union of Participants in the Estonian War of Independence), which was the Estonian equivalent of fascist movements in other European countries. Vaps succeeded in persuading the majority of Estonian voters that the main culprit of their economic difficulties was the absence of a stronger executive power, due to the super-parliamentary features of the Estonian democracy according to its 1920 Constitution. To prevent a Vaps electoral victory, incumbent Prime Minister Konstantin Päts established a dictatorship on 12 March 1934 (Kasekamp 2000), followed two months later by his Latvian colleague Karlis Ulmanis, who also justified his coup with the inability of parliamentary democracy to cope with economic crisis (Stranga 2017).

New authoritarian regimes displayed a preference for continuing and deepening state control over the economy after the end of the crisis, when it was introduced and applied as an emergency measure. Outlawing the Marxist "class struggle" ideology, which was exposed at this time by both democratic (Social-Democrat) and totalitarian (Communist) left parties, and banning trade unions, which were controlled by these political forces, they imported corporatist institutions from fascist Italy. Although they had a largely facade-like character, the attempt to extend state control to ever new areas of social life did shift the Baltic countries away from liberal democratic capitalism, which had existed in Estonia and Latvia before the Great Depression. Even if they remained capitalist after the crisis, the import of corporatist institutions, expansion of the state sector, subordination of cooperative unions to state control and regulation of prices (Kõll and Valge 1998; Pihlamägi 1999: 115–148) did make the attraction basin of Baltic capitalism more shallow and less resilient to switch to an alternative (and inferior) state socialism equilibrium.

No comparable changes happened in the Baltic neoliberal model of capitalism during the Great Recession, making it another case of the 'strange non-death of neoliberalism' (Crouch 2011), while its critics expected that the Great Recession would usher in the restoration of a (neo)-Keynesian welfare state. Short and less-than-generous unemployment allowances were an integral part of the Baltic neoliberal model ever since its establishment. They were decreased even more or cancelled altogether as part of the implementation of austerity policies during the crisis. Under conditions of surging unemployment, migration to EU countries became the most attractive survival opportunity. Yet, by the same token, such strong emigration secured social and political peace in the Baltic countries, because emigration (or "exit") to affluent EU countries or Norway was deemed a more attractive opportunity than having a "voice" for potential political entrepreneurs (Norkus 2018).

Another way in which the Great Recession under restored Baltic capitalism differed from the interwar Great Depression was rapid recovery after major contraction. First of all, this applies to Lithuania, where negative growth endured for only 1 year, and already in 2012 the Lithuanian GDPpc surpassed the top (2008) pre-crisis level. By 2018, Lithuania had caught up to (and slightly surpassed in the next years) Estonia, in terms of its GDPpc (see Table 9.3), although (according to WDI 2021) it remained markedly lower without adjustments for differences in price levels for non-tradable services, which is higher in Estonia.

GDPpc decline continued longest (for 3 years) in Latvia, where it recovered to its pre-crisis level in 2014, displaying very strong recovery growth. The severity of the Latvian crisis was caused by the ultimate failure of the daring and high-risk strategy to establish itself as a "near Switzerland" for the post-Soviet space, encompassing the fSU republics. As financial services create very high value, this strategy was to some extent supported by the Latvian government, although its inventors and promoters were Russian and Jewish entrepreneurs (Krastiņš 2017; Hallagan 1997).

Becoming the centre of Soviet "high-tech" industries and preserving the outlook of a Western metropolis city (the "Baltic Paris"), Riga attracted not only an unskilled Russian-speaking labour force, but also a highly educated workforce, including many persons born and educated in the Soviet metropolis cities of Moscow and Leningrad (Saint Petersburg). As a result, a unique situation emerged in Latvia, with the ethnic division of labour showing greater semblance to that of the Soviet republics of Central Asia than the other Baltic countries. 'A comparison of educational levels indicates a significant gap between Latvians and other groups. Per thousand people over age 15, in 1989 there were 96 Latvians with a completed higher education, but 407 Jews, 163 Ukrainians and 143 Russians' (Dreifelds 1996: 159).

Immigrants were a majority not only among industrial workers of low and middle qualifications, but also in the ranks of engineers, technicians, highly skilled workers and representatives of other modern professions. After Soviet high-tech industry collapsed, and the restorational citizenship law excluded immigrants from employment in the public sector, the educated Russian-speaking immigrant majority directed their energies towards self-assertion in the private sector. According to Latvian data, up to 80% of Latvian entrepreneurs belonged to "non-titular nationalities" by the middle of the 1990s (Bleiere et al. 2014: 477). In this way, the Latvian restoration of capitalism also featured the restoration of the ethnic division of labour, which had existed in interwar Latvia: ethnic Latvians dominated in public administration, while Jewish and German minorities prevailed in business.

Their international connections contributed significantly to the rapid recovery of Latvia's economy in the 1920s, while their business and engineering prowess promised a breakthrough in re-industrialisation, based on the development of new internationally competitive products, probably in household appliances, radiotechnical equipment and electronics. The most capable task force for this kind of breakthrough was employed at VEF—the State Electrotechnic Factory—with a mixed German-Latvian personnel. One of its products was the VEF Minox, the world's smallest photography camera, designed by Baltic German constructor

Walter Zapp (Solovjova 2020). In 1938–1939, VEF produced 17,000 such cameras, remaining the symbol of the industrial potential of interwar Latvia, which the Soviet empire developed and exploited. In the restored capitalist Latvia, its place was taken by the Russian Jewish minority.

The most important sphere of activity of the Russian-speaking business elite in Latvia became offshore and financial intermediation services for businessmen from Russia. As large Soviet-era enterprises collapsed, the banking sector mushroomed, the number of banks in Latvia approaching 60 in 1994 (Hallagan 1997: 66). If the daring strategy of Latvia as a "near Switzerland" for the post-Soviet space would have worked, Riga certainly would have restored the position it had in 1913, but this time as an "entrepôt high added value service economy" in this space. However, the bankruptcy of Banka Baltija in 1995 exposed the risks of this too-close association with big business in Russia, interrupting Latvia's recovery growth. History repeated in 2008, as another "too big to fail" Latvian bank (Parex Bank) collapsed. The Latvian government's expenditure to bail it out was a cost the other Baltic countries did not have to pay because by 2008, in Estonia and Lithuania nearly all large private banks were foreign-owned (Dombrovskis 2017: 682–686).

The situation of Estonia's government in 2008 was facilitated by the availability of a considerable reserve fund (Kattel and Raudla 2013: 429; Kukk 2019: 163–170). Nevertheless, the Estonian GDPpc contracted for 2 years (2008–2009), while its top pre-crisis level (2007) reached only in 2017 (see Table 9.3). Estonia's recovery was slowed down by the deep integration of its economy with that of Finland. In former years, being in the neighbourhood of prosperous Finland (the capital cities of both countries—Tallinn and Helsinki—are separated by only 90 km of the Gulf of Finland, or a three-hour ferry trip) was an important advantage for Estonia, contributing to its rise in the Baltic economic championship of the 1990s.

The abolition of all export and import duties in 1992 made Estonia an attractive place for weekend shopping tourism from Finland. Since 2004, both countries are members of the EU, which means the absence of all barriers for workforce movement. All of this makes it both possible and attractive for many Estonians to go to work in Finland, but to return for weekends or holidays to Estonia, or to still consider it their "real" country of residence despite the prolonged physical absences. Therefore, Estonia's demographic statistics did not record noticeable emigration or population decrease after 2004, which culminated in the years of the Great Recession in the other two Baltic countries.

However, during the Great Recession, Finland was affected by a "double dip" recession: after output contraction in 2008 and 2 years of recovery growth, Finland's output declined again over the space of 4 years (2012–2015). Although Estonia's growth rates did remain positive, their temporal dynamics mirrored the Finnish pattern and they were much below the levels of Latvia and Lithuania, which had no such "Finnish entanglement". Despite the post-crisis slowdown, restored Estonia, with its annual growth rate in 1989–2018 (1.99%), still outperformed Soviet Estonia in 1960–1989 (1.62%).

However, a 1.99% growth rate over the entire 1989–2040 period would still be too low to score an ultimate pass on the OIST, as during the totalitarian era of

1938–1989, Estonia's GDPpc growth rate was 2.70%. Under this growth rate, its GDPpc would be 60,210 int$ 2011. To reach this target value, in the 22 years remaining until the 100th anniversary of the Molotov-Ribbentrop Pact (1939), Estonia's GDPpc should grow at 3.64%, which is above the 3.19% growth rate in 2011–2018.

To outperform the entire totalitarian era, the Latvian economy should grow at least 2.46% annually in 1989–2040, reaching a GDPpc level of at least 54,087 int$ 2011 by 2040. With 24,313 int$ 2011 in 2018, its growth rate of 4.04% in 2011–2018 is quite sufficient to reach this achievement, so long as it can be maintained during the remaining 22 years (the minimum sufficient growth rate is 3.70%). For Lithuania, the minimum "pass" growth rate for 1989–2040 is 2.79%, and in the remaining 22 years it should fall no lower than 3.62%. Again, if Lithuania will maintain a 4.40% growth rate in 2011–2018, it will easily overshoot the minimal target of 59,787 int$ 2011 for 2040, derived from the 1989 GDPpc value and totalitarian era growth rate.

The OECD (2018) policy paper ('The Long View: Scenarios for the World Economy to 2060') helps us understand the meaning of target values for passing the OIST in 2040, as well as to discuss the prospects of the Baltic countries to pass the American and Finnish standard tests. There is a technical problem in using OECD (2018) figures for these aims, however, as they are in 2010 US$ at PPP. Despite the only 1 year difference in the baseline year, they are strictly incomparable (also due to possible technical differences in the calculation of purchasing power parities). To achieve comparability, I have converted OECD (2018) estimates for 2040 into 2011 int$, as used in the MPD 2010, calculating the OECD annual growth forecast for countries of interest for the 2018–2040 period, and then using them to derive OECD forecast values for ultimate restoration success years in 2011 int$ from the GDPpc levels for 2018 according to MPD (2020).

After this conversion, we find that GDPpc values in 2040 for the Baltic countries, as forecast by the OECD, are below my minimum target for passing the OIST. This could be expected because OECD forecasters describe their methodology in constructing a "baseline scenario" as an extrapolation of "current trends". It seems that so as to establish these trends, they used a longer retrospective than 2011–2018 because OECD (2018) growth rates for 2018–2040 are rather close to those in 1989–2018 according to the MPD (2020) data (1.99% for Estonia, 1.53% for Latvia and 2.17% for Lithuania).

The unfortunate news is that if the OECD (2018) baseline scenario will come true, the Baltic countries will not be able to pass the strict version of the American standard test, which applies to countries that at the time of capitalist rehabilitation had already escaped the poverty trap (defined as GDPpc below 20% of the US level), and belonged to the middle-income countries group (GDPpc below 55% of the GDPpc level). According to this version, the ultimate economic success for these countries means achieving at least 70% of the GDPpc level. According to the OECD (2018) baseline scenario, the US GDPpc will grow at a rate of 1.17% in 2018–2040, reaching 71,472 int$ 2011.

The forecast growth rates of the Baltic countries are 2.23% for Estonia, 2.50% for Latvia and 2.28% for Lithuania. They will make considerable progress in convergence, and Estonia's GDPpc will make up 62.30%, Latvia's—58.56%, and Lithuania's—62.88% of the US figure. This is much above the 55% benchmark for countries that were still poor at the time of capitalist restoration. However, it is still below the 70% mark, which almost corresponds to the EU mean as of 2021, and is therefore an appropriate benchmark for passing the American standard test by countries that were already middle-income countries at the time of capitalist restoration (see Chap. 4 above).

The forecast growth of Finland in 2018–2040 is 1.27% annually. Thus, if OECD (2018) forecasts will come true, the Baltic countries will also significantly reduce their lag behind Finland, passing a lenient version of the Finland standard test, as in 2040, Estonia's GDPpc will be 86.72%, Latvia's—81.52% and Lithuania's—87.53% of the forecast Finnish level (51,345 int$ 2011). Then the lag behind Finland will become much smaller in comparison with that in 1938, when Lithuania's GDPpc made up 63.3%, Estonia's—71.1% and Latvia's—79.1% of Finland's GDPpc. However, this still would not mean complete convergence, as is required by the strict version of the Finnish standard test.

However, if the Baltic countries will grow at the rates necessary to pass the OIST in the CREPS, achieving levels of 60,210 (Estonia), 54,087 (Latvia) and 59,787 (Lithuania) int$ 2011 in 2040, this will allow them to overtake Finland and achieve 84.24%, 75.67% and 83.65% of the US level. This would certainly mean the economic triumph of restoration. For those who may consider such a prospect unrealistic, I can report that there was a time when Estonia's leaders would have considered such figures as too modest. During the parliamentary elections in 2007, the Reform Party leader and Prime Minister of Estonia in 2005–2014 Andrus Ansip promised that Estonia would rank among the five richest countries (on par with Switzerland and Luxembourg), and Alexander Grover (2009) recalled this promise in the title of his book (*The New Estonian Golden Age. How Estonia Will Rise to Be One of Europe's Five Richest Nations*).

Among the Baltic States, Estonia is by no means alone in its optimism because the actual official long-term strategy of Lithuania's development (accepted by the Lithuanian parliament on 15 May 2012) contains a commitment to make Lithuania at least the tenth wealthiest EU country already by 2030 (Lietuva 2030). Therefore, target values implied by the OIST are neither too far-fetched nor arbitrary. In fact, they will certainly be achieved if Latvia and Lithuania will maintain their recent (2011–2018) growth rates (of around 4%), and Estonia will only slightly improve (by 0.5–0.1% per annum) its growth performance during the two coming decades. Can this be achieved (and how)?

In the advanced capitalist (technological frontier) countries, technological innovation grounded in research and development is the only way of increasing productivity. Less developed countries can do this either by exploiting still unused resources ("extensive growth") or by emulation (technology transfer). The post-socialist restoration of capitalism involved two overlapping processes: (1) integration into the world economy by finding a place in the international division of labour; and

(2) closing the technology gap or catching up to the technological frontier countries. During the first two restoration decades, variation in the growth rates of the former socialist countries reflected differences in the absorptive capacity to assimilate and apply new ideas and technology developed abroad (Abramowitz 1986).

Its effects are measured by the changes in total factor productivity (TFP). Along with factor accumulation (use of an additional labour force and capital), this is one of the sources of economic growth. Innovation-driven growth is displayed in the purest form when output increases despite a decrease in labour force and capital. Among the restored capitalism countries, the Baltic States displayed the greatest TFP growth in the EU pre-accession years of 1995–2001: 'increases in TFP are estimated to have contributed 4.25% to annual GDP growth in Estonia, 3.75% in Latvia, and 3% in Lithuania. These estimates are somewhat larger than similar estimates for other acceding countries and significantly larger than estimates for the euro area' (Burgess et al. 2004: 25).

Lower growth rates after the Great Recession may be related to the exhaustion of the growth potential by technology transfer. To maintain 3–4% annual growth rates during the next two decades and thus escape the middle-income trap, the Baltic countries need to develop their capabilities in genuine technological innovation, a defining feature of countries on the technological frontier (Tiits et al. 2006: 29–50). Despite Estonia's recent growth setback after the Great Recession, it seems like this Baltic country is best qualified for such an achievement (see Kalmus et al. 2020). The evidence supporting this statement is provided by this country demonstrating the relatively largest share of GDP expenditure on research and development—in 2018, Estonia spent 1.43%, Lithuania 0.94% and Latvia 0.63% (World Bank 2021). According to findings of the last global study of the Programme for International Student Assessment (PISA) by the OECD, Estonian 15-year-old school pupils were ranked eighth best in mathematics, and fifth best in science and in reading. In both rankings, Lithuania and Latvia rank far behind (Schleicher 2019: 6–8).

This means that the current GDPpc parity between Estonia and Lithuania (with Latvia lagging behind) will not endure for long. Evidence of the fragility (or low sustainability) of Lithuania's recent growth performance is not only its small research expenditure (with the bulk financed by EU cohesion funds), and relatively low student performance (36th rank in mathematics, 32nd in science and 35th in reading),[3] but also marked differences in the social structure of Estonia and Lithuania. They are disclosed by a recent study (Morkevičius et al. 2020) based on European Social Survey (ESS) data and employing the framework of the European Socio-economic Classification (ESeC) (Rose and Harrison 2007).

This study provides a comparison of changes in the socio-economic class population composition in 21 European countries in 2008–2015 (unfortunately, Latvia did not participate in the ESS Round 4 (2008–2010) and its data from ESS Round 7 (2014–2015) remain unreleased). We found that changes to class structure in Estonia corresponded with general trends, involving the expansion of the

[3] Latvia was 25th in mathematics, 30th in science and 31st in reading (Schleicher 2019: 6–8).

"higher-salariat" and the lower white-collar class, and the contraction of the "proletariat"—the class of manual, routine workers. By 2016, among the former communist countries, Estonia's class structure displayed most similarities with the post-industrial type of class structure of the advanced Northern and Western European countries. Quite differently, Lithuania's class structure still retained the characteristic features of an industrial-type class structure. The slow contraction of the manual worker class and the near stagnation in the growth of the "higher salariat", accompanied by the marked decrease of the relative size of the "lower salariat", made the evolution of Lithuania's class structure during the recent decade a deviant case.

More broadly, the character of changes in the class structure of Estonia during the Great Recession and recovery period suggests that this country not only preserved, but also enhanced its potential for leapfrogging growth in the coming decades, while class structure changes in Lithuania most likely decreased its potential to avoid the middle-income trap. The lack of expansion of the upper service class and the contraction of the lower service class, including mainly persons with a higher education and vertical mobility aspirations, may be outcome of severe "brain drain" during the Great Recession. It endangers the long-term prospects of Lithuania's growth catching up, which is conditional on the preservation of the pool of highly educated labour, employable in the high technology sector.

As was already pointed out, Estonia's increasing entanglement with Finland did allow it to avoid the massive loss of population by emigration to faraway countries. Yet, there is hint of the irony of history in the success of Latvia and Lithuania to save their currency pegs by policies of internal devaluation during the Great Recession. Given the scarcity of natural resources, the main wealth of the Baltic States is human capital, embodied in their working age populations. Younger educated people prevail among emigrants, withdrawing from the Baltic economies their most precious resource. It is most likely that the overwhelming majority of émigrés will never return.

If the Baltic economies will continue to grow, they will be replaced (and are already being replaced) by a foreign workforce. 'Ironically, the most available source of emigrants to make up shortfalls would be from Ukraine, Moldova, Bulgaria, and Belarus' (Woolfson and Sommers 2014b: 140). Fears about becoming a minority in one's own country because of the mass immigration of Russian speakers was the strongest stimulating force behind the ethno-nationalist mobilisation of indigenous populations to struggle for the restoration of independence in 1988–1991. The "immigration solution" for the imminent problem of finding a replacement workforce would be the ultimate irony of the Baltic internal devaluations, and (more generally) the success of capitalist restoration.

However, while the solution for the lack of a sufficient (industrial) workforce by immigration was externally imposed under the Soviet regime, under restoration this will be a voluntary choice made by the Baltic nations themselves. Predictions suggest that among the Baltic countries, Estonia will augment its domestic workforce by immigrants to a lesser degree than the other two Baltic countries.

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Part IV
Three Phoenixes from the Ashes II: Health Progress of the Restored Baltic States in Cross-Time Comparison

This chapter focuses on health progress in the Baltic countries during the twentieth–early twenty-first centuries, process-tracing changes in life expectancy which is the best indicator of the health condition of population. The aim of this process-tracing is to find how changes in life expectancy were related to those in economic output, which is the main input increasing human wellbeing. Changes in economic output are marked by a long-term convergence trend between the Baltic countries, with convergence nearly complete on the eve of restoration of state independence, capitalism and democracy in 1989–1992. Then it was interrupted by Estonia's forging ahead and the other two Baltic countries being left behind during the first decade of restoration. After the economic crisis of 2008–2011, the economic growth of Estonia slowed down, enabling Lithuania to catch up again.

Thus, the aim of this chapter is to find out whether this interrupted and resumed convergence pattern is displayed in the health progress sphere. Was Latvia the most advanced Baltic country not only in terms of economic, but also according to population health levels until the late Soviet years, or was there some incongruence between economic output and life expectancy rankings? Were changes in one ranking accompanied by changes in another? Will the Baltic countries be able to ultimately pass the OIST, displaying higher life expectancy increase rates in 1989–2040 in comparison with the complete totalitarian era?

For the data scarce environment of the 1913–1989 period, life expectancy values may help to control estimates of economic output because their derivation is more straightforward in comparison with GDP estimation using the indirect approach or calculation in the SNA framework. The lack of congruence may induce doubts about the reliability of GDP estimates. Yet, it can also alert us to intermediate and proximate causal factors, which may impede, preempt or divert the use of increasing economic resources from the enhancement of human wellbeing (cp. Mackenbach 2012; Mackenbach and Looman 2013; Preston 1975).

The demographic history of the Baltic countries may provide useful benchmarks and guidelines for quantitative economic history, if only because it is more advanced. There are no historical national accounts in the SNA framework for the Soviet period. However, complete (1×1) life tables are available for all three Baltic

countries since 1959 (in the HMD 2022) and abridged (5×1) life tables (only for Estonia; Katus 2004) since 1950. Nevertheless, in our knowledge of demographic history of the Baltic countries, considerable gaps still exist for the interwar period.

The most problematic case is Lithuania, where life tables only for 1925–1926 (Merčaitis 1966) and 1932 (Norkus 2017) were published. These gaps are a nuisance when it comes to the application of the OOST guided by the CRHPS. Gapminder (Lindgren 2020) guestimates can provide a quick fix. However, accepting the status of the Baltic countries as paradigmatic cases of modern social restorations, these interpolations and extrapolations are too tenuous for assessing the health performance success of the Baltic restorations by the OOST as part of the CRHPS.

Therefore, this part of the book starts with Chapter 10, which extends the available life expectancy estimates with new estimates on interwar Lithuania, based on life tables constructed for this purpose.[1] Life expectancy estimates for different age groups have been extracted from these and Kalev Katus' life tables (2004; 2008) and are provided in the supplement to this book (as Tables S1–S6). They allow amending the analysis of long-term trends in changes to life expectancy, provided by Vallin et al. (2017). I expand this comparison with data on infant mortality, compiled from historical statistical sources for this purpose (Norkus 2021a, 2021b, 2021c). Chapter 10 closes with an explanation of patterns in the data, based on the theory of mortality transition as part of the encompassing theory of demographic transition (Chesnais 1993).

Demographic transition designates the historical shift from a Malthusian equilibrium between mortality and fertility, defined by high birth rates and high death rates, to a modern equilibrium, defined by low fertility and low death rates. Often the demographic transition is associated with an accelerating population growth, while both Malthusian and modern equilibria are described by very slow or zero natural population increase. The demographic transition encompasses both fertility and mortality (also called epidemiological) transitions.

Fertility transition ends with the total fertility rate (TFR; expected number of children women would have during lifetime) close to or below two (e.g. Guinnane 2011). Epidemiological (or mortality) transition is the replacement of infectious diseases, killing mainly children, infants and childbearing mothers, by man-made and degenerative diseases as dominant death causes, closing with the life expectancy at birth approaching the 60 years mark for both genders (e.g. Omran 1971). I will focus on the mortality transition (Omran 1971; 1998; 2007; Olshansky and Ault 1986; Riley 2001), subordinating aspects of fertility to the aim of mortality analysis.

Chapter 11 provides annual data series on life expectancy at birth for the Soviet occupation and independence restoration periods. These series display increasing

[1] This research, done in collaboration with experts in historical demography from Lithuania (Domantas Jasilionis) and other Baltic countries was originally published in Norkus, Jasilionis et al. (2022).

disparity between the health performance of Estonia, on the one hand, and that of Latvia and Lithuania on the other, which begs explanation. The chapter closes with a discussion of the prospects of health progress in the Baltic countries up to 2040, which is the time-point for ultimate application of the OIST, the Japanese standard and Finnish standard tests of the health performance success of Baltic restorations.

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Chapter 10
Life Expectancy in the Interwar Period: Fixing Data Gaps for Lithuania and Explaining Early Demographic Transition in Estonia and Latvia

Table 10.1 provides a compilation of the available data on life expectancy at birth, based on life tables for the Baltic countries and Finland in 1897–1938, which is included because of its role as a regional benchmark country in the perceptions of the indigenous populations of the Baltic countries. It also provides Gapminder (Lindgren 2020) estimates, which could not be neglected because of my interest (for application of the OOST) in the 1913 life expectancy values. They could only be interpolated or estimated from values in the years for which life tables could be constructed. I rely on my estimates, but those coming from Gapminder are useful as a control instance.

The first life tables on the Baltic countries were constructed by Ludvig Besser and Karlis Ballods (1897), covering the Baltic provinces (Estlandia, Livliandia and Kurland) of the Russian Empire. They were based on the findings of the regional census in 1881. According to these tables, in 1880–1883 life expectancy at birth (e $^{\circ}_{0}$) of males was 39.1 years and 42.7 for females. This is far above the mean value of 31.32 years for males and 33.41 for females in 1896–1997 in 50 European provinces of the Russian Empire (Novosel'skij 1916: 120, 125), being not far below the life expectancy in France in 1880–1883 (41.6 for males, 44.1 for females) and slightly above Prussia (37.6 for males, 40.7 for females) (Besser and Ballods 1897: 107–124).

The figures of Besser and Ballods refer to the three Baltic provinces as one entity. Hence, their data do not allow differentiating between the Baltic countries as they are known today. Moreover, 26% of the Latvian population lived in the Western part of the Vitebsk province, Latgale, which did not belong to the historical Baltic provinces. It had been under the Polish-Lithuanian rule since the sixteenth century and was annexed by Russia in 1772, while Estland and Livland came under Russian suzerainty in 1721. The Kurland province shared a common fate with Lithuania in 1795. Latgale differed from mainland Latvia culturally as its Latvian population was Catholic, different from the Protestant Lutheran Baltic provinces. It was also different economically, displaying lower productivity, and an inferior standard of living (see below in this chapter).

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Table 10.1 Life expectancy in the Baltic countries and Finland for 1897–1938

	Estonia				Latvia				Lithuania				Finland			
	Females	Males	Both sexes	Both sexes (Gapminder)	Females	Males	Both sexes	Both sexes (Gapminder)	Females	Males	Both sexes	Both sexes (Gapminder)	Females	Males	Both sexes	Both sexes (Gapminder)
1897	45.50	41.87	43.69	43.0	46.01	43.07	44.54	45.3	42.40	41.12	41.76	40.4	49.4	46.79	48.1	48.1
1913	51.5	46,07	48,76	48.1	52.25	47.92	50.16	50.3	46,60	44.0	45,5	46.3	50.78	47.32	49.04	49.0
1922	54.92	48.65	51.79	51.6	Nd	Nd	Nd	55.7	Nd	Nd	Nd	49.5	54.18	49.71	51.93	51.9
1923	56.54	49.34	52.94	53.2	Nd	Nd	Nd	56.8	Nd	Nd	Nd	49.8	54.91	50.07	52.48	52.5
1924	57.48	50.59	54.04	54.0	Nd	Nd	Nd	53.8	Nd	Nd	Nd	50.2	52.71	47.88	50.26	50.2
1925	58.24	51.28	54.76	54.8	56.01	50.36	53.19	53.0	47.96	45.38	46.67	50.5	55.95	50.83	53.36	53.4
1926	55.47	49.34	52.41	52.4	58.13	52.13	55.13	56.0	51.71	48.31	50.01	51.0	56.23	51.37	53.79	53.8
1927	53.12	46.93	50.03	50.0	58.81	51.08	54.95	54.3	48.96	45.80	47.38	51.5	54.39	49.32	51.83	51.8
1928	56.04	49.79	52.92	52.9	58.78	52.97	55.88	55.0	51.87	49.48	50.68	52.1	56.18	51.22	53.69	53.6
1929	54.84	48.22	51.53	51.5	58.08	52.44	55.26	53.0	50.28	46.76	48.52	52.6	53.88	48.82	51.32	51.2
1930	57.78	51.65	54.72	54.7	59.47	53.77	56.62	56.1	51.75	48.54	50.15	53.1	57.02	51.91	54.45	54.4
1931	56.98	50.82	53.90	53.9	60.70	55.00	57.85	56.8	52.63	49.26	50.95	53.6	57.27	52.47	54.86	54.8
1932	58.60	52.65	55.63	55.6	61.03	55.24	58.14	56.7	52.31	49.09	50.7	54.2	58.21	53.29	55.75	55.7
1933	59.77	53.40	56.59	56.7	61.56	56.15	58.86	58.7	53.09	53.00	53.05	54.7	58.12	52.69	55.39	55.4
1934	60.83	53.54	57.19	57.3	60.08	54.70	57.39	55.6	53.15	50.53	51.84	55.2	58.66	53.35	56.00	56.0
1935	59.88	53.15	56.52	56.1	61.20	55.70	58.45	58.2	Nd	Nd	Nd	55.7	59.94	54.78	57.36	57.3
1936	60.01	53.11	56.56	56.6	61.51	55.67	58.59	57.7	Nd	Nd	Nd	56.3	58.51	53.81	56.16	56.1
1937	60.64	54.30	57.47	57.5	61.30	55.77	58.54	56.8	Nd	Nd	Nd	56.8	59.77	54.34	57.04	57.0
1938	61.94	55.45	58.70	58.8	62.71	56.87	59.79	60.0	54.07	50.89	52.48	57.3	59.74	54.66	57.20	57.1
Increase 1913–38	10.49	9.38	9.94	10.7	10.31	8.95	9.63	9.7	7.47.	6.49	6.98	11.0	8.96	7.34	8.16	8.1
Increase per decade 1913–38	4.20	3.75	3.98	4.3	4.12	3.58	3.85	3.88	2.99	2.60	2.80	4.4	3.58	2.94	3.26	3.2

Sources: Estonia 1897 and 1922—Katus and Puur (1991: 2540); Estonia 1923–1938—Katus (2004); Estonia 1913—author's own retropolation from Katus (2004) and Katus and Puur (1991: 2540); Latvia 1897—Ptukha (1960: 261); Latvia 1925–1938—Katus (2008) (unpublished, courtesy of Domantas Jasilionis); Latvia 1913—author's own retropolation from Katus (2008). Lithuania 1897: Ptukha (1960: 261); Lithuania 1925–1938: Norkus, Jasilionis et al. (2022); Lithuania 1913 and 1938—retropolation and extrapolation from the author's own calculations for 1925–1934; Finland: HMD (2022)

Historical changes in borders and administrative delimitations also complicate the interpretation of life expectancy estimates based on the All-Russian population census in 1897. Unfortunately, Sergei Novosel'skij, who based his life tables on data from the 1897 Russian census, did not provide them for separate provinces or regions. Therefore, for Lithuania and Latvia in 1897, I use life expectancy values from abridged life tables for 1896–1897 by the Ukrainian demographer Mikhail Ptukha (1960), based on the 1897 census data and originally published in 1928.

Ptukha's estimates include for the first time Lithuanians, whose life expectancy at birth was 41.12 for men and 42.40 years for women. Also, for the first time these data distinguish inhabitants of the Baltic provinces, providing life expectancy values for Estonians (males 41.61 and females 44.58 years) and Latvians (respectively 43.07 and 46.01). However, Ptukha was not interested in life expectancy of particular territories, but in its variation among the ethnic groups or "nationalities" of the Russian empire, including Russians, Ukrainians, Belarusians, Moldovans, Jews, Tatars, Bashkirs and Chuvashs.

According to Ptukha's findings, the Baltic nations had the longest life expectancy, while Russians had the shortest, with 27.49 years for males and 29.82 for females. For Estonia, Ptukha's tables are superseded by estimates on the territorial basis in the life tables constructed from the 1897 census and mortality data within the borders of contemporary Estonia by Kalev Katus and Allan Puur (1991: 2540). So they (45.5 years for males and 41.87 years for females) are used in Table 10.1 for Estonia in 1896–1897, while for Lithuania still there are no alternatives for the estimates made by Ptukha.

During the interwar independence period (1918–1940), two population censuses were held in Estonia, in 1922 and 1934. Using the data from the 1934 census, the Estonian statistical office constructed 3x1 format life tables for 1932–1934 (Riigi Statistika Keskbüroo 1937; Reiman 1936). According to Riigi Statistika Keskbüroo (1937: 38–39), life expectancy in 1932–1934 was 53.12 years for men and 59.60 years for women. Interwar Latvia held four censuses, in 1920, 1925, 1930, and 1935, with findings of the first census remaining partially unpublished. Based on data from the 1930 census, the Latvian statistical office published 4x1 format life tables for 1929–1932 (Valsts statistiskā pārvalde 1936). They used the 1935 population census for the production of 3x1 format life tables for 1934–1936 (Valsts statistiskā pārvalde 1938). According to these estimates, life expectancy at birth in Latvia increased from 54.56 years for males and 60.10 years for females in 1929–1932 to 55.59 years for males and 60.93 years for females in 1934–1936.

The research on life expectancy in interwar Estonia and Latvia came to a real breakthrough thanks to Katus (1955–2008), who constructed abridged (1×5 format) life tables for Estonia (1923–1938) and Latvia (1925–1938). Katus' tables for Estonia are accessible in the Internet (Katus 2004). His tables for Latvia (Katus 2008) were produced working on the collaborative project on the health crisis in the Baltic countries coordinated by the French National Demographic Research Institute (INED). They were introduced by former collaborators in Vallin et al. (2017) in less detail (only life expectancy values at birth are presented) and published complete in Norkus, Jasilionis et al. (2022). Katus' tables for Estonia and Latvia are my source

for Estonia in 1923–1938 and Latvia in 1925–1938. The estimate for Estonia in 1922 is from Katus and Puur (1991: 2540). Katus only provided life tables for males and females, so the estimates for both sexes that are needed for comparison with the Gapminder estimates are derived simply as arithmetic means of both estimates.

In interwar Lithuania, only one (in 1923) population census took place, and its statistical office did not publish any life tables. Except for Ptukha's life table for Lithuanians in 1897 (most probably referring to the ethnically Lithuanian part of the Kaunas/Kovno province), the only available life tables for the interwar period (1925–1926) were constructed by Antanas Merčaitis (1966) as part of his PhD dissertation, and were never completely published by the author himself.[1] According to Merčaitis, life expectancy at birth in 1925–1926 was 48.58 years for males, 51.89 for females, and an average of 50.25 for both sexes. Gapminder's estimates for 1925 (50.5) and 1926 (51) are close but not identical to the last figure, suggesting that the compilers of this database did not know of or use Merčaitis' work.

In order to provide the application of the OOST to Lithuania with a more solid basis than just the Gapminder (Lindgren 2020) guestimates, we constructed 30 life tables for the 1925–1934 period (Norkus, Jasilionis et al. 2022). Life expectancies for different age categories, extracted from these life table, are provided as supplements to this book together with Katus' results on interwar Estonia and Latvia. Let us explain why this still was not done in research of historical demography of interwar Lithuania.[2]

Merčaitis' pioneering estimates of life expectancy in 1925–1926 were only part of the historical introduction to the main part of his work, which, judging by its title, dealt with the issue of "reproduction of the population" in Soviet Lithuania, based on the 1959 census data. The limitations of the post-1959 period are likewise characteristic to the later work of Lithuanian demographers. With no census data to apply sophisticated quantitative demographic analysis tools, Lithuanian demographers generally avoid topics from the pre-1959 era.

On the other hand, Lithuanian historians continue to perceive quantitative research in historical demography as a subject outside of their field of professional competence. Thus, it escaped the attention of both demographers and historians that statistical publications of interwar Lithuania actually contain the data necessary for the construction of life tables, encompassing a broader time span than the 2 years covered by the pioneering contribution of Merčaitis.

The Lithuanian Statistical Office has published mortality data distributed by age since 1925. For the 1925–1927 period, this distribution included the categories of

[1] They are also accessible at the Human Life-Table Database (HLTD) (2022) https://www.lifetable.de/cgi-bin/index.php. Accessed 10 January 2023.

[2] Exploratory calculation is published in Norkus (2017), presenting life tables for 1932. However, in these tables, the population at the end of the year was used, different from the tables in Norkus, Jasilionis et al. (2022) with a midyear population. There is also a life table for three counties (*powiats*) of the Grand Duchy of Lithuania, based on extant materials of a census taken in 1790 (Česnys 1981), and life tables for more ancient times, based on osteological evidence collected during archaeological excavations (Jatautis 2018).

infants (0–1 years old), 0–4-year-old children, 5-year-long broad categories for the population aged 5–29, continuing with 10-year-long categories for the older population up to the 80+ age group. This distribution was refined from 1928, providing data for 5-year-long broad categories for the entire population aged from 5 to 100+. Due to the absence of such data for 1923–1924, Merčaitis constructed life tables for 1925–1926, assuming that in 1925–1926, the distribution of population by age remained unchanged.

However, the Lithuanian Statistical Office published estimates of population distribution by age for some later years as well. The last such publication is available for 1932 (Centralinis Statistikos Biuras 1933: 10). Besides this, mortality and population distribution data for 1928–1934 were published in annual surveys of the state of public health, published by the Health Department of the Lithuanian Ministry of Internal Affairs (Sveikatos departamentas 1928: 7, 10; 1929: 7, 10; 1930: 7, 10; 1932: 9, 12; 1934: 9, 12; 1936: 7, 10). This publication contains data on population distribution by age also for 1933 and 1934, which are missing in the annuals of the Lithuanian Statistical Office.

Neither Lithuanian statistical annuals nor public health surveys provide information on how estimates of the distribution of population by age were derived. It appears that the shares of population established by the 1923 census were used as benchmarks. However, there is no exact correspondence between the published figures and those which can be derived from population and subpopulation (males and females) totals, applying to them the exact shares of age categories established by the 1923 census. Either way, these data are authentic historical statistics, and are sufficient to construct life tables covering a 10-year- period (1925–1934).

Our tables also cover 1925–1926, which refer to Merčaitis' tables. Different from his biannual tables, our tables are annual. Merčaitis used the 1925–1926 mortality means for each age category and population size on 1 January 1926, distributing the population into age groups according to proportions disclosed in the census on 17 September 1923. We used the midyear population, calculating it as a mean value of the population on the first of January over two contiguous years. Merčaitis applied the life table construction method of Russian Soviet demographer Vladimir Paevskij (1970: 17–46) to his data. We used the Excel template for life expectancy calculation, provided by the UK Office for National Statistics, which is based on the methodology of construction of abridged life tables developed by Ching Long Chiang (1979).[3] To obtain age-specific death rates M_x up to the last open-ended interval 85+ and adjust for possible age-reporting problems at old ages, we apply the Gompertz-Makeham modeling (see Norkus, Jasilionis et al. 2022; Vallin and Berlinguer, 2006 for details).

Differences in methods may account for discrepancies between our and previously published estimates. To recall, according to Merčaitis, life expectancy at birth in 1925–1926 was 48.58 years for males 51.89 for females. According to our

[3] https://www.ons.gov.uk/ons/rel/subnational-health4/life-expec-at-birth-age-65/2004-06-to-2008-10/ref-life-table-template.xls. Accessed 10 January 2023.

findings, life expectancy at birth in 1925 was substantially lower – 45.38 for males, 47.96 for females. We argue that our estimates are more realistic since mortality data used by Merčaitis are not adjusted for under-registration of infant deaths and most likely underestimate old age mortality. Similar problems may also have influenced previously published estimates by Katus (2008). Vallin et al. (2017: 196) proposed a correction factor for underregistration of infant deaths for the period since early 1950s to early 1990s. They are not large (less than 0.2 years). Different from Estonia and Latvia, which had civil registration offices, in Lithuania it was confessional communities that were entrusted with this task. Thus, in this country, only babies surviving until the baptism act were registered. We take a conservative approach assuming that the undercount of infant deaths in Lithuania in 1925–1934 was similar to that of the 1950s, that is, 9%.

As the official population estimates did not completely account for international migration, further refinement is needed to obtain more precise population denominators, which are necessary to compute death rates. With no noticeable immigration to Lithuania, the total emigration during 1925–1934 was 70,886 persons, which is 23.03% of the natural population increase (Vaskela 2011). Emigration did not affect all age groups equally, as most emigrants were young males. Most probably, corrected life expectancy figures should be slightly lower than our estimates. However, we leave these refinements for further research, which needs more detailed data on the distribution of emigrants by age.

Although still considerable, interwar emigration from Lithuania was lesser in comparison with the previous period. According to estimates by Liudas Truska (1961) (which remain undisputed), the total scope of emigration from "ethnographic Lithuania" between 1868 and 1914 amounted to 635,000 persons. This number includes 215,000 persons, born in Lithuania but living in other provinces of Russia (calculated from census data) as of 28 January 1897, and 74,000 ethnic Lithuanians who moved to these provinces between 1897 and 1914. The main destination for Lithuanian emigration was theUSA, with 55,000 ethnic Lithuanians immigrating between 1868 and 1998, and 252,594 between 1899 and 1914. Emigration to the USA involved most healthy members of the population—mainly 20–25-year-old males escaping conscription to the Russian army.[4]

While the first figure (55,000) about Lithuanian immigration to the USA is an estimate (from Račkauskas-Vairas 1915), the second one (252,594) is reported by US immigration statistics (Eidintas 2005: 61). Lithuanian emigration peaked in 1907–1913, almost equalling the natural population increase levels in the Lithuanian governorates of the Russian Empire. Huge emigration could not remain without consequences on the changes in life expectancy in Lithuania: healthy (and, as

[4]There was also some reverse migration, accounting for 17% of immigration (see Norkus et al. 2020).

expected, long-living) males were removed from the population, and those which could expect not to be drafted because of health problems remained.1F.[5]

For my aims (application of the OOST guided by the CRHPS), the real problem is that data series are still too short. Regarding life expectancy in 1913, there is no other data apart from Gapminder (Lindgren 2020) guestimates for the total (both sexes) population. Besides that, Lithuanian data for the years 1935–1938 is missing. So male and female life expectancy values at birth for Estonia in 1913 are linearly retropolated from Katus and Puur (1991) for Estonia in 1897 and 1922 and Katus (2004) for Estonia in 1923–1938. For Latvia, 1913 values are estimated from Ptukha (1960) for 1897 and Katus (2008) for 1925–1938. For Lithuania, 1913 values are estimated from Ptukha (1960) and Norkus, Jasilionis et al. (2022) for 1925–1934. The same data is used in linear extrapolation to estimate life expectancies in 1938.

To make our data comparable with the Gapminder (Lindgren 2020) dataset, providing only estimates for total population, Table 10.1 presents also life expectancy figures for both sexes, calculated as means of male and female life expectancy values.[6] We find that Gapminder's estimates for 1938 are quite close to figures for Estonia and Latvia, implied by the Katus (2004) findings, but strongly (by 4–5 years) overshoot the Lithuanian values, implied by our data and calculations. As there is close agreement between Gapminder's and our estimates for 1913, the disparity should be accounted by the exaggeration of interwar Lithuania's health progress in the Gapminder database.

All available data on the male and female life expectancy at birth in the interwar Baltic countries is visualised in Figs. 10.1 and 10.2, including also Finland as a comparator country. Its inclusion helps to detect the impact on the health progress of the change in the socioeconomic system during the later period, which Finland successfully resisted in 1939–1940, while the Baltic countries failed.

So we find, firstly, in 1925–1938 Latvia was the best performing country among the three Baltic countries in terms of life expectancy. Estonia's decadal life expectancy increase rate was slightly higher, but it was not sufficient to close the lag behind Latvia. Actually, in 1925 Latvian male life expectancy was slightly below (by 0.92 years) Estonia's level, while the Estonian edge over the Latvian female life expectancy lag (2.23 years) was considerable. This could have been due to the legacy of Latvia's greater destruction (including the dislocation of its population) during World War I, making recovery to the prewar economic level a much more formidable task.

However, by 1938, both Latvian males and females displayed superior life expectancy, Latvian males surpassing their Estonian peers by 1.42 years and Latvian females by 0.77 years. This restored the running order between the Baltic countries, which is disclosed by Ptukha's findings for 1896–1897. Lithuania remained the

[5] Russian conscription legislation also made an exception for sole male offspring, who were not drafted.

[6] Katus did not construct separate life tables for the total (both sexes) population. Lithuanian data allow this, but we used the mean value to ensure uniformity in our approach.

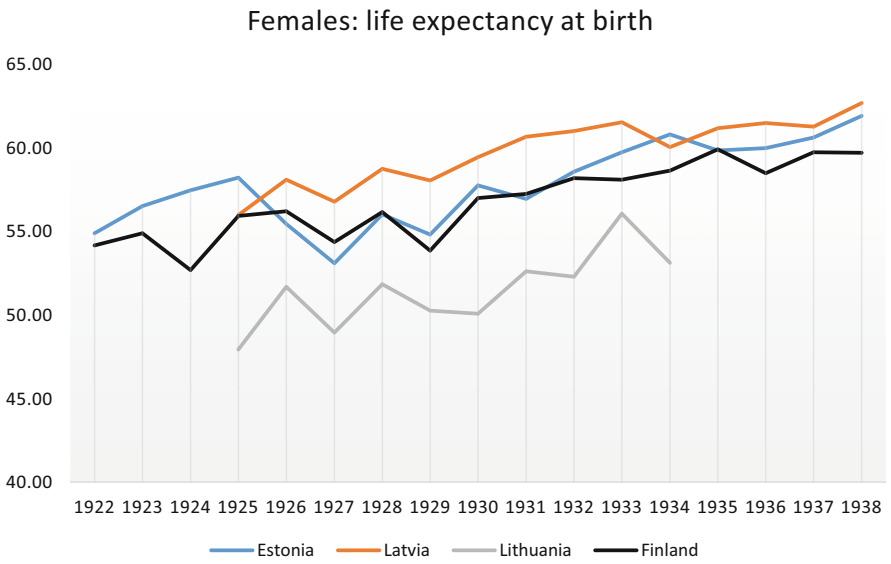

Fig. 10.1 Female life expectancy at birth in Estonia (1922–1938), Latvia (1925–1938), Lithuania (1925–1934) and Finland (1922–1938). Author's own production. Data sources: Estonia 1922—Katus and Puur (1991: 2540); Estonia 1923–1938—Katus (2004); Latvia 1925–1938—Katus (2008); Lithuania: Norkus, Jasilionis et al. (2022); Finland—HMD (2022). See also: Vallin et al. (2017)

worst performer for the complete period with available data. Importantly, despite its superior economic performance, interwar Finland did lag behind Latvia (see Table 10.1), but there was near parity with Estonia. So in this case, Latvia's first rank corresponds to its top ranking among the Baltic countries according to output per capita (cp. Chap. 8).

During the complete period with data available for all three countries (1897–1934), Lithuania was the worst performing country. Importantly, Lithuania's lag both behind Estonia and Latvia increased. For females, it enlarged from 3–4 for years in 1897 to 7–8 years in 1934. Life expectancy of Latvian males was by 2 years larger in 1897, and in 1934 it was by more than 4 years larger than in Lithuania. The life expectancy lag of Lithuanian males behind their Estonian peers was less considerable, in 1928 and 1933 the Lithuanian life expectancy value nearly reaching Estonian level. However, the life expectancy gap between Estonian and Lithuanian women was never lower than 3.68 years, as in 1933.

Secondly, extending the cross-country comparison to other age categories (see Tables S1–S6 in the supplement to this book), we find that differences across the Baltic countries were largest for life expectancy at birth. They are related to the much larger infant mortality (during first year of life) in Lithuania. Indeed, during the whole interwar period, infant mortality in Lithuania was almost two times higher than in Latvia (see Table 10.2). Differences in remaining life expectancy levels are quite conspicuous also for children (until the age of 10), fading in the older age

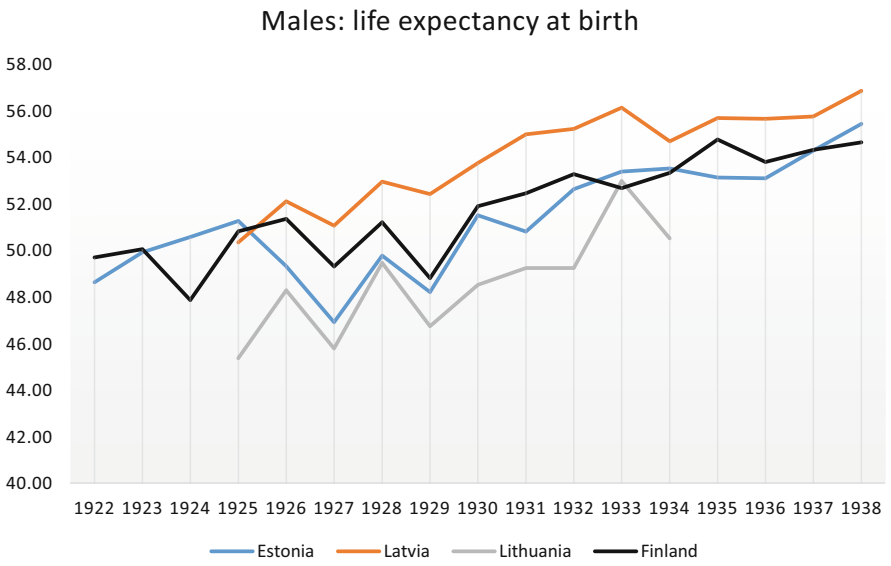

Fig. 10.2 Male life expectancy at birth in Estonia (1922–1938), Latvia (1925–1938), Lithuania (1925–1934) and Finland (1922–1938). Author's own production. Data sources: Estonia 1922—Katus and Puur (1991: 2540); Estonia 1923–1938—Katus (2004); Latvia 1925–1938—Katus (2008); Lithuania: Norkus, Jasilionis et al. (2022); Finland—HMD (2022). See also: Vallin et al. (2017)

categories. While for Estonia and Latvia the end of the first year was the year of top remaining life expectancy, this was not the case of Lithuania. As for the male population, five-year-old boys recorded the top remaining life expectancy. Again, this indicates significantly higher mortality levels for Lithuanian infants and children.

The fading of differences in the remaining life expectancy in adult age is most characteristic for males. Older Lithuanian men generally recorded a higher remaining life expectancy than their Estonian and even in some cases their Latvian peers. Again, this can be explained by higher infant and child mortality, which normally represents an early selection for survival. However, it did not apply to Lithuanian women, whose remaining life expectancy was shorter than that of their Estonian and especially Latvian peers.

Thirdly, among all age categories, life expectancy for infants and children increased most markedly in all three Baltic countries, while that for the adult population increased either insignificantly or stagnated. The decomposition analysis (see Norkus, Jasilionis et al. 2022) shows that the main driver of life expectancy progress was declining infant and child mortality in the age group 1–4. Reduction of infant mortality alone explains more than 50% of the total increase in life expectancy at birth. In fact, decreases in both infant and child mortality at age 1–4 years accounted for around 80% of the total longevity improvement. However, although infant mortality markedly decreased in Lithuania in 1925–1939, by 1938 it still

Table 10.2 Infant mortality in the Baltic countries, 1920–1939 (Promilles)

	Estonia			Latvia			Lithuania		
	Boys ‰	Girls ‰	Total ‰	Boys ‰	Girls ‰	Total ‰	Boys ‰	Girls ‰	Total ‰
1920	Nd	Nd	Nd	141.1	114.8	128.4	Nd	Nd	Nd
1921	Nd	Nd	Nd	100.2	85.4	93.2	Nd	Nd	Nd
1922	138.6	119.1	129.2	98.3	82.5	90.8	Nd	Nd	Nd
1923	119.5	97.7	108.9	94.4	81.9	88.4	Nd	Nd	Nd
1924	111.8	87.3	99.9	111.4	89.8	100.8	Nd	Nd	Nd
1925	104.2	86.5	95.7	118.0	95.8	107.2	192.1	165.2	179.0
1926	110.1	93.0	101.8	96.0	79.4	87.9	160.0	131.3	146.0
1927	125.1	103.4	114.6	103.6	87.1	95.7	164.5	136.6	151.0
1928	116.4	90.3	103.6	106.0	86.2	96.3	155.3	138.8	147.3
1929	121.0	99.5	110.5	115.7	97.2	106.7	189.0	162.3	176.1
1930	109.3	90.3	100.1	96.9	82.9	90.0	168.8	139.3	154.4
1931	109.4	96.0	102.8	92.2	79.9	86.3	158.2	131.9	145.4
1932	102.6	90.7	96.8	97.9	80.1	89.3	182.2	150.4	166.7
1933	100.8	86.7	94.0	82.7	69.6	76.4	135.0	106.7	121.3
1934	103.9	77.3	91.1	103.6	86.1	95.1	178.4	151.8	165.5
1935	101.3	76.4	89.3	89.8	67.2	78.9	134.9	110.9	123.3
1936	102.3	75.6	89.2	88.7	71.0	80.1	140.6	115.3	128.3
1937	99.2	81.7	90.7	94.4	75.2	85.0	134.3	106.2	120.5
1938	85.9	68.5	77.5	74.6	61.3	68.1	127.6	110.2	119.2
1939	Nd	Nd	Nd	79.2	60.7	70.2	133.1	109.6	121.7

Sources: Norkus et al. (2021a, 2021b, 2021c)

lagged very considerably behind the other two Baltic countries and Latvia preserved its edge over Estonia (see Table 10.2).

Fourthly, the life expectancy gap between both sexes in Lithuania was smaller than in the other two Baltic countries. According to Ptukha's estimates, life expectancy at birth for males and females in the ethnically Lithuanian population differed by only 1.28 years, while for Latvians this difference was 2.94 years in 1896–1897. For Estonians, this difference was 3.63 years according to Katus and Puur (1991), growing to 6.27 years in 1922 according to the same source. In 1925, it reached 5.65 years in Latvia according to Katus (2008), and 2.58 years in Lithuania according to our findings. In 1934, which is the last year when data based on life tables are available for all three countries, the life expectancy gap between males and females was 5.38 years in Latvia, 7.29 years in Estonia, but remained nearly at the same level as in 1925 (2.62 years) in Lithuania.

The increase of the gender gap in Estonia and Latvia is most probably related to fertility decrease in these countries, where birthrates dropped to a stable population reproduction level already by 1913. Birth complications were a major death factor for adult women before the rise of modern medicine and the advancement of the welfare state making obstetric services available for everyone. According to Neniškis (1998: 697), up to 7 per 1000 deliveries in Lithuania annually ended

with lethal outcome for mothers in 1924–1939.[7] Thus, a lesser frequency of births did increase the remaining life expectancy for women of childbearing age.

It can be argued that being raised in smaller households also increases the chances of survival for infants and children. This is an outcome of optimising in the context of 'quality-quantity trade-off' (Becker 1960; Becker and Lewis 1973). Children in small families may have tended to receive better care, nourishment and a more hygienic home environment. A larger family could have increased physiological stress due to overcrowded homes. It is more difficult to keep overcrowded spaces clean, and it may be a harder challenge to adhere strictly to personal hygiene. Even if parents could afford to expand their living space, children in larger families were at higher risk of infectious diseases (Hatton 2017: 183–184).

This argument may seem contradicted by the slightly smaller gender gap, higher birth and natural increase rates in Latvia than in Estonia (see Katus 1994: 94–95), despite the slightly higher life expectancy in Latvia. However, in the remaining part of this chapter I will argue that higher birth and natural increase rates in interwar Latvia are the result of the socio-economic territorial heterogeneity of Latvia. I will also argue that the most important factor accounting both for differences in the life expectancy gender gap and in infant mortality between Lithuania and the other two Baltic countries is the early start to fertility transition in Estonia and mainland Latvia (the Baltic provinces).

The Baltic provinces 'may have been among those scattered regions of Europe where the so-called demographic transition—a sustained decrease in fertility and mortality rates—had already begun in the mid-decades of the nineteenth century, a generation earlier than in surrounding areas' (Plakans 1995: 88). Earlier timing of the demographic transition in Estonia and mainland Latvia is indicated by the time series of crude birth rates (CBR) in the provinces of the Russian Empire (Table 10.3) and the then independent Baltic States (Table 10.4).

So as to understand the relationship between both tables, it is important to note that the Estland Province and the northern part of the Livland Province (together with parts of Saint Petersburg and the Pskov provinces) made up the territory of independent Estonia. Latvia consisted of the southern part of the Livland Province, almost all of the Kurland Province (except for small pieces, which were exchanged with Lithuania), and three counties (*uezd*) of the Vitebsk Province, also known as Latgale, populated by Catholic Latvians, while Lutheran Protestantism is the dominant confession in mainland Latvia. The main part of the territory of Lithuania was formed from the Kovno (Kaunas) Province and the western part of Wilno/Vilna (Vilnius) Province, augmented by the Suwałki (Suvalkai) Province, which was part of the Kingdom of Poland under Russian rule (Map 10.1).

As was explained in the introduction to this part of the book, demographic transition refers to the historical shift from a Malthusian equilibrium between mortality and fertility, defined by high birth rates and high death rates, to a modern

[7] In 1929, only 6.3% of Lithuanian mothers delivered in maternity homes or hospitals, and by 1940 this number had increased only to 17% (Neniškis 1998: 4).

Table 10.3 Births (rates per 1000 population) in the Baltic provinces and the Vitebsk, Vilna and Kovno provinces in 1861–1913

Years	Estland	Livland	Kurland	Vitebsk	Vilna	Kovno	Finland
1861–1865	39.1	40.6	36.2	48.0	50.2	42.3	40.0
1866–1870	31.8	33.2	31.0	47.3	45.8	38.3	34.2
1871–1875	33.7	34.7	31.0	48.2	45.8	38.8	37.0
1876–1880	31.6	33.8	29.0	43.5	41.0	36.0	36.9
1881–1885	30.3	31.5	28.8	41.5	39.5	34.1	35.5
1886–1890	29.4	29.6	27.8	42.8	43.0	34.8	34.5
1891–1895	28.1	27.7	26.5	41.7	44.0	33.6	32.0
1896–1900	29.2	29.4	28.6	40.6	38.0	35.2	33.1
1901–1905	28.5	26.8	27.5	37.6	33.5	32.5	32.4
1906–1910	26.2	23.9	23.4	35.6	32.3	29.3	32.5
1911–1913	24.6	22.6	24.6	33.3	30.6	27.3	30.1

Source: Katus (1994: 94), Mitchell (2007: 99, 105)

Table 10.4 Births (rates per 1000 population) in Estonia, Latvia and Lithuania in 1915–1940

Year	Estonia	Latvia	Lithuania	Finland
1915–1919	19.3	Nd	17.0	24.9
1920	18.4	17.0	22.7	27.0
1921	20.3	19.7	24.6	25.9
1922	20.2	21.8	27.3	25.0
1923	20.1	21.9	28.4	25.3
1924	19.2	22.3	29.4	23.8
1925	18.3	22.2	28.9	23.7
1926	17.9	22.0	28.5	23.0
1927	17.7	22.1	29.4	22.5
1928	18.0	20.6	28.8	22.8
1929	17.1	18.8	27.2	22.2
1930	17.4	19.8	27.4	21.8
1931	17.4	19.3	26.8	20.7
1932	17.6	19.3	27.3	19.8
1933	16.2	17.8	25.7	18.4
1934	15.4	17.2	24.8	19.1
1935	15.9	17.6	23.4	19.6
1936	16.1	18.1	24.2	19.1
1937	16.1	17.7	22.3	19.9
1938	16.3	18.4	22.7	21.0
1939	16.3	18.5	22.4	21.2
1940	16.5	23.0	Nd	17.8

Source: Katus (1994: 95), Mitchell (2007: 105)

equilibrium, defined by low fertility and low death rates. Demographic transition is often associated with accelerating population growth, while both Malthusian and modern equilibria are described by very slow or zero natural population increase. It

Map 10.1 Boundaries of the tsarist Russian provinces (governorates) (1913; dotted lines) and contemporary borders of the Baltic States. Source: author's own production, credits to Vaidas Morkevičius for his assistance

includes fertility and mortality transitions. Fertility transition ends with the total fertility rate (TFR; expected number of children women would have during their lifetime) being close to or below 2.

Mortality transition involves change in the structure of morbidity and causes of mortality. It starts with a receding of mortal pandemics killing both adult and child populations and continues with the replacement of infectious diseases as the dominant causes of mortality by man-made and degenerative diseases, represented mainly by cardiovascular diseases and cancer (therefore, it is also called epidemiological transition). Infectious diseases kill mainly children, infants and childbearing mothers. Their recession leads to decreasing infant and children mortality, and most people living to an older age and dying from degenerative diseases.

The increase of their relative proportion among the causes of death is promoted also by changes in the way of life, with the majority of the population moving to cities to exchange work in agriculture for that in industry and services, where work in many occupations is associated with low physical activity but high levels of stress. Closing of mortality transitions is indicated with the life expectancy at birth approaching the 60 years mark for both genders (Omran 1971, 1983, 1998; Olshansky and Ault 1986).

The mortality transition in Russia proper took place only under the intermediate socialist system, with life expectancy (both sexes) increasing from 33.34 to 67.65 (by 33.34 years) in 1913–1959, from 37.4 to 67.65 (by 30.25 years) in 1929–1959, from 41.4 to 67.65 (by 26.25 years) in 1938–1959 (Lindgren 2020). This makes Russia a very conspicuous instance of the accelerated epidemiological transition model, which experts in historical demography oppose to the classical or Western model.

In the last model, mortality started to decrease from the late eighteenth century due to early successes in the control of epidemics, improvement of nutrition and public hygiene, as well as expansion of the supply of medical services along with progress in biomedicine, making some formerly mortal illnesses curable diseases (Omran 1971; McKeown 1988; Fogel 2004). Our life expectancy data (see Table 10.1) indicate that the demographic shift in the three Baltic countries (with some reservations for Lithuania) can be described with the Western epidemiological model, with life expectancy levels surpassing those of ethnic Russia by more than 10 years already in 1897.

There is also a third—delayed mortality transition—model, which is exemplified by countries (mainly in Africa, Latin America and South Asia) where infectious diseases killing children and mothers giving birth were controlled only after World War II, due to the spread of new innovations in biomedicine (antibiotics). However, this was not accompanied by a decrease in birth rates, improvement in nutrition or in living standards. Among the former communist countries, Mongolia and Tajikistan exemplify this model (see Norkus 2023).

In addition to Russia proper, some Yugoslavian republics, Bulgaria, Romania and Moldova also seem to exemplify the accelerated epidemiological transition model. They share unchanging or even deteriorating life expectancy before World War I, followed by a very rapid improvement during the interwar period. However, by 1938

accelerated epidemiological transition was not yet complete, ending only in the 1960s under the socialist system. Most fSU republics also seem to represent this model, although improvement of life expectancy began here before World War I. A distinctive feature of belonging to this cluster of countries is life expectancy of the total population below or not much above 50 years of age by 1938.

The slower pace of life expectancy increase in Lithuania in 1913–1938 and its acceleration after World War II (see Table 11.1 in the next chapter) suggests that Lithuania may display similarities to these countries and belong to the Western epidemiological model only as its peripheral member. However, Estonia and Latvia (together with the Czech Republic, Hungary and Slovakia) may be included into this model without reservations, except that mortality transition was still incomplete also in these countries by 1938 because the replacement of infectious diseases as the dominant cause of mortality by man-made and degenerative diseases (and so the epidemiological transition itself) was still unfinished by this time. This is what the newly collected historical data on the causes of death indicate (see Table 10.5).

Although mortality from infectious and parasitic diseases declined over the 15 years documented by data, in the late 1930s, 20–25% of all deaths in Lithuania and Estonia were still caused by these diseases and closely related respiratory system diseases, including influenza and pneumonia. Latvia appears to be an exception because 45.9% of all deaths in 1938 were caused by degenerative diseases, such as neoplasms and circulatory system diseases. It may be tempting to consider this as another piece of evidence of Latvia's leadership in the mortality transition and claim that it was almost complete by World War II in this country, defining completion as the absolute dominance (at least 50%) of degenerative diseases as all causes of death. However, in the case of Latvia, data on causes of death are available only for Riga, the only metropolitan city in the interwar Baltics. At the time of the last Latvian interwar census in 1935, only 34.62% of the total population lived in cities and towns (Norkus et al. 2021d).

Thus, we may guess that at the national level, the Latvian causes of death pattern was close to Estonia, with mortality from degenerative diseases amounting to 25–30% of deaths. This is in sharp contrast to the Lithuanian pattern (approximately 15%), but is still far from the 50% mark. We should be cautious, however, taking these data at face value because of the huge cross-country differences in the share of unknown death causes, which itself provides another important piece of evidence about disparities in the accessibility of medical services. In Lithuania, the share of deaths from unknown causes was larger by a factor of two or more than in Estonia, while in Riga the share of such deaths was less than 1%. This indicates that under urban conditions, nearly all cases of death were examined by medical professionals, but this was not the case under rural conditions in the interwar Baltic states (most probably, also in Latvia).

However, fertility transition in Estonia and Latvia was already over in the interwar years, when fertility in these countries fell below the replacement level, although they were still far behind the West European and Scandinavian countries in terms of GDP per capita. 'Formation of the modern population in Estonia was completed prior to the Second World War, simultaneously with the pioneering

Table 10.5 Causes of death in the Baltic countries in 1925–1939

Year	Infectious and parasitic diseases (%)			Neoplasms (%)			Diseases of nervous system (%)			Diseases of circulatory system (%)			Diseases of respiratory system (%)			Diseases of digestive system (%)			External cause (%) s			Other diseases (%)			Unknown causes (%)		
	EE	LT	LV Riga	EE	LT	LV Riga	EE	LT	LV Riga	EE	LT	LV Riga	EE	LT	LV Riga	EE	LT	LV Riga	EE	LT	LV Riga	EE	LT	LV Riga	EE	LT	LV Riga
1925	19.4	19.7	ND	4.4	1.6	ND	8.1	1.2	ND	10.0	4.2	ND	10.1	11.0	ND	3.7	5.5	ND	4.9	0.8	ND	26.7	29.1	ND	12.7	26.9	ND
1926	21.1	16.4	19.6	5.1	1.8	12.7	7.6	1.2	2.8	9.1	5.6	21.6	10.5	11.6	10.9	3.6	3.5	5.1	4.5	1.0	7.0	26.8	31.8	19.6	11.6	27.0	0.6
1927	22.4	14.3	21.9	5.0	1.8	12.3	7.6	1.3	2.4	9.7	5.6	22.1	11.6	18.7	9.4	4.0	4.1	5.2	4.3	2.1	6.3	25.0	26.4	19.5	10.4	25.8	0.8
1928	18.7	17.0	19.7	5.7	2.0	12.5	2.9	1.4	2.3	7.9	6.4	24.0	11.4	12.4	8.6	1.9	3.5	4.3	4.5	2.3	7.6	35.7	28.2	20.4	11.4	26.7	0.6
1929	15.4	15.0	19.4	4.2	2.0	12.7	2.7	0.8	2.3	8.3	6.6	21.3	18.2	12.4	10.2	1.4	3.2	4.5	3.9	2.3	6.5	36.2	33.4	22.6	9.8	24.2	0.5
1930	17.9	16.4	18.9	6.6	2.4	13.4	5.3	1.4	2.7	14.7	7.0	22.5	7.8	12.6	10.4	4.5	3.3	4.7	5.1	2.4	6.8	27.3	32.1	20.1	10.8	22.3	0.4
1931	16.6	14.1	18.7	6.1	2.4	13.1	4.9	1.3	2.5	15.7	7.8	24.6	9.0	15.0	9.7	4.5	3.5	5.5	4.8	2.6	6.4	27.5	32.2	19.1	10.9	20.9	0.3
1932	15.8	15.1	17.3	7.2	2.7	14.1	5.1	3.4	2.6	17.2	6.4	27.3	7.1	12.3	8.7	4.4	8.9	4.5	5.0	3.3	7.0	26.8	26.9	17.9	11.3	21.1	0.6
1933	15.1	13.5	16.2	7.4	3.4	16.0	4.3	3.5	1.8	16.4	7.7	28.0	9.0	13.5	8.8	4.2	7.2	4.4	4.6	3.3	6.5	26.4	28.1	18.0	12.7	19.8	0.3
1934	15.4	13.9	16.7	8.6	3.1	15.0	4.5	3.2	2.4	16.7	7.8	27.9	6.2	11.5	9.1	4.5	9.9	4.8	5.1	3.1	7.0	27.6	27.9	16.6	11.4	19.7	0.3
1935	14.9	14.0	13.1	8.2	3.3	13.1	4.1	3.4	2.3	18.1	9.0	33.0	7.5	14.1	9.6	4.3	6.4	4.6	4.2	3.0	6.3	28.1	29.7	17.8	10.6	17.0	0.3
1936	13.6	12.3	12.7	8.5	3.7	13.4	4.0	3.5	2.0	18.8	9.4	32.6	10.2	11.6	8.5	4.1	8.7	4.5	5.0	3.3	7.4	29.2	30.9	18.5	6.8	16.5	0.4
1937	14.5	11.7	12.2	9.3	3.5	13.1	4.2	3.2	1.7	18.8	9.6	33.0	8.3	13.5	10.7	4.2	7.6	4.2	4.9	3.5	6.5	29.1	32.2	17.9	6.7	15.3	0.7
1938	ND	12.6	12.3	ND	3.7	13.1	ND	3.2	1.7	ND	10.0	32.8	ND	13.6	10.3	ND	7.3	4.4	ND	3.9	7.1	ND	36.8	17.7	ND	8.9	0.5
1939	ND	12.8	ND	ND	3.3	ND	ND	3.2	ND	ND	9.8	ND	ND	16.4	ND	ND	7.0	ND	ND	3.3	ND	ND	33.8	ND	ND	10.4	ND

The country name abbreviations refer to: *EE* Estonia, *LT* Lithuania, *LV* Latvia. Data sources: Norkus et al. (2022a, 2022b, 2022c)

countries of demographic transition in Northern and Western Europe' (Puur 2011: 74; see also Katus 1990; Plakans 1984; Krūmiņš 1993; Krūmiņš and Zvidriņš 1976). That is why these countries were exposed to massive immigration from other Soviet republics during the period of Soviet rule, dramatically changing the ethnic composition of the population in these countries. There was no such early and rapid change in Lithuania, where demographic transition started and ended later.

As Plakans has noted, 'because the demographic transition is usually associated with socio-economic modernization (industrial and technological growth, urbanization, high literacy rates), the Baltic area, by showing transition characteristics earlier, may have been an anomaly' (Plakans 1995: 88). How can this "anomaly" be explained? The availability of reliable demographic data imposes the middle of the nineteenth century as the starting point of our time series. However, the origins of the disparities in the birth levels at this time can be traced back to much earlier times. Specifically, they can be related to the famous Hajnal line (Trieste-Saint Petersburg) crossing the Baltic countries, and separating two areas characterised by different levels of nuptiality (Hajnal 1965).

Already in the early modern times, a significant minority of women married late or remained single to the west of this line. Therefore, marriage rates and thus fertility were comparatively low here. To the east of the line and in select pockets of Northern Europe, early marriage was the norm, while high fertility was offset by high mortality. Although evidence may be too scarce for such conclusions, many experts place the Baltic provinces to the west of this line, while Lithuania is considered as a mixed case or a broad frontier area (Leinarte 2017: 62–3). However, the problem is why birth rates started to decrease in the Baltic provinces at least one generation earlier than in the neighbouring regions? Why did they decrease here more rapidly than in some countries to the west of the Hajnal line, which were far ahead of them in terms of economic advancement?

In the original West European version of demographic transition, it was preceded by an increase in GDPpc, followed by the decrease of mortality. With fertility remaining at the former level or even increasing, the outcome was a rapid increase in the total population. The fertility decrease did lag for some time behind the mortality decrease, with mortality and fertility reaching a new equilibrium at a much higher level in comparison with the original Malthusian regime, defined by high fertility, high mortality and (therefore) short life expectancy at birth (around 30 years of age). Together with France, the Baltic countries belonged to the group of exceptions or deviations from this baseline demographic transition model. In these exceptions, fertility decrease preceded mortality decrease and marked GDP increase (on the last point, further research in the quantitative economic history of the Baltic provinces in the nineteenth–early twentieth century is needed). Therefore, demographic transition in the Baltic countries did not double or triple the population there in only a few decades, which was the case in countries exemplifying the baseline version of the demographic transition model.

I will argue that differences in the ways the agrarian evolution occurred provide a clue explaining the variation in the timing of the demographic transition in Eastern Europe. By the early nineteenth century, the agricultural political economy of the

Baltic provinces was not very different from that in the neighbouring East European countries. Folwarks were its backbone—landed estates, exploiting the work of serfs. Unlike medieval manors, folwarks were commercial enterprises, producing their output for market (mainly foreign) sale (Strods 1972; Žiemelis 2013). Serfs lived on the farmsteads, which were mainly subsistence production units on land owned by the landlord. Heads of farmsteads had to provide working hands to labour in the landlord's fields. The number of hands was dependent on the size and quality of the land allotted to a farmstead. The welfare of a farmstead was conditional on the size of its internal workforce.

Farmstead heads with many sons (including those already married) and daughters of working age had a sufficient workforce not only to fulfil their labour dues, but to also properly cultivate the allotted parcel, which usually was the only source of the farmstead's revenue. The heads of farmsteads with no sufficient internal workforce were expected to hire working hands and send them to work on the landlord's fields, with no sufficient workforce left to meet the tight production deadlines imposed by weather conditions on their "own" landholdings. Therefore, farmsteads usually hosted large, complex, extended households, including several conjugal families and unmarried adult relatives (Plakans 1975: 4–5; cp. Vyšniauskaitė et al. 1995: 109–115).

In 1816–1819, serfdom was abolished in the Baltic provinces, inaugurating the capitalist era. The liberation of serfs in Russia (in 1861) was accompanied by land reform, involving the state, the landlords and peasants. Peasants could keep their plots, while landlords were compensated by the state, which collected a repurchase tax from the former serfs. Until the 1905–1907 revolution, when the Russian government abolished this tax and enacted a new agrarian reform to create a farmer-owner class, very few peasants were able to pay the full sum of the repurchase tax.

In Russia, the peasant community was the taxation unit, considered also as the collective owner of the allotted land to be repurchased. In Lithuania, parts of Belarus and Eastern Latvia, this unit was an extended family, holding the allotment. Until the repurchase tax was paid, allotments could not be sold, divided or transferred by other means. Although de facto divisions among adult children did happen, they were considered illegal. This particular landholding regimen preserved extended families, consisting of several nuclear families, who had no strong incentives to control fertility.

In the Baltic provinces, the serfs were freed without land, and all estate land remained the landlord's property (Plakans 2001). Peasants were now considered the landlord's tenants, renting his land. On the ground, nothing changed in terms of relations between landlords and farmstead heads, as nearly all of them paid their rents through labour dues. However, in 1849–1868, serf emancipation was supplemented by a protracted land reform, which was very different from its Russian pendant (Kozin 1976; Niedre 1986; Raun 2001 (1987): 43–49, 68–70).

First, some of the tenants received the right to purchase their farmstead and the surrounding lands. Second, their labour dues were replaced by monetary rents. The total annual payment of a farm's tenant consisted of rent and land repurchase

annuity. Heads of farmsteads, who were invited to make such land lease-to-own deals, had to assume complete, individual responsibility, risking losing the farmstead and their movable property to be sold at auctions if they failed to meet the payment deadlines. Under the 1861 Russian regimen, holders of the allotted land were collectively liable for paying ordinary and repurchase taxes to the state. They risked having to sell their movable property at auctions to pay for tax arrears, but they could not lose the land.

The land property rights settlement in the Baltic provinces removed the incentive to have a large number of children, characteristic for the folwark system and preserved by the 1861 system in other provinces of Russia. In the Baltic provinces, the rural population was divided into two classes. A small portion (20–30%) of the rural population were tenants of large farms (Vaskela 1998: 77–78). Many of them succeeded in repurchasing their homesteads and becoming well-to-do farmers, referred to as "grey barons" by their less successful compatriots. Only large tenant farms, run as efficient capitalist enterprises, could meet the conditions imposed by the lease-to-own deals. One could not even consider the partitioning of such farms. Therefore, only one son could expect to inherit the farm, while the other children were expected to look for employment elsewhere once they grew up. Instead of drawing on internal labour, such farms relied on hired farm hands, who (the system very different from that of other regions of tsarist Russia, including Lithuania) comprised the absolute majority (more than 60%) of the rural population (Siilivask 1990: 237–238).

Farmhands (both men and women) usually had only a 1-year-long work contract. Most of them were highly mobile, and moved from estate to estate, and from farm to farm every year in search of better employment conditions. This lifestyle discouraged both marriages and bearing children. However, the few late-born children in small households of the farm heads had a better chance to survive than their parents or grandparents, who were raised in extended families that prevailed before the middle of the nineteenth century. As a result, 'rural marital fertility had already been substantially reduced before 1900 in the provinces inhabited primarily by Latvians and Estonians, and very little or not at all in other provinces in European Russia' (Coale 1979: 113).

Finland and Lithuania provide two contrasting cases which help to substantiate the thesis of the decisive role of the Baltic mode of agrarian reforms for imparting demographic transition in Estonia and mainland Latvia, with its distinctive features. On account of the late start of its demographic transition, Finland's population increased from around 1.8 million in 1870 to 3.1 million in 1917 and continued to grow during the interwar period to 3.7 million (Hjerppe 1989: 192). Between the census of 1881 and 1922 in the Baltic provinces, the population of Estonia increased from 881,000 to 1.1 million and then stagnated during the interwar period (Raun 2001 (1987): 246). To understand such a sharp contrast, we must consider that in Finland there were no folwarks or serfdom. Therefore, there were no agrarian reforms in the nineteenth century in Finland, with its agrarian and demographic development moving along the traditional path, marked by the predominance of small farmer landholdings.

The main class division in rural Finland was not between landlords and farmers, but among farmers themselves, differentiating them into landowners and tenants (crofters and cottagers) with long-term lease contracts. Due to the rapid population growth, many regions in Finland suffered from agrarian overpopulation by 1914, until it was eased by urbanisation and industrialisation after the interwar period, also changing the procreation behaviour of the population according to the standard scenario of demographic transition.

In the Lithuanian provinces, survival of extended households did not create very strong incentives to postpone marriages and control fertility for both the advantaged (minority) and disadvantaged (majority) parts of formerly enserfed populations, allowing for fragmentation of landed property and perpetuating the Malthusian dynamics of agrarian overpopulation. Actually, according to legislation from 1861, until the repurchase tax was paid, allotments could not be sold, divided or transferred by other means. Although de facto divisions among adult children did happen, they were considered illegal.

After the Stolypin reform in 1906 abolished legal obstacles for the legal division of allotments, the surviving extended households were divided, and Lithuania became a country of small landholdings. In 1913, the mean size of a farmer landholding was 15.2 ha in Lithuania, 29.4 ha in Estonia (Vaskela 1998: 57–58), 47.0 ha in the Latvian part of the Livland (Vidzeme) province and 41.5 ha in Kurland (Skujeneeks 1927: 402). However, the mass emigration to the USA that had been taking place since the late 1860s eased population pressure in Lithuania, preventing rapid population growth (Norkus et al. 2020: 599–601).

The fate of rural proletarians and the nutrition conditions of their children in the Baltic provinces improved significantly only after World War I. During the very first years after the establishing of independent states in 1918, radical agrarian reforms were implemented in all three Baltic countries. In Estonia and Latvia, this reform dispossessed German landowners. The land was distributed among landless farmhands, with the best allotments going to those who volunteered for military service during the independence wars in 1918–1920. However, except for a brief post-war "baby boom", birthrates continued to decrease until the very end of the interwar period (see Table 10.4).

On the other hand, by transforming most of the former landless farmhands into subsistence farmers, the land reform created a permanent labour force shortage problem for the "grey barons", who could not run their large commercially oriented farms without hired workers. This problem could only be alleviated by significant seasonal migration of agricultural workers. These workers came from Lithuania and Poland—mainly from those regions which the interwar Republic of Lithuania considered as "Polish-occupied Eastern Lithuania". In Latvia, another supplier of farm hands was Latgale, which in terms of its culture and socio-economic conditions was closer to Lithuania than to regions of Latvia, which formerly belonged to the Baltic provinces.

Life expectancy differences between Estonian and Latvian males and females were noticeable already in 1897, indicating that Estonian women reaped life expectancy increase dividends due to the fertility decrease already before World War

I. Although most Estonians born in 1890–1899 grew up in poorer (in comparison with the UK, Sweden or Germany) families, most of these families were small, providing better care, nourishment and a more hygienic home environment for their few children. This accounts for a lower infant and child mortality in comparison with Lithuania.

Another factor was the weaker supply of medical services in Lithuania. In Lithuania, there was one physician per 2900 of population, and 1.7 hospital beds per 1000 of population in 1938. In Latvia, there was one physician per 1247 of population, and 6.7 hospital beds per 1000 of population. In Estonia, in the same year there was one physician per 1183 of population and 4.3 hospital beds per 1000 of population (Reichskommissar für das Ostland 1942: 73; 112; 151).

As former parts of the Russian Empire before World War I, all three Baltic countries inherited its social legislation and built welfare institutions on the basis of this received infrastructure (Mančinskas 1971: 10–11; Mucinieks 1934: 18; Peep 2005: 20–34). This common legacy included legislation on accident (1903) and sickness insurance (1912) for workers in large industry enterprises, following the example of Bismarckian legislation in Germany. Lithuania started to build up or transform this legacy only by the end of the first decade of independence. In 1926, the law on the establishment of territorial sickness funds, co-financed by compulsory contributions by employers and employees, was passed (see Norkus, Morkevičius et al. 2021).

However, its implementation only started in 1929 (Mančinskas 1971: 57), with the government's contribution limited to funding administrative costs and small maternity benefits for family members of the insured. It was not more significant in funding the implementation of the law on compulsory insurance of urban workers and employees against accidents, passed in 1936. It somewhat increased only when in 1939, insurance against accidents was extended to the agricultural working population (Mančinskas 1971: 129–130). However, the agricultural population remained excluded from sickness insurance schemes until the end of interwar independence.

In Latvia, the received Russian sickness insurance legislation was upgraded already in 1920, extending it to the entire employed urban population. It was co-financed by compulsory contributions by employers and employees, but was heavily subsidised by the government, its contribution adding up to 25% of the total revenue of sickness funds by 1930 (Aizsilnieks 1968: 576). The government mainly paid the cost of sickness benefits of the agricultural population, when after 1928, the sickness benefits scheme was extended to agricultural workers and farmers. In 1927, Latvia's parliament passed the "Law on insurance of employees against accidents at work and sickness" to upgrade the Russian 1903 and 1912 legislation. By 1930, it covered 350,000 persons (18.4%) out of a total population of 1.9 million in Latvia (Zālīte 1999: 108), with accident insurance of the self-employed (still a majority in the population of the country) remaining voluntary.

In Estonia, the main novelty in addition to social insurance schemes received from the Russian period was introduced in 1924 with the passing of the pension law, which entitled state employees to state pensions. In 1926, it was extended to workers of state-owned enterprises (Ahelik 1964: 194). However, by the end of interwar independence, only some 3% of the 1.1 million population of Estonia was entitled to old age pensions (Ahelik 1964: 195). The received Russian legislation on insurance against accidents was modified several times, extending this insurance to agricultural workers in 1936. Otherwise, the agricultural population remained excluded from health insurance schemes because compulsory health insurance co-financed by contributions from employers and employees extended only to the employed urban population.

The differences in the development of the welfare state between the Baltic countries broadly correspond to those in economic development: Latvia ranks first, followed by Estonia and Lithuania closing the running order (Norkus, Morkevičius et al. 2021). The early establishment of the authoritarian regime in Lithuania (1926) did not favour the build-up of a welfare state, which had been the priority of socialist parties. The agenda of a 'democratic class struggle' (Korpi 1983) in 1920–1934 was very similar in Estonia and Latvia, with the main cleavage separating the agrarian parties, who promoted the interests of farmers, from the socialist parties, who conceived themselves as representatives of the urban working class and rural proletariat (see Graf 2000; Stranga 1998). The "historical alliance" between agrarian and socialist parties in the Nordic countries in the 1930s accelerated the growth of the welfare state in these countries, while the inability of the "Baltic sisters" of these parties in Estonia and Latvia to make compromises necessary for such alliances may explain why democracy lost out here in 1934 (Luebbert 1992: 259–266; Stranga,1998: 36–72).

A critical juncture in the parting of ways between Latvia and Estonia was the failed attempt at a communist coup in Tallinn on 1 December 1924. Legal socialist parties were staunchly anti-communist, and were not implicated in the preparation coup, continuing to participate in the coalition governments. However, after the coup's failure, public opinion about leftist ideas had changed in Estonia, putting the socialists in a defensive position where they had to spend all their energy on defending themselves against the demagogic allegations of their political opponents that they were just "communists in camouflage".

Tellingly, Estonia became one the few interwar European countries with a grassroots mass proto-fascist movement *Eesti Vabadussõjalaste Liit* (Union of Participants in the Estonian War of Independence; colloquially *vapsid*), which was prevented from gaining victory at the election by the autogolpe coup launched in 1934 by the incumbent government under Konstantin Päts, which had initially also been supported by the socialists, as they were the prime target of vapsid's demagogic incriminations of crypto-communism (Kasekamp 2000).

Sitting in their strategic defence position, the Estonian socialists could not follow the example of their Latvian colleagues, even when they participated in governing coalitions. Very differently, both in the government and the opposition, the Latvian Social Democratic Worker Party successfully promoted several important reforms, making Latvia the leader in building a welfare state among the Baltic countries.

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Chapter 11
Baltic Health Progress Under Foreign Occupation and Restored Independence

When assessing the health progress of the restored Baltic States, we can rely on the 1×1 life tables for the complete restored independence period, published in the Human Mortality Database (HMD 2022). It also contains complete life tables for the Soviet occupation period from 1959, which is the year of the first Soviet census (taken on 5 January 1959) in the Baltic countries since their occupation in 1940.[1] During the Soviet period, they were compiled by the Soviet Central State Office in Moscow and remained classified until Gorbachev's perestroika era (some selected figures were published only in the 1960s). After the restoration of independence, they have been compiled and are regularly published by national statistical offices.

The HMD is the source of life expectancy data on Latvia and Lithuania appearing in Table 11.1 from 1959, and the source for all data on these countries in Table 11.2. It is the sole source of data on the benchmark countries Japan (Table 11.2) and Finland (Tables 11.1 and 11.2). However, data on Estonia for 1950–1989 in Table 11.1 and for 1989–2000 in Table 11.2 are provided according to Katus (2004), who was the best authority on this issue prior to his untimely death. The source on Latvia and Lithuania for the years 1950–1958 is the UN DESA (2021). It provides only 5×5 tables for the 1950–1955 and 1955–1960 periods, so there is some overlap for 1959–1960 between the two sources.

For the 1938–1950 period, we can rely also on Gapminder (Lindgren 2020) guestimates, which claim that life expectancy for both sexes in 1950 in Estonia (58.5 years) and Latvia (59.5 years) was still below the 1938 level (see Table 10.1). For Estonia, this claim is supported by Katus' 2004 life tables (see Table 11.1) and data collected by Olaf Mertelsmann (2011: 110), who affirms that life expectancy in 1950 'reached 47.6 in towns and 54.9 in the countryside'. However, his figures seem to refer to the mean age at death rather than life expectancy, as no life tables are provided.

[1] There were also censuses under German occupation in Estonia (1941), Lithuania (1942) and Latvia (1943). However, they were not completely processed or published.

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Table 11.1 Life expectancy in the occupied Baltic countries and Finland in 1950–1989

	Estonia			Latvia			Lithuania			Finland		
	Females	Males	Both sexes	Females	Males	Both sexes	Females	Males	Both sexes	Females	Males	Both sexes
1938	61.94	55.45	58.70	62.71	56.87	59.79	54.07	50.89	52.48	59.74	54.66	57.20
1950	63.41	53.37	58.39	65.85 (1950–55)	58.19 (1950–55)	62.40 (1950–55)	64.00 (1950–55)	57.29 (1950–55)	60.83 (1950–55)	67.92	60.38	64.20
1951	64.35	54.86	59.61							68.83	62.26	65.64
1952	65.51	56.07	60.79							69.48	63.34	66.52
1953	67.77	58.76	63.27							69.76	3.25	6.60
1954	68.51	60.66	64.59							70.65	4.23	7.55
1955	69.23	61.26	65.25	70.89 (1955–60)	65.93 (1955–60)	67.57 (1955–60)	69.95 (1955–60)	66.31 (1955–60)	66.88 (1955–60)	70.66	63.84	67.34
1956	70.85	62.75	66.8							71.18	4.58	67.98
1957	71.69	62.87	67.28							70.60	64.11	67.45
1958	71.23	64.21	67.72							71.72	65.29	68.61
1959	71.91	64.33	68.12	72.66	65.56	69.51	70.63	64.37	67.73	72.16	65.24	8.79
1960	73.07	64.71	68.89	73.51	66.28	70.33	73.02	66.99	70.28	72.40	65.41	68.99
1961	73.33	65.12	69.23	73.92	66.33	70.54	73.61	66.83	70.45	72.24	65.60	69.01
1962	73.18	65.60	69.39	73.17	65.83	69.90	72.46	65.94	69.43	72.25	65.10	68,74
1963	73.60	65.36	69.48	73.69	66.22	70.33	73.85	66.79	70.56	72.69	65.52	69.18
1964	74.17	66.38	70.28	74.88	67.33	71.53	75.05	68.30	71.93	72.96	65.66	69.38
1965	74.33	66.33	70.33	74.85	66.79	71.22	74.75	68.15	71.69	72.86	65.30	69.13
1966	74.38	66.30	70.34	74.60	66.99	71.18	75.12	68.15	71.87	73.18	65.96	69.64
1967	74.77	66.42	70.60	74.22	66.75	70.86	75.48	67.98	71.95	73.59	65.93	69.82
1968	74.45	65.94	70.20	74.54	65.76	70.47	75.15	67.68	71.63	73.57	65.88	69.78
1969	74.39	65.34	69.87	74.55	65.28	70.21	75.01	67.08	71.23	73.57	65.64	69.65
1970	74.52	65.44	69.98	74.24	65.65	70.24	75.04	66.81	71.10	74.40	66.16	70.32
1971	74.75	65.73	70.24	74.80	65.74	70.57	76.13	67.56	72.04	74.32	65.91	70.15
1972	74.63	65.48	70.06	74.77	65.24	70.27	75.45	66.83	71.31	75.03	66.61	70.87

1973	74.65	66.05	70.35	74.49	65.34	70.19	75.65	67.23	71.62	75.68	66.97	71.36
1974	75.05	65.92	70.49	74.74	64.97	70.12	75.71	67.01	71.54	75.56	66.93	71.29
1975	74.76	64.96	69.86	74.16	63.93	69.26	75.57	66.37	71.11	76.14	67.43	71.84
1976	74.41	64.54	69.48	74.39	63.97	69.39	75.87	66.30	71.22	76.33	67.54	71.99
1977	74.48	64.71	69.60	74.15	64.28	69.45	75.65	66.20	71.06	76.96	67.96	72.51
1978	74.53	64.34	69.44	74.10	64.10	69.33	75.43	66.00	70.85	77.43	68.58	73.08
1979	74.20	64.16	69.18	73.71	63.52	68.83	75.62	65.58	70.72	77.55	68.98	73.36
1980	74.26	64.27	69.27	74.09	63.74	69.12	75.63	65.58	70.70	77.86	69.24	73.65
1981	74.12	64.12	69.12	74.37	63.44	69.08	75.65	65.50	70.69	78.11	69.62	73.96
1982	74.71	64.60	69.66	74.62	64.24	69.63	75.99	65.92	71.07	78.59	70.22	74.53
1983	74.85	64.37	69.61	74.58	63.87	69.40	75.89	65.90	71.01	78.36	70.25	74.44
1984	74.28	64.59	69.44	74.46	64.06	69.44	75.57	65.33	70.54	78.76	70.49	74.74
1985	74.49	64.65	69.57	74.01	64.74	69.60	75.48	65.76	70.74	78.52	70.15	74.42
1986	75.11	66.18	70.65	75.08	66.29	70.96	76.44	67.93	67.93	78.76	70.57	74.77
1987	75.07	66.30	70.69	75.11	66.38	71.01	76.34	67.73	72.23	78.71	70.67	74.80
1988	75.00	66.51	70.76	75.14	66.19	70.91	76.26	67.46	72.03	78.69	70.66	74.77
1989	74.91	65.79	70.35	75.09	65.33	70.41	76.21	66.84	71.66	78.90	70.87	74.97

Data sources: Estonia: Katus (2004). Latvia: 1950–1960 – UN DESA (2021); 1959–1989 – HMD (2022). Lithuania: 1959–1989 – UN DESA (2021); 1959–1989 – HMD (2022). Finland: HMD (2022)

Table 11.2 Life expectancy in the occupied Baltic countries. Finland and Japan in 1989–2040

	Estonia			Latvia			Lithuania			Finland			Japan		
	Females	Males	Both	Females	Males	Both	Females	Males	Both	Females	Males	Both	Females	Males	Both
1989	74.91	65.79	70.35	75.09	65.33	70.41	76.21	66.84	71.66	78.90	70.87	74.97	81.80	75.97	78.98
1990	74.90	64.70	69.80	74.51	64.13	69.46	76.15	66.39	71.37	78.88	70.94	74.99	81.87	75.95	79.00
1991	74.96	64.53	69.75	74.49	63.68	69.17	75.81	65.13	70.51	79.32	71.33	75.40	82.17	76.16	79.26
1992	74.88	63.78	69.33	74.30	62.58	68.45	75.87	64.78	70.34	79.44	71.67	75.65	82.30	76.14	79.30
1993	74.30	62.99	68.65	73.20	60.38	66.63	74.93	63.12	68.94	79.48	72.11	75.88	82.45	76.27	79.45
1994	73.48	61.68	67.58	72.25	58.72	65.18	74.76	62.51	68.50	80.15	72.80	76.57	82.90	76.59	79.84
1995	74.71	62.39	68.55	72.66	59.71	65.99	74.96	63.24	69.02	80.21	72.81	76.60	82.78	76.42	79.68
1996	76.09	65.22	70.66	74.41	62.73	68.59	75.79	64.61	70.20	80.55	73.03	76.87	83.50	77.04	80.36
1997	76.41	65.48	70.95	74.68	63.62	69.22	76.55	65.45	71.03	80.51	73.43	77.06	83.74	77.25	80.59
1998	76.01	65.18	70.60	74.45	63.20	68.85	76.57	65.97	71.33	80.84	73.52	77.26	83.92	77.22	80.66
1999	76.40	65.90	71.15	74.96	64.19	69.65	76.94	66.33	71.72	81.03	73.74	77.45	83.92	77.18	80.63
2000	76.56	66.36	71.46	75.70	64.53	70.18	77.37	66.74	72.14	81.02	74.16	77.67	84.53	77.69	81.20
2001	76.51	65.16	70.84	75.46	64.26	69.91	77.49	65.90	71.71	81.54	74.58	78.14	84.86	78.04	81.54
2002	77.20	65.56	71.37	75.85	64.43	70.18	77.47	66.17	71.84	81.53	74.87	78.27	85.16	78.30	81.83
2003	77.29	66.45	71.93	75.71	65.35	70.64	77.73	66.40	72.09	81.81	75.13	78.53	85.26	78.35	81.89
2004	77.96	66.73	72.38	76.07	65.60	70.94	77.73	66.27	72.00	82.27	75.31	78.85	85.51	78.63	82.17
2005	78.30	67.58	73.03	76.28	64.94	70.63	77.47	65.21	71.25	82.30	75.53	78.97	85.43	78.52	82.06
2006	78.60	67.64	73.20	76.08	64.96	70.55	77.07	65.05	70.97	82.83	75.82	79.37	85.72	75.82	82.42
2007	78.78	67.46	73.16	76.21	65.30	70.79	77.19	64.51	70.70	75.87	75.87	79.39	85.90	79.13	82.60
2008	79.41	68.89	74.29	77.38	66.44	72.01	77.53	65.92	71.70	83.01	76.32	79.70	85.97	79.23	82.68
2009	80.03	69.98	75.18	77.58	67.51	72.70	78.54	67.12	72.86	83.11	76.48	79.83	86.35	79.53	83.02
2010	80.53	70.83	75.89	77.84	67.89	73.03	78.76	67.55	73.20	83.24	76.72	80.01	86.26	79.53	82.97
2011	81.00	71.30	76.36	78.50	68.55	73.72	79.07	68.03	73.62	83.54	77.19	80.40	85.88	79.43	82.73
2012	81.15	71.33	76.44	78.68	68.86	73.95	79.42	68.39	68.39	83.41	77.50	80.50	86.39	79.93	83.23
2013	81.32	72.71	77.27	78.73	69.26	74.19	79.37	68.52	74.03	83.82	77.88	80.88	86.59	80.20	83.47
2014	81.49	72.30	77.12	79.23	69.07	74.30	79.86	69.13	74.59	83.85	78.13	81.02	86.81	80.49	83.72
2015	81.80	73.09	77.68	79.33	69.68	74.67	79.62	69.15	74.48	84.17	78.59	84.17	87.01	80.76	87.01
2016	77.77	73.20	77.77	79.39	69.78	74.76	79.98	69.47	74.82	84.12	78.43	81.29	87.17	80.99	84.15
2017	82.29	73.67	78.20	79.53	69.80	74.82	80.37	70.71	75.70	84.23	78.72	81.50	87.31	81.11	84.27
2018	82.41	73.88	78.36	79.62	70.05	74.99	80.60	70.91	75.91	84.31	78.91	81.63	87.36	81.27	84.37

Difference 1938/1989	12.97	10.34	11.65	12.38	8.46	10.62	22.14	15.95	19.18	19.16	16.21	17.77	31.26	28.26	29.9
Difference 1989/2018	7.5	8.09	8.01	4.53	4.72	4.58	4.39	4.07	4.25	5.41	8.04	6.66	5.56	5.3	5.39
Increase per decade 1938/1989	2.54	2.03	2.28	2.43	1.66	2.08	3.80	2.43	3.15	3.76	3.17	3.48	6.13	5.54	5.86
Increase per decade 1989/2018	2.59	2.79	2.76	1.56	1.63	1.58	1.51	1.40	1.47	1.87	2.77	2.30	1.92	1.83	1.86
Increase per decade 1913–1938	4.20	3.75	3.98	4.12	3.58	3.85	2.99	2.60	2.80	3.58	2.94	3.26			
2040 OIST target	≥87.88	≥76.31	≥82.0	≥87.47	≥73.79	≥81.03	≥95.84	≥82.79	≥90,84	Na	Na	Na	Na	Na	Na
2040 UN forecast	84.74	78.02	81.41	82.02	73.50	77.82	83.37	74.09	78.77	86.93	82.09	84.48	89.91	83.72	86.79
Lag Japan 1989	6.89	10.18	8.63	6.71	10.64	8.57	5.59	9.13	7.32	2.9	5.1	4.01	0	0	0
Lag Japan 2018	4.95	7.39	6.01	7.74	11.22	9.38	6.76	10.36	8.46	3.05	2.36	2.74	0	0	0
Lag Japan 2040	5.17	5.7	4.77	7.89	5.19	8.97	6.54	9.63	8.02	2.98	1.63	2.31	0	0	0
Japanese standard	Yes	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	Na	Na	Na
Lag Finland 1989	3.99	5.08	4.62	3.81	5.54	4.56	2.69	4.03	3.31	0	0	0	Na	Na	Na
Lag Finland 2018	1.9	5.03	3.27	4.69	8.86	6.64	3.71	8	5.72	0	0	0	Na	Na	Na
Lag Finland 2040	2.19	4.07	3.07	4.91	8.59	6.66	3.26	8	5.71	0	0	0	Na	Na	Na
Finnish standard	Yes	Yes/no	Yes	No	No	No	No	No	No	Na	Na	Na	Na	Na	Na

Data sources: Estonia: 1990–2000 – Katus (2004); 2001–2018 – HMD (2022). Latvia, Lithuania, Finland, Japan: HMD (2022). Japan 1938: Keyfitz and Flieger (1968: 224), who provide life tables for 1939–1941

The decrease of life expectancy in the 1940s can only be expected because of the war-related disorganisation of the public health system, leading to the spread of infectious diseases and a drop in living standards due to both the war destruction in the cities and the impoverishment of the rural population brought on by Stalinist collectivisation. As a result, in 1950, life expectancy in Estonia (and probably also in Latvia) was markedly below Finland's level, while in 1938 the life expectancy of males and females was higher in Estonia and Latvia than in Finland (see Table 10.1). However, a brief spurt followed in the 1950s, when life expectancy rose at the rate of around 1 year annually during the decade in all three Baltic countries, with Lithuania making the greatest progress.

During this time, the phase of "receding pandemics" in the epidemiological transition (see Chap. 10) in the Baltic countries reached its end, marked by the replacement of infectious diseases as dominant causes of mortality by man-made and degenerative diseases. The mortality of children, infants and childbearing mothers dropped sharply, mainly due to the greater availability of obstetric services, the introduction of new vaccines against childhood diseases with a high lethality (e.g. polio, diphtheria, measles) and the use of antibiotics. They also helped to reduce mortality from tuberculosis, which had formerly decreased life expectancy at a young and middle age. By 1960, the lag behind Finland was closed and convergence between the Baltic countries had occurred, Lithuania catching up to and even slightly overtaking (until the early 1990s) the other two Baltic countries for the first time in the Baltic region's history.

Close parity between all four countries endured during the 1960s, when life expectancy remained nearly unchanged for a decade in all four countries. However, since the early 1970s, life expectancy in Finland started to increase again, while in the Soviet-occupied countries, stagnation continued intermittently with a decrease for males. Their life expectancy in the early 1980s was 2 or 3 years shorter than in the 1960s. This was a definite indicator of absolute health regress under late state socialism and its systemic crisis. The Soviet public health system failed to cope with cardiovascular diseases, which became one of the main causes of death from the 1950s, followed by neoplasms. Meanwhile, in the Western countries, a cardiovascular revolution started in the 1960s, including improvements in emergency care, faster emergency response times, defibrillation, thrombolysis, the use of new medicines (statins, beta blockers, angiotensin-converting enzyme inhibitors, anti-platelet agents, etc.) after a heart attack or stroke (Vallin and Meslé 2004). There was also a change in the lifestyles of risk groups, including the consumption of more fruit and vegetables, exercise, and smoking and drinking less.

The underfunded and highly bureaucratised healthcare systems in the late socialist countries remained focused on infectious diseases and were not able to introduce the innovations of the cardiovascular revolution (Healy and McKee 2002). Gorbachev's anti-alcohol campaign in 1985–1987 did help to bring male life expectancy back down almost to the level of the 1960s. By 1989, Lithuania still preserved leadership among the three Baltic countries, but all three lagged behind Finland by 3–4 (females) or 4–6 (males) years. The gap behind Japan, which had by

1989 established its world leadership in life expectancy increase, was even larger (6–7 years for females and 9–11 years for males).

The first years of capitalist restoration were marked not only by GDP contraction, but also by the decrease of life expectancy, which was largest for males. Both contractions were nearly synchronous, reaching the lowest point in 1993–1994. Indeed, the change of institutional framework in the economy came with significant costs in terms of lost years of human life. At the time of its largest contraction in 1993, Estonia's output per capita plummeted to the 1963 level (see Tables 9.1 and 9.3). At the time of its largest decrease in 1994 (61.68 years), Estonian male life expectancy plummeted to the level seen in 1955–1956 (see Tables 11.1 and 11.2). There is no output per capita data for Latvia or Lithuania before 1973, but Latvian male life expectancy in the year of its largest decrease in 1994 (58.72 years) was not much above its level in 1938 (56.87). Lithuanian male expectancy at its nadir in 1994 (62.51) was below its level in 1959 (cp. Tables 11.1 and 11.2).

The decrease of female life expectancy was much smaller and therefore it took much less time to recover to the top level under the intermediate system. In all three Baltic countries, this happened before the GDPpc recovery to the 1989 level. However, the return of male life expectancy to the intermediate system level did take more time than economic recovery in all three countries. It was most rapid in Estonia (by 2003–2004), with Latvia following in 2008–2009. In Lithuania, the top intermediate period level (68.30 years in 1964) was superseded only in 2012, when Lithuanian output per capita was 54.3 percent above the 1990 level. This suggests that although economic recovery was a necessary condition for the resumption of life expectancy increase, the hysteresis effect (Scheffer 2009: 18–36) was at work in the relationship between increases of economic output and health improvement: after the drop in life expectancy in the wake of output decrease, the return of life expectancy to its former level was possible only under a much higher GDPpc than was initially needed to reach this level.

The hysteresis effect itself can be explained by the irreversible damage inflicted on the health of the population by the protracted economic recession, especially by protracted unemployment. In Estonia, contraction of output was less than in Latvia and Lithuania, and economic recovery was more sustained. Therefore, the health of the Estonian population suffered less damage than that of the other two Baltic countries (Jasilionis et al. 2011). Importantly, after reaching the nadir in 1994, life expectancy in Estonia consistently increased in 1994–2018. The outcome was the emergence of a new Baltic leader, with life expectancy in Estonia surpassing that in Lithuania and Latvia by 3–4 years by 2018.

In these two countries, during the first decade of the twenty-first century, male life expectancy recovery growth was interrupted by new stagnation (e.g. in Lithuania in 2005–2007, in Latvia in 2004–2006) or even a life expectancy decrease (Stankūnienė and Jasilionis 2011). Puzzlingly, this period coincides with the period of very rapid economic growth (2000–2007). The most credible solution to this puzzle is the wave of emigration to the EU countries in this period, affecting Latvia and Lithuania, but not Estonia (see Chap. 9). Adult males of younger and middle age was the age category most affected by emigration. Most healthy and employable

individuals in these age categories departed, and those more exposed to morbidity and inclined to suicide remained in their respective homelands. These effects of self-selection for emigration on life expectancy were similar to the depressing impact of mass emigration on the increase of life expectancy in Lithuania in 1897–1913 and interwar period (see Chap. 10).

Concerning the first restoration years, there were many causes for life expectancy decline. Firstly, the gains of restitution were unevenly distributed. The standard of living among short- and long-term losers from the reforms declined. These included workers of an advanced age, who worked in the large industrial enterprises extinguished by restructurisation of the economy. They suffered both from a loss of income and stress from having to change their job and/or undergo retraining. Secondly, systemic change imposed a great deal of stress both on the winners and losers, related to the change of employer, profession and social status, with the long-term unemployed suffering most. This led to a marked increase in suicide deaths. In 2000, with 50.1 suicides per 100,000 of population, Lithuania was the second (after the Russian Federation with 53.1) worst performing country in the world (World Bank 2021b).[2] The stress imposed on the population by systemic change also led to the increase of hazard drinking as means of coping with this stress.

Rapid automobilisation of the population was the third cause of mortality increase. Most of the population could only afford mainly used and unsafe cars. They were driven by inexperienced drivers, using an unsuitable street and road network, many of them displaying a lax attitude to safety measures, and exposing themselves as well as others to the hazards of drunk driving. The police had limited resources to control this because it was challenged fighting organised crime, which was another cause of the increase in injuries and violent mortality. Fourthly, the decrease of state revenue during the period of systemic change further worsened the situation of the health care system, which was already heavily underfunded during the late socialist period. Thus, the increased share of deaths due to external causes (accidents, homicides, self-intoxication by alcohol and drugs) became a distinctive feature in mortality statistics during the first decade of restoration.

The number of deaths due to external causes subsided in Estonia and Latvia by 2000, but male mortality from cardiovascular diseases and neoplasms remained at a high level. In Lithuania, the incidence of deaths by external causes returned to the 1989 level only by 2010, while mortality from cardiovascular diseases increased again after an insignificant drop in around 2000. Only by the third decade of restoration did the cardiovascular revolution reach this country. In Estonia, this happened a decade earlier, leading to a noticeable increase in the life expectancy of both sexes already by 2008.

Estonia's success at pioneering the cardiovascular revolution in the Baltic countries is sometimes explained by the early reorganisation of the received Soviet-style health care system, replacing the hospital-centred model by a primary care system based on family physicians (Aaviksoo and Sikkut 2011: 63). It involved reducing the

[2] In Estonia, the suicide rate was 29.1, Latvia 34.7 and Finland 24.3.

number of hospitals and hospital beds to redistribute resources for the establishment of family medicine centres, which are reputed to be more efficient. However, such reforms, promoted and lobbied by World Bank experts, were introduced in all three Baltic countries.

A more credible explanation seems to be that Estonia simply had recourse to a cleverer funding scheme under its taxation system, making funding less dependent on the vagaries of party politics, related to the formation of the state budget, or any cuts to these funds because of allegedly more pressing priorities. Namely, in Estonia public health is financed from a special tax, paid by employers and accumulated in a special fund. For this reason, health expenditure on a per capita basis sharply decreased in Lithuania and Latvia during the 2008–2009 crisis, while in Estonia it remained stable (Gudžinskas 2012: 131–146). Due to lower levels and lesser stability in the public financing of health care, patients are asked to pay a larger share out-of-pocket of the service cost in Latvia and especially in Lithuania. This limited access to medical services among low-income individuals, which coincidentally also mostly display the poorest health and need these services the most.

However, this still may provide only a partial explanation for Estonia's comparative success in raising the biological standard of living within its population. Another important factor is the more rapid change in risky health behaviours, such as not consuming enough fruits and vegetables, not exercising, smoking and binge drinking (Morkevičius et al. 2020).[3] Generally, Estonians have a better record on these points than Lithuanians, who in 2018 were the second top drinking nation in Europe (next to the Czechs, 14.5 litres), with 13.2 litres of pure alcohol per capita for the population aged 15 years and older consumed annually. The Latvian record (12.8 litres) is only slightly better, while Estonians (9.2 litres) drank less than Finns (10.8 litres) (World Bank 2021a).

On account of the superposition of so many unfavourable circumstances, Lithuania became one of two token restored capitalism countries that was not completely successful in passing the OIST for early restoration health performance success.[4] The life expectancy of Lithuanian males decreased both during the late socialist (1973–1989) and early restoration (1989–2008) periods. However, during the longer 1989–2018 period, life expectancy of both sexes in all three Baltic countries increased more than in 1960–2018, so they were completely successful in passing the OIST for the actual health performance success of restoration.

Together with the other post-socialist countries, which did become victims of the export of the Russian Revolution in 1939–1945, the restored independent Baltic countries failed to pass the OOST according to CRHPS by 1989. Based on Katus' (2004, 2008) and our estimates of life expectancy during the interwar period, decadal

[3] This paper uses European Social Survey (ESS) Round 7 data. This data provides a unique opportunity to compare the risky health behaviours of 21 nations. However, data on Latvia were not released, although it did participate in this ESS round.

[4] Another deviant case is Bulgaria, where the improvement of female life expectancy in 1989–2008 did not surpass its increase in 1973–1989. See Norkus (2023).

life expectancy (population of both sexes) increase rates for 1913–1938 (3.98 years in Estonia, 3.85 in Latvia and 2.80 in Lithuania) are far above those in 1989–2018 (2.76 years in Estonia, 1.58 in Latvia and 1.47 in Lithuania). This has to do with the first period of independence coinciding with the middle period of the "receding pandemics" phase of mortality transition, which is marked by a high life expectancy increase rate. Due to the absolute regress caused by World War II, this transition was over only under the externally imposed socialist system in the 1950s.

Can the restored Baltic States then continue their current success and by the 100th anniversary of the Molotov-Ribbentrop Pact outperform the complete totalitarian era with higher rates of life expectancy increase? This would amount to an increase of life expectancy in 1989–2040 by no less than 11.7 years in Estonia, 10.6 years in Latvia and 19.2 years in Lithuania, and achieving a life expectancy at birth in 2040 of more than 82.0 years in Estonia, 81.03 in Latvia and 90.84 years in Lithuania (for the population of both sexes).

Indeed, for Estonia and Latvia, where the "receding pandemics" phase of mortality transition was near to completion by 1938, these target values are completely realistic, as they are on the level of most advanced capitalist countries by 2018. In the Baltic benchmark country of Finland, life expectancy was 81.63 years (84.31 for females and 78.91 years for males) in this year. As life expectancy in the affluent Western countries will predictably increase during the next two decades, these target values may be even too low to serve as benchmarks for the ultimate assessment of restoration health performance success. For this reason, it is supplemented by the Japanese standard test (decrease of the life expectancy lag behind Japan in 1989 by 1940) and catching up with Finland (see also Chap. 4). The usability of the last criterion is substantiated by the fact that in 1938, two Baltic countries (Estonia and Latvia) did have slightly higher life expectancy values than Finland (see Table 10.1).

As of 2018, only Estonia's life expectancy increase indicates that this country is on the success track to meet all three target values (see Table 11.2). On account of their longer recovery to reach the intermediate system life expectancy levels, the lag of Latvia and Lithuania behind Finland and Japan increased in 1989–2018. However, I will insist that both countries are able to pass both tests in 2040. The cardiovascular revolution is still just beginning in Latvia and Lithuania, with its huge potential for reducing mortality still not fully appreciated. This is what the lowest positions of these countries in the EU ranking by 2018 according to male life expectancy indicate.

The good news is the decreasing share of adult males and females with raised blood pressure in 2000–2015 in all three Baltic countries, as well as the decrease of mean levels of "bad" (non-HDL) cholesterol for both sexes (NCD-RisC 2021a). The bad news is the increasing body mass index of both males and females in all three Baltic countries and obesity (BMI $>$ 30.0 m/kg^2) (NCD-RisC 2021b), with only Lithuanian females being an exception and displaying a decrease from 26.2 m/kg^2 to 26.1 m/kg^2 in 2000–2016 and from 26.4 m/kg^2 to 26.1 m/kg^2 in 1989–2016 (NCD-RisC 2021c).

Meanwhile, the most advanced Western countries are in the next stage of mortality transition, where life expectancy at birth increases due to the increase in

life expectancy at an advanced age (e.g. Barrett et al. 1998; Vallin and Meslé 2004). This increase is related to breakthroughs in cancer therapy and delaying the impact of degenerative diseases. The transfer of these new technologies may increase the effect of the cardiovascular revolution. While the scale of this transfer may be limited by economic factors (new technologies are expensive), there is huge unused potential of life expectancy increase in nudging Baltic males to change their lifestyle habits: to stop smoking, drinking, to exercise more and eat more fruits and vegetables.

Further untapped resources for increasing life expectancy is the decrease of income inequality and improving the funding of health care and supply of public services in general. The Baltic laggard Lithuania has the most untapped reserve of resources for this purpose. Among EU member countries, in 2018, Lithuania still ranked last in its male life expectancy, although its GDP per capita at PPP did approach 75% of the EU mean value, with Lithuania outranking all former communist countries except Czechia and Slovenia and achieving GDP per capita at PPP coequality with Estonia (MPD 2020). While its GDP at PPP nearly doubled in comparison with the 1989 level (cp. Tables 9.1 and 9.3), its male life expectancy only increased by 4.07 years for males and 4.39 years for females (see Table 11.2).

According to contemporary research, income inequality is one of the most formidable obstacles to increasing life expectancy, having not only an indirect, but also a direct impact on mortality (Deaton 2003, 2013; Wilkinson and Pickett 2006, 2015). Meanwhile, in 2018 Lithuania was second and Latvia third (next to Bulgaria) among EU member countries in terms of income inequality. The Gini coefficient value of equivalised disposable income for Lithuania was 36.9, 35.6 for Latvia and 30.6 for Estonia. To put these figures into perspective, the EU-28 value was 30.8, and those for the two member countries with lowest inequality (Slovakia and Slovenia) were 20.9 (Slovakia) and 23.4 (Slovenia) (Eurostat 2021a).

Referring to disposable income, these high Gini coefficient values are certainly related also to Lithuania's relatively low levels of income redistribution by taxation and government spending, which implies the underdevelopment of the welfare state. As of 2018, Lithuania, in terms of its total government expenditure (34.0 percent of GDP), was the second lowest ranked in the EU, followed only by Ireland (25.3 percent), while the EU-28 mean value was 46.5 percent (Eurostat 2021b). Correspondingly, with total taxes (including compulsory social contributions) making up 30.3 percent of its GDP, it was among EU countries at the lower end of rank order, followed only by Bulgaria (30.0 percent), Romania (26.80 percent) and Ireland (23.2 percent), with the EU-28 mean 40.3 percent (Eurostat 2021c).

The difference between expenditure (34.0 percent of GDP) and taxation revenue (30.3 percent of GDP) is accounted for by Lithuania's role as a net recipient in contributing to and receiving its share from the EU budget. The role of subsidies from the EU budget was even more important for Latvia, where total government expenditure was 39.3 percent of GDP, but taxation made up only 31.4 percent of its size. Transfers from the EU budget were also important for Estonia, where in 2018 the share of government expenditure was 39.4 percent, and the taxation share in GDP was 33.1 percent. Net transfers from the EU budget allow the Baltic States to

fund their public sectors and maintain welfare state institutions with relatively light taxation.

However, as far as they will successfully move towards passing the ultimate test of the economic performance success of restoration, the discrepancy between the impressive economic and rather modest health progress of Lithuania and Latvia will become less and less sustainable. If their annual economic growth rates will remain at the level of the decade after the Great Recession in 2008–2011, by 2040 they will certainly pass the OIST for economic performance success of restoration, as well as pass the Finnish (decreasing the GDPpc gap behind this country to the 1938 level) and American standard tests (see Chap. 9).

As output per capita of the Baltic countries will approach the EU mean level, the Baltic countries will become net donors to fund cohesion programmes for new EU members on its eastern (Belarus, Ukraine, Moldova) and southern (Albania, Bosnia and Herzegovina, Northern Macedonia, Kosovo, probably also Turkey) peripheries. Further human development progress to meet the target values of the ultimate success of restoration will not be possible without fiscal reforms to fund more inclusive social policies. They will surely put the development of the welfare state in the Baltic States on a more solid basis to refute current UN DESA forecasts that by 2040, only Estonia will catch up with Finland or decrease the life expectancy gap behind Japan as of 1989.

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Part V
Three Phoenixes from the Ashes III: Somatic Progress of the Restored Baltic States in Cross-Time Comparison

According to data released by Jörg Baten and Mathias Blum (2015a), adult Estonian men born between 1890 and 1899 with a decadal average height of 173.4 cm were the tallest in the world. This seems to hopelessly discredit the use of anthropometric data for measuring social progress in general and the very idea of somatic progress in particular (see Chap. 4). This is the idea of the improvement of living conditions of young people as a part of overall social progress, enabling the next generation to grow taller than their parents and grandparents. It seems that by forthrightly applying the core idea of anthropometric history, we should claim that the Baltic provinces of the Russian Empire in the late nineteenth century were the best place for humans to grow up in, at least for those of European descent.

In the context of anthropometric history, the top rank of Estonian males in height ranking is an anomaly because according to one of the key findings, human height is closely correlated to gross domestic product (GDP) per capita (see, e.g., Baten 2017; Bogin 2001; Fogel 2004; Komlos 1995a, 1995b; Komlos and Baten 2004; Steckel 1995, 2009, 2013). For this reason, height and other biological measures are considered a valuable alternative or even a substitute for GDP per capita, which is a conventional economic measure of human wellbeing. Yet according to our own estimates (see Norkus and Markevičiūtė 2021 and Chap. 8), Estonia was not among the most advanced countries at this time. Therefore, the assessment of somatic performance success of the Baltic restorations in present chapter is prefaced by an attempt at solving the 'Estonian antebellum paradox'. The analysis will be limited to male heights because of the notorious unreliability of data on female heights (at least for the late nineteenth–early twentieth centuries).

In economic history, this correlation failure between economic growth and increase in biological standards of living is best known as the 'antebellum paradox', referring to the decline of the height of Americans in the decades before the US Civil War (1861–1865) despite conditions of rapid economic growth (Komlos 1995a; Steckel 1992, 1995). While males born in 1820–1829 were 173.5 cm tall, the height of their compatriots born in 1890–1899 was 169.1 cm, with all intermediate cohorts displaying a continuous decrease in height, even though the US GDPpc increased

more than two times in 1830–1890. Only after a hundred years had passed did Americans born in 1941–1949 finally outgrow their great-grandfathers.

This paradox had its twins in Great Britain and Germany, where heights declined or stagnated under conditions of industrialisation. Over five decades of British technological and economic world domination in 1810–1869, the heights of British males decreased from 169.7 cm in 1800–1809 to 166.6 cm in 1860–1869. The 1800–1809 level was surpassed only in 1900–1910, some hundred years after the First Industrial Revolution. Arguably, such observations of the decline in biological living standards of people toiling under the conditions of rapid economic growth lay at the roots of the rise of the socialist movement (see Norkus 2023).

It may be tempting to explain away the 'Estonian anomaly' by suggesting that the population of this country is characterised by a high frequency of 'height genes' carriers, which according to the current state of research in human genetics is the haplogroup I-M170 (Grasgruber et al. 2014; Rootsi et al. 2004). However, according to the available data, Estonians do not belong to populations with a high concentration of this haplogroup (nor do the Dutch, who were the tallest people in the world as of 2019, although they ranked only 8th in the early twentieth century). Nevertheless, there are strong reasons to believe that human populations, referred to as 'races' in human biology, differ in terms of their genetic endowments to be able to grow tall, or not. For this reason, anthropometric data is most useful to compare the environmental growth conditions of people with similar genetic stock (McEvoy and Visscher 2009). Therefore, discussion of the 'Estonian anomaly' will be based only on comparisons with populations of European descent.

Differently from the American paradox of height underperformance in comparison with economic growth, the Estonian paradox is one of overperformance. The connection implies working out whether the explanatory arguments that were advanced to solve the American 'antebellum paradox' and its European twins (see Norkus 2023) can help solve its Estonian version. We will provide statistical tests of these arguments, including for the first time the Baltic countries, which are neglected in the available research just because they were are absent in the databases most frequently used in the internationally comparative quantitative research.

Then we[1] will advance my own explanation, arguing that height overperformance among males from the Baltic provinces can be explained by the same set of causes that accounted for life expectancy levels in the Baltic provinces in the late nineteenth century being on par with those in West European countries, which were much more economically advanced (to recall, in 1880–1883, life expectancy at birth in the Baltic provinces was not far below France and slightly above Prussia). This is the early advanced stage of demographic transition, already discussed in Chap. 10.

[1] I use we in this chapter because research grounding this chapter was conducted in collaboration with Vaidas Morkevičius, Aelita Ambrulevičiūtė and Jurgita Markevičiūtė (see Norkus, Morkevičius et al. 2022).

Namely, I will argue that the higher (in comparison with wealthier countries) wellbeing of children and adolescents in the Baltic provinces of tsarist Russia can be explained by the early decrease of family household size. Although most Estonian men born around the turn of the century in 1900 grew up in poor (compared to the UK, Sweden or Germany) families, most of these families were small, providing better care and nourishment for their fewer children. Therefore, Estonian men born in the late nineteenth to the early twentieth centuries not only grew taller than their peers from Lithuania, which was less advanced demographically and economically, but also from more affluent countries.

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Chapter 12
Saving Anthropometric History: A Solution to the "Estonian Antebellum Paradox"

First of all, I claim that Jörg Baten and Mathias Blum (2015a) have provided inaccurate data on Estonian male height. I discuss in more detail the most broadly used international data sources on human height in the next chapter. At this point, I only state that the decadal average of 173.4 cm for adult Estonian men born between 1890 and 1899 is not supported by other sources. The most reliable reports are surveys of provinces, presented annually by Russian governors to the central government, as they are based on the largest number of observations (N). According to this source, the mean height of draftees ($N = 1654$) to the Russian army in 1913 from the Estland Province was 172.0 cm (1914 Obzor Èstljandskoj gubernii na 1913 god: 44). I use this 172.0 cm value in my quantitative analysis, although this correction only makes Estonians appear as the second tallest males (following Swedes with 172.4 cm and sharing second place with New Zealanders).

For other countries, we accept data from Baten and Blum (2015a), extending them with NCD-RisC (2016) data for several countries (Belgium, Finland, Greece, Hungary, Romania and Slovakia) with no information in the first source. For Lithuania, I use the weighted mean value (166.4 cm) of conscript height in the Suvalkai Province in 1913 (165.47 cm; $N = 1483$) and the Kaunas Province in 1912 (166.76 cm; $N = 4468$, see Norkus, Ambrulevičiūtė et al. 2022). However, we were unable to attain height data for 1913 from the reports by governors of the Livland and Kurland provinces. Therefore, for Latvia, we use data from Baten and Blum (2015a). Conscript height data are also missing in the reports from the Vitebsk Province, including the three counties (*u'ezd*) of Eastern Latvia (Latgale). The same applies to the Suvalkai Province, where reports for various years (except 1913) have still not been located by researchers. Fortunately, height data for the Suvalkai Province for 1913 were found in the Lithuanian State Historical Archive (Podrobnyj otchiot 1913) (Table 12.1).

To control for the effects of differences in the genetic stock, only European countries and their so-called Western offshoots – Australia, Canada, New Zealand and the USA populated mainly by people of European descent ($N = 30$) are included. Comparing the decadal averages of 1890–1899 cohort height and

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Table 12.1 Height of conscripts in the Kurland, Estland, Kaunas and Suvalkai provinces of the Russian Empire in 1907–1913

Draft year	Kurland Province (*N*)	Kurland Province (height in cm)	Estland Province (*N*)	Estland Province (height in cm)	Kaunas Province (*N*)	Kaunas Province (height in cm)	Suvalkai Province (*N*)	Suvalkai Province (height in cm)
1907	Nd	Nd	1277	170.69	3766	166.71	Nd	Nd
1908	2012	168.93	1273	171.47	4062	167.18	Nd	Nd
1909	1935	169.02	1283	172.21	4072	166.36	Nd	Nd
1910	2146	169.67	1258	171.75	3683	166.27	Nd	Nd
1911	2097	169.73	1260	171.71	4445	166.44	Nd	Nd
1912	2129	170.49	1247	171.87	4468	166.76	Nd	Nd
1913	Nd	Nd	1654	172.00	Nd	Nd	1676	165.47

Source: Norkus, Ambrulevčiūtė et al. (2022); Podrobnyj otchiot 1913

1890–1899 GDPpc data would perhaps allow us to make a stronger point. However, for the decade 1890–1899, GDPpc data are available only for a significantly smaller number of countries than in 1913. In fact, data for the Baltic countries in 1913 is absent in the MPD too, but we can use estimates from Norkus and Markevičiūtė (2021), presented in Chap. 8, Table 8.4: 3834 int $ in Latvia, 3341 in Estonia and 2650 in Lithuania.

The regression results confirm the general hypothesis that there is a positive correlation between GDP per capita and mean height. For the year 1913–1914, our estimated regression equation for men was: $\text{Height}_{\text{male}} = 149.4375 + 2.2697 \times \ln(\text{GDPpc})$. In the analysis, the natural logarithm of GDPpc was used to account for the non-linear relation (obvious from the scatterplot) between GDPpc and mean height. Moreover, this type of relationship is theoretically expected because otherwise it would predict human beings becoming giants as GDPpc grows. There is an upper limit for the increase in body height, set by genetic inheritance. As societies become affluent, this potential becomes exhausted, as the absolute majority of children then grow up in a favourable environment (Fig. 12.1).

Thus, a deceleration is seen in the increase of human height as GDPpc continues to grow. By 1914, Estonian men emerged as the most conspicuous outliers, distinguished by the largest positive residual (4.15 cm), that is, the difference between the predicted (167.85 cm) and observed height values (172.0 cm). How then can we explain the disparity between Estonia's international ranking in the early twentieth century in terms of anthropometric measurements and the economic indicators of well-being?

There are many well-researched disparities between economic output and height. Hence, the search for an explanation should start with checking whether the Estonian male height paradox can be (dis)solved by regressing height on other variables, which are reputed to be the "usual suspects" in cross-country quantitative comparative research on environmental causes of height variation (Grasgruber et al. 2014, 2016; Koepke and Baten 2005; Steckel 2009, 2013). Economic output may be the most important background environmental cause accounting for variations in height. However, this cause can be substituted, reinforced or suppressed by other environmental causal factors, which can be described as proximate positive or negative causes of human growth.

Among the proximate positive causes, availability of animal protein-rich food is considered the most important in recent research. Consumption of milk and dairy products has a most beneficial impact on growth: 'in conclusion, the most likely effect of dairy products supplementation is 0.4 cm per annum additional growth per 245 ml of milk' (Beer de 2012: 307). However, this effect is conditional on lactose tolerance, which is a genomic feature unevenly distributed among world populations (Cook 2014).

For the availability of animal protein, we use the number of pigs per capita as the proxy, while availability of milk is measured by the number of cattle per capita. For both variables, we use Clio-Infra Dataverse data for 1900 (Klein 2015a, 2015b), supplementing it with data from 50 European provinces of Russia for the same year:

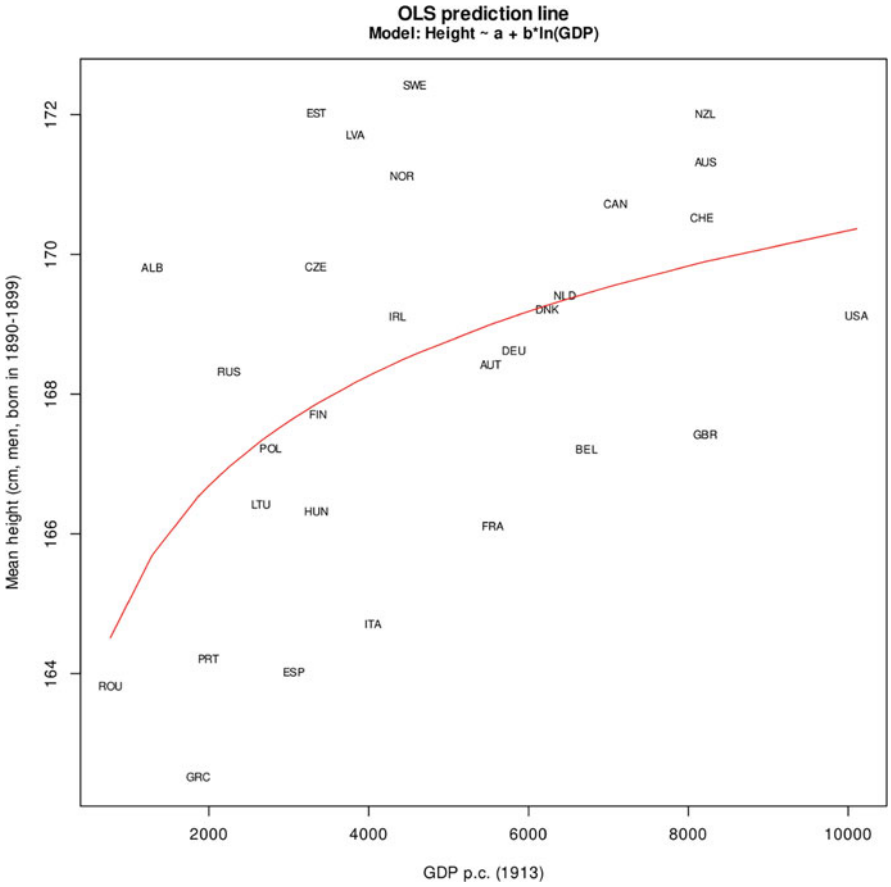

Fig. 12.1 GDPpc in 1913 and adult male (born in 1890–1899) height. Data sources for height: Baten and Blum (2015a); NCD-RisC (2016); Norkus, Ambrulevičiūtė et al. 2022. Data source for GDPpc: MPD (2020), 2011 benchmark, author's own estimations (for the Baltic countries)

0.3346 cattle and 0.116 pigs per capita.[1] The data regarding lactose intolerance are from Ingram et al. (2009). According to this source, 57% of Estonia's population is lactose-tolerant. What is missing in this source is information about the two other Baltic countries; hence, data were taken from Storhaug et al. (2017) about Latvia and from Urbonas (2016) about Lithuania. According to these sources, 67% of Lithuanians and 75% of Latvians are lactose-tolerant.

Inequality in the distribution of wealth and income is another factor, explaining repeatedly occurring positive correlation failures between GDP growth and mean

[1] These figures are calculated using Statistika Rossijskoj imperii. Dviženie naselenija v Evropejskoj Rossii za 1900 god 1906: VIII as the source of population data and Vremennik Central'nogo statisticheskogo komiteta MVD 1901: 5 for livestock.

height changes (Blum and Baten 2012; Blum 2013a, 2013b). Greater inequality deprives members of the lower socio-economic strata and their children of good nutrition and medical care, reducing the longevity of adults and stunting the growth of their children. The standard measure of income inequality is the Gini income distribution index. However, it cannot be calculated from taxation data for countries or historical periods when only a small part of the population paid income taxes, while the main sources of state revenue were indirect taxes or state monopolies. Alternatively, its values can be derived from the height variation coefficient CV (Baten and Blum 2014; Moradi and Baten 2005). For Estonia and Latvia, we used the Gini income index data for 1910 derived in this way from Moatsos et al. (2015).

To calculate the Gini income index value for Lithuania, which is missing in this data set, the archives of the former Kaunas Province were searched, perusing 251 files of 20–21-year-old Lithuanian men, who were drafted in 1913 (Prizyvnyje spiski po g. Kovno na 1913 g). The mean value for our sample was 166.13 cm (95 percent confidence interval: 165.31–166.95 cm), and the standard deviation was 6.68. From this data, we derived $Gini_{i1913} = 51.3$, using formulas $CV_{it} = \sigma_{it} / \mu_{it} \times 100$ and $Gini_{it} = -33.5 + 20.5 \times CV_{it.}$ and $Gini_{income} = = 9.25 + 10.46 \times Gini_{it}$, as recommended by the compilers of the income inequality database, where gaps in the historical income statistics data are filled by deriving them from height distribution data (Moatsos et al. 2015).

Infant mortality estimates for Estonia were derived by using the mean of the infant mortality values in the Estland and Livland provinces, and in Latvia, the mean of the Kurland and Livland provinces and the Latvian districts of the Vitebsk Province. The infant mortality mean value for Lithuania in 1897 was taken as the average of those for the Vilnius and Kaunas provinces (no data is available for the Suvalkai Province). Infant mortality is used as a proxy for the disease environment, which is shaped by the density of population, the incidence of infectious diseases and the availability of basic medical services (Baten and Blum 2015b; Baten and Blum 2014; Blum and Baten 2012).

Information about the total fertility rate (children per woman) in 1897 was available in the Gapminder data (Ferenc et al. 2017) for all our cases. Crude birth rates (CBR) per 1000 of population in 1897 are from Mitchell (2007), supplementing it with the estimates for Estonia, Latvia and Lithuania. The only difference between this and the estimates of infant deaths is that the CBR for Lithuania is the mean of the rates for the Kaunas, Vilnius and Suvalkai provinces. The fertility rate and CBR are considered proxies (imperfect, but the only ones available) for family household size.

Table 12.2 provides the descriptive statistics of the cases in the regression analysis in identifying the determinants for the variation in the height of males born in 1890–1899. Table 12.3 presents the results of the regression analysis.

Inspecting the regressions, no residuals were detected with Estonia's residual ranking less than eight by its size. For GDPpc and cattle per capita, Estonia's residual is the largest, while for infant mortality rate and lactose tolerance, its residual is the third largest. Instead of resolving our paradox, exploring the effects of GDPpc on height by other putatively relevant environmental variables only

Table 12.2 Descriptive statistics for male height and its determinants in 30 countries with populations of European descent. For sources, see references in this chapter

Variable	*N*	Mean	SD	Median	Range
Mean height (males, born 1890–1900)	30	168.31	2.69	168.5	162.5–172.4
GDP (pc, 1913)	29	4745.62	2419.35	4361	767–10,108
Cattle (pc, 1900)	30	0.46	0.40	0.34	0.08–1.83
Pigs (pc, 1900)	30	0.21	0.14	0.16	0.06–0.67
Income Gini (1910)	27	42.42	7.32	41.10	27.7–56.99
Infant mortality (per 1000, 1897)	24	161.35	51.1	150.5	72–260
Lactose tolerance	25	0.67	0.21	0.66	0.16–0.99
Total fertility rate (1897)	30	4.47	0.92	4.41	2.92–7.52
Birth rate (per 1000, 1897)	24	31.92	6.31	30.15	22.2–50.0

heightened the puzzlement. However, Estonia's residuals are much lower in terms of absolute size and rank order position for height regressions on total women's fertility rate and birth rate, pointing to the direction in which an explanation can be found for the Estonian male height exceptionality. The regression on total women's fertility is significant only at the $p < 0.1$ level. However, the sample is heterogeneous, encompassing countries that were in different phases of (first) demographic transition around the juncture of the nineteenth and twentieth centuries (see Bogin 2001: 172–180; Chesnais 1993, Caldwell 2009).

Human height may have a correlation with decreasing fertility and birth rates (Grasgruber et al. 2016: 116) because of parental decisions to invest in the quality of the upbringing of their children (Becker 1960; Becker and Lewis 1973; Hatton 2017). However, even when demographic change has a paramount impact on height variation at the country level, the correlation between demographic variables and stature can still remain weak at the sample level if demographic transition pioneers are surrounded by countries in a similar stage of transition, either awaiting the transition or already in the early phases of transition.

We surmise such an effect in our sample. To recall, in the early phases of demographic transition, the increase in GDPpc is accompanied by an increase in natural population growth because of the sharp and rapid drop in mortality rates, while fertility and CBR remain at the former levels or decrease slower. However, there is broad variation among countries in the relative timing of mortality and fertility decrease. In a few cases (including the Baltic provinces, see Chap. 11), fertility transition may antedate the mortality transition. These complexities prevent us from identifying the demographic situation of specific countries unless a case study analysis is done, which is presented in the next section.

We argue that family household size is one of the most important factors accounting for the "height gap" between Estonia and Lithuania as well as between Latgale and mainland Latvia (see below in this chapter). Importantly, the Russian census of 1897 provides data about the mean size of rural and urban households (see Table 12.4). We consider as key evidence the data that rural households in the Baltic provinces (the Estland, Livland and Kurland provinces) were smaller than those in

Table 12.3 Linear regression models for separate predictors of the mean height of men born in 1890–1899: standardised beta coefficients

Explanatory variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Residual for Estonia (cm)
Constant	168.307***	168.307***	168.307***	168.544***	168.821***	168.280***	168.307***	168.333***	
Ln of GDP pc (1913)	1.372*** (0.006)								4.15
Ln of cattle pc (1900)		1.849*** (0.000)							4.85
Ln of pigs pc (1900)			0.695 (0.167)						3.85
Income Gini (1910)				−0.056 (0.917)					3.41
Infant mortality rate per 1000 (1897)					−1.027** (0.034)				3.65
Squared lactose tolerance						0.586 (0.304)			4.09
Total fertility rate (1897)							−0.904* (0.069)		3.12
Birth rate per 1000 (1897)								−1.207** (0.041)	3.09
R^2	0.252	0.474	0.067	0.000	0.189	0.046	0.113	0.177	
N	29	30	30	27	24	25	30	24	

Note: p-values in parentheses; significance levels *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$. For sources see references in this chapter

Table 12.4 Family household size (in 1897) and conscript height in the Baltic provinces, Lithuania, and the neighbouring governorates (provinces) of the Russian Empire

Governorate (province)	Mean rural family household (number of persons)	Mean urban family household size (number of persons)	Mean family household size	% of family households with 6 and more members	The mean height of conscripts in the nineteenth to early twentieth centuries
Kurland	4.8	4.1	4.4	26.3	166.2
Estland	4.7	3.8	4.5	29.6	167.2
Grodno	5.8	4.8	5.6	49.0	163.7
Kovno	5.0	4.3	4.9	38.2	163.7
Livland	4.7	4.0	4.5	29.1	166.9
Minsk	6.0	4.9	5.9	54.8	163.5
Pskov	6.0	4.3	5.9	54.6	164.2
Vilna	5.8	4.5	5.6	49.4	163.2
Suvalki	5.1	4.5	5.0	43.3	Nd
Vitebsk	6.0	4.8	5.8	53.1	164.2
3 Latvian counties of Vitebsk g. (Latgale)	5.5	4.6	5.4	46.2	Nd

Sources: Russian Imperial Census of 1897 (Pervaja vseobščaja perepis' naselenija Rossijskoj imperii 1897 goda): Kurland Governorate (1905), vol. XIX, 6–7; Estland Governorate (1905), vol. XLIX, 2–3; Grodno Governorate (1904), vol. XI, 6–7; Kovno Governorate (1904), vol. XVII, 6–7; Livland Governorate (1905), vol. XXI, 6–7; Minsk Governorate (1904), vol. XXII, 6–7; Pskov Governorate (1902), vol. XXXIV, 4–5; Vilna Governorate (1900), vol. IV, 4–5; Suvalki Governorate (1904), vol. LIX, 4–5; Vitebsk Governorate (1899), vol. V, 4–5. For conscript height: Mironov (2012: 181)

the neighbouring provinces of Lithuania, Russia and Belorussia. The most relevant point in the data is that the share of households with at least six persons was much smaller (26.3–29.3 percent) in the Baltic provinces than in the neighbouring ones (up to 54.8 percent). These differences across the provinces are in close correspondence with the variation of mean conscript height, as documented in the database of Russian historian Boris Mironov (2012).

Other environmental variables, discussed in the previous section, are less promising in explaining the regional cross-country differences. At the sample level, access to animal proteins (proxied by cattle per capita) is the most important powerful variable. However, according to our data, among populations of the late nineteenth–early twentieth centuries in lesser socio-economically advanced regions, Lithuania had better access to animal proteins (due to the dominance of subsistence agriculture), milk (with a lower share of lactose-intolerant persons) and a less stressful disease environment (due to lower levels of urbanisation) than the Baltic provinces.

Advancing a demographic explanation, we draw on the rapidly growing body of research on the relationship between family size and height (Desai 1995; Lawson and Mace 2009; Öberg 2017), wherein researchers report a strong negative

correlation between these variables (as family size grows, mean height decreases), with most explaining this finding as an outcome of the optimising choice of parents in the context of a 'quality-quantity tradeoff' (Becker 1960; Becker and Lewis 1973). As children in small families receive the resource shares of their unborn competitor siblings, they grow taller and are better educated. The thesis that agrarian reform was related (via changes in demographic behaviour) to the increase in mean height can be substantiated by a parallel tracing of demographic, anthropometric and economic changes during the decades following the agrarian reform.

In his doctoral dissertation defended at Tartu (Dorpat) University, Oscar Grube (1878: 33) calculated 164.28 cm as the mean height value for 17- to 60-year-old Estonian males ($N = 100$), measured in 1875–1878. According to Dmitrij Anučin (1889: 77), the mean height of conscripts from the Estland Province in 1874–1883 was 166.7 cm. Whereas Grube's data is questionable because of its small N size, Anučin's report is reliable because it is grounded in a very large sample.[2] In 1893, Aleksei Kharuzin (1893: 303) published his analysis of the anthropometric data of conscripts from the Estland Province, measured in November 1892. According to his calculation, the mean height of conscripts was 170.981 cm ($N = 2523$). Such a rapid height increase cannot be explained merely by economic growth, as Estonia remained an agrarian country suffering from the great European agrarian depression from 1870 to 1896 that was unleashed by the competition of imports from the USA. This was the time when the draftees measured in 1892 were growing up.

We argue that the protracted agrarian crisis merely accelerated the changes in demographic behaviour, leading to lower birth rates and smaller households. Indeed, the data of the first modern census in the Baltic provinces conducted in 1881 suggest a rapid and dramatic change in the family structure in the wake of agrarian reforms: 'judging by the findings of the 1881 census, the researcher is tempted to hypothesize that the mid-century decades witnessed a major change in Baltic rural familial relationships. Judging by the tables, an era of complex rural family networks as depicted in the soul revisions seemed to come to an end abruptly, and an era of the simple family began equally abruptly' (Plakans and Wetherell 2004: 58). Could such a change really transpire without displaying any demographic effects?

Our case-oriented arguments involve two comparisons of the available data on agrarian and demographic change on the one hand, and height variation on the other. First, we compare Estonia and its northern neighbour Finland, whose population shares a common genetic stock and speaks similar languages mutually understandable without previous instruction (in 1918–1919, plans and negotiations were underway for establishing a common state). According to NCD-RisC (2016) data, Finnish males born in 1896 were 167.74 cm tall on average, which means that they were 4.26 cm shorter than their Estonian peers (172.0 cm). However, after some 90 years (among men born in 1980–1989), the height gap between Finns (178.2 cm) and Estonians (179.1 cm) contracted to less than 1 cm (Baten and Blum 2015a).

[2] Anučin provides no N for separate provinces, but for all European provinces $N = 1{,}771{,}981$ (Anučin 1889: 80). In fact, Anučin provides height data down to the county (*u'ezd*) level.

Table 12.5 Mean height of conscripts (20-year-olds) to the Latvian army from different regions of Latvia

	1921	1923	1924	1925	1926	1927	Total *N* in 1921–27
Vidzeme	170.5	171.2	170.3	171.1	171.0	171.1	22,227
Kurzeme and Zemgale	170.8	170.6	171.1	170.3	170.9	171.0	21,837
Latgale	168.7	169.0	168.7	168.4	168.5	168.7	14,098
Entire Latvia	170.1	170.1	170.4	170.3	170.4	170.5	58,162

Source: Valsts statistiskā pārvalde (1927: 31)

Unfortunately, the Russian census of 1897 did not cover Finland, and hence, we cannot directly compare the mean size of the households in Finland and those in the Baltic provinces. However, the larger birth rates imply that Finnish boys grew up in larger families than their peers in the Baltic provinces. This may explain why Finnish male adults born in 1899–1900 were shorter than their Estonian peers with similar genetic stock, although their homeland was not poorer than the Baltic provinces (although it was much poorer than Sweden and the other Nordic countries at this time). The later start of demographic transition in Finland (see Chap. 10), related to institutional differences in land use compared to the Baltic provinces accounts for the emergence of the broad height gap of Finns behind the Estonians in the early twentieth century.

Another source that sheds light in tracing the connection between demographic transition and body height change is the cross-regional comparison of Eastern Latvia with its regions belonging to the Baltic provinces. Aggregate data in Baten and Blum (2015a) and NCD-RisC (2016) conceal cross-regional differences in height in Latvia. During the first independence years, the Latvian Statistical Office published data on Latvia's conscript height means for all of Latvia and its regions (see Table 12.5). The data disclose mean height disparity between Eastern Latvia, encompassing three districts of the former Vitebsk Province, and populations of Latvia's regions that were formerly part of the "Baltic provinces". These are Vidzeme (the Latvian part of the former Livland Province), Kurzeme and Zemgale (together encompassing the territories of the former Kurland Province).

By 1939, conscripts from this part of the country still remained 2 or 3 cm shorter than their peers from Central and Western Latvia in 1939, as documented by Nikolajs Cauna (Kokare and Cauna 1999): Kurzeme and Zemgale 172.03 cm, Vidzeme 172.45 cm, Latgale 169.87 cm, and the all-Latvian mean as 171.70 cm. Contemporary Latvian biological anthropologist Inese Kokare (1998) compared these data with her own measurements of conscripts to the army of the restored independent Latvia in 1996. According to her findings, all the physical characteristics of draftees had improved since 1939, but those of draftees from Latgale had improved the most, including height. There was still a small height difference between the mean height of the enlisted draftees from Latgale (176.71 cm) and the all-Latvian mean (177.63 cm), but it contracted to some 9 mm, in comparison to the nearly 2 cm reported in 1927 and 1939 (Kokare and Cauna 1999: 378–379).

Like Finland and Estonia, Eastern and mainland Latvia are populated by people with the same genetic stock, so the existence of a height gap between Eastern and mainland Latvia can only be explained by differences in culture and institutions. Eastern Latvia is Catholic, while mainland Latvia is Lutheran Protestant (cp. Norkus 2022). The difference in religion certainly accounted for the endurance of the fertility gap between Eastern and mainland Latvia, where birth rates during the interwar period were at around the same level as in Estonia. However, the most important factor was the difference in the institutions of land property and land use, where Eastern Latvia was more similar to Lithuania (see Chap. 10) than to mainland Latvia.

As in Lithuania, serfdom was only abolished in Eastern Latvia in 1861. Complex extended family households survived until the early twentieth century. After the Stolypin reform in 1906 abolished obstacles to the legal division of allotments, the surviving extended households were divided, and Latgale became a region of small landholdings. In 1861, the mean size of a peasant landholding was 19.4 ha in the Dinaburg (Daugavpils), 19.0 ha in the Rezhica (Rēzekne) and 27.3 ha in the Lyucin (Ludza) districts of Latgale. By 1910, this size had reduced to 11.1 ha, 10.4 ha and 10.6 ha, respectively (Efremova 1982: 27), displaying the typical Malthusian dynamics of agrarian overpopulation. For comparison, on the eve of WWI, the mean size of a farm in the Latvian part of Livland (Vidzeme) was 47.0 ha and 41.5 ha in Kurland (Skujeneeks 1927: 402).

Despite the prohibition to divide a farm among successors if it was smaller than 10 ha, land property fragmentation continued in Latgale during the period of interwar independence (Efremova 1982: 225). Agrarian reform did little to reduce the extent of hunger for land here because there was less land to redistribute and more applicants. Similarly to Lithuania, its major impact was the dispersal of villages into farmsteads with ensuing liquidation of the open fields system (Malahovskis 2014). Suffering from agrarian overpopulation, Latgale sent its excess population to Saint Petersburg (only before World War I) and to Riga to seek employment in industry, construction or on farms in the more advanced regions of Latvia.

Under restored independence, Latgale still remains a less economically advanced region of Latvia. However, under the Soviet regime, this region went through forced collectivisation (making individual farmers members of large collective farms) and urbanisation. The side effect of these changes was the passing of particular features in the organisation of family, making Latgalian families similar to those in other regions of Latvia or the Baltic republics (Terent'eva and Šlygina Natalija 1962). Family farm households were replaced by conjugal family households with one or two children, both parents employed outside of the family and children spending a large part of their day in day care establishments or schools.

Most importantly, Latgale experienced the most dramatic decline in fertility, making it the region with the lowest birth rates in restored independent Latvia (Centrālā statistikas pārvalde. 2018: 126–127, 143). The final disappearance of the large traditional Latgalian family explains the fading out of many bodily features considered by some Soviet human biologists as characteristic expressions of the 'Eastern Baltic' anthropological type or (sub)race (e.g. Vitov 1959).

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Chapter 13
A Century of Somatic Progress in the Baltic Countries

In this chapter, I provide the assessment of the somatic performance success of the Baltic restorations, guided by the criterion of restoration somatic performance success (CRSPS). This assessment involves application of the outperforming intermediate system and outperforming original system tests (OIST and OOST) or cross-time comparison of the increase in body height during three epochs of Baltic history (interwar independence or the original system, totalitarian occupations, and restored independence). For this aim, annual data series are presented for all three Baltic countries and the Netherlands as a benchmark country in the supplementary Dutch standard test (DST; see Chap. 4). Due to reasons explained in the previous chapter, in terms of human height, Finland was a catch-up country with respect to the former Baltic provinces. Therefore, it is not possible to extend the general tests with the regional "Finnish standard" supplement in the same way as was done for economic and health progress.

Our main data source are data sets NCD-RisC 2016 and NCD-RisC 2020. This data is compiled by a global network of health scientists, working on major risk factors for non-communicable diseases (NCD), coordinated by the World Health Organisation Collaborating Centre on NCD Surveillance and Epidemiology at Imperial College in London.[1] We prefer this source to Baten and Blum (2015), because German scholars provide only decadal means. This would limit our data to 1–2 data points for the original system period and to 2–3 data points for the restored independence period, complicating the application of the OIST and OOST, which is better served by the annual values in the NCD-RisC data. However, most data points in NCD-RisC 2016 and 2020 are imputations derived using the sophisticated Bayesian model, devised to produce or simulate data points for years where real observations are missing (see Finucane et al. 2014). Therefore, the compilers of this database provide estimates of male height together with confidence intervals of

[1] See https://ncdrisc.org/about-us.html. Accessed 10 January 2023.

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Table 13.1 Height of 18-year-old males born in 1959–2001 in Estonia, Latvia, Lithuania and the Netherlands

	Estonia			Latvia			Lithuania			Netherlands		
Birth year/ aged 18 year	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound
1940/1958	175.13	175.79	176.43	172.19	173.85	175.49	172.66	173.49	174.32	176.76	177.51	178.26
1959/1977	178.57	179.17	179.74	176.06	177.60	179.15	176.11	176.95	177.79	180.14	180.94	181.75
1960/1978	178.74	179.34	179.91	176.27	177.81	179.37	176.29	177.14	177.97	180.31	181.11	181.91
1961/1979	178.93	179.51	180.08	176.48	178.02	179.58	176.45	177.32	178.16	180.46	181.26	182.06
1962/1980	179.10	179.67	180.24	176.68	178.22	179.78	176.63	177.49	178.34	180.60	181.41	182.22
1963/1981	179.25	179.81	180.39	176.88	178.42	179.98	176.79	177.65	178.51	180.73	181.55	182.36
1964/1982	179.38	179.95	180.52	177.06	178.60	180.17	176.94	177.80	178.66	180.85	181.67	182.48
1965/1983	179.50	180.08	180.64	177.23	178.77	180.34	177.06	177.94	178.81	180.96	181.77	182.59
1966/1984	179.61	180.19	180.75	177.40	178.94	180.50	177.18	178.06	178.93	181.06	181.87	182.69
1967/1985	177.23	**180.57**	183.89	172.67	177.86	182.87	173.85	176.99	180.15	176.86	**180.43**	183.88
1968/1986	177.54	180.52	183.52	173.07	177.89	182.52	174.15	177.07	179.96	177.39	180.64	183.79
1969/1987	177.79	180.48	183.17	173.49	177.93	182.20	174.44	177.18	179.87	177.88	180.86	183.76
1970/1988	178.03	180.45	182.88	173.88	177.98	181.95	174.74	177.29	179.84	178.39	181.10	183.75
1971/1989	178.21	180.43	182.61	174.27	178.04	181.74	175.01	177.42	179.84	178.85	181.35	183.76
Change 1959–1971	**Na**	**1.27 (1.06)**	**Na**	**Na**	**0.44 (0.36)**	**Na**	**Na**	**0.47 (0.39)**	**Na**	**Na**	**0.40 (0.34)**	**Na**
Lag behind Dutch 1989	**Na**	**0.92**	**Na**	**Na**	**3.31**	**Na**	**Na**	**3.93**	**Na**	**Na**	**0**	**Na**
1972/1990	178.40	180.41	182.38	174.61	178.10	181.53	175.28	177.56	179.84	179.27	181.60	183.89
1973/1991	178.55	180.39	182.19	174.90	178.16	181.43	175.48	177.70	179.89	179.70	181.84	183.92
1974/1992	178.67	180.35	182.02	175.11	178.20	181.30	175.71	177.82	179.97	180.07	182.06	184.05
1975/1993	178.72	180.30	181.88	175.25	178.22	181.14	175.84	177.93	180.02	180.39	182.24	184.11

1976/1994	178.74	180.24	181.70	175.38	178.23	181.09	175.97	178.03	180.07	180.61	182.40	184.19
1977/1995	178.73	180.18	181.54	175.47	178.23	180.99	176.04	178.12	180.23	180.84	182.56	184.32
1978/1996	178.74	180.12	181.41	175.55	178.23	180.96	176.10	178.21	180.36	181.02	182.71	184.44
1979/1997	178.73	180.07	181.30	175.55	178.22	180.91	176.13	178.29	180.46	181.19	182.86	184.58
1980/1998	178.73	180.03	181.21	175.51	178.21	180.87	176.12	178.36	180.60	181.36	183.01	184.70
1981/1999	178.77	180.01	181.15	175.49	178.19	180.94	176.17	178.45	180.73	181.50	183.14	184.85
1982/2000	178.82	180.03	181.12	175.47	178.19	180.96	176.23	178.54	180.92	181.58	183.25	184.95
1983/2001	178.93	180.08	181.14	175.41	178.19	181.03	176.29	178.65	181.11	181.63	183.32	185.06
1984/2002	179.05	180.16	181.15	175.37	178.19	181.08	176.37	178.75	181.27	181.63	183.34	185.08
1985/2003	179.20	180.25	181.21	175.27	178.18	181.12	176.35	178.84	181.42	181.59	183.33	185.08
1986/2004	179.34	180.35	181.26	175.21	178.17	181.15	176.43	178.92	181.55	181.52	183.31	185.09
1987/2005	179.52	180.47	181.35	175.16	178.16	181.20	176.44	179.01	181.62	181.47	183.28	185.06
1988/2006	179.69	180.61	181.49	175.10	178.17	181.24	176.50	179.11	181.72	181.42	183.25	185.08
1989/2007	179.88	180.77	181.63	175.10	178.20	181.29	176.59	179.20	181.83	181.37	183.22	185.07
Change 1971–89	**Na**	**0.33 (0.19)**	**Na**	**Na**	**0.16 (0.09)**	**Na**	**Na**	**1.78 (0.99)**	**Na**	**Na**	**1.88 (1.04)**	**Na**
Lag behind Dutch 2007	**Na**	**2.45**	**Na**	**Na**	**5.02**	**Na**	**Na**	**4.02**	**Na**	**Na**	**0**	**Na**
1990/2008	180.07	180.94	181.79	175.10	178.25	181.40	176.65	179.28	181.97	181.32	183.19	185.04
1991/2009	180.25	181.12	181.96	175.12	178.31	181.49	176.72	179.37	182.08	181.27	183.16	185.03
1992/2010	180.43	181.32	182.17	175.16	178.37	181.58	176.83	179.47	182.16	181.24	183.15	185.00
1993/2011	180.57	181.51	182.40	175.21	178.46	181.68	176.90	179.55	182.29	181.24	183.13	185.01
1994/2012	180.66	181.67	182.62	175.33	178.54	181.75	176.96	179.62	182.38	181.22	183.13	185.01
1995/2013	180.75	181.80	182.85	175.38	178.61	181.82	177.03	179.67	182.47	181.25	183.14	185.04
1996/2014	180.79	181.92	183.06	175.46	178.69	181.87	177.06	179.71	182.51	181.27	183.17	185.08
1997/2015	180.81	182.05	183.28	175.58	178.80	182.01	177.09	179.77	182.57	181.31	183.24	185.16
1998/2016	180.78	182.18	183.55	175.69	178.95	182.14	177.09	179.84	182.64	181.39	183.31	185.24
1999/2017	180.80	182.31	183.79	175.86	179.11	182.34	177.12	179.92	182.77	181.40	183.37	185.38

(continued)

Table 13.1 (continued)

	Estonia			Latvia			Lithuania			Netherlands		
Birth year/ aged 18 year	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound
2000/2018	180.79	182.43	184.04	176.03	179.31	182.51	177.20	180.01	182.88	181.40	183.42	185.49
2001/2019	180.77	182.54	184.30	176.19	179.51	182.76	177.22	180.09	183.02	181.37	183.46	185.60
Change 1989–2001	**Na**	**1.77 (1.48)**	**Na**	**Na**	**1.31 (1.09)**	**Na**	**Na**	**0.89 (0.75)**	**Na**	**Na**	**0.23 (0.20)**	**Na**
Lag behind Dutch 2019	**Na**	**0.92**	**Na**	**Na**	**3.65**	**Na**	**Na**	**3.37**	**Na**	**Na**	**0**	**Na**
OIST target value 2038	**Na**	**≥185.41**	**Na**	**Na**	**≥182.39**	**Na**	**Na**	**≥183.14**	**Na**	**Na**	**≥187.06**	**Na**

Figures in brackets refer to decadal change rates (cm/decade). Data source: 1959–1966: NCD-RisC (2016); 1967–2001: NCD-RisC (2020)

varying breadth. The lower and upper bounds of these intervals are provided in Tables 13.1 and 13.2 together with height values themselves.

They will be used in the assessment of the reliability of the NCD-RisC estimates. There is no reasonable alternative but to accept at face value these estimates for the late socialist and post-socialist periods. Chapter 10 did contain a contribution to the research on life expectancy in interwar Lithuania because important historical sources had escaped the attention of experts in demography, accustomed to working with contemporary sources. The same applies to contemporary experts in human biology, who may lack knowledge of important historical sources and are not accustomed to searching through archive material. In this part of the book, I work to contribute to the anthropometric historical research by locating new sources, which allow taking a critical approach to certain data on the Baltic countries before 1940 that is used by contemporary human biologists.

Assessing the anthropometric success (or 'anthropometric dividend,' cp. Costa-i-Font and Kossarova 2014) of post-socialist restoration in the Baltic countries in the first retrospective (by the OIST), I compare changes in male height over the first 12 post-socialist cohorts (born in 1989–2001 and aged 18 in 2007–2019) with those over 12 cohorts who grew up under the socialist regime (born in 1959–1971 and aged 18 in 1977–1989). Data on the height of the 18-year-old male in 2007–2019 are from a recent release of NCD-RisC (NCD-RisC 2020). It is also the source of data about the height of the socialist cohorts born in 1967–1971 and aged 18 in 1985–1989. However, data about the height of 18-year-old males born in 1959–1966 and aged 18 in 1977–1984 are from NCD-RisC 2016, as the new NCD-RisC release only starts with 1985, when the 1967 cohort reached the age of 18. NCD-RisC 2020 is also the source of data on transitional cohorts born in 1972–1988 and aged 18 in 1990–2006 (see Table 13.1).

As far as it takes time for humans to grow up, no assessment of the early somatic success of capitalist restoration is possible. The 1989–2007 period is that of 18 transitional cohorts, including persons who were born under the socialist system but became fully grown after systemic change had occurred. However, no clean separation between the different periods was attempted, accepting the fact that they overlap. Thus, a 1989 birth cohort (aged 18 in 2007) is considered both as the last transitional and first post-socialist cohort, and a 1971 cohort (aged 18 in 1989) can be considered as both the last socialist and the first transitional cohort.

For Estonia and Latvia, the data indicate that there could have been a worsening in living conditions during the transition period. It is most conspicuous in the case of Estonia, where there was a very marked decrease in the decadal height increase rate over the transitional cohorts (0.19 cm/decade) in comparison with the last socialist cohort (1.06 cm/decade). Importantly, over the 1971/1989–1981/1999 cohorts, an absolute decrease in height was revealed, which can be explained by the worsening

Table 13.2 Height of 18-year-old males born in 1896–1922 in Estonia, Latvia, Lithuania and the Netherlands

	Estonia			Latvia			Lithuania			Netherlands		
Birth year	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound
1896/1914	167.19	**170.87**	174.59	164.68	**169.38**	173.96	165.19	**168.93**	172.60	167.72	**169.3**	171.08
1897/1915	167.46	**170.97**	174.53	164.92	**169.46**	173.89	165.45	**169.02**	172.50	167.99	**169.61**	171.17
1898/1916	167.73	**171.07**	174.48	165.12	**169.54**	173.83	165.71	**169.11**	172.44	168.25	**169.79**	171.28
1899/1917	167.97	**171.16**	174.43	165.34	**169.62**	173.79	165.95	**169.20**	172.40	168.51	**169.96**	171.38
1900/1918	168.21	**171.26**	174.39	165.53	**169.70**	173.80	166.19	**169.29**	172.35	168.76	**170.14**	171.50
1901/1919	168.44	**171.35**	174.35	165.74	**169.78**	173.76	166.41	**169.39**	172.30	169.02	**170.32**	171.65
1902/1920	168.66	**171.45**	174.29	165.93	**169.87**	173.70	166.64	**169.48**	172.25	169.26	**170.50**	171.78
1903/1921	168.88	**171.55**	174.23	166.16	**169.95**	173.70	166.89	**169.57**	172.23	169.50	**170.68**	171.90
1904/1922	169.11	**171.64**	174.19	166.38	**170.03**	173.65	167.12	**169.66**	172.21	169.72	**170.86**	172.02
1905/1923	169.34	**171.74**	174.15	166.55	**170.11**	173.62	167.35	**169.75**	172.17	169.93	**171.04**	172.14
1906/1924	169.55	**171.83**	174.12	166.75	**170.19**	173.56	167.55	**169.85**	172.14	170.14	**171.21**	172.28
1907/1925	169.78	**171.93**	174.11	166.94	**170.27**	173.59	167.78	**169.94**	172.10	170.36	**171.39**	172.4

1908/1926	169.98	**172.02**	174.09	167.12	**170.35**	173.59	167.99	**170.03**	172.08	170.56	**171.57**	172.59
1909/1927	170.18	**172.12**	174.07	167.29	**170.43**	173.57	168.20	**170.12**	172.06	170.76	**171.76**	172.74
1910/1928	170.37	**172.22**	174.06	167.46	**170.52**	173.58	168.37	**170.22**	172.06	170.96	**171.95**	172.91
1911/1929	170.56	**172.32**	174.06	167.64	**170.60**	173.59	168.59	**170.31**	172.06	171.17	**172.14**	173.09
1912/1930	170.77	**172.42**	174.06	167.81	**170.69**	173.59	168.77	**170.41**	172.05	171.38	**172.33**	173.26
1913/1931	170.95	**172.52**	174.06	167.97	**170.78**	173.63	168.96	**170.51**	172.07	171.61	**172.54**	173.5
1914/1932	171.15	**172.62**	174.06	168.10	**170.87**	173.67	169.13	**170.61**	172.07	171.83	**172.74**	173.64
1915/1933	171.34	**172.73**	174.08	168.28	**170.97**	173.72	169.30	**170.71**	172.10	172.05	**172.95**	173.84
1916/1934	171.51	**172.83**	174.10	168.45	**171.06**	173.74	169.48	**170.81**	172.13	172.26	**173.16**	174.04
1917/1935	171.71	**172.94**	174.12	168.60	**171.16**	173.79	169.63	**170.91**	172.17	172.8	**173.36**	174.23
1918/1936	171.89	**173.05**	174.16	168.78	**171.25**	173.81	169.80	**171.01**	172.22	172.69	**173.56**	174.3
1919/1937	172.05	**173.15**	174.20	168.95	**171.35**	173.82	169.95	**171.11**	172.27	172.89	**173.76**	174.61
1920/1938	172.21	**173.25**	174.25	169.06	**171.44**	173.84	170.09	**171.21**	172.33	173.09	**173.95**	174.80
1921/1939	172.35	**173.35**	174.30	169.21	**171.53**	173.86	170.23	**171.30**	172.39	173.29	**174.14**	174.98
1922/1940	172.51	**173.44**	174.36	169.30	**171.61**	173.89	170.35	**171.39**	172.44	173.8	**174.32**	175.16

(continued)

Table 13.2 (continued)

Birth year	Estonia			Latvia			Lithuania			Netherlands		
	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound	Lower 95% CI bound	Mean height (cm) at 18 years	Upper 95% CI bound
Change 1910–1922	Na	**1.22 (1.02)**	Na	Na	**1.09 (0.90)**	Na	Na	**1.17 (0.98)**	Na	Na	**2.37 (1.98)**	Na
1940/1958	**175.13**	**175.79**	**176.3**	**172.19**	**173.85**	**175.9**	**172.66**	**173.9**	**174.32**	**176.76**	**177.51**	**178.26**
1971/1989	**178.21**	**180.3**	**182.61**	**174.27**	**178.04**	**181.74**	**175.01**	**177.2**	**179.84**	**178.85**	**181.35**	**183.76**
Change 1940/71	**Na**	**4.64**	**Na**	**Na**	**4.19**	**Na**	**Na**	**3.93**	**Na**	**Na**	**3.84**	**Na**

Data source: Figures in brackets refer to decadal change rates (cm/decade). Data source: 1896–1922: NCD-RisC (2016); 1971: NCD-RisC (2016, 2020)

living conditions during the last years of socialism, or by obstacles experienced by adolescents in catching up on growth during the first post-socialist decades.[2]

Actually, height decrease started already with the 1967/1985 cohort, suggesting that somatic regress by 0.53 cm over the 1967–1981 birth cohorts can be attributed to difficulties in living conditions under late socialism rather than to those of the transition period. This interpretation is corroborated by the consistent growth trend since the 1985 cohort, encompassing also all post-socialist cohorts, whose first years of life coincided with restorational economic recession in the 1990s.

In Latvia, the last "purely socialist" cohorts display height increase, but from 1976/1994 there was stagnation and a slight decrease in height, with heights starting to consistently grow only from the 1988/2006 cohort. In Estonia, this cohort was the first that was taller than the 1967/1985 cohort, the whole period of lower heights extending over 21 (1967–1988) birth cohorts. On account of the lower height decline, it took Latvia less time to recover: the 1990/2008 cohort was already taller than the 1976/1994 cohort, the height increase crisis extending only over 14 cohorts.

Among all three Baltic countries, Lithuania is unique in displaying the pattern of consistent growth, uninterrupted by absolute regress episodes during all three (late socialist, transitional and capitalist) periods (see Table 13.1). Due to this consistency, Lithuanian males were able to overtake (from 1997, when the 1979 birth cohorts turned 18 years old) their Latvian peers, becoming the second tallest in the Baltic countries. This picture may be accepted at face value, relating it to Lithuania's record of continuing economic growth under late socialism, enabling it to catch up to the other Baltic countries by 1989. It can also be perceived as an invitation to conduct a comparative case study of the social policies of the Baltic countries, looking at whether they were more generous and supportive for families with children in 1989–2004 in Lithuania (cp. Aidukaitė 2004).

However, Lithuania's exceptionality can also be attributed to a lower quality of data. In fact, confidence intervals for Lithuania's estimates are much broader in comparison with Estonia's data in the 1967/1985–2001/19 cohort span, covered by the NCD-RisC 2020 data. Janina Tutkuvienė (2007: 47) did not find any statistically significant differences between the levels of physical development of children and adolescents measured in 1984–1986 and in 2000–2002. However, this may indicate the same type of stagnation that transpires in the Latvian data. Andrej Suchomlinov, who conducted a longitudinal auxological study of children from the city of Vilnius and surrounds born in 1990, reports 'certain retardation in the growth of infants born in 1990' (Suchomlinov 2011: 22) in comparison to those observed in 1966–1968. However, these growth arrears could be compensated by strong catch-up growth during adolescence. Tutkuvienė (2007: 47–48) also reports that body mass index (BMI) values of Lithuanian adolescent girls in the early 2000s were lower than their peers 20 years ago, explaining this change culturally: the strong presence of the slim female body cult in the mass media of restored independent Lithuania.

[2] In 1971/1989 and other dates of this form, the first figure (1971) refers to the birth year, and second (1989) refers to the year in which persons born in 1971 turned 18 years old.

Confidence intervals for the height estimates for Latvia are also large, inviting suspicions that actual height decrease over the transitional cohorts was much larger than reported by NCD-RisC 2020. However, the problems with the quality of NCD-RisC data on the 1959–2011 birth cohorts are relatively minor in comparison to those found with the 1896–1940 birth cohorts, extracted in Table 13.2. They are needed for assessment of somatic progress under restoration in the second retrospective as well as for specification of target values for the ultimate application of the OIST. In this application, the ultimate somatic success of post-communist transformation in the Baltic countries is indicated by height increase over 31 cohorts (1989–2020) who grew or will grow up under restoration exceeding its increase over 31 cohorts (1940–1971) from the intermediate period. Thus, we need height data regarding the first cohort to have been born under the intermediate system. Due to data gaps for 1939–1940, in the assessment of economic and health progress, I considered 1938 as the last year of the original and the first year of the intermediate system. The NCD-RisC (2016, 2020) data sets are gapless, and so assessment of somatic progress comparison periods can be closer to the actual chronology, starting the intermediate period with the 1940 birth cohort.

However, the application of the second retrospective for assessment of the anthropometric success of capitalist restoration in the Baltic countries (by the OOST guided by the CRSPS) is complicated by the brevity of the first independence period. There were only five cohorts (1918–1922) born under independence, who could celebrate their 18th birthday before Soviet occupation. In 1918, the independence of the Baltic states was only nominal, while in 1940 barely half of the 1922 cohort members could celebrate their 18th birthday before the Soviet invasion. With only two or three annual cohorts, no cross-time comparison of the body height increase rate is possible.

Therefore, I compare height increase over 12 post-communist cohorts (born 1989–2001) with that over 12 cohorts born in 1910–1922. These cohorts end with boys born in 1922 under independence and who grew up to the age of 18 in 1940, but start with cohorts born under Russian or German (in the territories under German occupation in 1915–1918) rule. Members of the first cohort celebrated their 18th birthday in 1928, when their homelands celebrated the tenth anniversary of independence. Thus, the formative years of these cohorts belong to the independence period.

Additional justification for the incongruence between the actual political chronology of the first independence of the Baltic States and the time boundaries of the period used for the OOST as part of the CRSPS is that changes in height growth rates are more closely related to the economy than to politics. As Latvian historian Gatis Krūmiņš (2017: 787–788) points out, establishment of the independent states was not coupled with a change in the economic system. On the contrary, separation from Russia helped the Baltic countries to preserve the capitalist economic system for another two decades. Therefore, comparison of height change over the first cohorts after the restoration of capitalism with that over the last cohorts who grew up before its abolition in 1940 does make sense.

In a similar way, for the assessment of the economic success of capitalist restoration in the second retrospective, the 1913–1938 period was used as a comparator, although it is not strictly congruent with the 1918–1940 period, which is the "correct" period according to political chronology. This incongruence was justified by the need to use a comparison window falling between two points of top performance of pre-communist capitalism. The 1910–1922 generations are a proper comparator for those born in 1989–2001, as both had early growth conditions complicated by World War I and its economic consequences (1910–1922) or by the transformational contraction of the economy and its aftermath (1989–2001). Both could profit from the improvement of their living environment during the phase of adolescent compensatory growth.

When assessing the reliability of NCD-RisC data by historical sources, one faces the complication that the most reliable historical sources are about the height of military conscripts, who in the interwar Baltic States were drafted at the age of 20–21, when human growth is nearly complete. NCD-RisC (2016) data refer to height at the age of 18, when there is still room for more growth. This means that the NCD-RisC (2016) imputations are of only limited comparability with most historical sources.

Coping with this predicament, I would like to suggest this rule of thumb: if NCD-RisC (2016) imputations of mean height at 18 years of age are larger than the observed means of 20–21-year-old conscripts, they most probably are overestimations. Most obviously, this is the case when the observed values of 20–21-year-old conscripts are outside the lower 95% confidence interval bound for estimates of their height at 18 years of age. NCD-RisC (2016) imputations may be underestimations if the observed values for 20–21-year-old conscripts are outside the upper 95% confidence interval value of estimates of their height at 18 years of age. However, the underestimations can be identified less reliably, as the extent of growth after 18 is difficult to establish, while conscripts measured at 20–21 years of age could not be taller at the age of 18.

Applying this rule, I believe that the NCD-RisC (2016) data overestimated the Lithuanian male height of those born in the 1890s. Regarding 18-year-old Lithuanian males, it claims a height of approximately 169.0 cm in 1914–1915. To recall (see Chap. 12), according to historical sources, the mean value for conscripts aged at least 21 in the Kaunas and Suvalkai provinces in 1912–1913 was 166.4 cm. This value is still within the lower bound (165.19 cm) Bayesian estimate of the mean for 18-year-old males in 1914. However, surely 21-year-old draftees were on average at least 1 cm shorter when they were younger, which means that the Bayesian model of NCD-RisC (2016) still needs calibration. Therefore, I used height data from historical sources (Obzor Kovenskoj gubernii na 1912, 46; Podrobnyj otchiot po prizyvu k ispolnenniju voinskoj povinnosti naselenija Suvalkskoj gubernii, 1913; Prizyvnyje spiski po g. Kovno na 1913 g.) to run the regressions in Chap. 12.

Sources of the height measurement of conscripts to the army of independent Lithuania in 1919–1940 can be found in archives but remain unprocessed and unused in research. An exception is the survey on Lithuanian 20-year-old conscripts enlisted in 1926–1927, conducted by the military physician Vytautas Steponaitis

(1928), who derived the mean value as 168.00 cm. He did not report the N of his sample, but he most probably processed data about all conscripts in this year range—up to 25,000 men (Jokubauskas 2014: 105). The birth year of these conscripts was 1906–1907. According to NCD-RisC 2016 data, their height in 1924–1925 (2 years before being drafted) was 169.85 and 169.94 cm. The Steponaitis value is still inside of the confidence interval, but it is very close to its lower bound. Taking into account the 2 years difference between the age referred to by NCD-RisC 2016 estimates and the age at which the height of drafted members of the 1906–1907 cohorts were measured, the only conclusion can be that the NCD-RisC data are overestimates.

Historical anthropometric sources have much more to offer regarding the height of males in interwar Estonia and Latvia. During the first years of independence, the Latvian Statistical Office published data on Latvia's conscript height means for all of Latvia and its regions (Valsts statistiskā pārvalde 1927: 3). Therefore, the NCD-RisC 2016 data stand in reasonably close correspondence to the historical data in Latvia's case. Thus, according to historical sources, the mean height of Latvian conscripts at 20–21 years of age was 170.5 cm in 1927 (Valsts statistiskā pārvalde 1927: 31) and 171.70 cm in 1939 (Kokare and Cauna 1999: 378–79). These values are very close to the values provided by NCD-RisC 2016 for 1907 and 1921 cohorts (170.27 and 171.43 cm correspondingly).

For the independent Republic of Estonia, male height is best documented for the 1927–1935 period in the publication released by the Estonian State Statistical Office (Riigi Statistika Keskbüroo 1937: 321). Uniquely, this publication contains height measurements taken at two moments: at the start (at the age of 20) and upon completion of active military service (at 21–22 years of age). In addition, the famous Estonian anthropologist Juhan Aul (1897–1994) measured 15,110 draftees ending their active military service in 1932–1936. His data remained unpublished, with part of it perishing during World War II. However, Aul discusses some of his findings in his magisterial *Anthropology of Estonians* (Aul 1964). According to his final estimate, the mean height of his sample was 172.03 cm (Aul 1964: 44).

For an earlier period, an important data point is provided by Estonian anthropologist Nikolai Köstner, who measured the stature of 8627 (21–22-year-old) Estonian soldiers in 1924, deriving 171.25 cm as the mean value (Köstner 1927: 436). At almost the same time (1925–1926), Richard Juhan Villems (1926) measured conscripts at the Tartu garrison and seamen of Estonia's marine forces ($N = 1548$). Villems (1926: 72–76) calculated two mean values. One refers to the height of conscripts from mainland Estonia (172.1 cm, $N = 1398$) and the other represents conscripts from the Western Estonian archipelago (173.7 cm, $N = 150$). He then gives as the sample mean the average of the two figs. (172.9 cm), which is 1.65 cm higher than Köstner's result. The correct result is obtained using a weighted mean: $((172.1 \times 1398) + (173.7 \times 150)/(1398 + 150)) = 172.26$. It almost completely coincides with Köstner's finding.

Comparing historical source data and NCD-RisC estimates, the overestimation bias on Estonia can be detected in the NCD-RisC 2016 data set. While the Riigi Statistika Keskbüroo (1937: 321) mean height of 20-year-old Estonian conscripts in 1935 was 171.00 cm, according to NCD-RisC 2016, the mean height of the same

(1915) cohorts was already 172.73 cm in 1933 (at the age of 18). Importantly, the observed value for 20-year-old males (171.00 cm) is outside the lower bound (171.34 cm) of the NCD-RisC 2016 estimate of their height at 18 years of age. According to the Riigi Statistika Keskbüroo (1937: 321), the real height (172.00 cm) of Estonian males born in 1915 was still below their height value in 1933 (172.73 cm) as provided by NCD-RisC 2016 even in 1936–1937, when they were discharged from military service.

Most importantly for my aim of assessing the anthropometric success of capitalist restoration by the OOST, there is no noticeable difference between Aul's (1964) mean value of 172.03 cm for the 1932–1936 period or Villems' (1926) 172.26 cm for 1925–1926 or Köstner's (1927) 171.25 cm for 1924. This indicates that the 1.32 cm (or 1.1 cm per decade) height increase over 1910–1922 birth cohorts in Estonia, as implied by the NCD-RisC 2016 data, may be an exaggeration too.

However, even if we accept the 1.1 cm decadal height increase for interwar Estonia at face value, height increase over the 1989–2001 cohorts (1.77 cm or 1.8 cm/decade) is still higher, which means that restored independent Estonia passes the OOST as part of the CRSPS. The same applies to Latvia (a 0.9 cm/decade increase over 1910–1922 and 1.09 cm/decade over 1989–2001 birth cohorts). Lithuania, with its 0.98 cm over 1910–1922 and 0.75 cm over 1989–2001 cohorts, just misses out.

All three Baltic countries passed the OIST by 2019 because the height of 18-year-old males who grew up under restored capitalism over the first 12 cohorts (born in 1989–2001) increased more than it did over the last 12 cohorts to have grown up under socialism (1959–1989). This was a considerable challenge only for Estonia because of the marked height increase (1.27 cm or 1.06 cm per decade) of Estonian males over the last 12 purely socialist generations. With a height increase of only 0.44 cm (Latvia) and 0.47 cm (Lithuania) over the last 12 purely socialist cohorts, Latvia and Lithuania are typical cases of the crisis in improving living conditions for young people that struck socialist countries along with the overall health crisis (see Norkus 2023).

The acceleration of height increase over cohorts born after the restoration of capitalism in comparison with the late socialist countries (in all three Baltic States) and transitional cohorts (only in Estonia and Latvia) inspires much optimism also about the ultimate somatic success of capitalist restoration according to both the OIST and Dutch standard test (DST). According to the OIST, the ultimate somatic success of restoration in the Baltic countries will be indicated by an increase in height over 31 cohorts (1989–2020) who grew up under restoration exceeding its increase over 31 cohorts (1940–1971) during the intermediate period.

According to the NCD-RisC 2016 data on the height of 18-year-old males in 1958 (born in 1940), it was 173.49 cm in Lithuania,[3] 173.85 cm in Latvia and 175.79 cm in Estonia (see Table 13.1). Together with the NCD-RisC 2020 report on the height

[3] For Lithuania, this figure closely agrees with the 173.94 cm figure for 18-year-old males observed in 1954–1957, provided by Zigmas Vegertas (1963: 130), who reported in his PhD dissertation the

of 18-year-old males in 1989, this data implies that the "purely socialist" growth dividend was 3.93 cm in Lithuania, 4.19 in Latvia and 3.61 cm in Estonia. Adding these figures to heights in 2007, when the first post-socialist generation reached 18 years age, we receive the following target values for ultimate passing of the OIST: ≥185.41 cm height in 2038–2040 for Estonians, ≥183.14 cm for Lithuanians and ≥ 182.39 cm for Latvians (see Table 13.1).

Passing the DST means decreasing the height gap behind the Netherlands by 2038–2040, which existed by 1989. Actually, in 1989, it was quite small for Estonia (0.92 cm), but considerable for Latvians (3.31 cm) and Lithuanians (3.93 cm). Over the 1971/89–1989/2007 cohorts, the height of Dutch males increased by nearly 2 cm, or 1.04 cm/decade, which was above the performance of Baltic males. Therefore, by 2007, the gap behind the Dutch increased to 2.45 cm for Estonians, 5.02 cm for Latvians and 4.02 cm for Lithuanians. After the next 12 cohorts (in 2019), the gap behind the Netherlands was exactly the same as in 1989 for Estonians, larger for Latvians and decreased by 0.56 cm for Lithuanians, who thus passed the actual DST by 2019.

If over the next 19 generations (until 2038) male height increase in the Baltic countries will continue at its recent rate (for 1989–2001) and the increase of Dutch heights will not accelerate, all three Baltic countries will easily pass the ultimate DST. Assuming that the increase of height over the 2001–2020 generations will continue at the same rate as in the 1989–2001 generations, the height of Estonians in 2038 will be 185.35 cm, Latvians—181.58 cm and Lithuanians—181.52, while Dutchmen themselves will be 183.84 cm tall. These height values are slightly below the target values implied by the OIST, but they are sufficient (under the perfectly realistic assumption that the height increase of Dutchmen will not accelerate)[4] to pass the DST, as the height increase rate of Baltic males among the 1989–2001 cohorts was markedly above that of the Dutch.

Importantly, this scenario implies that by 2038, Estonians will be taller than Dutchmen themselves. Before considering this as indicative of a lack of realism, we should take into account the fact that according to NCD-RisC 2020 data, 18–19-year-old Estonian males have already been ranked as the tallest in the world. This happened in 1985–1986 and applied to the 1966–1967 birth cohorts. This provides proof that the genetic potential of Estonians is sufficient for growing taller than the Dutch and the assurance that this will happen in the near future: if Estonians who grew up under Soviet occupation could outgrow Dutchmen, then they can certainly repeat this feat under restored independence.

The comparison of Estonian and Dutch time series in Table 5.6 inspires even more optimism because the 1896/1914–1913/31 Estonian male cohorts were taller than their Dutch peers. However, overtaking Dutchmen does not necessarily mean taking first position in the global ranking, as in 2019 Estonians were only the third

findings of the monitoring of biological development of students at Kaunas high schools in 1952–1962.

[4] See Schönbeck et al. (2013).

nation, overtaken by the Montenegrins and followed by the Bosnians, whose populations have higher shares of bearers of the haplogroups reputed as height genes (Grasgruber et al. 2014). Otherwise, it would be appropriate to replace in 2038–2040 the "Dutch standard test" with the "Estonian standard test" to celebrate the ultimate confirmation of the Estonian restoration's performance success by anthropometric data.

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Chapter 14
Concluding Discussion

In this section, I firstly summarily explain what my book, based on the comparative historical sociology approach, contributed to the research field known as Baltic area studies. Then I discuss the venues and promise of the further application of this approach in the same field.

So firstly, this approach rejuvenates writing on the modern history of the Baltic countries. In 2018, Estonia, Latvia and Lithuania celebrated the centenaries of the proclamation of independence of their states in 1918. As is commonplace on comparable occasions, this celebration was marked by the publication of many thematic surveys and syntheses of the history of Estonia, Latvia and Lithuania as independent nation states (e.g. Ijabs et al. 2018; Laar and Hiio 2018; Černiauskas et al. 2018; etc.). My assessment of the success of the restoration of this independence by 2018, including the application not only of the OIST, but also the OOST (comparison of the economic and social progress during both periods of state independence) offers a new way of commemorating and celebrating the centennial anniversary of the Baltic States. Importantly, my book not only exposes a new interpretation of the last century of the Baltic past, but encompasses all three Baltic countries, whereas almost all the anniversary publications exemplify a conventional national historiography approach.

Secondly, my study provides new benchmarks for assessment of the economic and social progress of the Baltic States during the next two decades of history. While the Baltic peoples celebrate their Independence Days on different days (Lithuanians on 16 February, Estonians on 24 February and Latvians on 18 November), there is one day (23 August) that is commemorated by all three. This is Black Ribbon Day, a firmly established part of the historical culture of all three Baltic countries to commemorate each year the anniversary of the infamous Molotov-Ribbentrop Pact signed on 23 August 1939 between Nazi Germany and the Soviet Union. This event sealed their historical fates for the next 50 years because the events that unfolded in the summer of 1940 were simply the realisation of secret Nazi-Soviet agreements. According to my approach, the centenary of this pact is a proper time for the ultimate assessment of the performance success of the Baltic restorations. This will be also

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the proper time to celebrate their complete endurance success, as by 2039–2040 the restored Baltic States will not only have endured longer than the interwar period of their history (partial endurance success could already be celebrated in 2011–2012), but also longer than the complete foreign occupations period.[1]

Elaborating my framework, I would like to suggest that 2039–2040 will be an important date in Baltic history, marking the end of the restoration period. In fact, restoration eras do not endure indefinitely in the histories of countries afflicted by endogenous or exogenous revolutions (in the latter case, they are imported from abroad and imposed from above in the wake of foreign occupations). A restoration may be terminated by new endogenous or exogenous revolution, as happened with most restoration regimes after the 1815 post-Napoleonic restorations. For the Baltic countries, this would happen in the event of the commonly feared new Russian occupation, bringing on the endurance failure of Baltic restorations.

However, even successful restoration periods do not last forever. They end when demographic continuity between the intermediate and restored systems thins out, as the persons socialised under the intermediate system die out, with their shares in the total population decreasing below the critical thresholds specified in the Introduction (at least 7% of survivors from the intermediate system who were aged 15 years or older at the time of the restoration onset, at least 10% of survivors who were at least 10 years old, and at least 20% of survivors born before the start of restoration). In the restored Baltic States, these critical thresholds will be approached by 2039–2040, when most survivors from the Soviet occupation period will have died out.

In fact, due to the increase of life expectancy at an advanced age, the critical thresholds may be crossed at some later date (by 2050 or even later). However, due to the expected ultimate economic success of restoration (see Chap. 9), the Baltic States will predictably become host countries of intense immigration. Most immigrants are persons of younger ages. So, if the share of the immigrant population will increase in the total population, the share of survivors from the Soviet past will decrease below critical thresholds by 2040 anyway.

"Post-restoration society" may be a usable designation for the period following the celebration of complete endurance success. However, I would prefer to use the concept "climacteric society"'(including "climacteric democracy", "climacteric capitalism", etc. as derivatives), borrowing and appropriately modifying another concept from ecology. Here, "climax" is the central concept in ecological succession theory, designating an ecosystem composed of biological species best adapted to the average conditions in its area and existing in a steady state or equilibrium (Clements 1936).

Importantly, climax does not insure against new radical transformations. By 1989–1991, state socialism was climacteric in the Soviet Union. The concept of

[1] There is still sufficient time for discussions on the exact date (2039 or 2040?) of this celebration, because some historians maintain that the Baltic States lost their independence already in the autumn of 1939, becoming Soviet protectorates after accepting (differently from Finland) Red Army garrisons in their territories.

climax just indicates the point in time after which token restoration is no longer possible. Climacteric society cannot be described as a restored society anymore, becoming a social system *sui generis* (the restoration era comes to an end). At the climacteric stage, explaining the actual difficulties and problems within a society by resorting to "survivals of the past" becomes awkward or unpersuasive, as all bearers of such survivals are dead or socially inactive due to their advanced age.

Until the climacteric stage is reached, the media (not only in the Baltic countries, but in all post-communist countries) will continue to depict "social evils" of all kinds (e.g. corruption, low work ethics or even the excessive consumption of alcohol) as "survivals of or throwbacks to the Communist past". This is also how many scholars explain the underperformance of former Communist societies (Pop-Eleches and Tucker 2018; Tucker 2015). Curiously, Soviet scholars also explained the "dark sides" of socialist societies as legacies or survivals of the capitalist and sometimes also the feudal past (see Alymov 2012). However, if the perceived dysfunctionalities persist into the climacteric stage, the inability of a climacteric system to cope with these alleged "survivals of the past" reveals its own internal weakness.

Thirdly, and maybe most importantly, my analysis provides the thesis of the legal continuity of the Baltic States since 1918, which is the cornerstone of the constitutional doctrines of all three Baltic States, with a sociological foundation. This foundation helps to counter the occasional doubts that this thesis is only legal fiction. My analysis enriches it with sociological substance, establishing at the same time the validity limits of continuity claims and thus generalises the Baltic experiences.

The Baltic States are not the only former republics of the former Soviet Union that dispute their status as new states succeeding the constituent units of the USSR. Among them, Georgia is the most persistent in claiming continuator state status of the Democratic Republic of Georgia, which existed in 1918–1921 and was extinguished by Soviet aggression despite the broad international recognition of its independence (Jones 2014). Importantly, it was also recognised by Soviet Russia, which signed a treaty with Georgia on 7 May 1920 in Moscow that was quite similar to the 1920s peace treaties with the Baltic States. However, contemporary Georgia is still not internationally recognised as a continuator of the 1918–1921 Democratic Republic of Georgia or its restoration.

In fact, even continuity of the contemporary and interwar Baltic States still remains disputed by the Russian Federation, whose legal scholars consider them as the successor states of Soviet Estonia, Soviet Latvia and Soviet Lithuania as union republics of the USSR (see e.g. Černičenko 1998; Meževič 2016). In this dispute, the contemporary Baltic countries may hold the upper hand because they can ground their claims in the body of international law, produced by diplomatic activities related to the founding and work of the League of Nations and then substantially enlarged by the United Nations (see Mälksoo 2003; Ziemele 2005).

There are two fundamental principles of law that are relevant in the resolution of legal disputes on the continuity of the identity of states as units in the state system: *ex injuria jus non oritur* (law or right does not arise from injustice) and *ex factis jus oritur* (existence of facts creates law or right). The first principle is a tautology similar to the "law of identity" in formal logic (A = A), which just reaffirms the

validity of the legal norm: an act that violates a valid legal norm is illegal, period. However, the second principle claims that after some time, the norm can forfeit its validity, making the reality created by the illegal act legal. Its analogue in domestic law is prescription law, which recognises the acquisition of private property rights through uncontested use during a specific period of time, or releases wrongdoers from prosecution for light offences after a specific period of time has passed (see Aust 2005; Nussbaum 1947; Orford and Hoffman 2016).

Baltic scholars in international law studies (Jundzis 2017; Mälksoo 2003; Ziemele 2005; Žalimas 1997, 2005) indeed insist on the primacy of the *ex injuria jus non oritur* principle during their polemics against their Russian colleagues. To extricate the Russian Federation, which is internationally recognised as the continuator state of the USSR, from responsibility for the crime of occupation and export of the socialist revolution, they argue that by claiming continuity of the interwar Baltic States, the contemporary Baltic States are pretenders or impostors, concealing their real identities as former Soviet republics under the feigned or stolen identities of the long-dead Baltic States.

From the Russian point of view, these republics became both de facto and de jure extinct in August 1940, after acceding to the USSR, which was their legitimate successor state from early August 1940 until 6 September 1991 when the USSR recognised the independence of the Baltic republics a few months before its own extinction on 26 December 1991. According to this view, in 1989–1991, there was no restoration of states which had become extinct in 1940, but the creation of new independent states by former republics of the USSR, employing the right to secession granted to union republics under the last Constitution of the USSR adopted in 1977. From this Russian perspective, there is no difference between the Baltic States and other former republics of the USSR, all of them being successor states of the Soviet Union.

In my terminology, according to the Russian view of the contemporary Baltic States, their relationship to the interwar Baltic States is a type restoration (where the interwar and contemporary Baltic States are different states), while the Baltic view claims token restoration, involving affirmation of identity between the interwar Republic of Lithuania and the contemporary Republic Lithuania, the interwar Republic of Latvia and the contemporary Republic of Latvia, the interwar Republic of Estonia and the contemporary Republic of Estonia. This is not a scholastic dispute because different views on the identity of the Baltic States have very practical political implications.

The Baltic view of token identity between the interwar and contemporary Baltic States grounds their denial of citizenship rights to Soviet-era immigrants and claims of restitution according to peace treaties signed with Soviet Russia in 1920. The Russian assumption of their token difference grounds the claim that all former Soviet citizens, permanently living in the territories of the Baltic countries as of September 1991 were entitled to citizenship, and that only the former delimitation lines between the Soviet republics are the legitimate borders of their successor states (see Part II for a detailed discussion).

Of course, in this discussion I side with my Baltic compatriots because my aim is to spell out the implications of the thesis that continuity and identity between the interwar and contemporary Baltic States is not legal fiction *(pace* Müllerson 1993: 483) intended to rationalise purely political decisions (to not grant citizenship rights to persons who immigrated in 1940–1990 or demand reparations from Russia), but is actually a sociological fact. As such, the Baltic restorations were unique not only due to a long waiting period (some 50 years). They were also unique due to the attempted *restoratio ad integrum* including the return to the preoccupation status quo in domestic, economic and political organisation, despite the long intermediate period under a very different economic and political system. To recall, it is these features that make them paradigmatic or ideal typical cases of modern restorations.

In the analyses of Baltic restorations by Baltic legal scholars refuting the Russian interpretation of the contemporary Baltic States as successor states of the Soviet Baltic republics, I missed a discussion of the broader legal implications of their overall international recognition as the genuine continuators of the interwar Baltic States. I argue that my sociological conceptualisation of restorations, grounded on the assumption of the paradigmatic status of the Baltic cases, may also provide guidelines for spelling out these implications. Of course, the aims of the legal theory of restorations of states as actors in the international system are different from those of sociological theory. Sociological theory provides tools for empirical classification and explanation, allowing us to distinguish restorations from similar but nevertheless different phenomena. Legal theory focuses on rights and entitlements: when does a state has the right to claim continuity and identity of some formerly existing state, and when are such claims not accepted?

Legal disputes on this issue take place in two situations. The first is when a state dissolves and one of the successor states claims to be the continuator state or denies this status. For practical purposes, this equates to claiming to be the sole inheritor of the assets and liabilities of the defunct state in other countries. When the assets are greater than the liabilities, this kind of inheritance is attractive, but in other instances it is just a burden. Therefore, precedents are contradictory. The interwar Republic of Austria (1918–1938) denied its continuity with the Austrian part of the dual Austro-Hungarian Habsburg monarchy, claiming to be a new successor state on par with Czechoslovakia and Yugoslavia. However, the Allied powers rejected these claims, singling Austria out as a continuator (Marek 1954: 199–236). In 1991–1992, the Russian Federation claimed and won international recognition as the continuator state of the USSR, while the other fSU republics (with the exception of the Baltic States) were internationally recognised as new successor states of the Soviet Union. At the same time, the continuator status of undiminished Yugoslavia was denied to the "rump" of Yugoslavia, including Serbia and Montenegro. The UN considered it a new state, on par with the other successor states of the former Yugoslavia (Ziemele 2001).

In the second situation, also exemplified by the restoration of the Baltics, states claim the identity and continuity of formerly existing states that were de facto extinct. Almost universal (except for Russia) acceptance of the view that the Baltic States were the last victim states of World War II, which were restored after a longer

waiting period, prompts the question – what does the extraordinarily long duration of this period imply for restorations attempted or claimed in the future? Does duration of time lapse since the de facto termination of a state not matter at all, considering the claims of the later government exercising control over its territory to be its legitimate continuator?

The sociological theory of social restorations outlined in this book helps to identify relevant facts for application of the principle *ex factis jus oritur* by suggesting a temporal limit for the de jure persistence of failed or de facto extinct states. It is applicable also in situations where a state is extinct both de facto and de jure, but where social movements or some successor state (in the case of state dissolution into two or more states) demand that it be restored. When can such claims, voicing the right of the extinct state to be restored, be recognised as legitimate?

The Montevideo Convention provides the list of necessary conditions for a state to qualify as a person in international law: (a) a permanent population; (b) a defined territory; (c) government; and (d) capacity to enter into relations with the other states.[2] The last criterion may be redundant, as with no government a state also has no capacity to enter into relations with other states. Spelling out implications of (a), I would suggest that de facto extinct state should preserve the right to restoration until its former citizens die out.

This right holds even if there are no states continuing to recognise this state de jure, as in Ethiopia in 1936–1941 and Austria in 1938–1945. I conceive the relevant citizen population as persons who were born and underwent basic socialisation before its de facto extinction, which may have been caused by its occupation and annexation, dissolution into two or more states, or unification with another state, regardless of whether this unification was contested by some of its citizens or not (in fact, only a minority of Austria's population as of 1938 disagreed with the annexation of their country by Nazi Germany). Assuming this proposal, it is easy to account for how states that were extinguished on the eve of World War II (Ethiopia, Austria, Albania, Czechoslovakia) could be token restored, even if at least two of them also lost their recognition de jure.

After de facto extinction, citizens may voluntarily or for practical reasons accept passports issued by the occupying power or successor states. However, this cannot extinguish the loyalty or oaths of allegiance of the citizens of the de facto extinct state (who may only make up a small minority) who do not accept the recent changes. As long as citizens of the extinct state survive, this state also preserves the right to restoration, regardless of whether this right is still recognised by international law or not. Nevertheless, the duration of this right is not perpetual. A state forfeits this right when its former citizens die out. Their offspring, born after the extinction of the original state, may inherit citizens' rights in this state, but they can also be legitimately considered citizens of the intermediate state.

[2] http://www.oas.org/juridico/english/sigs/a-40.html. Accessed 10 January 2023.

Of course, under conditions of the dissolution of the successor state or other circumstances making it possible to apply the right of a nation's self-determination, their heirs are entitled to secede and establish a sovereign state. During the process of self-determination, a historical state may be used as a reference system. This may be the state where their grandfathers lived or even a more ancient polity (as the community of the citizens of the State of Israel did in 1948). In these cases, the newly established state also can be considered as a restoration of this ancestor state. However, this would be restoration of a different kind: a type restoration.

Under this restoration, denial of full citizenship rights to that part of the population that does not descend from the population of the historical reference state or claims upon a territory within historical borders would be illegal. That is why contemporary Israel is not entitled to the "historical lands" of ancient Jewish states, while Estonia and Latvia are entitled to strips of land detached from them in 1944–1945 by the Soviet government. The gap in demographic continuity is also the ultimate reason why former colonial countries (e.g. the contemporary People's Democratic Republic of Algeria, founded in 1962) should be considered as new states, despite having ancient state ancestry (Beylik Algiers 1516–1830). It also accounts for the difference in the situation of the Baltic States and Transcaucasian republics (Georgia and Azerbaijan), which did claim their continuity with namesake states that existed in their territory in 1918–1921, but did not get their claims internationally recognised: by 1990, their population as of 1920–1921 had already died out.[3]

The delay of the Soviet Union's dissolution until 2010 or 2020 would have surely decreased the chances of international recognition of continuity or identity of the restored Baltic States with their 1918–1940 namesakes. The restitution of 1940 property rights would have hardly been possible by 2010 or 2020. The leaders of the independence movements would have taken a more accommodating attitude to Soviet-era immigrants, who would have made up an absolute majority in at least two (Estonia and Latvia) Baltic countries (see Chap. 5). Had the Baltic restorations taken place in 2040 or 2050, then they would have been type restorations, involving no continuity between the original and restored states.

I would like to add the argument that this (demographic) interpretation of the limits to state continuity just spells out the implications of the idea of popular sovereignty, where the "populus" or the community of citizens is considered the ultimate source or basis of sovereignty. The state cannot survive its populus, except we (following Edmund Burke) accept that the will of past generations is absolutely binding for their successors. However, as time goes on, new generations may foster attachments, loyalties and identities that are very different from those of their ancestors, exchanging (for example) their national identity for a pan-European one. One such massive shift already occurred when the national German and Italian

[3] There is also another important difference, emphasised by Kann (1968): the independent Transcaucasian states endured for too short a time in 1918–1921 to be able to educate a generation of their loyalists.

identities suppressed or sidelined many local or regional identities after the unification of Germany and Italy in the middle of the nineteenth century. A common European identity may at some time in the future suppress national identities, providing for the transformation of the EU into a federal state. For this reason, granting states immortality or giving them a too generous waiting time allowance for their restoration after de facto extinction can have politically obnoxious consequences.

Concerning further tasks of the research grounded in the comparative historical sociology of restorations approach on Baltic countries, I would like to underline that this book provided tentative answers to only a few (to not sacrifice depth for breadth) research questions entailed by this approach. Selecting them, I used two criteria. Firstly, the questions asked are in line with the distinctive features of socialist revolutions. Bourgeois revolutions were anti-feudal, considering absolute monarchy as the epitome of evil. They promised political liberty and equality, institutionalised in the democratic republic. The French Revolution of 1789 failed to realise this promise, leading to the terrorist Jacobin dictatorship and then the military monarchy of Napoleon Bonaparte.

Socialist revolutions were socio-economic by nature, promising the acceleration of economic and social progress after the abolition of private property over means of production as the alleged brake on the development of "productive forces". Communist regimes promised higher economic growth rates, allowing underdeveloped countries to catch up to the most economically advanced countries in only a brief period of time and to create an economic foundation for a level of human flourishing without precedent in human history. Tellingly, histories of the Baltic countries, published under Soviet occupation, painted pictures of economic stagnation under "bourgeois dictatorship" during interwar independence, contrasting them with unprecedented economic and social progress under socialism.

Assessing the success of post-socialist restorations by measuring and comparing the contribution of original capitalist, state socialist and restored capitalist economic systems to economic progress and the increase of human well-being, I am merely taking socialist revolutions on their own terms. The ultimate cause for the demise of state socialism was the failure to deliver on the promise to accelerate economic progress and social development of countries where Communist parties had established their rule. Measuring the performance of post-communist regimes by the same yardsticks that Communist regimes applied to themselves allows us to learn whether the allegedly doomed capitalist system, after its restoration, was able to perform better on these promises.

Another important reason for focusing on the economic, health and somatic progress was the hope that findings of research to fill the lacuna in the data necessary to apply the outperforming original and intermediate systems tests (guided by the CREPS, CRHPS, CRSPS) for assessment of the success of Baltic restorations will be of interest to the broader research community, including researchers who may remain unpersuaded or sceptical of comparative historical sociology of restorations.

Nevertheless, it was not possible to fill all the lacuna in the currently available data necessary for application of restoration performance success tests (OIST and

OOST). Therefore, some of these tests could not be properly applied or the results of their application may be deemed only as first approximations. This refers to our estimates of GDP for the Baltic countries in 1913–1938, which were derived using indirect or econometric methods. While they allow for assessing the economic standing of the interwar Baltic countries in the international comparison (including the finding that they were considerably richer in comparison with the USSR), they lack the fine grain that would allow tracing structural changes in the economy needed to fill GDP figures with more economic substance. So these findings can and should be improved, by measuring economic output using direct methods (constructing historical national accounts) in further research, providing a firmer basis for the application of the OOST in the assessment of the economic performance success of Baltic restorations.

Further original research is needed even more for the application of the OIST in the assessment of the economic success of Baltic restorations, where estimates are available only for the Estonian GDP for the bulk of the occupation period (since 1950). No estimates (not even tentative ones) are available in the SNA framework for Soviet Estonia or Lithuania before 1973. Therefore, for these countries, I was only able to provide an assessment of the early economic restoration success, using MPD data on the GDP of the Baltic countries since 1973. I also could specify the target values for the ultimate application of the OIST in 2039–2040, based on our estimates of GDPpc of these countries in 1938 and MPD data for 1989–1990. Pending progress in the measurement of real output in 1939–1972, the application of the OIST for assessing the actual performance success of these countries is not possible.

Although it was possible to fill the lacuna in the available knowledge on life expectancy for interwar Lithuania, there is no reliable information for the 1935–1958 period, which is needed for a more precise dating of the end of epidemiological transition in Lithuania and monitoring of the actual health performance success during the two decades remaining until the ultimate application of the OIST in 2039–2040. Another important improvement would be the enlargement of the available (thanks to Katus' research) collection of life tables for Estonia and Latvia with those on the 1939–1949 period. One possibility for how to narrow the gap for the 1940s would be the use of the still incompletely processed or published data of censuses under the German occupation in 1941–1943.[4]

Archive files containing anthropometric data on draftees to the Lithuanian military in 1929–1939 remains as a resource that is completely untapped by historical anthropometric research. The same applies for data on conscripts to the Soviet Army in all three countries, which were not accessible to biological anthropologists during the Soviet years and remain unexamined by contemporary Baltic historians.

The above remarks all refer to tasks and challenges of further improvement to the fundamental data needed for cross-time and cross-country comparative analysis of

[4]For more details on the 1941 census in Estonia (called the "registration of the population"), see Maiste and Berendsen 2017; Maiste and Puur 2018.

the economic, health and somatic progress in the Baltic countries since their emergence as independent states in 1918. However, the agenda of comparative historical sociology of restorations is by no means exhausted by socio-economic issues alone. In Marxist parlance, the establishment of independent Baltic States was also a "bourgeois" revolution, involving the abolition of the division of the population into estates, radical land reform and establishment of democratic republics. However, the first attempt at the democratisation of the Baltic countries failed even before the Soviet occupation, with authoritarian coups destroying democracy in its fledgling stages in Lithuania in 1926, and in Latvia and Estonia in 1934.

By 1990, the population of Lithuania included only 11.70 percent born in 1926 or earlier, 5.19 percent who were at least 10 years old and 3.01 percent who were at least 15 years old in 1926 (HMD 2022). Therefore, no token restoration of democracy was socio-demographically possible in this country in 1990. On the other hand, type restored Lithuanian democracy could celebrate its endurance success already in 1996, narrowly escaping the early failure in September 1993, when the revolt of the servicemen of the Voluntary National Defence Service (VNDS; *Savanoriška Krašto Apsaugos Tarnyba*; SKAT) broke out. The core of the VNDS consisted of volunteers who, during the dramatic time of the confrontation between the government structures of the Republic of Lithuania and the Soviet military (in 1990–1991), were preparing themselves for armed resistance if Moscow's authorities were to attempt to bring down Lithuanian independence by force (Norkus 2012: 306–307).

These volunteers were enormously disappointed by the ex-communist Lithuanian Democratic Labour Party's victory in parliamentary elections in October 1992. The revolt diminished when the volunteers found no partners among the eminent political figures of the Lithuanian Right, who would agree to assume authority in the state after a coup. Had they behaved differently, post-communist political developments in Lithuania would have likely followed the trajectory of Georgia, where post-communist democracy endured for an even shorter time (October 1990–September 1991) than its first experience in February 1919–March 1921. In September 1991, violent hostilities among pro-independence forces themselves erupted, culminating in an armed coup d'etat against the democratically elected President of Georgia Zviad Gamsakhurdia in late December 1991, followed by a civil war (Jones 2014).

Longer experiences with political democracy under interwar independence in Estonia and Latvia did indeed contribute to the stability of post-communist democracy in Estonia and Latvia, making possible the very token restoration of parliamentary democracy in both countries, which was implemented in the most impressive way in Latvia by the reenactment of its 1922 Constitution. Both restored democracies could celebrate their partial endurance success in 2004–2005, when they outlasted the original interwar democratic regimes. When setting exact dates, which are necessary for celebrating anniversaries, we should consider that in all three countries, the first democratic periods started with elections to constituent assemblies (see Nohlen and Stöver 2010). In Estonia, this kind of election took place already on 5–7 April 1919, and in Latvia they were held almost simultaneously with the Lithuanian elections (on April 17–18, 1920). The second democracy period

commenced with democratic elections to the Supreme Soviets in February–March 1990, which went on to restore independence.

To recall (see Chap. 5), in 1988–1991, supporters of independence restoration were divided as to whether restoration of independence by the Supreme Soviets of the Baltic Soviet republics, elected according to the legislation of the occupier power (USSR), was in fact legally correct. According to present consensus among Baltic legal scholars and political scientists, the democratic legitimacy of the last Soviet parliaments provides legal and meta-juridical validity for their claims of identity between the interwar and post-communist states (Jundzis 2017; Mälksoo 2003; Ziemele 2005; Žalimas 1997, 2005). As a matter of principle, democratisation may precede the establishment or restoration of an independent state, as this was the case in the former Soviet and Yugoslavian republics.

To enable assessment of the performance success of democracy restoration in future research, continuing, expanding and complementing the analysis provided in this book, I would suggest using this version of the criterion of democracy restoration performance success:

CDRPS (Criterion of democracy restoration performance success): ***Restored democracy is performance successful if the values of deliberative, egalitarian, electoral, liberal and participatory democracy indexes under restored democracy surpass those of the original democratic regime.***

This criterion is tailored to apply to data in the Varieties of Democracy (V-Dem) data sets, released by the V-Dem Institute based at the University of Gothenburg, Sweden. Its recent release (Coppedge et al. 2022) covers 202 countries for the years 1789–2021 and comprises of more than 483 V-Dem indicators, 82 indices and five high-level indices. I would like to suggest prospective researchers accept the complex and sophisticated conceptualisation of democracy devised by the constructors of these databases.

Assessment of the endurance success of a restored democracy can be made by comparing the duration of the restored democratic system with the duration of both the original democratic and intermediate non-democratic systems. Thus, the complete endurance success of democracy restoration in Lithuania can only be celebrated in 2054, when/if restored democracy will have also outlasted the complete period under authoritarian and totalitarian regimes (1926–1990). In Estonia and Latvia, it may take somewhat less to wait until the proper time (2046) for completion of the OIST test for the endurance success period.

However, an assessment of the performance success of the restored democratic regime makes sense only when comparing the original democratic and restored democratic regimes because the aims of democratic and authoritarian regimes are totally different. If there are dimensions where the democracy index value(s) under the original regime are higher than under the restored democratic regime, then the restoration democracy was only partially performance successful. If in all dimensions the original democratic regime surpasses the restored regime, then the restored democratic regime should be considered a performance failure. Exploration of V-Dem data on the Baltic countries suggests that generally values of Deliberative,

Egalitarian, Electoral, Liberal and Participatory Democracy Indexes are higher for the restoration period than for the interwar years. However, examination of this task demands a separate study incorporating other sources of information as well.

Importantly, the monitoring of the condition of restored democracies using the highest interwar time values as benchmarks can also be continued after 2004–2005 until the point when their endurance success will have been completely proven. This is another service that better knowledge of our historical past and its actualisation in the historical sociology of restorations can provide for the enhancement of the restored Baltic democracies.

Threats to the stability of restored social systems can come from inside, deriving from the weakness of their economic bases (e.g. due to dependence on the export of a limited range of products) or outside (e.g. due to a geopolitically exposed location). The existence of these threats makes an assessment of the success of their restoration based only on their well-being performance incomplete. The situation of even very wealthy countries with high levels of human development may be precarious if they are not internationally secure.

Therefore, application of the restoration sociology approach includes an assessment of the international security of restored states. As far as international security is considered a collective good that cannot be created by a single state (especially by a small state, as exemplified by the Baltic States), this assessment is conducted using cross-time comparisons of configurations of the international order that provide this common good (or not):

CRIOPS (Criterion of the rehabilitation of international order performance success): ***A rehabilitated or restored configuration of international order C is performance successful if it is more peaceful and secure for member states than intermediate configuration B or original configuration A.***

Wars between major powers or their dissolution mean the breakdown of a complete configuration, which is replaced by the next configuration featuring different major players. Applying the CRES, the duration of general peace under subsequent configurations of international order is compared, while the application of the CRIOPS involves counting local wars and the capacity of that particular configuration to avoid their upgrading to a general war. The application of this criterion is possible only as a separate study, encompassing all post-communist countries as part of the global international system.[5]

In this book, I limit myself only to a few considerations that are necessary for its completion. In fact, the political cultures of the restored Baltic States continue to be shaped by the trauma of their loss of independence in 1940, accompanied by the decimation of their most socially active members by Soviet repressions already in 1940–1941. Others escaped this fate by fleeing to the West in 1944, and those remaining were able to preserve their social position only by collaborating with the

[5] For some preparatory work, see Norkus (2023, Chap. 2.3).

Soviet occupants. This trauma explains why determination to prevent a repetition of 1940 is the main driving force behind foreign policy of the restored Baltic States.

This determination includes the resolution to not repeat what is perceived as a key mistake of foreign policy during interwar independence. Specifically, this is capitulation to Soviet ultimatums to accept Soviet military bases in September–October 1939, when military resistance was still possible. Finland's successful resistance during the Winter War in 1939–1940 is perceived as proper behaviour, which the Baltic States sadly did not display in 1939–1940. Thus, the defence policies of the restored Baltic States are aimed at preparing them to repeat Finland's feat in the Winter War.

Different from the interwar years, the elites of the restored Baltic States securitize (perceive as a potential aggressor) only one state, which is the same for all three: the Russian Federation. They perceive post-communist Russia as another avatar of the Russian Empire, which is recognised as a perennial existential threat. The security situation was much more differentiated during the first independence period. Interwar Estonia elite's perceptions of territorial security threats display most similarities to those of its contemporary successors in terms of their overwhelming concern with the Soviet/Russian threat. The military of interwar Latvia had war plans with two potential adversaries – Soviet Russia and Germany, based on scenarios of Soviet or German invasions. Concerns about the "German threat" increased after Adolf Hitler's rise to power in 1933, almost overshadowing concerns about the "Soviet threat" (Ilmjärv 2004).

However, interwar Lithuania's international situation was the most complicated – and the most different from that of restored Lithuania. Lithuania was the only Baltic State without a border with the USSR, which was perceived by Lithuanian political elites more like an uncertain ally than a definite threat. The proclaimed top aim of Lithuania's foreign policy until 1938, when its government yielded to Poland's ultimatum to establish diplomatic relations, was to regain its historical capital Vilnius. According to all three of Lithuania's interwar constitutions (1922, 1928, 1938), Vilnius was the official capital of the Lithuanian state. Thus, in interwar Europe, Lithuania was a revisionist power together with the USSR, Germany, Hungary and Bulgaria (Butkus 2019; Kasparavičius 1996).

The reclaiming of Vilnius was possible only after Poland's military defeat in a new major war, where its most probable adversaries (and Lithuanian allies) were Germany and the USSR. Lithuanian military planners even acquiesced with military defeat and temporary occupation of a majority or even all of Lithuanian territory, with remainders of its military retreating to Latvia and its government going into exile. They took inspiration from the post-World War I restoration of Belgium and Serbia. Serbia did become Yugoslavia, perceived as Greater Serbia by Serbian nationalists, after suffering military defeat and occupation. It did ultimately win by taking the side of the victorious coalition (Jokubauskas 2014, 2019).

In the early 1930s, Lithuania's international position was further weakened by the conflict with Germany over Lithuania's attempts to Lithuanianise the autonomous Klaipėda Region. It did face resistance from the local government dominated by Germans and the bulk of the local population, including people of ethnically

Lithuanian descent.[6] Germany reacted by imposing economic sanctions on Lithuania. This conflict escalated after Hitler's rise to power, with economic sanctions almost turning into a complete economic blockade, which greatly aggravated the impact of the worldwide economic crisis and delayed recovery until 1936. Lithuanian hopes of regaining Vilnius collapsed after the USSR and Germany signed (in 1932 and 1934 respectively) non-aggression pacts with Poland (Eidintas et al. 2003).

This made possible the signing of the Treaty of Good Understanding and Co-operation between Lithuania, Latvia and Estonia on 12 September 1934 in Geneva, known as the Baltic Entente. However, it never developed into a military alliance, including at the very least the preparation of common war plans, and was not expanded by a custom tax union or other forms of economic cooperation. Lithuania did not receive any support from its Baltic allies after receiving the Polish ultimatum regarding Vilnius in March 1938, followed by the German ultimatum in March 1939 to cede the Klaipėda Region. Deepening of Baltic cooperation by pursuing a common defence policy was also hampered by their declaration of neutral powers status on the eve of World War II, which included waiving commitments to participate in the sanctions against the aggressor powers, which they did have as members of the League of Nations (Kasparavičius 2010, 2021).

Therefore, when it received the first Soviet ultimatum to accept Soviet troops on its territory in late September 1939, the Estonian government did not even attempt to consult its allies, while the other Baltic governments behaved similarly both in the autumn of 1939 and in June 1940, silently capitulating (Ilmjärv 2004) one after another. Certainly, acceptance of the Baltic countries to NATO in 2004 (together with admission to the EU in the same year) radically improved the international security situation of the restored Baltic countries compared to their position in the interwar "Versailles system", which in hindsight proved to be so fragile.

However, the outbreak of the Russian-Ukrainian war in 2014 disclosed that NATO membership does not bring total security. Its escalation in 2022 from a "hybrid war" to open military conflict further increased the risk that their territories will become a theatre of war between Russia and the (hopefully) ultimately victorious NATO forces. While this is broadly expected in the Baltic countries, the realisation of this expectation can only meaningfully described as a shock.

The meaning of shock expresses the connotation of surprise. This does not mean that a shock event is completely unexpected, although some are (the Covid-19 pandemic is an example). Earthquakes are expected in seismic zones. Before the post-Napoleonic restoration era, wars between European great states were the norm, while recurring economic crises are part of the normalcy of capitalism. The surprise element of shock refers to the unpredictability of the timing and extent of the next occurrence of the disturbance, which is expected to happen.

[6] Speaking Lithuanian, it had religious (Protestant) identity, different from Catholic Major Lithuania.

The prospect of an upcoming Russian-NATO war on the territory of the Baltic States provides relevance for further research in the framework of the comparative historical sociology of restorations, guided by the Criterion of restoration resilience, imported and adapted from the field of restoration ecology (see Chap. 3).

CRR (Criterion of restoration resilience): ***A successfully restored social system is more resilient in comparison with the original system both in the sense of its capacity for rapid recovery after shocks and its lesser vulnerability to systemic change, shifting it into an alternative equilibrium.*** [7]

Systems with weak resilience need a longer time to recover and may shift into an alternative equilibrium, which implies systemic change. So CRR combines two ideas of resilience: resilience as the return speed to the initial state of equilibrium state and as the degree of (in)vulnerability to transition to an alternative stable state. Alternative stable states are defined by their stable states or attractors, which may differ in terms of the depth and breadth of their attraction basins (see Holling 1973; Scheffer 2009).

The measurement of resilience by the speed of return to the initial equilibrium expresses an engineering-based concept of resilience. It makes sense to apply the idea of return time to both ecological and social systems, as they may be significantly different by the time it takes them to recover from disturbances such as fire for forests, cities from natural catastrophes (e.g. floods or earthquakes) and economies from wars or economic crises. In the restoration sociology of the Baltic countries, this idea of resilience can be fruitfully applied when comparing the impact of the Great Depression of 1929–1933 and of the Great Recession of 2008–2011 on the Baltic economies.

Using the CRR to explore the impact of a possible or upcoming NATO-Russian war on the restored Baltic States, both ideas of resilience are highly relevant. The alternative equilibrium in such a war is just the extinction or dispersion of the actual populations of these countries, making their territories vacant (albeit radiation-contaminated) colonisation areas. So, when applying the CRR to the situation of an upcoming war, we would ask the following questions: are the populations of the contemporary Baltic States better protected from war-related extinction in comparison with those of the interwar Baltic States? What can be done to increase the prospects of their survival as well as to increase the speed of return to normalcy provided that war will not end with transition to an alternative equilibrium?

Obviously, these questions are so topical and complicated that they can be answered only by conducting multidisciplinary research projects, involving the collaboration of experts from different countries. So, I close with a few remarks focusing on two critical areas: food security and energy security. In both cases, I highlight the possible contribution of historical sociology of restorations.

[7] For more details, see Norkus 2023. In this book, CRR will be applied only in the Concluding Discussion.

The scenario of a temporary new occupation of the Baltic countries in the event of military conflict with Russia is tacitly assumed in the official documents of the Baltic States outlining their national security strategy priorities. The Lithuanian document commits 'all and each citizen to resist the aggressor by all possible means, including military defence, partisan war, civic disobedience, refusal to cooperate with the occupation administration and other means'.[8] The success of a partisan war and civic disobedience is critically dependent on the capacity of the civil population to survive without having to cooperate with the occupant administration, which predictably will not care about its survival. Quite the opposite, genocidal policies can be expected as a response to partisan war and civic disobedience.

The predominantly agrarian character of the Baltic economies, low levels of urbanisation and comparatively high levels of agricultural productivity enabled the Baltic countries to survive the World War II years without succumbing to famine, which is what happened in many countries or parts of their territories under German occupation (Collingham 2012). In 1946–1947, Ukraine, Moldova and parts of central Russia were hit by famine caused by drought, preceding war devastation and exacerbated by the policies of the Soviet government (Ganson 2009). However, the Baltic republics were not affected – because of afore-mentioned reasons and because collectivisation had still not been implemented at this time. With no sufficient food resilience resembling that which the Baltic countries displayed under military occupations during WWII, there is a risk that their exile governments may return to countries liberated from the Russian aggressor devoid of a population, previously starved out by the occupant administration.

This problem is also important in the scenario where the Russian military will not be able to swiftly occupy the Baltic States and they will become an area of protracted military standoff where decisive battles will take place. During the period of WWI and subsequent independence wars, among the Baltic countries Latvia turned out to be the least food-resilient, with part of its urban population starving to death in 1918–1919 (Šilde 1976: 295). This was the price for Latvia's relative modernity by 1914. As the most urbanised and industrialised Baltic country, it was the least food self-sufficient and so, the least food-resilient (Norkus and Markevičiūtė 2021). However, the main reason was that Latvia was where positional warfare continued for more than2 years, devastating a larger part of its territory (see Chap. 8).

As far as the contemporary Baltic States are thoroughly urbanised and only a fraction of their populations is employed in agriculture, the food resilience of the restored Baltic countries is even lower than in Latvia by 1914. This applies both in the sense of capability to feed their populations after food imports and inputs (fuel, fertilisers) necessary to continue agricultural production under occupation (resilience against the shift to an alternative equilibrium) have ceased and the ability of agricultural production to swiftly recover after liberation from Russian occupation

[8]Lietuvos Respublikos Seimas. Nutarimas dėl nacionalinio saugumo strategijos patvirtinimo 2002 m. gegužės 28 d. Nr. IX-907 Vilnius https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.167925?jfwid=nz8qn8f5i. Accessed 10 January 2023.

(resilience as recovery speed). Food resilience is maximised by increasing the food self-sufficiency of a country. By 1939, all three Baltic countries were net food exporters and thus self-sufficient to a high degree, meaning they also displayed high food resilience (Norkus and Markevičiūtė 2021: 655–657). The comparative study of food resilience of the interwar and restored Baltic countries would be a highly policy-relevant contribution of the historical sociology of restoration furthering the enhancement of their security.

The capability of the civil population to survive at least one winter under hostile foreign occupation should be considered as the crucial test of the energetic resilience in the sense of (in)vulnerability to the transition to an alternative equilibrium. Maximal levels of security against energy supply shocks are ensured by energy supply self-sufficiency. Most premodern agrarian societies did achieve such self-sufficiency due to low levels of energy consumption. Their energy needs could be satisfied using only local resources of wood, wind, water and animal power energy.

Only industrial and post-industrial countries with large endowments of fossil fuels or uranium are able to satisfy their energy needs without having to rely on energy imports, which make them vulnerable to interruptions in energy supply or energy price fluctuations. Among the interwar Baltic countries, Estonia was a completely energy self-sufficient country due to its development of a shale oil industry (in fact, in 1939 it even exported motor fuel). Although it did import some coal and oil products for economic reasons, as a matter of principle, interwar Estonia could satisfy domestic energy demands by its own production, substituting coal with oil shale or shale oil (Holmberg 2008).

This did not apply to the other Baltic countries. The interruption of coal imports stopped the bulk of Riga's industry both in 1914 and in 1939–1940 (Stranga 2015: 209–220). Nevertheless, the populations of the Baltic countries (except for their Jewish parts, which became the victims of the Holocaust) could survive 3 years of German occupation in 1941–1944 even in the absence of fuel imports (except for what was needed for the German army). Agricultural production could continue using animal draught force, while biomass (woods) was substituted for coal for household heating needs and partly also for those of industry. This is barely imaginable for their modern economies, where not only industry but also agricultural production is no longer possible without fuel imports and a stable electricity supply.

While the governments of the Baltic States do not display awareness of any food security risks, this is not the case for their energy security needs. However, they do not perceive as a risk the low energy self-sufficiency of the Baltic countries, but rather their dependence on a sole supplier – Russia, which is also perceived as sole probable aggressor. According to this perception, so long as the Baltic States remain dependent on Russia as their energy supplier, the former metropolis power does not need to use military power to enforce its will – it can do this simply by halting deliveries of gas and electricity. The leverage of energy supply was demonstrated by the partial success of the economic blockade of Lithuania from 18 April to 1 July 1990, when Moscow forced Lithuania to conditionally suspend its independence declaration act (Antanaitis 2001; Šimėnas 1996; Vagnorius 2010).

Escalation of the Ukrainian war from its "hybrid war" phase into full-scale military conflict in 2022 prompted the Baltic countries to stop their energy imports from Russia. This was made possible by EU-supported investments into the build-up of infrastructure. It includes the construction already in 1995–1999 of the Būtingė oil terminal to secure an alternative crude oil delivery route to the Lithuanian Mažeikiai oil refinery, which remains the main supplier of liquid fuels for markets of all three Baltic countries; installation of two submarine power cables (Estlink-1 and Estlink-2), connecting the power grids of Estonia and Finland in 2005–2006 and 2012–2014; completion of the gas pipeline from Poland to Lithuania in 2021, and many other projects (Leonavičius and Genys 2017).

However, this did not bring Latvia and Lithuania to the energy resilience levels of the interwar years, and even that of Estonia may diminish due to the decreasing contribution of its oil shale industry to the overall energy supply. Diversification of energy import sources will not diminish dependence on energy imports as such, while energy self-sufficiency alone amounts to complete energy resilience. Even during a brief occupation and its rollback by allied NATO forces, the populations of the Baltic countries may freeze if military action were to take place in the winter. The reconstruction of Soviet-era residential buildings to improve their energy conservation properties did help to increase the resilience of most dwellings to brief interruptions in heating during winter, but would be insufficient in the event of longer interruptions to the supply of electricity and heating.

Importantly, a centralised energy supply structure is highly vulnerable not only to military attacks (this is one of the painful lessons of the Russian-Ukrainian war), but also to technogenic accidents, which can not only interrupt energy supply, but also cause environmental pollution as a side effect. Therefore, the greening of energetics is the most promising avenue to bring the energy resilience of the Baltic countries back to interwar levels, when the bulk of their energy needs were satisfied by biofuels (mainly firewood).

Of course, this does not mean just a restoration of the energy balance of the interwar years because along with the renewable energy sources (biomass) used in this time, the use of wind and solar energy should also be increased, based on wind turbines and solar cell technologies that did not exist in the past. The equipment of individual houses with solar cell batteries may decrease the dependence of many energy users on a centralised supply source. In this way, a large part of the Baltic population can become enabled to switch from being energy consumers to prosumers, satisfying their energy needs through local production for their own needs. Food resilience may be increased along similar lines by encouraging the urban population to use their rural residences (now used only for recreation purposes) for food production (Alber and Kohler 2008; Smith and Jehlička 2013; Steel 2020). Owned by many Baltic urbanites, they could also serve as safe retreats in cases of emergency.

These are only a few illustrations of how comparative historical sociological research can inform public policy choices in the restored Baltic States, in addition to offering a better understanding of the Baltic past. Far from exhausting the agenda of research on social change in the Baltic countries during the recent century within this

framework, this book is (hopefully) only a pioneering exploration of the heuristic potential of this approach. I also hope that it stimulates quantitative social science history research into the complicated history of the Baltic countries during the past century, so as to fill the remaining lacunas and improve the results exposed in this book.

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Supplement: Life Expectancy in the Interwar Baltic Countries

Estonia, 1922–1938 (Tables S1 and S2)

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Table S1 Estonian females, life expectancy in 1922–1938

Age	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
0	54.92	56.54	57.8	58.24	55.7	53.12	56.04	54.84	57.78	56.98	58.60	59.77	60.83	59.88	60.01	60.64	61.94
1	60.18	61.5	61.83	62.6	60.03	57.62	60.25	59.29	62.09	61.61	63.15	63.91	64.5	63.51	63.67	64.66	65.22
5	60.09	61.16	60.81	61.09	59.67	58.04	59.83	58.0	61.18	60.33	61.58	62.01	62.56	61.74	61.69	62.74	62.88
10	56.33	57.22	56.78	56.98	56.34	55.28	56.17	54.58	57.53	56.50	57.59	57.97	58.60	57.91	57.52	58.68	58.65
15	52.17	53.03	52.63	52.86	52.26	51.3	52.08	50.7	53.39	52.09	53.4	53.65	54.37	53.76	53.26	54.30	54.29
20	48.35	49.15	48.69	48.99	48.35	47.59	48.20	46.71	49.37	48.18	49.1	49.53	50.29	49.72	49.17	50.22	50.10
25	44.51	45.21	44.85	45.18	44.53	43.91	44.60	43.05	45.57	44.1	45.52	45.65	46.30	45.68	45.07	46.22	46.08
30	40.66	41.35	40.93	41.23	40.75	40.08	40.82	39.25	41.67	40.51	41.61	41.60	42.32	41.73	41.01	42.00	41.95
35	36.56	37.22	36.80	37.09	36.51	36.00	36.80	35.04	37.4	36.38	37.6	37.38	38.13	37.53	36.85	37.75	37.65
40	32.50	33.24	32.79	33.08	32.0	32.09	33.00	31.02	33.1	32.8	33.52	33.33	34.13	33.50	32.83	33.64	33.7
45	28.37	29.04	28.57	28.76	28.25	27.99	28.75	26.91	29.24	28.26	29.30	29.09	29.87	29.28	28.65	29.1	29.24
50	24.34	24.93	24.3	24.52	24.23	24.06	24.65	23.00	25.24	24.18	25.19	24.95	25.69	25.15	24.59	25.29	25.15
55	20.1	21.02	20.8	20.50	20.21	20.05	20.63	19.04	21.25	20.19	21.25	21.01	21.66	21.15	20.62	21.28	21.06
60	16.70	17.27	16.76	16.76	16.5	16.30	16.82	15.23	17.39	16.31	17.2	17.20	17.77	17.29	16.85	17.7	17.17
65	13.25	13.68	13.17	13.24	12.94	12.85	13.5	11.96	13.96	13.04	13.97	13.77	14.25	13.65	13.21	13.88	13.59
70	10.06	10.58	10.07	10.19	9.83	9.78	10.38	8.87	10.72	10.01	10.75	10.67	11.19	10.5	9.98	10.75	10.37
75	7.84	7.92	7.2	7.52	7.15	7.22	7.74	6.2	8.03	7.0	8.06	7.84	8.36	7.75	7.36	8.07	7.77
80	6.13	6.30	5.70	5.69	5.23	5.6	5.86	4.77	6.22	5.62	6.21	5.74	6.30	5.70	5.22	5.82	5.36
85	4.3	4.53	3.97	4.04	3.79	4.25	4.64	3.56	4.70	4.11	4.56	3.91	4.36	3.87	3.51	4.12	3.65

Sources: 1922—Katus and Puur (1991: 2540); 1923–1938—Katus (2004)

Table S2 Estonian males, life expectancy in 1922–1938

Age	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
0	48.65	49.94	50.59	51.28	49.34	46.93	49.79	48.22	51.53	50.82	52.65	53.0	53.54	53.15	53.11	54.30	55.5
1	54.22	55.37	55.59	56.02	54.27	52.00	54.78	53.06	56.3	55.57	57.28	57.89	58.26	57.83	57.73	58.78	59.37
5	53.91	54.89	54.30	54.67	53.83	52.13	54.12	52.23	55.08	54.09	55.72	55.94	56.9	56.15	55.80	56.4	57.00
10	50.10	50.91	50.25	50.55	50.7	49.03	50.31	48.1	51.23	50.24	51.64	51.81	52.35	52.18	51.63	52.28	52.75
15	45.80	46.58	45.93	46.17	46.13	44.89	46.16	44.18	47.00	45.91	47.27	47.50	48.14	47.78	47.12	47.99	48.32
20	41.92	42.60	42.01	42.13	42.04	40.94	42.12	40.10	43.12	41.91	43.38	43.39	44.08	43.6	42.99	43.87	44.12
25	38.4	39.05	38.69	38.67	38.3	37.64	38.69	36.58	39.0	38.31	39.65	39.6	40.31	39.66	39.24	39.99	40.18
30	34.89	35.51	35.01	34.87	34.95	34.10	34.94	33.05	35.63	34.72	35.88	35.66	36.37	35.71	35.4	36.08	36.19
35	31.10	31.53	31.22	31.01	30.99	30.31	30.98	29.13	31.57	30.69	31.77	1923	32.21	31.59	31.32	31.95	32.07
40	27.4	27.83	27.71	27.4	27.29	26.84	27.32	25.62	27.89	27.10	28.09	28.00	28.4	27.89	27.59	28.16	28.28
45	23.82	24.29	24.21	23.90	23.61	23.25	23.73	22.15	24.28	23.3	24.0	24.35	24.74	24.24	23.95	24.5	24.56
50	20.0	20.72	20.72	20.38	19.97	19.74	20.22	18.77	20.73	19.80	20.76	20.71	21.02	20.59	20.31	20.74	20.92
55	17.13	17.51	17.36	17.14	16.67	16.52	16.96	15.60	17.55	16.68	17.8	17.7	17.75	17.31	17.01	17.0	17.55
60	14.13	14.3	14.26	14.33	13.76	13.66	13.97	12.56	14.7	13.60	14.25	14.29	14.60	14.18	13.87	14.23	14.36
65	11.26	11.6	11.31	11.8	10.87	10.90	11.22	10.08	11.83	11.04	11.55	11.8	11.73	11.27	10.96	11.33	11.4
70	8.72	9.07	8.90	9.17	8.36	8.9	8.71	7.70	9.28	8.59	9.01	8.96	9.0	9.02	8.66	9.03	8.96
75	6.83	6.97	6.83	7.03	6.33	6.51	6.62	5.79	7.13	6.7	6.81	6.71	7.25	6.86	6.54	7.00	6.98
80	5.23	5.8	5.38	5.30	4.65	4.87	4.77	4.20	5.3	4.74	5.08	4.89	5.73	5.16	4.67	5.19	4.95
85	3.90	4.50	4.26	4.12	3.58	3.76	3.73	3.16	4.02	3.31	3.52	3.36	4.32	3.97	3.59	4.04	3.83

Sources: 1922—Katus and Puur (1991: 2540); 1923–1938—Katus (2004)

Latvia, 1925–1938 (Tables S3 and S4)

Table S3 Latvian females, life expectancy 1925–1938

Age	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
0	56.01	58.13	56.81	58.78	58.08	59.7	60.70	61.03	61.56	60.08	61.20	61.51	61.30	62.71
1	61.06	62.30	61.3	63.38	63.10	63.91	64.76	65.5	65.15	64.58	64.60	65.30	65.33	66.05
5	61.32	61.1	60.92	62.26	61.69	62.17	62.71	63.50	63.19	63.17	62.57	63.05	62.97	63.67
10	57.53	57.1	56.92	58.07	57.6	58.07	58.5	59.19	58.99	59.04	58.51	58.85	58.66	59.57
15	53.38	53.10	52.66	53.68	53.10	53.73	54.05	54.68	54.55	54.76	54.10	54.5	54.27	55.22
20	49.34	49.05	48.74	49.58	48.90	49.57	49.83	50.59	50.28	50.58	49.92	50.20	50.02	51.02
25	45.50	45.22	44.92	45.63	44.92	45.63	45.89	46.56	46.22	46.54	45.85	46.20	45.98	46.96
30	41.64	41.37	41.01	41.62	40.92	41.60	41.88	42.9	42.21	42.52	41.76	42.06	41.89	42.81
35	37.73	37.33	37.03	37.64	36.94	37.53	37.91	38.4	38.11	38.7	37.69	37.91	37.74	38.61
40	33.72	33.27	32.88	33.53	32.86	33.6	33.77	34.32	34.02	34.33	33.62	33.80	33.63	34.38
45	29.68	29.19	28.79	29.53	28.78	29.36	29.57	30.12	29.84	30.18	29.5	29.60	29.52	30.14
50	25.62	25.20	24.79	25.2	24.75	25.37	25.7	25.85	25.72	26.05	25.33	25.4	25.0	26.05
55	21.73	21.38	20.85	21.52	20.86	21.2	21.7	21.83	21.75	22.05	21.30	21.9	21.36	22.00
60	18.01	17.64	17.08	17.74	17.18	17.64	17.64	18.06	17.97	18.14	17.3	17.75	17.53	18.12
65	14.60	14.24	13.71	14.23	13.62	14.12	14.19	14.61	14.33	14.50	13.88	14.23	13.96	14.58
70	11.53	11.08	10.58	10.98	10.6	10.85	11.02	11.0	11.22	11.29	10.76	11.02	10.84	11.38
75	8.98	8.51	8.18	8.5	8.05	8.4	8.37	8.71	8.51	8.65	8.09	8.1	8.18	8.66
80	6.95	6.2	6.14	6.32	5.86	6.38	6.36	6.71	6.7	6.63	6.05	6.24	6.11	6.3
85	5.61	5.22	5.12	5.30	4.58	4.90	4.93	5.14	5.22	5.17	4.65	4.81	4.59	4.91
90	4.95	4.18	4.08	3.84	3.2	4.02	4.12	4.28	4.04	3.85	3.59	3.82	3.65	4.10
95	4.0	3.31	3.72	3.19	3.26	3.26	3.26	3.23	3.27	3.24	3.21	3.24	3.21	3.22
100	3.95	2.69	3.22	2.56	2.77	2.70	2.69	2.59	2.65	2.63	2.71	2.71	2.72	2.65

Source: Katus (2008) (unpublished; courtesy of Domantas Jasilionis). See also Norkus et al. (2022)

Table S4 Latvian males, life expectancy in 1925–1938

Age	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
0	50.36	52.13	51.08	52.97	52.4	53.77	55.00	55.24	56.15	54.70	55.70	55.67	55.77	56.87
1	56.18	56.74	56.25	58.20	58.06	58.83	59.57	60.34	60.17	59.81	60.22	60.34	60.66	60.80
5	56.5	56.17	55.75	57.11	56.54	57.11	57.41	58.27	58.27	58.44	58.33	58.14	58.46	58.50
10	52.57	52.30	51.93	52.93	52.27	52.94	53.15	53.94	53.98	54.34	54.09	53.94	54.25	54.31
15	48.38	47.97	47.73	48.58	47.85	48.59	48.73	49.42	49.56	50.03	49.66	49.46	49.81	49.94
20	44.29	43.85	43.65	44.31	43.71	44.52	44.59	45.36	45.40	45.81	45.46	45.27	45.49	45.82
25	40.70	40.16	39.96	40.52	39.97	40.67	40.67	41.47	41.44	41.82	41.42	41.30	41.56	41.87
30	37.07	36.38	36.16	36.58	36.03	36.78	36.64	37.47	37.47	37.72	37.31	37.23	37.46	37.76
35	33.19	32.44	32.25	32.70	31.97	32.86	32.61	33.47	33.35	33.67	33.17	33.06	33.28	33.57
40	29.21	28.57	28.49	28.78	28.14	28.80	28.69	29.44	29.21	29.62	29.18	28.99	29.23	29.50
45	25.32	24.76	24.70	24.84	24.38	24.93	24.85	25.51	25.23	25.60	25.15	25.09	25.24	25.49
50	21.74	21.06	21.03	21.06	20.76	21.21	21.13	21.58	21.43	21.77	21.31	21.28	21.40	21.70
55	18.34	17.63	17.64	17.68	17.37	17.74	17.66	18.07	17.98	18.22	17.80	17.78	17.74	18.18
60	15.17	14.37	14.45	14.56	14.12	14.58	14.53	14.70	14.76	14.82	14.56	14.60	14.47	14.96
65	12.39	11.52	11.71	11.80	11.32	11.92	11.76	11.91	11.93	12.00	11.59	11.67	11.62	12.09
70	9.74	9.08	9.16	9.21	8.82	9.36	9.23	9.27	9.27	9.52	9.04	9.19	9.05	9.50
75	7.50	7.02	7.05	7.12	6.69	7.26	6.91	7.08	7.23	7.28	6.86	6.98	6.97	7.55
80	5.86	5.36	5.27	5.6	4.83	5.4	5.30	5.37	5.2	5.57	5.12	5.24	5.21	5.85
85	4.5	4.07	4.38	4.4	3.85	4.33	4.33	4.10	4.24	4.12	3.73	3.83	3.84	4.2
90	3.50	3.70	3.59	3.71	3.00	2.95	3.59	3.26	3.53	3.24	2.97	2.74	3.07	3.14
95	1.93	3.53	3.6	2.96	2.77	1.95	2.22	2.20	2.33	1.97	2.27	1.95	2.25	2.39
100	0.56	3.21	3.07	2.5	2.38	0.62	1.61	1.77	1.86	0.61	1.78	1.14	1.90	1.96

Source: Katus (2008) (unpublished; courtesy of Domantas Jasilionis). See also Norkus et al. (2022)

Lithuania, 1925–1934 (Tables S5 and S6)

Table S5 Lithuanian females, life expectancy in 1925–1934

Age	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
0	47.96	51.71	48.96	51.87	50.28	51.75	52.63	52.31	56.09	53.15
1	57.92	59.76	57.12	60.66	59.76	60.04	60.32	61.46	62.20	61.59
5	58.73	59.05	56.83	60.63	59.61	59.96	59.52	60.65	60.80	60.77
10	55.19	55.18	53.11	56.97	55.96	56.64	55.96	56.96	56.98	57.14
15	50.89	50.80	48.55	52.43	51.34	52.06	51.38	52.45	52.48	52.66
20	46.66	46.44	44.26	48.07	46.94	47.64	46.95	47.93	47.91	48.07
25	42.56	42.20	40.13	43.89	42.71	43.43	42.74	43.66	43.57	43.78
30	38.57	38.14	36.19	39.94	38.78	39.45	38.68	39.52	39.42	39.68
35	34.80	34.34	32.55	36.16	34.95	35.71	34.95	35.76	35.55	35.88
40	31.16	30.67	29.05	32.19	31.07	31.89	31.20	31.89	31.80	32.09
45	27.65	27.14	25.68	28.19	27.11	27.96	27.15	27.87	27.75	28.06
50	24.29	23.77	22.48	24.26	23.13	23.85	23.14	23.93	23.63	24.09
55	21.09	20.58	19.46	21.06	20.02	20.70	20.03	20.74	20.45	20.90
60	18.06	17.56	16.61	18.01	17.08	17.72	17.10	17.72	17.45	17.88
65	15.17	14.72	13.95	15.13	14.32	14.89	14.34	14.86	14.63	15.01
70	12.40	12.02	11.44	12.37	11.72	12.19	11.73	12.15	11.96	12.28
75	9.69	9.42	9.03	9.68	9.21	9.56	9.22	9.51	9.39	9.61
80	6.88	6.78	6.58	6.92	6.67	6.86	6.68	6.83	6.80	6.88
85	3.68	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.88	3.78

Author's own calculations, improved by Domantas Jasilionis. Norkus et al. (2022)

Table S6 Lithuanian males, life expectancy in 1925–1934

Age	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
0	45.38	48.31	45.80	49.48	46.76	48.54	49.26	49.09	53.00	50.53
1	56.64	57.92	55.49	59.11	57.49	58.31	58.23	59.87	60.63	60.20
5	57.87	57.70	55.60	59.12	57.59	58.45	57.67	59.16	59.36	59.54
10	54.42	54.00	52.04	55.40	54.10	55.27	54.14	55.37	55.53	55.90
15	50.05	49.56	47.40	50.81	49.51	50.68	49.58	50.83	51.00	51.37
20	45.84	45.30	43.13	46.41	45.16	46.28	45.14	46.33	46.44	46.82
25	41.78	41.21	39.05	42.29	41.10	42.13	41.01	42.17	42.28	42.54
30	37.73	37.19	35.15	38.28	37.15	38.17	37.05	38.16	38.16	38.35
35	33.80	33.31	31.41	34.21	33.21	34.37	33.33	34.30	34.19	34.47
40	30.02	29.57	27.82	30.31	29.31	30.39	29.39	30.48	30.33	30.67
45	26.41	26.00	24.41	26.43	25.47	26.51	25.68	26.67	26.59	26.82
50	22.99	22.61	21.19	22.60	21.62	22.56	21.72	22.69	22.64	22.88
55	19.77	19.42	18.19	19.41	18.55	19.44	18.70	19.58	19.48	19.72
60	16.76	16.45	15.40	16.44	15.69	16.51	15.88	16.66	16.53	16.76
65	13.97	13.69	12.83	13.68	13.05	13.79	13.26	13.93	13.78	13.99
70	11.35	11.12	10.46	11.12	10.62	11.23	10.82	11.36	11.22	11.39
75	8.86	8.70	8.24	8.69	8.34	8.79	8.51	8.90	8.78	8.91
80	6.36	6.27	6.03	6.27	6.08	6.33	6.18	6.39	6.34	6.41
85	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.56	3.56

Author's own calculations, improved by Domantas Jasilionis. See also Norkus et al. (2022)

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