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### **How and Why has Eastern Europe Lagged Behind the West for (at least) Two Centuries? Long-term Patterns of Economic Growth and Development in Central, East and South-East Europe since 1800**

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**Abstract**

The collapse of communism in Central, East and South-East Europe (CESEE) led to great hopes for the region in the early 1990s: freed from the constraints of central planning and transformed into liberal democracies based on the rule of law, the 21 CESEE countries would catch up quickly with their West European counterparts. Three decades on, the initial optimism has given way to a more mixed assessment: while the political transformation appears irreversible in some parts of CESEE, a relapse to more authoritarian forms of government has occurred in others. Similarly, the economic catch-up process appears to take much longer than originally anticipated. More troublesome still is the growing sense that some of the challenges facing the Eastern half of the European continent cannot be blamed on the communist legacy but might well be more deeply rooted. We provide an overview of where economic history research stands on the origins and persistence of this fundamental West-East-divide, focusing on three questions. First, what were the long-term factors impeding economic development in the region? Second, how backward was Eastern Europe by the time the command economy was introduced? Third, how has research assessed the state socialist period?

## 1. Introduction

The collapse of communism in Central, East and South-East Europe (CESEE) led to great hopes for the region and Europe as a whole in the early 1990s: freed from the constraints of central planning and transformed into liberal democracies based on the rule of law, the 21 CESEE countries would catch up quickly with their West European counterparts.<sup>1</sup> Three decades on, the initial optimism has given way to a more mixed assessment: while the political transformation appears irreversible in some parts of CESEE, a relapse to more authoritarian forms of government has occurred in others. In many CESEE countries, the transformation process remains incomplete despite a superficially successful emulation of the West European prototype. This is evidenced, among others, by the encroachment on the freedom of the press and on the independence of the judiciary. In extreme cases, popular frustration with a political system democratic in name but oligarchic in nature appears so deeply seated that a change of political system seems a real possibility even for EU member countries.

Similarly, the economic catch-up process appears to take much longer than originally anticipated. Ukraine, the largest CESEE country (bar Russia), remains stuck at around 10% of British, French and German income levels (GDP per capita not adjusted for power purchasing parity). Even Slovenia and the Czech Republic, the two most successful transition economies, have achieved only half of the West European average income after three decades of post-communist growth. More troublesome still is the growing sense that some of the challenges facing the Eastern half of the European continent cannot be blamed on the communist legacy but might well be more deeply rooted.

The current situation calls for a better understanding of the long-term political and economic implications of the Central, East and South-East European historical experience. In the following, we will provide an overview of where economic history research stands on the origins and persistence of this fundamental West-East divide. Summarizing a vast body of research never is an easy task, but quantitative economic history research on Central, East and South-East Europe can probably be described as circling around three main questions.

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<sup>1</sup> Reflecting a long and well-established scholarly tradition, we will distinguish between Central Europe, East Europe and South-East Europe. Central Europe refers to the Czech Republic, Hungary, Poland and Slovakia. East Europe relates to the European successor states of the Soviet Union (Belarus, Estonia, Latvia, Lithuania, Moldova, Russia, and Ukraine). South-East Europe (also referred to as the Balkans) encompasses the successor states of the Ottoman Empire on the Balkan Peninsula (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Kosovo, Montenegro, North Macedonia, Romania, Serbia, and Slovenia). The number of independent countries on this territory has increased from four (Austria, Prussia, Russia, Ottoman Empire) to 22 over the past two centuries, and the sharp distinction between the three sub-regions has become blurred in the process. We will occasionally refer to “Eastern Europe” to avoid repetition of the acronym CESEE; in this case (“Eastern” as adjective) we mean CESEE as a whole. Greece is a CESEE country but not a transition economy; hence reference is made to 21 countries in the main text.

- **What were the long-term factors impeding economic growth in CESEE?** Serfdom was proposed as an early answer and still enjoys wide currency as we will see. Non-agricultural explanations can typically be divided into three strands: demography, institutional weaknesses, and market access and integration.
- **How backward was Eastern Europe by the time of the communist take-over?** For Russia, this question either relates to economic development until the 1917 October Revolution; or to where the economy stood at the end of the New Economic Policy (NEP) in 1928, when the first five-year plan under Stalin completely changed the trajectory of the Soviet economy. For all other countries, the transition to the command economy only occurred after World War II. This question is not confined to a narrow GDP per capita comparison, but involves a broad analysis of structural change and the preconditions for sustainable income per head growth. It addresses, implicitly or explicitly, the counterfactual question whether the CESEE countries could have prospered under a more liberal political and economic regime.
- **How should we assess the state socialist period?** In the absence of political and civic liberties under communism, economic history from Gerschenkron (1962) onwards has focussed on an evaluation of the *economic* achievements of the state socialist period. Was central planning necessary to industrialize and develop the backward Eastern European economies, and how successful was it at that? This question is different from the previous one, though not entirely unrelated: the more positive the assessment of the pre-communist economic situation, the less credit state socialism can take for overall economic development. The connection between the second and the third question will become particularly clear when discussing Russian economic development between 1917 and 1928. That is, after the political take-over by the Bolsheviks but before the transition to central planning. Was there only one way to socialism, or were there several paths (of which the wrong one was taken)?

In distilling the literature, this paper draws partly on the forthcoming “Economic history of Central, East and South-East Europe, 1800 to the present day” (Routledge 2019). Written by 25 leading academics from the region, Western Europe and North America under my editorship, this book provides compelling empirical evidence showing that Eastern Europe has lagged consistently behind the Western European economies for at least 200 years. There are notable differences within Eastern Europe across regions and over time, yet on balance Eastern European economies achieved only 30-50% of Western European income levels.

## 2. Long-term factors impeding economic growth in CESEE

### 2.1 *The “rise and fall” of serfdom in the historiography*

In his famous collection of essays on economic backwardness in historical perspective, Gerschenkron (1962) argued for the inefficiency of serfdom, and he saw in this institution the single most important factor impeding growth in late Tsarist Russia. He also took issue with the specific form in which emancipation was implemented in 1861 in that it did not result in full property rights for individual farmers, but effectively substituted peasant communities and collective decision-making for the erstwhile landlord. In his own words, the peasant land commune “tended to preserve, if not reinforce, the traditionalism and the inefficiency of peasant agriculture” (Gerschenkron 1965: 747). Productivity increases were delayed until the early 20<sup>th</sup> century reforms under Prime Minister Stolypin, who recognized the limitations of the earlier reforms and allowed the emergence of ubiquitous small-scale independent farmers.

In a didactic oversimplification, Gerschenkron’s position can be summarized as follows: If serfdom had not existed at all or had been abolished earlier than, in practical terms, the early 20<sup>th</sup> century, Russia would have been less backward and would have developed along Western European lines. Subsequent research challenged this hypothesis by unpacking its individual parts:

- Was serfdom necessarily inefficient or did this institution emerge as an efficient solution to specific economic circumstances? How homogeneous or heterogeneous was serfdom over time and across space? If the latter was the case, were there some varieties of serfdom more efficient than others? (Dennison 2006, 2011, Malinowski 2016)
- What were the consequences of the emancipation on agricultural productivity, urbanization and industrialization? Did the effects of the 1861 legislation materialize quickly or have to wait until the early 20<sup>th</sup> century? (Markevich & Zhuravskaya 2018, Nafziger 2010)

### *The efficiency of serfdom*

Serfdom is usually seen as having a negative impact on economic growth and development, being characterised as a rent-seeking institution tailored to benefit landlords. More precisely, serfdom has been held responsible for: (1) constraining mobility between the agricultural and non-agricultural sectors, (2) discouraging improvements in agricultural productivity by undermining incentives, (3) hampering the accumulation of human capital, (4) being wasteful because of the costly way that it transferred resources from workers to employers, and (5) decreasing the purchasing power of villagers (Ogilvie and Carus 2014, Acemoglu and Wolitzky 2011). Recently, a number of authors

have complemented these qualitative and theoretical investigations with quantitative analysis. Alexander Klein and Sheilagh Ogilvie (2016), analysing a dataset covering nearly 7,000 villages in mid-17<sup>th</sup> century Bohemia, established that serfdom discouraged rural non-agricultural activities of peasants. These authors demonstrate that, even though landlords might have stimulated some demand for non-agricultural goods and services, they tended to crowd out serf crafts and commerce by siphoning off labour and stifling enterprise through surveillance and rent extraction.

Yet in recent years, serfdom has seen a reassessment, with some authors arguing that it was a dynamic institution sustaining a considerable rate of economic growth (Moon 1996, Cerman 2012, Stanziani 2014). In essence, this strand of literature argues that serfdom was an efficient response to specific economic circumstances. If agricultural productivity is low, peasants might find such arrangements beneficial. Bush (1996: 5) and Epstein (2001), for instance, argued that serfdom, precisely because it was based on surplus extraction from risk-averse peasants, might have allowed for the development of large-scale commercial farming, encouraged the commercialisation of agricultural production, and stimulated city growth. In this view, rising agricultural productivity in the late Middle Ages might have changed incentives for farmers in Western Europe, resulting in the demise of the institution. By contrast, as agricultural conditions did not improve to the East of the river Elbe, the institution persisted in Central and Eastern Europe and was even strengthened over time in a process typically referred to as “second serfdom”.

Yet confronting such theories with data typically encounters a number of problems. First, does low agricultural productivity lead to serfdom, or does serfdom trap the agricultural sector in low productivity? Second, it is not easy to establish testable hypotheses for “efficiency”, reminding us of Ogilvie’s (2007) critical remarks on the practical use of the concept for historical research. Consequently, the same set of results can on occasions be interpreted both in support of and against efficiency of serfdom; an important point made in a thoughtful recent contribution by Malinowski (2016: 143-144) who tested the Bush/Epstein hypothesis for the case of early Modern Poland.

Both drawbacks are correlated with the fact that we often know little about the emergence of serfdom (or continuation/re-emergence in the case of the second serfdom), and certainly far less than about the 18<sup>th</sup> and 19<sup>th</sup> century emancipation acts, which all required explicit legislation. Serfdom was typically a lived reality for centuries before we see the first piece of legislation related to it (Markevich & Zhuravskaya 2018: 1081); not surprisingly, given that the essence of serfdom was for the landlord to do as he pleased, that is to act uninhibited by regulation from the state. This large discretion of the landlord also explains why serfdom was far more heterogeneous than the emancipation acts suggest; in clear parallel to slavery in the U.S., which avoided a clear-cut legal definition and was typically referred to in the opaque words of the “peculiar institution”. Turning to

the 18<sup>th</sup> and 19<sup>th</sup> centuries, our perspective might be biased for yet another reason. Enlightenment reformers resisted the institution for its lack of personal liberties but not for its alleged inefficiency; given their urban background, they would typically have very little practical understanding of what serfs on a particular estate actually did.

This is precisely where the research from Tracy Dennison (2006, 2011) comes in. Dennison's starting point is that there is little point in theorising about the origins of Russian serfdom. In addition, it is potentially misleading to rely – as so many researchers including Gerschenkron did – on 'outsider' accounts of government documents, the legal code, or testimonies of upper-class observers. In her ground-breaking study titled "The institutional framework of Russian serfdom", she studies serfdom as it actually existed on one particular estate in central Russia, namely the Voshchazhnikovo estate in the central non-agricultural province of Yaroslavl ca. 250 km to the North-East of Moscow. Her research focusses on various social, economic, legal and administrative aspects of serf life on the estate. Her careful marshalling of evidence from household tax lists, petitions to the estate administration, contracts between serfs, work passport records, and myriad other types of documents add up to a complete evisceration of any simple conceptualization of serfdom as completely backward, inward-looking, or economically stagnant. She successfully undermines the long-held stereotype of the peasant and the peasant economy: impervious to outside influences, market-averse, egalitarian, satisficers not maximizers. She provides evidence to show that some landlords were able to credibly commit to follow rules that fixed the amount of the obligations of peasants, avoiding the so-called ratchet effect and maximizing the stream of payments over a longer-term horizon. In her account, peasants were rational actors who responded to incentives like any other economic agent would do. In this view, serfdom emerges as an institution "fit for its time" – not least because serfdom was not a single unified system, but there was enormous institutional heterogeneity in the Russian empire, and variation in economic outcomes seems to correspond to this variation in institutional arrangement.

*The consequences of emancipation on agricultural productivity, urbanization and industrialization*  
Markevich and Zhuravskaya's (2018) study on "The economic effects of the abolition of serfdom: Evidence from the Russian empire" is the most detailed and up-to-date study on the second question outlined above. Their econometric findings support Gerschenkron's basic premise that serfdom held back economic development. Yet they modify his view by demonstrating that the growth enhancing effects materialized, for the most part, quickly after 1861 and did not have to wait until the further set of reforms in 1906/10 by Stolypin.

The authors measure the impact of emancipation on agricultural productivity and industrial output in 46 European provinces of the late Tsarist Empire.<sup>2</sup> Employing a difference-in-differences methodology and exploiting pre-1861 cross-province variation in the share of serfs (as percentage of total agricultural labourers), the authors estimate the effect of the abolition of serfdom on the two outcomes. Crucially, their estimation technique allows them to disentangle the emancipation itself from the subsequent land reform. Emancipation happened immediately in 1861, granting personal freedom to all serfs. At this point, the obligation of former serfs to landlords was fixed as the institutionalized rent payment for land use. Fixing the level of peasant obligations meant that landlords could no longer unilaterally increase them; a widespread practice under serfdom, creating perverse incentives for the serfs. By contrast, the subsequent land reform was a process stretched out until 1882. This second stage marked the actual transfer of ownership over the land in exchange for an immediate payment, the terms of which were regulated by the buyout contract between the landlord, the peasant commune, and the state.

Markevich & Zhuravskaya (2018) report three key findings. First, the abolition of serfdom improved agricultural productivity considerably, and three quarters of this effect materialized in the first decade after emancipation. The speed of this effect suggests that the single most important change of emancipation was the cessation of the ratchet effect, as described above (as opposed to other possible mechanisms such as investment in land or human capital, which would have taken longer to show positive effects). Second, the positive effect of emancipation was counteracted by the subsequent buy-out procedure involving the transfer of land into the hands of the peasant commune. In their estimations, the transfer into communal lands halved the positive effects of prior emancipation (to be precise, only 56.5% of the reform potential was realized). Still, their view of the abolition as “glass half full” contrasts positively with Gerschenkron’s view that the modalities of the land transfer essentially cancelled all positive effects of emancipation. Third, the authors find a large effect on industrial development. Assuming that industry was not (negatively) affected by the abolition of serfdom in provinces where labour was free to begin with, the difference-in-differences estimates yield that, in an average province where 45 percent of rural population was comprised of serfs, the abolition of serfdom led to an additional increase in industrial output of 39 percent throughout the second half of the 19<sup>th</sup> century. This result is consistent with findings on the substantial level of labour migration within provinces from villages into the provincial industrial sector in the late 19<sup>th</sup> century in spite of the constraints erected by the peasant commune (Borodkin et al 2008, Nafziger 2010). When projecting these results on the national level, the authors find that the abolition of serfdom led to an increase of Russia’s GDP of 17.7%.

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<sup>2</sup> Excluded are the Baltic provinces, where serfdom had been abolished between 1816 and 1819.



The research by Nafziger (2010) is another example of a positive re-appraisal of the 1861 emancipation act. It challenges Gerschenkron's assertion that the post-emancipation land commune restricted household behavior to the point that it cancelled out any positive effects from the abolition of serfdom. Under the emancipation legislation, peasant households were assigned membership into villages, which entitled them to a share of their village's communal property endowment while making them liable for a corresponding portion of collective taxes and land payments. The village/communal assembly of household heads were granted legal control over access to collective property resources, the distribution of fiscal obligations, and household decisions regarding off-farm labour and exit from the commune.

Gerschenkron's reasoning was based on the observation that the legal position of the land commune was very strong, and the position of individuals correspondingly weak. In moving away from a narrow legal focus, Nafziger asks a simple but important question: did communal enforcement of collective property rights and fiscal liabilities make it impossible for households to effectively allocate their land and labour endowments? Based on household-level data from a sample of communal villages in Moscow province at the end of the 19<sup>th</sup> century, Nafziger analyses the workings of rural factor markets in this specific institutional context. He documents land and labour market participation by peasant households. Particularly noteworthy is the significant involvement of households in non-agricultural pursuits, in the hiring of agricultural workers, and in renting shares of the communal allotment land. These market transactions allowed households to adjust land and labor holdings in ways that sharply contrast a conventional view of Russian peasant autarky. This rehabilitation of the "backward Russian peasant" is not equivalent to saying that the post-1861 institutional set-up was "efficient", as Nafziger rightly emphasizes. He merely contends that emancipated peasants participated in land and labour markets as well as they could, given the institutional constraints at the time. His results are consistent with Markevich & Zhuravskaya's (2018) finding (cf. above) that the transfer into communal lands undermined, but by no means eliminated the positive effects of prior emancipation.

The current consensus is therefore that the abolition of serfdom increased agricultural production and allowed former serfs to participate in rural factor markets, but also to leave the countryside altogether, fostering urbanization and industrialization. Gerschenkron's skeptical views have therefore largely been overcome in recent research. But there also is consensus that emancipation remained an incomplete step, and that economic development would have benefitted from transforming the system more fundamentally.

Yet important questions remain, of which only one shall be briefly mentioned here. Despite all their differences, the research summarized above has the same direction of causality in mind:

from agricultural productivity growth to the twin processes of urbanization and industrialization. Yet what if causality runs the other way, that is that a more urbanized population requires more food and hence spurs agricultural growth in its environment? In this view, agriculture reacted to urban and industrial development rather than shaping it. This is exactly what Kopsidis & Wolf (2012) demonstrate for late 19<sup>th</sup> century Prussia, where the more urbanized and industrialized Western part witnessed dramatic agricultural improvements in response to urban demand, far more so than in the Eastern lands of this far-flung country. This line of research potentially provides yet another explanation for the second serfdom. The less urbanized part of Europe to the East of the river Elbe failed to provide sufficient urban demand for agricultural productivity growth; and as productivity remained low, serfdom (re-)emerged as an efficient solution along the lines proposed by Bush and Epstein (cf. above).

## *2.2 Institutional weaknesses*

Research into the economic backwardness of CESEE is much wider than only agriculture and serfdom, partly because this school of thought could never conclusively rule out the possibility of reverse causality (from economic underperformance to the establishment of serfdom) nor explain why South-East Europe was equally poor even in the absence of serfdom. An alternative explanation has focused on institutional weaknesses, but much of the detail has remained obscure or not been put to a testable hypothesis. The allure of this hypothesis is that we know today that institutions in CESEE countries are weaker than in their Western European counterparts. But can we be sure the same was true for past periods?

Malinowski's (2019) "Economic consequences of state failure. Legal capacity, regulatory activity, and market integration in Poland, 1505-1772" is a recent attempt to break free from such deficiencies of earlier research. He studies the relationship between state capacity and commodity market integration for the region's largest state in the Early Modern period, namely Poland between 1505 and 1772 (First Polish Partition at the hands of Austria, Prussia and Russia). The basic idea is that a more active parliament will pass more legislation, including laws and regulations conducive to foster market integration; conversely, if legal capacity is low (as proxied by the number of days the Polish parliament, the Sejm, was in session each year), there will be less regulatory activity of parliament (as measured by the laws relevant to the economy passed each year) and markets will fragment.

In the successful economies of North-Western Europe, all three quantitative indicators used by Malinowski (2019) – parliamentary activity, regulatory output of parliament and market integration – would probably grow over time, potentially resulting in spurious econometric results.

This makes Poland a historically interesting and econometrically attractive case study, as parliamentary activity *did not* grow over time. Rather, an initially very active parliament was severely undermined by the introduction of the so-called *liberum veto* in 1652; a stipulation which gave a single member of the aristocratic parliament the right to suspend proceedings, effectively introducing unanimity into the Sejm. Consequently, Malinowski can show econometrically that the introduction of the *liberum veto* reduced the regulatory output of the Sejm and reversed the high levels of market integration that a more active Polish parliament had achieved initially.

An important consequence of the *liberum veto* was that it gave foreign powers an easy tool to intervene in the domestic affairs of the Polish aristocratic republic. By aligning themselves with a single Polish aristocrat represented in the Sejm, foreign powers could undermine the Polish state; an easy tool of foreign interference, which ultimately contributed to the complete dissolution of the Polish state in the three partitions of 1772, 1793 and 1795. Poland is an extreme example, yet it points to a broader regional pattern that has spurred institutionalist research in recent years: the role of West European countries in the economic development of the poorer, and often small, CESEE countries.

An older qualitative literature tended to highlight the negative role of foreign countries. This was the case in particular if written from a dependency theory perspective (Berend & Ránki 1974) or under residual influence from 19<sup>th</sup> century nationalistic historiography. Yet the more recent literature has tended to focus on the positive role played by foreign countries. Clavin (2013) observes that the League of Nations, while global in name, in actual practice was an international body chiefly concerned with stabilizing the political and economic conditions of the Eastern European countries in the interwar period. Some of this research has made an explicit institutionalist argument. Tooze & Ivanov (2011) and Morys (2016), for instance, argue that policy-makers in South-Eastern Europe acquiesced into foreign financial supervision not because they necessarily had to, but in an attempt to compensate for domestic institutional weaknesses. Recurring problems of Bulgaria, Greece, Romania and Serbia/Yugoslavia with large external debts before World War II led to the introduction of financial control by the countries' West European creditors on various occasions. From the perspective of the dependency theory, such arrangements are typical examples of how core countries control peripheral countries, undermining their sovereignty in the process. By contrast, the authors show that there were strong domestic constituencies in favour of these arrangements. Foreign creditors constrained monetary policy and, to a lesser extent, fiscal policy. Yet such constraints were appealing to a large part of the domestic constituency, which blamed a legacy of fiscal deficits and debt monetisations (known as "fiscal dominance" in the relevant literature) for the country's inability to follow the gold standard. In this view, foreign

financial supervision acts as an external commitment mechanism in the presence of weak domestic institutions. Using a Granger causality analysis of time series for budget deficits and debt monetisations for all SEE countries between 19<sup>th</sup> century political independence and World War II, Morys (2016) shows that a prevailing pattern of fiscal dominance was broken only under financial supervision, when the treasury's influence on the central bank was scaled back. Only then were central banks able to stabilize their exchange-rates. An accompanying political economy analysis shows that financial supervision was politically acceptable as it made successfully adhering to gold more likely in the view of contemporaries.

The research by Malinowski (2019), Tooze & Ivanov (2011) and Morys (2016) is primarily concerned with institutional weaknesses, what they led to and how CESEE countries tried to address them. There is a lack of "positive" institutionalist research on the region, reflecting the perception that institutions in the region were part of the problem, not the solution. A rare exception is Nafziger (2011), who analyses the functioning of the *zemstvo*, an institution of local government created as part of the emancipatory reforms of the 1860s. While the peasants were heavily underrepresented in this new institution, they did have, for the first time ever, some political voice in a decision-making body that was extensively involved in providing local public services, from school and medical care, to agronomy and road maintenance. Nafziger presents econometric evidence that peasant electoral power in the *zemstvo* was positively associated with relative tax rates (shifting the burden in the peasantry's favour) and spending per capita, especially on education – which was arguably the category of expenditure most attractive to the peasantry. As with his research on rural factor market participation by former serfs after 1861, Nafziger takes an intermediate position: despite the *zemstvo* being confined to the local level and despite the heavy underrepresentation of peasants, this was a step in the right direction with beneficial effects for the farming population.

### 2.3 Demography

Not unlike the way Gerschenkron continues to shape the debate on serfdom, Hajnal (1965) remains a cornerstone for demographic research. His strong assertion of a line from St. Petersburg to Trieste, separating a growth-conducive Western regime from a less benign Eastern one, has polarized and antagonized for half a century now. Countries and regions intersected by this line have witnessed considerable research efforts trying to undermine or even completely overcome this sharp distinction. Polish research in particular has played an important role in these endeavours (Szoltysek 2007, Szoltysek & Zuber-Goldtein 2009).

Yet recent research has tended to reconfirm Hajnal's strong assertion, at least as far as his main findings on Eastern Europe were concerned. Based on a large data set for 39 European countries/societies between 1500 and 1900 and drawn from 365 publications in historical demography, Tracy Dennison and Sheilagh Ogilvie (2014) provide more details than Hajnal (1965) ever could. In particular, they are able to systematically cover four centuries, whereas Hajnal's strongest evidence was confined to population censuses from 1900. The article is written against the European Marriage Pattern (EMP)<sup>3</sup>; which makes it all the more powerful that Hajnal's Eastern European results not only survive but emerge strengthened. We confine ourselves in the following to the author's findings for the 14 CESEE countries / regions included in their study.

Dennison and Ogilvie's (2014) approach is to estimate demographic differences between the 39 European countries related to the two indicators that mattered most for Hajnal (1965), namely female age at first marriage and female lifetime celibacy. Controlling for differences over time within one country and choosing England as the numeraire, their coefficients measure how many years older / younger a woman typically was at first marriage compared to her English counterpart (table 2 on p. 661) and how many more / fewer women remained unmarried in a specific country compared to England (table 3 on p. 665). E.g., over the period 1500-1900, a woman marrying in what is Bulgaria today was typically 6.8 years younger than her English counterpart; and among all Bulgarian women, lifetime celibacy was 12.6% lower than in England.

While their results contract conventional wisdom for Western Europe, their findings on Eastern Europe are supportive of Hajnal's original research. From the 12 countries with the lowest female age at first marriage, 11 are in CESEE (EE: Russia, Ukraine, Belarus; CE: Poland, Hungary, Slovakia; SEE: Serbia, Croatia, Bulgaria, Greece, Romania). Likewise, the ten countries with the lowest female lifetime celibacy were all located in CESEE. The only three countries from the region that were systematically different are the three Baltic countries, Bohemia and Slovenia; precisely the countries located (at least partially) to the West of the St. Petersburg – Trieste line. Hence, the one way of reconciling Hajnal (1965) and Dennison & Ogilvie (2014) is to see both contributions providing evidence of a distinctively different *East* European Marriage pattern.

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<sup>3</sup> The article is written against two important pillars of the EMP school. First, it provides evidence against the idea that the more extreme version of the EMP necessarily coincides with the North Sea area where modern economic growth is said to have begun. Second, it challenges the idea that the EMP, where it was present, necessarily led to higher growth. We will not go into this discussion here, as we are concerned with the implication of this article on Eastern Europe.

#### *2.4 Market access and market integration*

Agricultural, institutional and demographic approaches have been very prominent in explaining CESEE backwardness. Despite their many differences, they all imply (to a varying degree) that backwardness was “a home-grown problem” and could have been overcome by specific policies. By contrast, recent approaches have emphasized market access and market integration (and the lack thereof) as a key issue bedeviling the CESEE economies. Such approaches are not entirely new, as the classic contribution of Berend & Ránki (1974) shows. Komlos (1983: 23), for whom the driving forces of growth in the 19<sup>th</sup> century Habsburg monarchy were “not in government policies but in the interaction of market forces”, would be another example. But the meteoric rise of economic geography over the past two decades has equipped such research with new tools and instilled greater confidence to counter the other three schools of thought.

There are a limited number of studies on market access and industrial location choice, yet they are confined to individual countries (Wolf 2007 on Poland, Nikolic 2018 on Yugoslavia). Notwithstanding the substantial data requirements to conduct such a study, this research avenue is potentially very promising; not least because we know for the post-1989 period that economic geography forces pulled the Visegrad economies of Central Europe towards the West (Czech republic, Hungary, Poland and Slovakia), whereas the gravitational centre for countries such as Belarus and Ukraine are more ambiguous.

Prima facie, there are many more publications on market integration. Such studies require only price data for a single commodity (typically grain) collected for a large number of markets, and are hence much easier to conduct. Yet on closer inspection, the studies we currently possess often do not speak sufficiently to the CESEE experience, offer little comparative perspective vis-à-vis better integrated markets or are difficult to reconcile with results for other parts of Europe and the world. There clearly is an opportunity for research here in the years to come.

To begin with, CESEE is poorly covered in pan-European studies. Chilosi et al. (2013), for instance, conduct one of the largest studies on the integration of European grain markets in recent years. Covering the long period from 1620 to 1913, they are able to include 100 cities into their sample; yet only six of them are located in Central Europe and their data do not contain a single observation of historical Russia or of South-East Europe. Federico et al. (2018) address some of this imbalance by including observations for Russia, but there are again no observations for the entire Balkan peninsula with the exception of Greece. From their sample of 500 cities, less than 10% belong to the Eastern half of the European continent. A partial exception to this incomplete coverage is Jacks (2005) who includes Austria-Hungary and Russia among the ten countries for which he investigates intra- and international commodity market integration in the Atlantic

economy, 1800-1913. There are a number of country-specific market integration studies, but they are all confined to Austria-Hungary (Komlos 1983, Good 1984, Schulze & Wolf 2012) and Russia (Metzer 1974, Goodwin & Grennes 1998). It remains unclear to what extent their findings can be generalized with respect to the many small CESEE countries. Federico's (2012: 473) verdict that there is a lack of market integration studies for CESEE still holds true almost a decade later). With this caveat in mind, we shall now discuss the six most important studies on CESEE market integration.

The first two studies by Metzer (1974) and Goodwin & Grennes (1998) both relate to grain markets in late Tsarist Russia. Metzer's (1974) early contribution studies domestic market integration as shaped by railroad construction. He shows that only with the introduction of the railways did transportation costs come down to the point where a national market for agricultural goods could emerge. In his calculations, 83% of the decline in the price differentials between different Russian cities could be attributed to the railroad-induced decline in transportation costs. Goodwin & Grennes (1998) support Metzer (1974) on both accounts – the strength of market integration and the role of railways therein – but add an international dimension to it. They compare market integration of the world's largest wheat *exporter* (Russia) with market integration of the world's largest wheat *producer* (U.S.). They show that by the 1880s, a strong connection had been established between Russian ports and cities at the centre of the world wheat trade. Deviations from equilibrium price relationships were eliminated more rapidly for trade between Odessa and England than for wheat trade between New York and England.

The findings of Metzer (1974) and Goodwin & Greenes (1998) for Russia are not easy to reconcile with the results of Jacks (2005) for Austria-Hungary 1800-1913 (Jacks's findings for Russia cover only 1893-1913 and are excluded from our discussion). Where the former two studies document increasing market integration both internally and externally, Jacks holds up Austria-Hungary as the quintessential case (among the ten countries he studies) of a country with a strong domestic market integration but weak international one. This is surprising, as distances to Western Europe and tariffs vis-à-vis them were lower for the dual monarchy than for Russia. Another potential inconsistency between CESEE-centered and pan-European / global approaches relates to what drove market integration. The CESEE-centered research has tended to highlight infrastructure improvements – and the railways in particular – as the driving force behind market integration, whereas the more general research has argued, in recent contributions anyway, that most of the price convergence process had already taken place by the time such improvements happened (Jacks 2006, Federico et al. 2018).

Some of the inconsistencies mentioned might be attributed either to the fact that Austria-Hungary and Russia were relatively closed economies with large domestic markets; or that infrastructure improvements related to the railway had a much larger impact on the region given that riverine transportation had played a bigger role earlier on in Western Europe. But there are very few studies allowing us to make such a claim. One of the few studies investigating trade integration (as a driving force behind business cycle synchronization, which is the main focus of the article) for the small SEE countries is Morys & Ivanov (2015). Their story is more conventional in that they document exceptionally low but then steadily rising levels of trade integration (and business cycle synchronization) for Bulgaria, Greece, Romania and Serbia/Yugoslavia between 1875 and World War II. In fact, it is one of the few studies speaking both to market access and trade integration: the authors show that proximity to British, French and German markets mattered, and that countries located more to the West (Serbia) or with easy shipping (Greece) enjoyed higher levels of integration than Bulgaria and Romania.

Last but not least, some research has tried to show that market integration was no simple process, neither economically nor politically. Studying market integration between 1878 and 1910 in Austria-Hungary, Schulze and Wolf (2012) demonstrate that market integration was “asymmetric”: markets became more integrated across the dual monarchy, but even more so between cities sharing the same languages. Ethno-linguistic networks emerged within the Austro-Hungarian empire, which in many respects presage the borders as they came into place between the various successor states of the dual monarchy after its dissolution at the end of World War I.



### **3. Where did the CESEE economies stand by the time central planning was introduced?**

The second main area of research has been to evaluate where the CESEE countries stood economically by the time the communist parties gained political power and imposed central planning. Central planning and “big push” industrialisation have been justified – by contemporaries and subsequent scholars alike – on the grounds that they were the only solution to overcome economic backwardness. As communism arrived earlier in the case of Russia, it is worth distinguishing between the Soviet Union, on the one hand, and all other CESEE countries on the other.

#### *Late Tsarist Russia and the Soviet Union until 1928*

In the Russian case, discussion has evolved around two questions: First, how was economic performance in the final decades of the Tsarist Empire? Second, how was economic performance between 1913 and 1928, a period that covers World War I, the Russian Civil War (1918-1921) and the New Economic Policy (1921-1928)? In 1928, the relatively market friendly New Economic Policy gave way to Stalin’s first Five-Year-Plan and hence central planning of the entire economy.

The first question was addressed in one of the first cliometric contributions on CESEE, namely the GDP calculations by Gregory (1982). Contrary to earlier research, Gregory found that the late Tsarist economy grew rapidly in its final three decades. In his calculations, GDP increased by 3.25% per annum between 1883 and 1913. Given rapid population growth, this translated into a GDP per head growth rate of 1.6%, making Russia one of the fastest growing European economies at the time. Gregory’s basic finding, novel at the time, has stood the test of time, as evidenced by Schulze & Kopsidis (2019), who calculate a 1.5% per capita growth rate for the same period. They also confirm Gregory’s suspicion of much lower growth in the 1860s and 1870s by extending their GDP calculations back to 1861.

The increasing dynamism of the late Tsarist economy captured on the macro-level by Gregory (1982) and Schulze & Kopsidis (2019) is consistent with the modern view of the economic effects of the abolition of serfdom, which has emphasized growing agricultural productivity, urbanisation and industrialisation (cf. section 2). Yet while there is a broad consensus on these successes of the late Tsarist economy, it is an entirely different matter whether such high growth rates could have been sustained. A great deal of that growth was owed to the boom in the world market for wheat, for which Russia was able to establish itself as the largest exporter following emancipation and the construction of the railways. Yet the pace of structural transformation remained low (Schulze & Kopsidis 2019); in particular, it has been argued that the rate of

industrialisation was not high enough compared to the rate of population growth to shift the structure of the economy away from agriculture (Allen 2003: 21-46).

The assessment of the 1913- 1928 period has remained more controversial. The end points of this period are defined as the last full year prior to World War I (1913) and the year in which the Soviet Union introduced the first five-year plan (1928). 1928 is also conveniently close to the 1927 national census, one of the first reliable sources of Russian economic history after the convulsions of World War I, the Russian Civil War and the subsequent famine (1921-1922). 1913 and 1928 can be estimated with considerable certainty, and the key estimates by Gregory (1982) and Markevich & Harrison (2011) largely concur. In their estimates, and controlling for border changes (the Soviet Union in its 1925-1939 borders is smaller than Tsarist Russia by Finland, the Baltic countries, Poland as well as parts of Belorussia and Ukraine), GDP increased by 6.5% but population by 10% (Markevich & Harrison 2011: 682). Consequently, GDP per capita in 1928 was down by ca. 3% compared to 15 years earlier. Far less certainty reigns for the period between 1913 and 1928, encompassing three main events, namely World War I (1914-1918), the Russian Civil War (1918-1921), and the New Economic Policy (1921-1928). Given that the prolonged war periods coincide with poor statistical material, no definite answer will ever be found. Yet recent research (Markevich & Harrison 2011) has argued convincingly that the Civil War was far more disastrous both in terms of GDP and population losses than World War I. Despite continuously high fertility, the population (on the Soviet territory) declined by five and a half million between 1918 and 1921 as a result of combat, infectious diseases, famine and outward migration; by contrast, high fertility fully counteracted war-related deaths (“excess deaths”) during World War I, preventing a population fall between 1914 and 1918 (Markevich & Harrison 2011: 678).

A great deal of research has been conducted on the New Economic Policy between 1921 and 1928. It was introduced in March 1921 after the end of the Civil War, ending the period of “war communism” (1918-1921) in which the Bolsheviks had essentially tried to gain control over the entire economy for a combination of economic, political and military reasons. The New Economic Policy reintroduced private property rights (including for the farming population, i.e., the bulk of the Russian population) and market mechanisms; only large-scale industry and banking remained in state hands, but they were run as capitalist enterprises at the time (and not under the so-called “soft budget constraint” of later periods). In so doing, NEP improved the legal and factual position of Russia’s farming population to unprecedented levels, turning peasants into a political force to be reckoned with. The first five-year plan of 1928 and the transition to the command economy reversed this process by collectivizing agriculture and nationalising small- and medium scale industrial enterprises.

Controversy about the NEP has focused on two questions. First, was the NEP successful in overcoming the economic consequences of the extended war period from 1914 to 1921? Second, to what extent would the NEP have been compatible with Stalin's big push industrialisation, or was abrogating it an essential ingredient in delivering rapid industrialisation and higher consumption levels in the late 1930s? The answers to the two questions are typically correlated for one and the same author. A sceptical view on the NEP's actual operation between 1921 and 1928 will hold that it was incompatible with Stalin's industrialisation. By contrast, a more benign view of the NEP argues that it was brought to an end in 1928 not for its own shortcomings, but for purely political reasons (in the event, to undermine the peasantry as a potential political force). The first view is well represented by Harrison (1980) and Markevich & Harrison (2011) and the second by Allen (2003). How do the different authors argue?

First, there is some consensus that the NEP saved a moribund Russian economy from completely collapsing. GDP per capita in 1921 stood at approximately one third of its 1913-value, but had (almost) climbed back in 1928 (Markevich & Harrison 2011). Yet beneath this success on the macro level, Markevich & Harrison (2011) detect sectoral weaknesses that would not have allowed for rapid industrialisation in the 1930s under the NEP. In their view (and data, cf. table 5 on p. 680), the main mechanism of recovery was the exploitation of spare capacity in large-scale industry, but agriculture (and small-scale industry) remained stagnant. Consequently, if the market based agricultural system of the NEP had continued, the necessary resource transfer from the first to the secondary sector needed for rapid industrialisation could not have been achieved. By contrast, Allen (2004) takes a more benign view of agricultural developments between 1921 and 1928. He presents evidence that Russian farmers were willing to increase sales substantially in response to only moderate price increases. As a result, he argues, Russian peasants might well have voluntarily supplied Soviet cities with enough food and raw materials to permit rapid industrialisation. His positive view is further strengthened by the observation that the 1920s witnessed a process in the Russian countryside in which large and more productive producers were increasingly squeezing out smaller, less efficient farming units.

Turning to the second question, there is agreement that *achieving* the resource transfer from agriculture to industry, from the countryside to the city, or, in Allen's words, from "farm to factory" was essential for rapid industrialisation; the controversy centres on *how* this was achieved. If this could only be achieved by coercive means, then collectivisation – including the many million lives it cost and the hardship it brought to the countryside – was inevitable (and the end justifies the means, although there is discernible reluctance to say so). Yet if NEP was a viable alternative, then the question is how much difference did collectivisation make to the economic outcome achieved in

the late 1930s? Next to a purely market based solution (no government investment strategy and a hard budget constraint for all companies), Allen (2003: 153-171) compares two scenarios: the two factors of cardinal importance to Soviet industrialisation (an investment strategy emphasizing heavy industry, and the imposition of high output targets in conjunction with a soft budget constraint), but coupled with collectivisation in one scenario (*forced* resource transfer) and with NEP in the other (*voluntary* resource transfer). In his simulation exercise, these two scenarios perform much better than the capitalist option in terms of growth in capital, output, and per capita living standards; yet there is little difference between the two “socialist” scenarios. Put differently, adding collectivisation to the other two pillars of Stalin’s policies (favouring heavy industry and maximising output, not profits) contributed little to growth, but came at heavy human cost and, in the view of Allen, “corrupted socialism.” (p. 171).

### *Central Europe and South-East Europe*

In the case of all other CESEE countries, the communist take-over and the introduction of central planning occurred only after World War II. Consequently, research similar to the case of late Tsarist Russia and the early Soviet Union would need to focus on where the Central and South-East European economies stood in the late 1930s. Yet not much research has been conducted on this topic in recent years. For the most part, we have only the older research by Kaser & Radice (1985-1989) (section 2), which gave a negative account of this period, indirectly justifying the “big push” industrialisation as it then happened in the Soviet bloc countries.

This is surprising, given that some of the economies had already achieved – or at least covered substantial ground towards – structural transformation that Soviet-style industrialisation was meant to achieve. Czechoslovakia, for instance, had more people working in industry than in agriculture by 1930; its sectoral composition was more “modern” than the Southern European countries, which then all industrialised after World War II under market based systems. In the case of Czechoslovakia after 1948, central planning and the command economy were “rolled out” for a country that clearly did not need them, and can only be “justified” on political grounds.

The situation might look differently for more backward countries in CESEE, one of which was 1930s Bulgaria, a country in which more than 80% of its labor force was still in agriculture. In such cases, the idea of communism as the only way towards industrialisation has maintained followership among serious academics, even after the political changes of 1989-1991 (Avramov 2001). Yet Ivanov & Tooze (2007) show a more nuanced picture of the Bulgarian achievements by the late 1930s. While population growth had consumed most of the GDP advances in the four decades between 1890 and 1930 and per head income growth was insignificant as a result, the

country had laid important pre-conditions for rapid growth thereafter. The authors highlight three achievements in particular. First, the agricultural sector had broken with decades of extensive development and begun to move decisively towards intensification. As agriculture became more productive, the preconditions for the resource transfer towards industry were in place. Second, starting from very low initial levels in 1900, Bulgaria achieved mass literacy by 1945, providing an urban workforce ready to work in the industries soon to be established. Third, the country underwent virtually complete demographic transition in the space of only three generations, allowing it to escape the Malthusian trap that had kept per head income levels almost unchanged between the 1890s and the 1930s. In sum, before the advent of a strategy of state-centered economic policy, three vital preconditions for accelerated growth had already been established.

#### **4. Economic achievements of the state socialist period**

The third area of CESEE cliometric research is an assessment of the economic achievements of the state socialist period. Following an earlier Western literature during the late state socialist and early transition period, this strand of research has seen important additions and revisions in recent years; it remains narrowly interested in GDP and is typically analyzed in an economic convergence framework similar in methodology to studies on the Western European growth experience after World II. Consequently, this research relies on accurate GDP estimates for an economic system with a non-functioning price system; an issue widely discussed in the literature but not seen as invalidating the research (Vonyo & Markevich 2019).

Socialist economic development has been traditionally interpreted as investment driven. Centrally planned economies were seen as relatively successful in mobilizing resources, but stifled innovation and creative entrepreneurship. They achieved a relatively satisfactory performance in the phase of extensive growth, but began to fall behind when capital accumulation reached diminishing returns and total factor productivity increases remained low (Bergson 1987; Ofer 1987; Easterly and Fischer 1995). The Soviet Union operated this system for the longest period (1928-1991) and has been analysed in detail by Allen (2003). He interprets Soviet industrialization as ‘Feldman and Preobrazhensky’ in action (the two economists behind Stalin’s first Five-Year-Plan in 1928) and demonstrates that the capital-intensive growth model prevailed until the fall of communism, with noticeably diminishing returns towards the end of the period.

The implication of a “rise and fall” of the Socialist economy is not confined to convergence growth models, however. Broadberry & Klein (2011) investigate industrial labour productivity for Czechoslovakia between 1921 and 1991, comparing the state socialist strongest economy (alongside

East Germany) to Britain over seven decades. The authors show that Czech productivity levels held up relatively well with Britain in the first two decades after World War II, even rising to approximately 75% by the early 1960s. Yet this was followed by relative decline and deterioration, returning productivity to one third by the 1980s. In the authors' view, "central planning was able to cope with mass production technology as well as the regulated market system that existed in Britain at the same time." (p. 48) Yet the decline became inevitable, as economies in West and East shifted towards more flexible production technologies. While coming from a different methodological framework, Broadberry & Klein's (2011) finding is consistent with the GDP-centered literature, which has portrayed command economies as strong in extensive but weak in intensive growth.

Recent research has been more critical of the achievements of the state socialist period, including for the 1950s and 1960s dominated by extensive growth. Vonyo & Klein (2017) show that communism allowed the CESEE countries to perform well against their own past (and the interwar period in particular), but not against capitalist economies in the post-World War II period. Convergence in GDP per capita occurred both in Western and Eastern Europe. Yet there were two "convergence clubs", with the Western economies enjoying more rapid growth at the same level of initial income (GDP per capita in 1950). They also show that a simple convergence framework better explains the actual growth performance of Western economies, suggesting that convergence forces in the East were more disturbed by frictions typically associated with command economies. Pars pro toto and choosing the one country of CESEE that remained capitalist after World War II, Greece grew faster, for four decades, by almost one percentage point per year than neighbouring Bulgaria, even if the two countries began at roughly the same income level after World War II.

These results, based on a standard convergence framework, are consistent with two more recent findings, which have further weakened the older perspective of the relative strengths of communisms. They relate to the command economy's supposedly superior ability (1) to push structural change and (2) to enable fixed capital formation. In both cases, it was thought that the coercive nature of communist political regimes was conducive to achieving these results better than capitalist economies. Vonyo & Klein (2019) and Vonyo (2017) are critical of communist economic performance on both accounts. Vonyo & Klein (2019) demonstrate that structural change in the Western European periphery went further than in Eastern Europe. While structural change proceeded quickly in the East and in line with its initial income levels, it slowed down considerably starting in the 1970s – while it continued to proceed along expectations in the Western European periphery. The authors conclude that market forces generated the macroeconomically beneficial outcome of structural change better than the forces of command did.

Secondly, Vonyo (2017) throws doubt on the success of the CESEE economies in generating high levels of fixed capital formation. Recalculating the investment numbers for the period 1950-1989, he documents that fixed capital formation in CESEE was initially high (in line with earlier accounts from Western economists), but then declined and essentially collapsed in the 1980s (with the exception of the Soviet Union). As the political legitimacy of the communist regimes was increasingly challenged, the political need to support consumption increasingly clashed with the economic imperative to ensure high investment rates. In the authors' view, this (political economy) rational also explains why the Soviet Union could continue along the old path of high investment rates. The country had retained more financial room for maneuver, as it was the only Soviet bloc country to benefit economically from the oil price shocks of the 1970s. As an oil exporting economy, it made financial gains, which it used to maintain high investment rates until the end of the state socialist period.

## **5. Conclusion**

Cliometric approaches to Central, East and South-East Europe have become very popular in the past 15 years, and they are likely to shape our views on the economic history of the Eastern half of Europe in years to come. The second and third research areas discussed in this paper are not only crucial to our academic understanding of the East European experience, but connect to everyday concerns in the region. The economic gap with Western Europe has never been closed; the percentage gap in income levels between the two halves of Europe has remained stubbornly stable over the past two centuries (at approximately one third of the West European level if based on GDP data not adjusted for purchasing power parity). Likewise, the controversial assessment of the achievements of state socialism is mirrored by a political discourse in the region between veneration for an idealised communist past, on the one hand, and a complete rejection of the state socialist experience, on the other. The fragile economic and political situation in much of Central, East and South-East Europe will ensure that historical research remains high on the agenda in years to come.

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