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Denmark and Russia: What can we learn from the historical comparison of two great Arctic agricultural empires?

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Abstract

We propose that the "historically relevant" comparison of the Danish and Russian Empires from the early eighteenth century until the First World War presents a useful starting point for a promising research agenda. We justify the comparison by noting that the two empires enjoyed striking geographical, political and institutional similarities. Beyond this, we also demonstrate that the two empires were bound together by war, royal marriage, and migration. We suggest some examples of what might be investigated, with a particular focus on agriculture, due to its importance to both Danish and Russian economic history. Finally, we zoom in on the role Danish experts played for developing the Russian butter industry.

Keywords: agriculture, comparative studies, Denmark, Russia. *JEL classification:* N01, N53, N73, N93.

1. Introduction

This short paper presents a program for comparative research between the Danish and Russian Empires in the eighteenth and nineteenth centuries, when their paths were to diverge markedly. At a time when public attention emphasizes differences rather than similarities, comparative studies of Russia and Europe present an opportunity for opening new perspectives beyond the familiar dichotomous discourse. Such a comparison, from the perspective of today, might seem less than obvious, but from the perspective of the early

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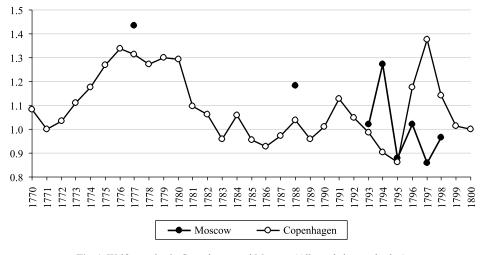


Fig. 1. Welfare ratios in Copenhagen and Moscow (Allen subsistence basket). Sources: Khaustova and Sharp (2015), Korchmina (2020).

eighteenth century, there were many similarities in terms of geography, politics, and economics.

In fact, we argue that the Russian and Danish Empires present a "historically relevant" comparison. The first striking similarity concerns geography. Both empires spanned industrial heartlands (Schleswig, Holstein and Copenhagen in the case of Denmark, and the European heartland of Russia, including Moscow and St. Petersburg, and the Urals), fertile agricultural lands (including Denmark proper and the southern part of Russia), mountainous regions rich in national resources (Norway and the Urals), important urban centers of political and cultural significance (St. Petersburg/Moscow and Copenhagen), as well as vast, largely uninhabited wastelands (including Iceland, Greenland, Siberia and the Russian Far East). In terms of politics, from 1493 either implicitly or explicitly, Russia and Denmark were united in opposition to a common enemy: Sweden.¹ Both initially looked rather similar, with relatively "backward" institutional and technological bases, and, as Fig. 1 reveals, similar standards of living.

From this, we can derive three lessons. First, by the end of the eighteenth century, unskilled workers in Moscow were slightly better off than those in Copenhagen, which corresponds to the assessments of some of the nineteenth century scholars we discuss below (for example Baranovskii, 1858). Second, this implies that the two countries were "peripheral" at the same stage, when compared, for example, to real wages in London or Amsterdam (Allen, 2001). Third, we observe a stagnation with fluctuations in the welfare ratio over the second half of the eighteenth century in both countries. We also have evidence from Mironov (2010) for St. Petersburg and Khaustova and Sharp (2015) for Copenhagen that living standards in both increased at least from the midnineteenth century. But in the eighteenth century, both were poor, peripheral, multinational and multilingual. The monarchs of both countries enjoyed abso-

¹ Denmark and Russia never fought against each other, although they twice came very close, and only the unexpected deaths of Catherine I and Peter III prevented this (Vozgrin, 2019).

lute power but embarked on a simultaneous embrace of the Enlightenment in the second half of the eighteenth century, with elites playing a central role, as they became ever more engaged in economic activity on more rational grounds (Lampe and Sharp, 2018; Leckey, 2011). Institutionally, both countries followed the Swedish model in developing the fiscal-military state to protect themselves from the common threat (Hartley, 2009).

The dissimilarities are also worth noting. Most striking was the difference in the sheer scale of the empires, of course. Around 1700, the Danish Empire covered around 3 million square kilometers with a population of probably no more than 1 million, whereas the Russian Empire covered ca. 14 million square kilometers, with a population of around 14 million. Copenhagen by the end of the eighteenth century probably only had around 60,000 residents, as opposed to perhaps three times that in Moscow, and although both are positioned at similar latitudes (55.7 degrees for Copenhagen vs. 55.8 degrees for Moscow), the former enjoys a "temperate" climate, as opposed to the latter's "humid continental" climate, with hot summers and long, cold winters. Moreover, the Danish Empire had all but disappeared by 1864, when Schleswig and Holstein were lost to Prussia, while the Russian Empire survived until the First World War, and even today its territory is largely intact. Denmark also developed much faster in the nineteenth century, both in terms of institutions (serfdom was abolished in 1800 in Denmark and 1861 in Russia), and economic development more widely. Existing research has emphasized the early break-up of the Danish Empire, leaving behind a homogeneous population with high levels of social capital as one of the main reasons for Danish development, for which the foundation of cooperatives played a central role (O'Rourke, 2007). The Russian Empire by contrast would develop due to the role of the state and its enormous size.

Thus, the few comparisons that exist with Russia have largely been restricted to far less similar empires such as the Spanish, Ottoman, and Chinese Empires (e.g. Fedyukin, 2018). Ironically, although these empires were also large, they are far less interesting for economic and political comparisons than Denmark, which is itself most often placed in comparison to the other Nordic nations or small European countries such as Ireland (O'Rourke, 2006). This has had the unfortunate consequence that much research to date has been based on comparing the "most different" countries in terms of comparative-historical sociology (Bercovitch et al., 2008). The result is that historians, and economic historians in particular, have largely overlooked the significance of the contact between Denmark and Russia, based largely on the common enemy, Sweden, and formalized by royal marriage which opened up an intensive exchange of institutional and scientific knowledge. Existing studies have largely focused on the military reforms which were a response to the Swedish threat, and thus put conflict at the heart of the story, rather than cooperation and mutual learning between the two countries.²

Until now, Russians might write about Denmark, and Danes might write about Russia, but there is little attempt at comparison (Christensen, 1996, Nefedov,

² One might ask why the Swedish Empire should not be the basis for the comparison, and clearly it could. It should be noted, however, that the Swedish Empire was very short-lived (ca. from the gain of territory under the Peace of Westphalia in 1648 until the end of the Great Northern War in 1721). Moreover, the Swedish Empire could barely be described as an Arctic empire. Although it would certainly not describe itself as an empire, Denmark maintains possession of Greenland, and thus large swathes of Arctic territory.

2013, Nedergaard, 2015), meaning that the history of the two empires is trapped by national narratives, with the main exception being in the field of international relations, with a particular focus on the late nineteenth century since the Russian Empress Maria Fedorovna (Dagmar of Denmark) was a Danish princess. There are several reasons for this. First, contemporary historians are often focused on national narratives and their areas of expertise. Second, the unit of analysis is usually restricted to present day borders, which can be strikingly irrelevant for the past. Third, Russia is considered too big and idiosyncratic for any meaningful comparisons. These obstacles have tended to downplay Russia's role as an inseparable part of Europe. But in the 1990s there were some years when both countries started to take an interest in each other and as a result there was a series of exhibitions under the umbrella title of "Russia-Denmark: 500 years of cooperation."3 The existing literature also leaves space for the reconsideration of the geographic scope of comparison, since existing research has paid very limited attention to the regional dimension in Russian economic history (one of the exceptions is Markevich, 2019). The issue is the reverse for Denmark. Its dissolution into national units has meant that these have been analyzed separately, but little work has been done at analyzing the empire as a whole, which means that there is a need for an "imperialization" of Danish economic history.

Our focus is on the contact between the empires which started with the Great Northern War (1700–1721). The war was partly the result of Peter the Great's desire to Europeanize Russia, which required access to the Baltic Sea, at the time dominated by Sweden. Although Denmark only made modest gains from its involvement and failed to recapture its lost eastern provinces, which were to remain in Sweden, the result of the war for Russia was that it became a great military empire and one of the main leaders of European politics. At the same time, however, both countries became economically exhausted, motivating the start of our period. The Bolshevik Revolution provides a natural endpoint. Although Denmark ceased to have any claims to Great Power status with the loss of its German possessions in 1864, we discuss how important contacts persisted beyond that date.

Thus, beyond the comparison based on historically relevant political units, a central question of this research agenda, in particular due to the importance of agriculture for both the Danish and Russian historiographies, is to explore Danish agricultural development in comparison with that in Russia. In doing so, we propose three main additional contributions. First, we shift the focus of investigation from the core European countries to the periphery. Second, we propose agriculture and in particular a shift to capitalist agriculture and a main driver of economic development, rather than only industry and industrialization. Third, from the perspective of Russian economic history, we suggest that Russia should play an important role in comparative perspectives on European development. The following represents a first attempt to address these points.

The remainder of this paper is organized as follows. The next section describes possible avenues for future research based on the comparison of the Danish and Russian Empires. Section 3 presents preliminary work on the role of Danish expertise for developing the Russian butter industry. Section 4 concludes.

³ http://portal.rusarchives.ru/evants/exhibitions/rd500_sp.shtml#4 (in Russian).

2. Possible avenues for comparison

2.1. Knowledge transfer between the Danish and Russian Empires

Knowledge transmission between the Danish and Russian Empires has been largely ignored because Danish roots were either forgotten or internalized as Russian. There are, however, many potential avenues for comparative research in the realms of the military, political ideas, and agriculture, all of which are significantly understudied to date, although the latter is our main focus here.

The first dimension is the transfer of military technology due to the Swedish threat, where naval technology in particular was developed thanks to migrants from Denmark. The most famous of them, Vitus Jonassen Bering (after whom the Bering Strait is named), played an important role for the Russian expansion to the east. Second, the spread of political and economic ideas might be considered. For example, Peter the Great's poll-tax, the only direct tax in Russia for a long time, was founded partly on Danish principles of taxation. Also, tables of ranks were introduced to Russia based partly on the Danish experience and formed the backbone of the state service in imperial Russia (Nefedov, 2013). Third, agriculture played a key role for Danish development, and thus the role of Denmark for Russian agricultural development represents an obvious point of interest, which we devote the remainder of this section to.

Although the two countries signed a trade convention in 1782, exempting Russian vessels from the Sound Toll, trade was limited since they were producing similar products (Spasskiy, 1914, p. 70). From the beginning of the nineteenth century, however, as Danish agriculture developed relative to Russia, the latter became very attractive for Danish agricultural experts (Ensen, 1996, p. 244). Both S. R. Randrup in Siberia and the Buman family in Vologda played an important role for butter production in Russia, as we discuss in more detail in Section 3, and Carl Andreas Koefoed was deeply involved with the Stolypin reform, and later during early Soviet times was one of the protagonists for the cooperative movement. From the Danish side, Russian imports, especially of concentrates, constituted an important share of feed for the large animal production, and in fact the Danish embassy in Saint Petersburg was the only one which had their own commercial attaché before the First World War (Ensen, 1996, p. 249-250). Danes also invested very intensively in the Russian economy, with the total sum of investments in 1917–1918 equal to 400 million Danish kroner, roughly equal to the annual budget of Denmark (Ensen, 1996, p. 241). Modern Russian historiography, however, touches only slightly on the comparative perspective of agricultural development in Russia and Denmark (Pluzhnik, 2012).

Interest in Danish agriculture came in waves in Russia, and was to have a profound impact on thinking as well as the process of reform, whereas in Denmark much of the interest in Russia seems to have been from the late nineteenth century as a potential market for exports, or as a potential competitor (see for example Bøggild, 1903; Friis, 1906). Initial interest seems to have been linked with discussion about the abolition of serfdom in Russia, with, for example, Baranovskii (1858, p. 685) making clear where the interest lay, "because for the last seventy years they [the Danes] sorted out the problems which are not solved yet in Russia." Baranovskii estimated revenues and expenditures of an average Danish peasant, comparing this favorably with Russian production. He explains that this was due to the careful description of the land, the tendency to have farms instead of communes, the clear language used in laws, that the state cared a lot about peasants, that tax privileges had been reduced, and that there was a free market for land. He also stressed the role of free trade. By rejecting protectionism, and refusing in 1788 a protectionist tariff on grain, competition increased and as a result Danish grain became very competitive on the world market.

Emblematic of the importance of Danish experts for Russian development is the figure of Carl Andreas Koefoed (Andrei Andreevich Kofod), a Dane who graduated from the Danish Royal Agricultural and Veterinary University in 1875 before moving to Russia, where he spent around fifty years, finally returning to Denmark after the Revolution (Ensen, Paulsen-Khansen, 1996). He learnt Russian and wrote in both Danish and Russian, and, perhaps helped by support from the Danish-born Empress (Anon, 1948), was deeply involved with the process of agricultural reform, and has been described as the "ideologist" of the Stolypin reforms which introduced enclosure to Russia (Davydov, 2016, p. 27). Inspired by the knowledge of his homeland, he advanced the idea that individual households/ farms are more suited to the needs of agricultural development than communal organizations (Kofod, 1913). His role in Russian agricultural development was also recognized after the Revolution, when perhaps the most famous Russian agrarian scientist of the time, Alexander Chayanov, congratulated Koefoed in 1922 with the future "koefoedization" (kofodizatsiya) of Russia (Larsen, 1997, p. 218). It is only recently, however, that there has been renewed interest in his contribution, with some of the most interesting work by V. V. Roginskiy who also recognizes the opportunities that the Dano-Russian comparison present, writing that "beyond stating that Denmark was the birthplace of Koefoed, we know almost nothing about his homeland. Meanwhile, in the new history of Europe, the history of the agrarian revolution in Denmark undoubtedly represents a huge and far from only scientific interest" (Roginskiy, 2008, p. 319). Beyond Koefoed, it should be noted here that many other Danes also traveled to Russia, and many of those from the late nineteenth century helped establish butter factories, but we will return to this in the next section.

Russians, of course, also traveled to Denmark, however. Thus, another important figure was Nikolai Abramovich Kryukov who traveled a lot and wrote about agriculture in different countries including Denmark, with his book on this published in 1907 (Chikalova, 2014). Unlike Baranovskii, he mostly stressed animal husbandry, which by that time had become the driver of agricultural development of Denmark (Henriksen, 1993). Consistent with the prevailing narrative of the time, he stated that the main reasons for Denmark's success were cooperation and education (Kryukov, 1907). Thus, just before the revolution, the main Russian interest in Denmark could be summed up by the words of Kheisin: "Denmark is of great interest to us, Russians, because the Danish peasants managed to organize their households well and use all the opportunities that the village provides" (Kheisin, 1914, p. 7).

After the Bolshevik Revolution there was continued interest in Danish agriculture in general, and especially the cooperative movement in butter production (Jakobson, 1924; Dzanagov, 1928; Stepanov, 1928; Krot-Krival, 1930). Thus, it is not very surprising that in the 1920s, after the start of the New Economic Policy (NEP) in the Soviet Union, the experience of the cooperative movement was considered of great relevance, although with the collapse of the NEP, interest in Danish agriculture began to decline.

2.2. Inequality in Denmark and Russia in a comparative perspective

The two countries provide a very good example for testing the hypothesis of how inequality matters in terms of ruling vast empires which are absolute monarchies with serfdom as the core of their economies. In this context, serfdom might be considered as a fiscal institution which could on the one hand provide a stable source of state revenue, and, on the other, facilitated the distribution of wealth. The monarchs granted land and serfs to the aristocracy and these became their main sources of revenue. This was then taxed in Russia using a system partly borrowed from Denmark. The basic inefficiency of serfdom meant that inequality among nobles was limited. Serfdom both in Denmark and in Russia was characterized by the scattered nature of landholdings, and the nobles were thereby promoters of imperial decisions all over the Empire. But in neither empire did serfdom cover the entire territory, so it might be interesting to investigate how the empires were ruled by estimating the correlation between the noble population, and, in particular, inequality in landholdings in different regions and the amount of taxes collected.

2.3. Canals and development in the wake of the defeat of the Swedish Empire

Other striking points of comparison become evident beyond those outlined above. For example, for both countries it was the construction of canals which helped facilitate market integration and integrate them into the northern Baltic region, namely the Eider canal in Denmark and the Ladoga canal in Russia. Both were only made possible after victory in the Great Northern War and the removal of the Swedish occupying forces. It has been considered that the former was crucial for the integration of Denmark, particularly with Hamburg, and that the latter was crucial for allowing St. Petersburg to grow, and to integrate the Russian heartlands through the inland water network.

3. The role of Denmark for the growth and modernization of butter production in Russia

Danish agriculture and the economy more generally developed rapidly over the course of the nineteenth century, whereas Russia, for a long time, remained very backward, possibly because of serfdom and the lack of enclosure, both of which Danish knowledge and experience contributed to terminating. Beyond this, Danes had a very particular knowledge about dairying, and we explore their contributions to bringing this to Russia in this section.

Traditional Russian butter differed greatly from what we now think of as butter, as described by Vyshemirskiy (1998, pp. 6–7): "Cream was obtained by the method of sludge, as they accumulated, they were fermented, and then knocked down in manual churns. The Siberian peasants 'converted' the excess butter in their farms, i.e. processed into ghee. Fermented cream (sour cream, *smetana*)

and ghee (toplenoe maslo) are Russian national products. The butter yield was very low: more than 30 pounds of milk were consumed per 1 pound of butter." Nevertheless, not everything was backward. In fact, it appears that the Schwartz method of butter production was first invented in Russia by Nikolai Nikolaevitch Muraviev. In 1805, he built the first dairy factory in Russia in Ostashevo near Moscow and proposed a method for producing butter. He suggested separating cream by allowing milk to settle in flat basins which were kept cold, thirty years before this was discovered in the West, and in 1830 he wrote a book about this (Vyshemirskiy, 2010, p. 45). It was only in 1864 that the same method was described again by Schwartz, and the method of butter production was named after him. Nevertheless, this early innovation did not otherwise appear to have helped the Russian dairy industry, which was constrained by the lack of economic incentives due to serfdom and issues with transportation. Ostashevo was eventually bought by Nikolai Shipov who in 1854 brought in 200 cows and a specialist from Switzerland, and established a cheese factory, which a few years later was recognized by the government as the best in the country, and they established a cheese-making school on the estate.

Because of its primary role in Danish agriculture, we are mostly concerned with the production of butter, however. Here, it should be mentioned that the first cooperative for butter production was founded in 1869 by the peasant Sidelnikov in the village (selo) Kuree (Archangelsk) (Vyshemirskiy, 1998, p. 7). However, the success of Russian butter is mostly connected with two regions: Vologda and Siberia, of which the former is the more famous (Wines, 2000). The story of the appearance of these two brands is guite well-known (Nikolaev, 2019, p. 3). In short, Nikolai Vasilyevich Vereshchagin, the brother of the famous battle painter Vasily Vasilyevich Vereshchagin, is considered to be the founder of butter production in Russia. He came from a family of noblemen from the Cherepovets district of the Novgorod province, and created in Russia a new branch of the national economy: butter production and cheese making. Having the trust of society and the government, Vereshchagin received various kinds of payments and loans corresponding to 80% of all state support which was legally assigned to developing butter production from 1871–1897.⁴ Once the railroad to Siberia was constructed, he recognized the export prospects of Siberian butter and sent some butter producers, of whom V. F. Sokulsky is the most famous. The efforts of Sokulsky and a merchant, A. A. Valkov, succeeded in encouraging dairies to open all over Siberia. This story is, however, not complete without adding the Danish dimension.

Although it is true that Vereshchagin's importance for creating the butter and dairy industry was enormous, it was in fact deeply rooted in his travel experience in Western Europe. He traveled to Switzerland (the Gruyere district) and Holstein (until 1864 under the Danish monarchy) in 1865 (Vyshemirskiy, 2010, p. 57), and the following year opened a creamery in the village of Otrikovichi (the Tver province). In 1869, he again traveled to Switzerland and Denmark, and wrote: "Little by little it became obvious that not only the preparation of all kinds of cheese can be done in Russia, but also, in particular, improved butter-making. That is why, after a trip to Switzerland to study cheese making,

⁴ http://www.gako.archives.kurganobl.ru/maslo9 (in Russian).

I went to study butter-making in Holstein, which provided a special system for the preparation of butter, known as Holstein, and took [to Russia] one of the best Holstein families, Mr. Fridrich and Mrs. Ida Buman." (Shabanov, 2011). Before this invitation the Buman family lived in Holstein, although they were originally from Svendborg on the island of Funen in the center of Denmark. In October 1871, they opened the first butter factory in the village of Marfino, and in the following year moved to another village, Fominskoe (Shabanov, 2011). Importantly, it was at the Buman's factory in the latter that the first automatic cream separator was installed in 1881 (Vyshemirskiy, 2010), two years before the first was installed in the United States, also by Danes (Boberg-Fazlic and Sharp, 2019). In fact, the standard contemporary description of Vologda butter production was in a book based on butter production at Buman's factory (Kalatar, 1882).

The export success of Vologda butter is largely based on the efforts of another Danish specialist, Carl Frederik Riffestal, who was born in Denmark in 1858, educated in Odense, and in 1883 moved to Russia. He easily found a job, having received recommendations from Koefoed and Vereshchagin (Guterts, 2011). In 1892, Riffestal became a representative of the Danish butter export company Pavel Merk (Poul Mørch) in the Vologda province, and from that year, Vologda butter was regularly exported. At the same time, based on the advice of Vereshchagin, Riffestal took the duties of a private butter-making instructor in the province. They shared similar beliefs regarding the necessity of cooperative organization, and agreed that the transition of many villagers from grain farming to cattle-breeding was both desirable and inevitable (Guterts, 2011). In 1894, Riffestal joined the civil service and was appointed a government dairy instructor for the northern provinces (Vologda, Yaroslavl and Kostroma). In one of his reports, he wrote: "With the appointment of me as an instructor of dairy farming for the northern provinces in 1894, I, as a Dane and, therefore, a natural advocate of cooperative butter production, immediately started organizing butter-making cooperatives and, thanks to the assistance of local people and the opportunity to use the free labor of the government-owned masters of butter-makers, which were initially under my command, the business began to move so quickly that by the end of 1897 nine cooperatives were operating in the Vologda province" (Guterts, 2011).

In 1894, he went to Copenhagen, having received a letter from the Russian consul, taking money for hiring butter producers (Guterts, 2011). This became possible in 1895 when the Russian government invited ten specialists in milk production thanks to the Russified Danish railroad contractor P. Riffestal (Ensen, 1996). Among them the best instructor was the only woman, Matilda Holm. During the first year of their stay in Russia, these Danish instructors visited 79 households with an average duration of one visit every 37 days, and over the next year 163 households, averaging one visit every 16 days. The quality of Vologda butter improved and, as a result in 1896 two new export offices were opened, and there were a total of nine by 1898 (Guterts, 2011). From 1891, foreign companies showed considerable interest in Vologda butter-making and began buying butter from producers and small retailers for export. Merk opened its office in Vologda in 1891 and succeeded in extracting significant profits from Vologda butter. Over the next 6 years, representative offices of another eight foreign firms settled in Vologda (Shubin, 1967).

In order to reduce production costs, in the 1890s butter producers began to expand their production, crowding out small enterprises. In 1894, large creameries accounted for up to 40% of production, although representing just about 6% of the total number of enterprises. For example, in the Totemsky district, one Grachev plant produced butter for 10,000 rubles, while the output of 33 small plants in the same district did not exceed 14,000 rubles. Alongside this process of enlargement of plants, there was also increasing concentration in the hands of individual entrepreneurs, owning whole networks of creameries of different capacities. For example, in 1898 Maslenikov owned 30 factories, Korobov—11, and the Blandov Brothers—49. Another characteristic feature of this period was the organization of butter cooperatives, which were however rather small compared to the large factories. The first cooperative (*artel*) appeared in Kadnikovsky District in 1904, and by the end of 1916 there were around 300. Peasant farms were involved in this dairy cooperation: 18.5% in the Vologda District, 7.0% in Kadnikovsky, and 9.1% in the Gryazovetsky Districts (Shubin, 1967).

The end result of this process was that butter-making came to dominate cheese production. Thus, from just 15 butter factories in 1875, they expanded to 51 in 1879, 254 in 1892, 637 in 1898 and 1290 in 1913. As for cheese factories, their number began to decrease gradually: from 30 in 1879, to just eight by 1913. The production of butter in 1913 reached 450 thousand poods, that is, about 7.4 thousand tons (Shubin, 1967). It should also be noted that the production and export of butter in the prewar years (1913–1914) in the Vologda province occupied a prominent position, giving it more than 20% of butter production within the European part of Russia. Moreover, at the same time, there was still a significant reserve of raw materials: of the 450,000 tons of milk produced in the province, with only about 166,000 tons, mostly processed in the large butter factories.

Turning to Siberian butter (see Larsen 2007), an important role for the export of Siberian butter was played by the newly constructed Trans-Siberian railway, especially for the Kurgan province. In 1894, only 400 poods (1 pood = 16.38 kg) of Siberian butter was exported to Britain, but in two years, in 1896, already 150,000 poods were exported, and by 1912 this amounted to 4,500,000 poods.⁵ The first creamery was opened in the Kurgan province in 1894 by the St. Petersburg merchant, A. A. Valkov, using a separator. Then, in 1896, the merchant Shataev opened four dairies in the Kurgan district with ten separators.⁶

Foreseeing high profits from the resale of butter, foreign companies opened a credit tranche to butter producers for the purchase of the necessary machines and accessories. The first to take such a loan was Mr. Merk, a representative of the St. Petersburg firm Pallizen, in 1896, itself founded in 1865 by the Danish businessman Hans Jessen Pallizen. The Kurgan office of Pallizen began supplying loans to butter producers, keeping 1 ruble per pood from the price of the butter delivered to it, and all butter was accepted for commission with deposits of 8 rubles per pood. A year later, the office of M. D. Kuchkova opened, sending eggs and butter abroad, as did the office of the Blandov Brothers Commerce and Industry Partnership, who worked for London. In 1898, the offices of

⁵ http://www.gako.archives.kurganobl.ru/maslo5 (in Russian).

⁶ http://www.gako.archives.kurganobl.ru/maslo6 (in Russian).

E. F. Esman shipped products to Denmark and England, and Gustav Becker who shipped butter, eggs and game to Germany. In 1899, a branch of the famous firm G. G. Fienta was opened, and also the Danish company Karl Holbeck entered the Kurgan market. In 1902, 13 export offices operated in Kurgan, most of which were foreign. A significant role among foreign exporters was played by the Danish Siberian Company, which at the beginning of the twentieth century had around 50 collection points for buying butter and selling various goods around Siberia. The Siberian Company (Sibiko) was established in 1904 as a result of the merger of the Siberian branches of the two Danish companies Karl Holbek and E. F. Esman, with H. P. Earl Hansen as director. In 1904-1914 Sibiko was Siberia's largest butter exporter to Western Europe.⁷ Before the First World War Sibiko exported 20,000 tonnes of Siberian butter per year, equal to one fifth of the total butter export of Denmark and one third of the total Siberian butter export (Ensen, 1996).

In 1904 Holger Rosenberg published a book entitled "Det ny Sibirien: en Skildring af det omkring den Sibiriske Jærnbane opblomstrende Fremtidsland samt af en Rejse i Mantshuriet" [The new Siberia: A depiction of the Siberian railroad's thriving land of the future and of a journey in Manchuria]. There, he argued that it was the Danish who were next to benefit after the Americans from the construction of the Trans-Siberian railroad, and his focus was mostly on butter production. He imagined Siberia as a new America (cited by Ensen, 1996, p. 250). In another book from 1918 about prospects for Siberia, "Sibirien i Oversigt og Skildringer" [Siberia in overview and depictions], Alfred Schønebeck suggested that the Danes would become the largest group of foreigners in Siberia. Gustav Rasmussen, who would later become the Minister of Foreign Affairs, wrote that Danes could have unlimited opportunities in Siberia, unless Danish financiers seized the chance to secure a dominant position in trade (cited by Ensen, 1996).

Despite this expansion, the quality of the produce lagged somewhat behind that in Denmark. Thus, Av. A. Kalantar, after visiting a number of factories, wrote that they had bad cellars for storing butter, and due to technical shortcomings, there was a lack of pasteurization. The butter was notable for its low quality, and in foreign markets its price was significantly lower than Finnish and Danish butter. Thus, at the fifth butter contest in 1908, out of 24 samples, only one *artel* received a small silver medal and three received commendation sheets for satisfactory butter quality.⁸

One conclusion from this is that the results of the introduction of cooperatives to the Vologda region and Siberia were quite different. Siberian cooperatives were big, with some of them able to collect around 150,000 poods of milk and produce around 7,000 poods of butter in a stable way. By contrast, the Vologda cooperatives were in general quite small, and were able to collect around 4,000 poods of milk and produce around 170 poods of butter (Gruzdev, 1909). Moreover, in Siberia there were government subsidies and A. N. Balakshin, one of the main organizers of butter production on the ground, was said to have been an effective organizer.

⁷ http://www.gako.archives.kurganobl.ru/maslo6 (in Russian).

⁸ http://www.gako.archives.kurganobl.ru/maslo7 (in Russian).

4. Conclusion

We have presented an outline of a research agenda comparing the Danish and Russian Empires from the early eighteenth century until the early twentieth century. Beyond geographical, political and institutional similarities, the two empires were initially united against a common enemy, Sweden, and later were connected through royal marriage, travel, and migration. We presented some suggestions for what might be investigated with this comparison as a starting point, with a particular focus on agriculture, given its importance for Danish development. Our preliminary work suggests that Danes played a not insignificant role in the process of agricultural reform and modernization in Russia before the Revolution. Clearly this is an extremely understudied topic, which, we believe, deserves much more focus in the future. The bigger picture is, however, associated with our argument in favor of expanding both national and international comparative studies to historically relevant units, and we believe that doing so might present other opportunities beyond the comparison discussed here.

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References

- Allen, R. C. (2001). The Great Divergence in European wages and prices from the Middle Ages to the First World War. *Exploration in Economic History*, 38(4), 411–447. https://doi.org/10.1006/ exeh.2001.0775
- Anon (1948). Dødsfald: Statsraad C. A. Koefoed [Obituary of Karl Andreas Koefoed]. Tidsskrift for Landøkonomi, 130, 153–157.
- Baranovskii, S. I. (1858). The everyday life of the Danish peasants. *Otechestvennye Zapiski*, *119* (8), 669–710 (in Russian).
- Bercovitch, J., Kremenyuk, V., & Zartman, I. W. (2008). *The SAGE Handbook of conflict resolution*. London: SAGE.
- Boberg-Fazlic, N., & Sharp, P. (2019). Immigrant communities and knowledge spillovers: Danish-Americans and the development of the dairy industry in the United States. *CEPR Discussion Paper*, No. 13757.
- Bøggild, B. (1903). Danmarks Smørexport 1902–1903. Tidsskrift for Landøkonomi, 85, 712–723.
- Chikalova, I. R. (2014). Social laboratories of the world: Australia and New Zealand in Russia from the 1850's up to 1917. *Istoriya*, *5*(10) (in Russian).
- Christensen, S. A. (Ed.) (1996). Denmark and Russia in 500 years. Moscow: Mezhdunarodnye Otnosheniya (in Russian).
- Davydov, M. A. (2016). Twenty years before the great war. St. Petersburg: Aleteya (in Russian).
- Dzanagov, H. (1928). *Danish agriculture and dairy production*. Vladikavkaz: North Ossetian Institute of Local History (in Russian).
- Ensen S. P., & Paulsen-Khansen, P. (1996). The role of Koefoed in Stolypin reforms. In Christensen, S. A. (Ed.), *Denmark and Russia in 500 years* (pp. 262–286). Moscow: Mezhdunarodnye Otnosheniya (in Russian).
- Ensen, B. (1996). New America. Russia and Danish enterprenership. Christensen, S. A. (Ed.), Denmark and Russia in 500 years (pp. 262–286). Moscow: Mezhdunarodnye Otnosheniya (in Russian).

- Fedyukin, I. (2018). "Westernizations" from Peter I to Meiji: War, political competition, and institutional change. *Theory and Society*, 47(2), 207–231. https://doi.org/10.1007/s11186-018-9313-y
- Friis, L. (1906). Russiske Landbrugsforhold og Udsigterne for vor Udførsel til Rusland. Tidsskrift for Landøkonomi, 88, 561–576.
- Gruzdev S. A. (1909). The discussion about cooperative sale of butter. *Molochnoe Khozyaistvo, 18*, 1–7 (in Russian).
- Guterts, A. (2011). About Karl Riffestal. In N. Figurovskaya (Ed.), *Cooperation. Historical episodes* (vol. 1, book 3, part 2, pp. 435–523). Moscow: Nauka (in Russian).
- Hartley, J. (2009). Russia as a fiscal-military state. In C. Storrs (Ed.), *The fiscal-military state in eighteenth-century Europe: Essays in honour of P. G. M. Dickson* (pp. 125–146). Burlington: Ashgate.
- Henriksen, I. (1993). The transformation of Danish agriculture 1870–1914. In K. G. Persson (ed.), The economic development of Denmark and Norway since 1870 (pp. 153–177). Aldershot: Edward Elgar.
- Jakobson, A. P. (1924). Danish agriculture. Leningrad: Kooperatsiya (in Russian).
- Kalatar, A. (1882). *Butter production at Ida Iv. Buman*. Moscow: Shkola Molochnogo Khozyaystva (in Russian).
- Kheisin, M. L. (1914). *Consumers' cooperation in Denmark*. Moscow: Moskovskiy Soyuz Potreb. Obshchestv (in Russian).
- Khaustova, E., & Sharp, P. (2015). A note on Danish living standards through historical wage series, 1731–1913. Journal of European Economic History, 44(3), 143–172.
- Kofod, A. A. (1913). Russian land management. St. Petersburg: Tip. V. F. Kirshbauma (in Russian).
- Korchmina, E. S. (2020). Daily wages of construction labourers in Moscow and Tobolsk in the 18th century. Ural Historical Journal, 1, 57–67 (in Russian). https://doi.org/10.30759/1728-9718-2020-1(66)-71-82
- Krot-Krival, S. M. (1930). Dairy production in Finland, Sweden and Denmark. Moscow: Gosudarstvennoe Izdatelstvo (in Russian).
- Kryukov, N. (1907). Denmark: agriculture. St. Petersburg: Tipographiya V. Kirshbaum (in Russian).
- Lampe, M., & Sharp, P. (2018). A land of milk and butter: how elites created the modern Danish dairy industry. Chicago: University of Chicago Press.
- Larsen, I. M. (1997). The traces of A. V. Chayanov in Denmark. In V. Danilov, & T. Shanin (Eds.), *Krestianovedenie. Teoria. Istoria. Sovremennost* (pp. 217–222). Moscow: Aspekt Press (in Russian).
- Larsen, I. M. (2007). Da smor var guld: Sibirisk smørproduktion og-eksport, 1895–1905. Aarhus University Press.
- Leckey, C. (2011). *Patrons of enlightenment: The free economic society in eighteenth-century Russia*. Newark: University of Delaware Press.
- Markevich, A. A. (2019). Regional perspective on the economic development of the late Russian Empire. Available at SSRN: https://doi.org/10.2139/ssrn.2555273
- Mironov, B. N. (2010). Wages and prices in imperial Russia, 1703–1913. *Russian Review, 69*(1), 47–72. https://doi.org/10.1111/j.1467-9434.2010.00554.x
- Nedergaard, P. (2015). Rusland: Politik, økonomi og samfund. København: Columbus.
- Nefedov, S. (2013). The emergence of the regular state of Peter the Great. *Voprosy Istorii*, 12, 53–65 (in Russian).
- Nikolaev, A. A. (2019). Historiography of Siberian butter industry in the first third of the XX century. *Humanitarian Sciences in Siberia*, 26(3), 18–23 (in Russian).
- O'Rourke, K. H. (2006). Late 19th century Denmark in an Irish mirror: Land tenure, homogeneity and the roots of Danish success. In J. L. Campbell, J. A. Hall, & O. K. Pedersen (Eds.), *The state of Denmark: Small states, corporatism and the varieties of capitalism* (pp. 159–196). Montreal: McGill-Queen's University Press.
- O'Rourke, K. H. (2007). Culture, conflict and cooperation: Irish dairying before the Great War. *Economic Journal*, 117(523), 1357–1379. https://doi.org/10.1111/j.1468-0297.2007.02086.x
- Pluzhnik, M. V. (2012). The role of the nature of industrialization in the long-term development of the economy (the cases of the Russian Empire and Denmark of the second half of the nineteenth century). *Vestnik Nauki Sibiri*, 5, 167–172 (in Russian).

- Roginskiy, V. V. (2008). The Danish model for the Stolypin reform (agriculture in Denmark in modern times, 1661–1990). In *A historian's duty and destiny. A collection of papers in memory of Dr. of history P. N. Zyrianov* (pp. 288–322). Moscow: ROSSPEN (in Russian).
 Sheherer P. (2011). Velocity to hutter Velocity (in Russian).
- Shabanov, P. (2011). Vologda butter. Vologda (in Russian).
- Shubin, M. Y., (1967). The development of the Vologda butter industry in the 19th and first third of the 20th centuries. In *Issues of agrarian history* (issue 1, pp. 238–245). Vologda (in Russian).

Spasskiy, P. (Ed). (1914). The history of trade and industry in Russia. St. Petersburg (in Russian).

- Stepanov, I. P. (1928). Agriculture and cooperative movement in Finland and Denmark. Moscow: Mosk. Zem. Otd. (in Russian).
- Vozgrin, V. E., (2019). Chroniclers and historians of Denmark: The evolution of national historiography from the Middle Ages to the present. St. Petersburg: Kriga (in Russian).
- Vyshemirskiy, F. A. (1998). Butter production in Russia (history, current state, perspectives). Uglich: Ryb. Dom Pechati (in Russian).
- Vyshemirskiy, F. A. (2010). Butter production in Russia. St. Petersburg: Giord (in Russian).
- Wines, M. (2000). Vologda Journal; Russia's favorite spread smeared by counterfeiters. New York Times, May 27.