

Imperial Russia, 1700-1917

Lectures 1-7

Introduction and Economic Growth in the Eighteenth Century

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IMPERIAL RUSSIA¹
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Lectures 1-7

Introduction

1. Economic development in long-term perspective: Russia 1700-1914.

Economic Growth in the Eighteenth Century

2. Cossack and Tartar: the economy of the trans-Pontine Steppe.
3. Western annexation and Muscovite growth 1718/22-1788.
4. The Imperial Russian economy in 1788
5. The “Indian Summer” of the Ancien Regime: Crisis and Recovery 1788-1807
6. Eastward expansion: Siberia and the coming of the Russians.
7. Russia and the North Pacific

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WEIGHTS AND MEASURES

Prior to the revolution of 1917 Russia had its own unique system of weights and measures the salient features of which are listed below:

linear measures.	arshin	=	28 inches
	sazhen	=	7 feet
	verst	=	0.66 miles
Square measures.	desyatin	=	2.7 acres
volume	chetvert	=	5.95 bushels or 2.1 hl.
weight	pud	=	36 lb

RULERS

Peter I ('the Great')	1682-1725
Catherine I	1725-1727
Peter II	1727-1730
Anna	1730-1740
Ivan VI	1740-1741
Elizabeth	1741-1761
Peter III	1761-1762
Catherine II ('the Great')	1762-1796
Paul	1796-1801
Alexander I	1801-1825
Nicholas I	1825-1855
Alexander II	1855-1881
Alexander III	1881-1894
Nicholas II	1894-1917

MINISTERS OF FINANCE

(post 1802 Reforms)

1802	A I Vasiliev	1858	A M Kniazhevskii	1892	S Yu WITTE
1807	F A Golubtsov	1862	M Kh REITERN	1903	E D Pleske
1810	D A Guriev	1878	S A Grieg	1904	V N Kokovtsov
1823	I F KANKRIN	1880	A A Abaza	1905	I P Shipov
1844	F P Vronchenko	1881	N Kh Bunge	1906	V N Kokovtsov
1852	P F Brok.	1887	I VYSHNEGRADSKII	1914	P L Bark

1. Economic development in long-term perspective: Russia 1700-1914.¹

Recent years have seen a considerable controversy concerning the pace and nature of Imperial Russian economic growth in the late nineteenth century as the established picture, associated with the work of the late Professor Gerschenkron, has come under vigorous attack by Professor Gregory and others.²

For Gerschenkron Russia was at that time the most backward of European countries, with a traditional agriculture and impoverished peasantry, an autocratic state and a stagnant economy, which could only be dragged into the modern age during the 1890s by a state-induced industrial boom. From 1894-1900, with state support, heavy industry grew rapidly until the financial crisis of 1901 undermined government credit and brought the boom to an end. During the years 1894-1900, however, backward linkages from the industrial sector were forged with the rest of the economy thereby creating an infra-structure which, in the aftermath of the crisis of 1901-1905 and in the context of agrarian reforms initiated in 1906, allowed the Russian economy, for the first time, to experience a phase of spontaneous, balanced economic growth. For Gerschenkron the crises of 1901-1905 were a turning point. Constitutional reform in 1905 paved the way, for the first time, for political freedom. Economic reform paved the way for spontaneous free-market growth. By 1914 Russia, thanks to the state initiative of the 1890s, was well on the way to joining the club of western European nations - a destiny which was only thwarted by war in 1914 and revolution in 1917.

In contrast Gregory suggests that from 1894 Russia experienced a phase of market-induced, balanced economic growth with agriculture and consumer good industries playing the major role and state-promoted heavy industry being of minimal importance. Nor was this boom very much influenced by the government's financial difficulties in 1901, but with only a brief interruption in 1905, continued unabated until 1914.

¹ **NOTE.** Throughout these lecture notes introductory studies, which you might find worth consulting, are given in footnotes. A separate fuller "*Bibliography of English language works on Russian economic history 1700-1914*" is available for those who might require it.

² The work of Alexander Gerschenkron : *Economic Backwardness in Historical Perspective* (Cambridge Mass., 1962), particularly essays 1-3, 6; *Continuity in History* (Cambridge Mass., 1968) and *Europe in the Russian Mirror* (Cambridge, 1970) has for some time been the subject of methodological attacks by Barsby, Sandberg and others but was dealt a death blow by P.R. Gregory in his definitive studies: *Russian National Income, 1885-1913* (1984) and *Before Command. An Economic History of Russia from Emancipation to the First Five-Year Plan* (1994), chapters 2-4.

Both authors, however, using 1885 as their base year, see the period 1894-1900 as marking Russia's "take off" and, accordingly, view the preceding period of economic stagnation from 1885-1894 as marking the close of a protracted phase when the economy conformed to pre-industrial characteristics - it is this assumption which will be examined in this lecture and new materials used to establish long-term (1700-1913) patterns of Russian economic development, thereby setting into context the above debate.¹

On the basis of these materials (presented in figure 1) it is clear that during the period prior to 1885 Russia experienced a development pattern which was very far removed from the conventional picture of a "pre-industrial society".

In the eighteenth century the economy underwent a phase of extremely rapid growth. From 1718/22-1788 aggregate national income increased five-fold (1718/22-1762 increasing 3.4 times and 1762-1788 1.57 times) raising per capita incomes 85 per cent to 63 rubles. Then, with the annexation of new lands to the south between 1788-1807 they increased once again raising per capita incomes by another 8 per cent to a level (68 rubles) twice as great as during the reign of Peter I and one which was contemporaneously at the very top of the international national income league table. In 1718/22 the average Russian had enjoyed an income which was but two-thirds of his English and three-quarters of his French counterpart. By 1788 he was as rich as his English equivalent and only 15 per cent poorer than the average Frenchman who then enjoyed the peak of his fortunes in the eighteenth century. With the decline in French incomes during the period of the Revolutionary and Napoleonic Wars, moreover, the Russian maintained his position, surpassing the Frenchman and with the Britain rising to the very top of the international league table. He did not, however, enjoy this position long.

Extending the analysis into the nineteenth century it is clear that the phase of eighteenth-century growth was only a part of a longer cycle extending from 1718/22-1838/42 which formed a discrete entity far removed from the stable-state traditional economy pictured in the literature. Russia may have experienced rapid economic growth in the eighteenth century but this had already begun to slacken between 1788-1807 and now came to an end in a series of acute crises in the 1810s and 1830s. From 1807-1838/42 national income rapidly declined so that by the latter date the population experienced abysmally low levels of per capita income - lower than at the end of Peter I's reign (1725) and far lower now, in 1838/42, than those prevailing in its erstwhile rival, Britain.

Following the crisis of the 1838/42 the recovery phase of the second cycle began, initially slowly during the years to 1851/60 and then extremely rapidly. Indeed the 'sixties and early 'seventies witnessed the fastest phase ever in Russian economic growth before retardation after 1874 finally gave way to stagnation in 1881. The

¹For a full discussion of these materials see I Blanchard, *"Russia's Age of Silver". Precious Metal Production and Economic Growth in the Eighteenth Century* (1989), chapter 5 and appendix 2. It must be noted that throughout these lectures, unless otherwise stated, national income statistics are quoted in 1764 silver rubles at constant 1762 prices.

years 1881-1892, which included the base year for both Gerschenkron's and Gregory's series, were thus a period of short-term economic stagnation in an economy already firmly established on a growth path. That phase of stagnation (1881-1892), moreover, ensured that when the path of recovery was resumed in the

FIGURE1 RUSSIAN NATIONAL INCOME 1700-1914.

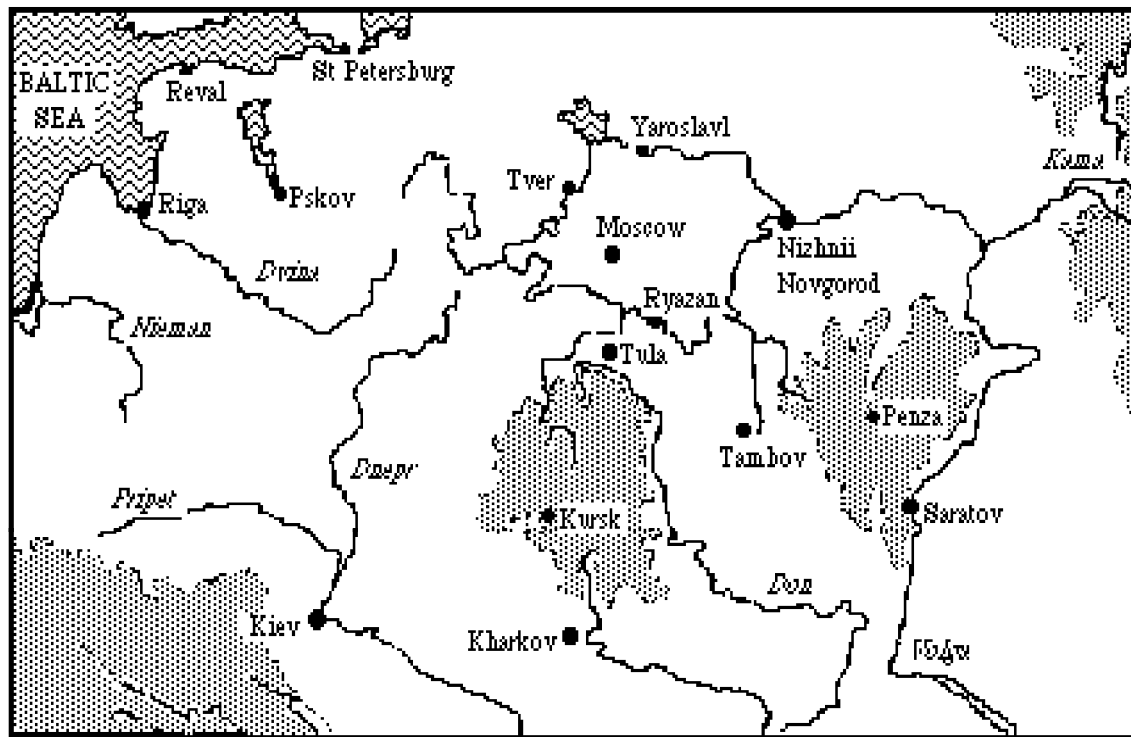


Within contemporary frontiers and in 1764 silver rubles and constant 1762 prices.

Source: I Blanchard, *"Russia's Age of Silver". Precious Metal Production and Economic Growth in the Eighteenth Century.* (1989), table A2-17.

'nineties subsequent increases in national income were insufficient to ensure a full restoration of per capita income to the level of 1807. In 1914 the average Russian, with a per capita income of 60 rubles a year, was still poorer than his counterpart in 1788/1807.

Viewed in a long-term perspective from 1700-1914, therefore, Russian economic development fails to conform to the conventional wisdom concerning patterns of economic growth. This portrays a stable-state, traditional economy undergoing a transition (the "take off") to a phase of self-sustained economic growth, normally associated with industrialisation. In Russia the development pattern was very different. It assumed the form of a series of cycles in ca. 1718/22-1838/42 and 1838/42- 1914 (1928/32) superimposed upon a secular **DOWNWARD** trend which saw average per capita income (in constant 1762 prices and monetary units), measured across cyclical peaks in 1807 and 1914, fall from 68 to 60 rubles. Nor, although this story must await another occasion, did the trend end in 1928/32. Subsequently, Soviet governments achieved sustained economic growth - but without a comparable growth in economic welfare.



Economic Growth in the Eighteenth Century¹

2. Cossack and Tartar: the economy of the trans-Pontine Steppe.

THE MUSCOVITE HEARTLAND. In 1718/22 within the trans-Pontine plain (map 1) there were very few centers where high-yielding agricultural regimes allowed a population of 16-25 persons per square kilometer to be supported. In the territories of the old Muscovite State, moreover, they were singularly lacking. Its political boundaries, might, during the reign of Peter I (1682-1725), have been pushed southwards-allowing some of the fortresses, first established by Alexis three-quarters of a century before, to be reoccupied-but life here was precarious, to say the least, and settlement assumed an almost totally military character. Only about the old capital of the Muscovite lands was there a sufficiently stable level of economic activity to sustain a population density of 16-25 persons per square kilometer. This provided each of them with an average per capita income (42 rubles), which was in any way comparable with that enjoyed by denizens of realms further west. Here, in

¹ Until recently the eighteenth century has been sadly neglected in the literature, a situation now remedied by the publication of *Arcadius Kahan's, *The Plow, the Hammer and the Knout. An Economic History of Eighteenth Century Russia* (Chicago, 1985). For an alternative view as to patterns if not trends in eighteenth-century growth, see also *I Blanchard, "Russia's Age of Silver...", chapter 5.

the provinces of Moscow and Vladimir, Yaroslav and Tula, with a relatively mild climate and an undulating landscape with few hills, marshes and forests there was an abundance of corn, fruit and vegetables, cattle and honey. The exploitation of the land took the form of a low intensity extensive tillage organized on the basis of a three-course rotation, providing only a small surplus for trade so that few men could live outside the countryside. It was a land, accordingly, characterized by a few extensive estates, large numbers of peasants each providing a small surplus to keep a minute number of *boyars* in abundance. A lord's wealth was measured not only in the number of his properties, but also in the diversity of resources he commanded - the ideal was the availability of bucolic abundance with a high level of self consumption and little market impact.

'Towns', accordingly displayed a distinctly rustic character, even Moscow with a population of c.150,000 in winter was more an extended village/town than a metropolis - in summer the population fell to half its former level as the gentry left for their estates and the peasantry to their villages. It was an odd scattered city. At the centre was the inner *Kreml'* and *Kitai-gorod*, with the administration and garrison and merchant community - the permanent elements in the city. Beyond was the *Belygorod* and *Zemlyanoygorod* more rustic in character than the central core, an area of meadows and gardens providing surroundings for the winter houses of the nobility which extended beyond the outer ramparts of the city to merge into the industrial/commercial centre on the river Neglinka. A hive of activity during the residency of the aristocracy in the winter the city was all but deserted in the summer when they returned to their estates. The city existed only as an extension of the aristocratic estate.

Similarly, industrial activity existed not as a separate entity but only as an integrated part of the agricultural scene, though this did not mean it was unchanging or primitive. In the iron industry Peter's protectionist policies, excluding Swedish imports, had provided the basis for an expansion of output and the growth of a new production center in the Urals which by the end of his reign contributed slightly less than half of total production. Its form was, however, dictated by the low productivity character of agriculture. The greater part of its labour-force (150,000) was part-time ascribed peasants who serviced the needs of a small cadre of workmen operating technologically advanced plant. Temporary and transient production of ore, charcoal and chalk coupled with the stockpiling of these necessities allowed continuous production from technologically advanced smelting equipment. Most industry, moreover, worked within such constraints the characteristic form of production being handicraft activity: textiles in Moscow-Vladimir, Kostroma, Yaroslav, Tver; tallow in Voronezh and Tula; artistic handicraft on the Northern Dvina and woodworking on the upper Volga.

Thus, in 1718/22, the Muscovite center and its eastward extension into the northern Urals was characterized by a low-productivity agriculture. This was capable of supporting only a tiny proportion of the population permanently out of the agrarian sector and establishing a framework for industry of work discontinuity ensuring a high overall capital requirement with low fixed capital proportions.

Beyond this centre, development was slight. To the north the winters were long and cold creating a tundra landscape almost devoid of trees. Agriculture was practised by "slash and burn" techniques and the 65° N parallel was the limit of sowing barley and rye. Yet whilst arable existed in a totally alien environment the lush summer grazing provided opportunities for stock raising.

Nor was the situation different in the western territories acquired by Peter I from Sweden during the great Northern War of 1700-21 - Ingermanland, Karelia, Estonia, Livonia and part of Lithuania. Ingermanland, with its port, Narva had always had close economic links with Muscovy and together with Karelia it was integrated into greater Russia. The other provinces, however, remained economically distinct and were administered as a separate province. Under Swedish rule, the main function of the ports of Riga and Reval had been to channel the products of Polish Lithuania, White Russia and the Baltic provinces into Baltic trade. Following the devastation of the war, Riga resumed its earlier role. Reval, however, went into a long period of decline associated with the establishment of St. Petersburg though until the mid-century, it only developed slowly among the marshes of the Neva estuary and was thoroughly hated by the greater Russian nobility. As a hundred years earlier the heartland lay further east - in Muscovy where the population enjoyed a level of income (34 rubles per head in 1700 and 42 in 1718/22) which was modest by any international standard.

THE TRANS-PONTINE STEPPE. Spatially constrained in their activities, the Russians still in 1718/22 (in spite of the annexation of the Ukraine after 1709) exercised little influence in the great land-mass south of the Oka river - in the wooded and open steppe (54°-44° N). This was the land of nomadic peoples-Cossacks and Tartars¹- who operated within a long established economic system intimately related to the eco-system of the steppe lands. Here, in the extensive grasslands extending from the Carpathians to the Urals and beyond, the forces transmuted into soft and subtle influences in the temperate environment of western Europe stood out in stark relief in what was essentially a climatically marginal area. Each change in temperature and precipitation altered dramatically the economic potential of the region and the relationship of the indigenous population to its environment, imposing a long-term pattern of fluctuations on their activities. Phases of enhanced aridity resulted in increasingly sparse grazing, extended nomadic wanderings, and, as peoples encroached on each others "territories", increased martial activity which soon evolved into an economic pursuit in its own right. Alternatively, enhanced levels of precipitation set this pattern in reverse. Stocking levels increased and, as nomadic wanderings became more spatially restricted, peace returned to the the frontier paving the way for a more sedentary life style which was often associated with the establishment of tillage in more favoured areas of the region. Thus as climatic cycles of ca. 75 years periodicity followed each other in regular sequence they imposed a distinct pattern on the forms and levels of economic activity within the western zone of the trans-Pontine steppe. The exact incidence and

¹ William H McNiell, *Europe's Steppe Frontier, 1500-1800* (Chicago, 1964)

intensity of these phases of activity, however, also depended upon their temporal position in relation to a series of climatic long-swings as the so-called "Little Ice Age", which coincided with the first two cycles (1555-1630/1630-1705), gradually gave way to a phase of *réchauffement* spanning the next two cycles (1705-1780/1780-1855). Thus during the years 1550-1850 and even earlier a distinctive pattern of economic activity was superimposed on the herding economy of the western zone of the trans-Pontine plain, as alternating long-swings brought phases of prosperity (1550-1650) and depression (1650-1850), interspersed with cyclical booms (ca.1574-1615, 1630-50, 1705-25 and 1780-1800) and recessions (ca. 1615-30, 1650-1705, 1725-80, 1800-55) to the area, the periodicity/amplitude of the cyclical phase being related to its place relative to the long-swing.

During the phases of climatic/economic amelioration (ca. 1574-1615, 1630-50, 1705-25 and 1780-1800) the herding economy of the region assumed a spatially differentiated bi-nodal structure. In the north, on these occasions, contemporary observers were unanimous concerning the extra-ordinary richness of the grazings. Nor were territorial overlords or indigenes slow to seize the opportunities afforded by the abundant and rich grasslands as first Polish and then, in the eighteenth century, Russian aristocrats carved out large pastoral estates wherein they assimilated the low-cost production system of the Cossacks: the *chereda* or herd of 100-800 cattle which remained all year on the steppe under the management of a solitary herder and his assistant and afforded great prosperity to their owners, in either the form of self consumption or cash from the sale of stock. Far from conforming to the myth of nomadic poverty and deprivation, propagated to this day by "civilising" governments intent on appropriating their grazings and curbing their "rebellious" nature, the Cossacks, like other nomadic peoples, lived in a state of rude abundance. They also in such periods of abundant grazing formed a major component of, and an integrated element in a complex Ukrainian economy. The cattle which each spring were cut-out from the herds for sale were at that time sold on to agriculturalists who would rear them over the summer. Thereafter they grazed the closes set about the neat little villages of white houses on the lower, western slopes of the Ukrainian uplands, manuring the land which, integrated into a field- grass system of husbandry, would ultimately yield up abundant quantities of corn, flax and hemp. Then in the autumn the animals were again sold to those who would drive them to their final destination. In such a manner an extensive nomadic pastoralism supported an intensive agricultural regime and allowed the Cossacks to "drive a great trade in hemp, potash, wax, corn and cattle" which afforded all denizens of the Ukraine an extraordinary high level of income (in 1718/22 some 77 rubles per capita or 85 per cent more than their Muscovite counterparts).

Nor was the situation different at that other node of the western sector of the trans-Pontine steppe - the Crimea, the home of the Krim Tartars. Here, in such conditions, a transhumance ovine husbandry spanning the southern mountains and extensive pastoralism on the steppe lands of the northern peninsula and mainland, integrated with an intensive agricultural regime again yielded an abundance of flax, corn, cattle and sheep which allowed the denizens of the region to drive a major commerce and afforded them a level of income at least as high as their Cossack counterparts.

During phases of climatic deterioration (ca.1615-30,1650-1705,1725-80, 1800-55), however, the stability of these regimes was undermined and a new economic order was born in the steppe. Such phases of enhanced aridity resulted in increasingly sparse grazing and extended nomadic wanderings, and, as peoples encroached on each others "territories", increased martial activity which soon evolved into an economic pursuit in its own right. Both Cossacks and Tartars at these times, accordingly, substituted cash derived from booty and subsidies for the revenues from pastoralism as the steppe economy was destabilized and warfare became a way of life.

For centuries, therefore, the nomadic peoples of the steppe had operated within an economic system encompassing agrarian, commercial and military activities within which the emphasis on involvement could be adjusted to accord with the environmental changes in the climatically marginal lands of the steppe. In whichever phase, moreover, agrarian/military activity sustained a high level of commercial activity, though in different products as animals alternated with slaves and other booty of war, and a high level of income: 68-78 rubles per capita or almost twice the income of the average Muscovite. The ability of the system to survive, however, was predicated on the nomads' ability to equilibrate returns between their changing activities - a position, which was determined by their freedom of action, particularly with regard to their martial pursuits.

3. Western annexation and Muscovite growth 1718/22-1788¹

WESTERN ANNEXATION. THE UKRAINE. Given the extraordinarily high levels of income prevailing amongst the inhabitants of the Ukraine and the western territories in 1718/22, annexation could not but have a profound effect on Russian national income. Indeed, viewed in a short-term perspective it was nothing less than dramatic. By adding a population of some 2.37 million persons with an average per capita income of 77 rubles to an existing Muscovite population of 12.84 million with an average per capita income of 42 rubles it had the immediate effect of enhancing aggregate income by a third and average per capita incomes by 13 percent. Viewed in a somewhat longer perspective, embracing the whole of the century, however, it becomes clear that the effect of annexation was a once and for all one, enhancing incomes, but, with their regional economies trapped at a high-level equilibrium, thereafter making little contribution to subsequent growth. In the short-term, however, contemporaries did not enjoy the historian's ability to perceive the situation

¹ The materials used in this lecture on the Ukrainian economy are based on my own researches whilst the discussion on the Muscovite "Agricultural Revolution" is based on the work of Dr. Jennifer Newman, a preliminary outline of which is provided in her "The Russian Grain Trade, 1700-80" in W.Minchinton (ed.),*The Baltic Grain Trade* (Exeter, 1985). I should like to express my gratitude to Dr Newman for sharing the results of her researches with me.

with hindsight and for the relatively poor denizens of the Muscovite realm, whatever the future might hold, the acquisition of the rich agricultural regimes of the Ukraine and Estland must have seemed very rich prizes indeed.

As has been suggested (in lecture 2) the prosperity of the Ukraine rested in 1718/22 upon the interdependent relationship existing between the pastoralists of the Polish and Russian provinces of Volynia, Podolia, Kiev, Chernigov, Poltava and Kharkov and the more settled agriculturalists of Kursk, which generated enormous quantities of hemp, potash, wax, corn and cattle and allowed the denizens of the region to both "live in much ease and comfort" and drive a major commerce. Yet rich as they were the economy of the newly annexed lands lacked growth potential and, trapped at a high level equilibrium, made little contribution to subsequent imperial Russian economic growth. From 1722 output levels continued to increase, enhancing aggregate incomes (by almost 50 per cent 1718/22-62 and by 50 percent again 1762-92), but growth assumed an extensive character as the frontier was pushed southward into New Russia and the Budjak and the process merely allowed a growing population to be maintained at a high (73-7 rubles) but stable level of per capita income.

Annexation of the Ukraine and other western territories thus had a once and for all effect on Russian economic growth contributing about a third of the incremental growth in the economy between 1718/22-1802 but being eclipsed by changes taking place elsewhere - in Muscovy.

MUSCOVY AND THE WOODED STEPPE. Indeed, the key to the rapid expansion in national income in the Russian Empire in the eighteenth century resided not in the annexation of new territories but in a transformation of the economy of the Muscovite heartland where, following the post-war recovery, aggregate income levels increased by 70 per cent between 1718/22-62 and then by 70 per cent again between 1762-1802. Year after year aggregate income levels increased at roughly constant growth rates but within the period 1718/22-1802 two quite different and distinct periods can be distinguished. From 1718/22-1788 (the period under consideration in this lecture) the Muscovite lands experienced a phase of intensive growth, raising average per capita incomes by some 40 per cent between 1718/22-1762 and then by another 9 percent between 1762-1788. Thereafter, from 1788-1802 intensive growth gave way to extensive as the economy expanded under conditions of diminishing returns.

Whilst, therefore, the events of the eighteenth century left the economies of the Ukraine and the "free territories" of the southern steppe largely unchanged the situation further north was very different. For the first time during closing years of Peter's reign the Russian government was able to contain Tartar incursions, then entering on a new phase of increased intensity (ca 1725-80). Thanks to the reinforcement of the defensive limes from ca. 1725 the Tartars were no longer free to range unimpeded over the northern steppe and to carry their attacks to the very gates of Moscow. For the nomad this marked the beginning of the end, as they could no longer equilibrate income levels, but for the Russian it marked a new beginning as security was afforded the northern steppe lands. The estates carved out here by older

families, like the Naryshkins, or Peter's military commanders, like the Sheremetevs thus from the first enjoyed a security never before acquired. Yet in the environment of the years 1718/22-1788 their potential, although great, was not easily realisable. Distance mitigated against their exploitation to supply northern markets either in the Moscow region or the newly established capital of St Petersburg and on the death of Peter I and during the reigns of his immediate successors, Catherine I (1725-7) and Peter II (1727-30), although the frontier had been extended, old estates re-established and new ones created in the wooded steppe their impact on northern Russian markets was negligible.

Yet suddenly during the reigns of Anna (1730-40) and Elizabeth (1740-62) the whole situation was transformed and the Russian rural economy underwent what may perhaps be justifiably called an "agricultural revolution" as, against a background of a strong monetary inflation, the real price of grain halved during the years 1720-9/1760-9.

The key to this transformation lay in the development of a transport system¹ linking old and new capitals to the potentially rich agricultural lands of the wooded steppe- a waterway system linking Moscow and the Volga to St Petersburg and the Gulf which soon became one of the busiest in the Empire. It comprised two elements: the Vishnii Volochok canal linking the upper Volga system with that of the Volkhov, which was completed in Peter's reign and the Ladoga canal which skirted the southern shores of the lake of that name and was completed in 1732.

Real price of grain in Russia, 1700-80.
(grams of silver per 10 puds)

Years	Urals	St Petersburg
1700-9	105	
1710-9	95	
1720-9	114	129
1730-9	126	74
1740-9	107	73
1750-9	91	64
1760-9	71	61
1770-9	99	74

The opportunities opened up to those who had acquired previously near valueless estates were legion and they responded with alacrity. During the years 1730-60 the foothills bordering the Volga in the provinces of Nizhnii-Novgorod, Saratov and Simbirsk were rapidly settled as a new pattern of mixed husbandry, combining grain and truck crop production with animal husbandry, established the region as the granary of the capital. Further west on the occidental slopes of the central Russian uplands, where accessibility to the Moscow-Volga system via the Oka was more limited, the pattern was the same but the balance within the agricultural sector of the

¹ R.E Jones, "Getting the goods to St Petersburg", *Slavic Review*, XLIII (1984)

system of mixed husbandry was weighted in favour of hemp rather than the less marketable grain. In both areas, however, yields were maintained at extremely high levels not only because of the natural fertility of the black earth (*chernozem*) soils but also because of the availability of abundant supplies of manure due to the integration of the agricultural regimes with the animal husbandry practiced on the extensive pastures of the trans-Don region. Between ca. 1730-60 the rural economy of the wooded steppe was thus transformed as a high-productivity system of mixed husbandry was established producing abundant supplies of cattle, grain and industrial crops which could be delivered to northern Russian markets at steadily falling prices.

The effects of these changes were dramatic. Previously, in what had been a generally high-price region, the provinces about Moscow and along the Kama towards the Urals enjoyed conditions of *relative* plenty, unlike St Petersburg which, being largely isolated from the Russian production areas and dependent on supplies from Reval delivered under imperial fiat, was chronically grain-short and subject to high prices. Forty years later in the 1760s the situation was totally different. Since the 1720s prices had halved and whilst all regions benefited from this price fall, St Petersburg was particularly favoured, an abundant supply of cheap grain permitting a phase of rapid development in the city under the two empresses and allowing the city's provisioning officers to dispense with those supplies which had been directed to the city under imperial edict. By the 1760s old export prohibitions imposed on producers in the Baltic provinces were lifted and as St Petersburg itself became a major exporter they were allowed to convert part of their harvest into vodka to sell on the capital's market.

Nor were the central provinces about Moscow unaffected by these changes. Here, with the availability of cheap grain from the south and east, many peasants abandoned its cultivation and began to specialise in the fattening of Ukrainian and Don cattle, the rearing of chickens and other small stock and the production of vegetables and fruit. Others again abandoned agrarian pursuits entirely and entered upon industrial or commercial careers.

The years 1718/22-88 thus saw a complete transformation of the old Muscovite economy (described in lecture 12) as an "agricultural revolution" in the black-earth lands of the wooded steppe allowed the peasantry of the non-black earth regions of the north to concentrate on the production of high value-added wares: specialist agrarian produce, luxury manufactures and a host of craft products, thereby massively enhancing average per capita incomes.

4. The Imperial Russian economy in 1788

As has been suggested in a previous lecture (lecture 2) the years 1718/22-1788 had witnessed rapid economic growth in the Muscovite heartland of the Empire which served to raise per capita incomes there to within a hair's breadth of those prevailing in the previously more developed lands of the periphery (the Ukraine and western territories, considered in lectures 3-4, and Siberia,) thereby raising both aggregate and per capita incomes in the Empire as a whole to a level which would have been regarded as inconceivable at the end of the reign of Peter I. By 1788 average per capita regional incomes equilibrated with a 6-16 per cent variation about an imperial average of 63 rubles - an average which placed Imperial Russia and Britain second only to France in the international national income league tables. By that time the Imperial Russian economy was a very different one from the strife-torn, war- weary structure of seventy years earlier and in its new form it attracted the scrutiny of contemporary economic arithmeticians whose works allow us in this lecture to investigate its structure.

European Russian National Income in 1788.
(millions of silver rubles, at constant 1762 prices)

PRODUCT	MARKETED	TOTAL
<u>Foodstuffs</u>		
Grain		<u>91</u>
<u>Raw Materials</u>		
grain, alcohol	9	183
flax, hemp etc.	19	370
cattle	37	716
fish	9	185
timber	13	247
furs	3	62
<u>Minerals, salt</u>	3	3
<u>Total raw materials</u>	<u>93</u>	<u>1765</u>
<u>Manufactory</u>	<u>13</u>	<u>25</u>
<u>Metals</u>	<u>5.7</u>	<u>5.7</u>
TOTAL	<u>111.7</u>	<u>1886</u>
EXPORTS		16.2
IMPORTS		11.8
 NATIONAL INCOME	 <u>1890</u>	
PER CAPITA N.I.	<u>63</u>	

From this data the first point that needs to be made is that whilst Russia was undoubtedly rustic it was very far removed from the grain monoculture of a later age. Cereals and cereal products comprised only 14.5 per cent of gross product, the net harvest before processing only 7.4 per cent. Agriculture involving some 13 million 'souls' working 32.6 million desyatini of sown ploughed land, now mainly located on the black-earth soils of the wooded steppe, yielded a harvest of 156 million chetverts or enough to provide every man, woman and child with 3 litres of grain a day of which only a third was used as bread. Indeed bread, which figured so markedly in the diets of the peasantry of western Europe, who had undergone a process of 'depecoration' or growing meatlessness since the sixteenth century, played a small role in the consumption of the Russian populace, so that although endowed with similar quantities of grain to their western counterparts, most was put to other uses (vodka/beer production and animal feed).

During the 1780s the Russian population lived in a very different world to their counterparts in western Europe, their dietary regime conforming to norms which in the west had become historical abstractions. Bread, far from being central to their diet, was merely a subsidiary adjunct, comprising 3.7 per cent (by value) of their total consumption. Their main foodstuffs were produced not from the arable (32.6 million desyatini), but from the intensive cultivation of the garden grounds (6 million desyatini) and the exploitation of the seemingly limitless wilderness beyond which still covered 90 per cent of the land area of the empire. The exploitation of these lands allowed them to sustain a prodigious consumption. At their main repasts the table groaned under the weight of the major staple of their diet - flesh. "On account of the numerous fast days", fish figured largely, average per capita consumption levels reaching some 794 grams (1.75 lbs) a day, but displaying marked intra-annual variations between those times when it was the only legitimately consumable form of flesh and the more normal occasions when it ranked second to meat, some 602 grams (1.33 lbs) of fish complementing the 706 grams (1.56 lbs) of beef and mutton which, either in the form of stews or roasts, provided the centre-piece of the average Russians daily diet. In whatever form it was consumed flesh comprised the main element of the Russian's diet, comprising almost a third (by value) of his total food consumption. Add to this, moreover, a wide variety of other produce - oils, in the form of butter or vegetable oils amounting to ca.166 grams (5.8 oz) a day; vegetables and fruit, sweeteners and liquid milk, amounting to slightly more than a pint a day - which constituted almost half of the the average Russian's food consumption and one cannot but agree with one contemporary who declared that they enjoyed "plenty of wholesome food".

By the exploitation of a wide range of rural resources encompassing fields and gardens, pastures and wastes, forests, rivers and lakes the Russians thus assured themselves a very high level of food consumption but this only comprised some 53 per cent of their total product. Animal feed, in the form of either reserved grain or the products of the hay fields, comprised another 10 per cent whilst the same resources were also exploited to provide the peasantry with raw materials to be made up into clothing, producing enough material every two years to make a complete set of winter and summer clothes (6 per cent), and abundant supplies of materials to

build, heat and light their houses (29 per cent). The average Russian, accordingly, lived in a state of rude abundance.

Averages have only a limited analytical significance, however, either in terms of consumption or employment at prevailing low levels of commercial activity. At this time only some 6 per cent of total product passed through the market and, accordingly, consumption displayed a high degree of regionality as men exploited the resources which were locally available to them to satisfy their needs. Similarly the limited impact of the market ensured that their work in exploiting these resources would be characterised by a singular lack of functional specialization. The work experience of most of the population was encompassed within a basic economic and social unit - the peasant household - which embraced and synthesized into a unitary whole those categories which only in a later age would assume separate identities. For the participants in this unit terms like 'urban' and 'rural', 'industrial', 'commercial' or 'agricultural' did not define the individual in terms of permanent location or function but only delineated a temporal aspect of his unitary activity as a peasant, involved in the life and work of the peasant household.

Such terms only have relevance for a tiny group in society who could legitimately and uniquely describe themselves in such a manner. Just how large this group was is difficult to assess but, measured in terms of the proportion of the population who could live solely on the basis of commercially supplied grain, it amounted to some 865,000 people or almost 3 per cent of the population. Divorced from the agrarian regime and dependent upon the market for their sustenance, this tiny group derived their incomes predominantly from trade and manufactory. Slightly less than half of this number (46 per cent) were involved in the provision of commercial and transport services, deriving ca.25 million rubles for their work servicing the requirements of a domestic and foreign commerce valued at 112 million rubles.¹ The remainder (54 per cent) or some 470,000 workers, were engaged in manufactory or industrial pursuits. To comprehend their work experience, however, it is necessary to sub-divide this group, for many, perhaps a third, were not found in manufactories or industrial enterprises but laboured within the confines of workshops located particularly in St Petersburg. Nor should such enterprises be regarded as primitive because they employed small numbers within the confines of workshop walls. They stood at the pinnacle of manufacturing activity, their labour force, highly skilled and often organized on the basis of an advanced division of labour, returned a per capita product (126 rubles) which was 8-10 times greater than in the manufactories of the Moscow region (13-16 rubles) and 2.5 times more than that of the workers employed in the industrial enterprises of the Urals (54 rubles) and the metal-fabricating workshops of Tula (48 rubles). Taken as a whole, therefore, this sector of the non-peasant economy, embracing all handicraft and artisanal pursuits, manufacturing, and industrial activities employing full-time workers, like the group of workers engaged in commercial activity of a similar character, was tiny. Together they encompassed only 3 per cent of the population and their productivity was no higher than that of the

¹ On this group see in particular *D Morrison, *"Trading Peasants" and Urbanization in Eighteenth Century Russia*, particularly chapters 3-4.

peasantry, their work similarly yielding them an average gross product of 63 rubles a year.

Growth had thus been achieved without structural change. In as far as manpower had been transferred from peasant to non-peasant sectors the effect was at best (including luxury-good workshop output) passive and at worst (excluding this group) retardive. Growth had come from within peasant society not from without. By reorganizing the time-allocatory patterns of family members who were deployed within a spatially extended network in order to exploit the greater abundance of resources available to them, peasant patriarches, during the years 1718/22-88, had created new work opportunities for family members, thereby enhancing not only their individual incomes but also that of the household - and society. Growth had been a product of both better organization and greater resource availability.

5. The 'Indian Summer' of the ancien regime: crisis and recovery 1788-1807

If, as was suggested in the last lecture, eighteenth-century economic growth had been a product of the better organization of manpower deployment within the confines of the peasant household in relation to a greater resource availability, then, already between 1762-88 there were signs that, within the existing economic structure, the point of full resource utilisation was approaching and that the balance between resources was being disturbed. Anyone anticipating this trend, moreover, did not have to wait long to have their fears confirmed.

CRISIS IN THE NORTH In 1786/7-95 the economy experienced an acute crisis associated with a massive bout of inflation. In part the inflation was monetary in character as for the first time in 1787 the government began the issue of unsecured assignats, a process which by 1795 was to set the paper currency at a discount in relation to silver and had introduced the effects of paper inflation to the economy. But if inflation was a product of increased monetary issues it was also a product of market disruptions and declining national product within the economy. The former disruptions in 1786-9 and 1794-5 resulted from direct government intervention in supply systems servicing the commercial grain trade, levying a tax in kind in the black earth and southern regions of the empire, during and in the immediate aftermath of the Russo-Turkish war of 1787-92. As a result of this measure, by which 1.5 million chetverts of grain were taken annually at sub-market prices, the commercial grain market was denuded of supplies and prices rose, but underlying this market crisis, and not entirely unconnected with it, was a much more serious production crisis - the logical result of the increasing resource shortages which had been first discernible in the 1760s.

In 1786/7, 1795 and 1805 famine swept the land, initially affecting the central and southern agricultural regions but subsequently extending its grip over the north and west. A developing ecological imbalance within the agrarian sector, had begun to undermine the agricultural economy. First to feel the impact of these changes during the years 1786-1792/6 were cereal producers in the Ukraine and central Russia (1786-8) to be followed shortly by their counterparts in the middle Volga region (1795-6) where an over extension of the arable element in the prevailing system of field-grass husbandry made cultivation susceptible to any failure of precipitation. Much more serious, however, was the subsequent crisis during the years 1792/6-1802 which affected the north and west. Here the western and north-western regions were particularly badly affected as rapid demographic growth concentrated in the Old Russian provinces of Novgorod, Tver and Pskov and Polish and Russian White Russia undermined the pastoral-forest base of the economy by causing an expansion of cereal cultivation, reducing manuring levels and adversely affecting yields of grain and garden crops like flax and hemp, whilst at the same time denuding the area of its forest cover.

Underlying a series of acute monetary and commercial crises affecting grain markets there thus emerged, during the years 1788-1802, an acute production crisis as within the prevailing agrarian technology the limits of resource exploitation were reached - and exceeded. In areas of particularly rapid population growth the expansion of the area under cereals eroded pastoral reserves, reduced stocking and manuring levels and adversely affected cereal yields thereby reducing the size of the annual harvest, which by 1802 was 23 per cent below the gross level of the 1780s (ca. 120 million chetverts) and net almost 40 per cent below (ca. 68 million chetverts), and destroying the basis of the appendant system of animal husbandry. The days when a growing population could continually open up new resource reserves were seemingly over, raising fears in the population which were in no way assuaged as the economy entered, during the years 1788-1802, upon an acute crisis associated with a marked inflation.

SOUTHERN ANNEXATION AND AGRICULTURAL REORGANISATION IN THE NORTH. In the event, however, the population's fears were not realised as during the years 1788-1807 annexation of new lands to the south once more added new resource reserves to the economy. The effects of the seizure of the lands of the Crimean khanate and other nomadic peoples, following the Russo-Turkish war of 1787-92, were two-fold.

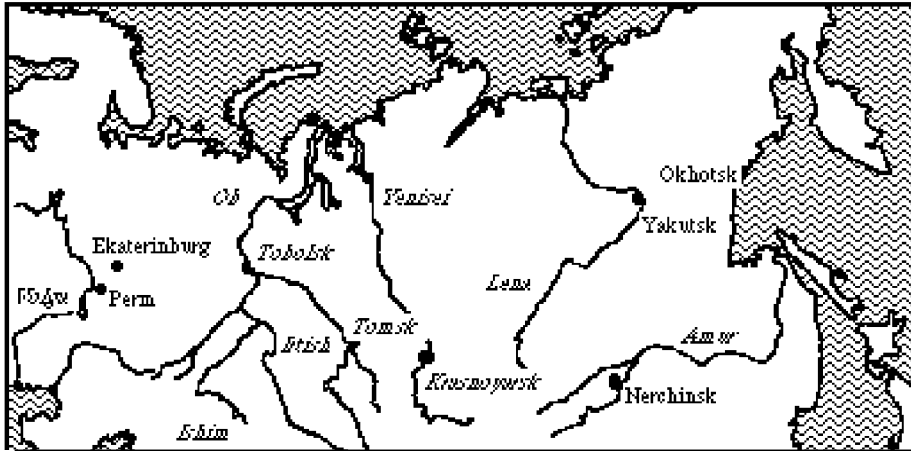
First, there were the direct effects of the acquisition of a high-productivity nomadic regime in the Crimea itself (described in lecture 21) which, like the earlier annexation of the Ukraine, served to raise average per capita incomes within the

Empire by some 5 per cent. To this, moreover, was added the impact of the incorporation of the extensive pastoral regimes of the southern steppe nomads - Kirghiz, Kalmuck, Bashkir, Nogais and Circassian - whose activities, generating an annual income (in current prices) of 1,142 million rubles, contributed to raise average per capita incomes within the Empire by some 29 percent.

More portentous, however, were the secondary effects of annexation resulting once more in the extension of the resource base of the economy. Potential arable reserves increased by about 50 per cent between 1788-1807, setting the pattern of resource availability for the next half century, and, in the short-term ensuring that at 1788 levels of cultivation the proportion of available land utilized for tillage was reduced from 78 to 48 per cent. Both peasant and lord now had room to manoeuvre. Their response to the new resource availability was, however, conditioned by the prevailing crisis in this sector of the economy although it should be noted at this point that in formulating their strategies the question of food shortages was not of central importance. Even at the much reduced levels of grain availability, amounting on average in 1802 to 1.76 chetverts a head, there was more than enough cereals to meet the population's bread requirements, 1.1 chetverts per head, in a situation where their intake of staple foods - meat, fish and oils - was, thanks to southern annexation, in no way diminished. What they were forced to abandon during the crisis was animal feed and 'drink grain,' which had previously comprised 70 per cent of the harvest. For the human population this introduced an element of insecurity into their lives as the malt reserves, which could be used to carry them over a bad harvest, were eliminated. For the animal population, particularly the draught horses, it was nothing short of disastrous. The peasant could no longer afford to feed them oats and with the decline of brewing/distilling they were denied the concentrate feed deriving from the residues of these processes. Hay might still be available but lacking a regular intake of energy feed they no longer had the strength to undertake heavy work, like breaking the virgin sod which was an integral part of the field-grass system of husbandry. It was upon these problems that men pondered, and in attempting to resolve them they sought new methods to ensure a supply of animal feed and to alleviate the risks inherent in harvest fluctuations. Old consumption-allocatory systems thus gave way to new production organization ones resulting in the reintroduction of the OPEN FIELDS. The introduction of regular fallowing in a three-course rotation, even if returning a 15 per cent lower yield (from the crop land) than could be obtained from the field-grass system in optimal conditions, at least ensured a 26 per cent better return than could be obtained from the latter system in its contemporaneously debased state thereby enhancing grain availability to a level which if lower than in 1788 was higher than in 1802 and allowed the draught stock a modest diet of energy food. Nor did they need more, for the new system entailed no

heavy work comparable with the breaking of the sward in the old method. The institution of a repartitional system of landholding, moreover, went some way to optimizing the balance between population and resources whilst the 'scattering' of strips about the arable provided that 'insurance' against harvest failure which had previously been embodied in the 'drink grain' of the earlier consumption-allocatory system. Even as the 'agricultural crisis' deepened during the years 1788-1802, therefore, surveyors, working to lords' instructions, set about reshaping the landscape, incorporating the new reserves of arable into the open-field regime to accommodate the need for fallow land and thereby once again increasing the proportion of available arable land utilised for tillage to 62 percent.

By 1807 the process of reorganization was far from complete, old and new systems continuing to intermingle for many years to come, but the pattern for the future was clear. In twenty short years the landscape had undergone a profound transformation as the new open-field system had been introduced into the central non-black earth region, White Russia, the Volga lands and the central black earth region, incorporating arable land which had remained unutilized and under grass into the agricultural regime to make provision for the fallow necessary for the working of the new system. In these areas cereals and fallow now displaced grass, so that in the northern reaches of the Don, for instance, Clarke, passing across the wooded steppe where cattle had grazed in the 1780s, could report thirty years later that "you travel for miles and miles and see nothing but corn" - and fallow. A grain monoculture had come to the north. Thanks to the new technology the harvest had approximately stabilized at the levels of the 1780s (gross 158.6 million chetverts, net 107.8 million) but to achieve this the area of plough land (crop land and fallow) had increased by 50 per cent (to 49.4 million desyatini), by taking in grassland and forest and thereby destroying the previously important activities associated with these resources. Agricultural stabilization was thus associated with non-agricultural decline, a process which served to reduce per capita incomes in the region by ca. 20 per cent. In the short term, however, southern annexation had saved the day, raising average per capita incomes by a third by the addition to the Empire of a series of high-productivity nomadic regimes who produced an abundance of those products which were declining further north and accordingly in 1807 stabilizing average per capita incomes in Imperial Russia at a level slightly higher than in 1788.



6. Eastward expansion: Siberia and the coming of the Russians.¹

Long before the period under consideration in these lectures, when the peasantry of the Muscovite heartland had made their first tentative steps south of the Oka, during the late sixteenth and seventeenth centuries, taking advantage of the security afforded by the fortresses newly established in the wooded steppe a few adventurers were carving out an empire in Siberia stretching three thousand miles east to the Pacific. As for a century and a half (1580-1730) Muscovy had struggled, often ineffectually, to maintain its frontiers against the implacable hostility of Pole and Tartar, successive Tsars consolidated their hold over the vast empire to the east (map 2). The rate of expansion was rapid. Following the suppression of the Siberian khanate in 1583 by Yermak, a renegade cossack in the service of the Stroganovs, bands of Cossacks and *promyshlenniks* on their own initiative but with official sufferance passed further and further east of the Urals from one river basin to the next. Following the interlocking river systems of the Ob, Yenisei and Lena the Russians erected *ostrogs* (forts) and *zimovyas* (wintering places) creating a network of Russian posts spanning the Siberian *taiga* to the Pacific: Tobolsk (1587), Obdorsk (1595), Mangazeya (1601), Yeniseisk (1619), Yakutsk (1632), Zashiversk (1653), Udinsk (1642), Sredne-Kolymsk and Nizhni-Kolymsk (1642-3), Anadyrsk (1649) and Verkhne-Kamchatsk (1697).

¹ On the fur trade see J R Gibson, *Feeding the Russian Fur Trade* (Madison, Wisconsin, 1969) which also has much on agricultural development. C M Foust, *Muscovite and Mandarin* (Chapel Hill, 1969) deals with the China trade. Mining developments are considered in *I Blanchard, "Russia's Age of Silver"..., chapter 3.

Exploration of these lands was one thing, their successful exploitation quite another, however, particularly as the incoming Russians, like their counterparts at home, were subject to periodic phases of nomadic incursions (in ca. 1615-30, 1650-1705, 1725-80). During the first of these phases of martial activity within the west Siberian plain they had been largely confined to the periphery of that plain. Settlements assumed the form of an arch with its pedestals located at Tobolsk-Tara in the west and Tomsk-Kuznetsk in the east and with the estuaries of the Ob and Taz, on which were established Obdorsk and Mangazeya, forming the crest stone. The Siberian plain within the arch was the preserve of the nomadic Kirghiz and during the years ca. 1615-30 the Russian or native aboriginal who ventured there was foolhardy indeed. Indeed, even within the walls of their fortresses they enjoyed little security, the main centres of Russian settlement, such as Tobolsk, being subject to repeated attack. Beyond these walls they ventured at their peril. In such circumstances cultivation, even in the vicinity of the forts, was impossible. Throughout this first phase of settlement (1580-1630) the incomers were entirely dependent on obtaining supplies of grain from European Russia. They were forced to transport the grain along a communications network which was confined to the riverine system of the lower Ob, Taz and Yenisei - a system which, to say the least, provided only the most tenuous of links between settlements whose inhabitants were constantly threatened with the spectre of starvation. Yet they clung on, and with improved climatic conditions between 1630-50, as nomadic attacks diminished, they were able to consolidate their position between Surgut and Narim along the passage of the middle Ob. Moreover, these defences, unlike those created by Alexis further west, now held during the next phase (1650-1705) of nomadic activity, thereby transforming the whole situation in Siberia. By preventing nomadic incursions beyond the river they opened up eastern Siberia for settlement and brought security to the northern sector of the west Siberian plain. The mid-seventeenth century, accordingly, witnessed a southward movement of the aboriginal peoples, Ostyak, Samoyed and Ket all making the long trek to new hunting grounds and drawing a stream of Russian trappers in their wake.

Numbers increased rapidly, so that by 1709 for the first time incomers outnumbered the native population, and the whole balance of population was subjected to a profound change. As the main transit route across Siberia shifted southward so the old settlements along the now disused northern passage (Obdorsk and Mangazeya) decayed. The Russians henceforth gathered about the nodes of the new trans-Siberian route along the Ob - on the Ob-Irtysh in the west and the Tom-upper Yenisei in the east. Here they established an agrarian regime centred on Tobolsk-Tiumen'; Tomsk-Kuznetz; Yeniseisk-Krasnoyarsk and Angara-Ilim which from 1685 ensured that the Siberian grain deliveries could be stopped "because now they till grain in the Siberian towns and much grain is grown in Siberia." For a century and more, from ca. 1650-1760, it was on this frontier, where the defences were reinforced by the building of new fortresses between 1705-1725 (Minusinsk 1707, Biisk 1709, Omsk 1716 and Semipalatinsk 1718), that Russian settlement evolved. The balance between nomad and incomer gradually swung in favour of the latter as their numbers rapidly increased. Russians were flooding into western Siberia

and beginning to populate the east of the province and with the implantation of villages of free colonists, combining military and agricultural functions, in the lands of the Tara and Barabinskaya steppe after 1763 that region was made secure from nomad raids. This allowed the main transit route to once more shift southwards and it was along the line of this road from Irbitz-Irkutsk that development henceforth took place. From 1763-1800 settlers poured into the land between the new road and the Ob, again augmenting the population of the province and gradually causing the previously isolated nodal settlements on the Tobol-Irtysh and Tom-upper Yenisei to merge into the general agrarian regime of the region.

Siberian population, 1622-1796
(‘000)

Date	Native population	Russians	Total
1622	173	23	196
1662	288	105	393
1709	200	229	429
1737	230	298	528
1763	260	420	680
1796	363	575	939

Already at the beginning of the eighteenth century, therefore, the pioneering phase in Siberian history was over. The nomad largely had been excluded and within the Russian-occupied territories the structure and tempo of economic activity had been set. Agriculture as early as 1660 had been established in western Siberian and apart from feeding the indigenous population it also served to supply the fur trade which from that time was largely confined to the east of the province where the harvest increasingly focussed on the sea otter rather than the previously important sable. This transformation was, moreover, associated with the decline of western markets in the face of American competition and the opening up of new markets in China. The effect of these changes was dramatic. The number of Russians on the eastern seaboard increased rapidly (1700 1-200; 1725 500; 1750 2,000) and ventures were, during the eighteenth century, fitted out for the Commander and Aleutian islands and the Alaskan coast line. As early as 1768 Kodiak island in the gulf of Alaska was reached and permanent settlement followed in 1784. Thereafter the search for the sea otter extended south, finally resulting in the establishment of the *ostrog* of Ross, fifty miles north of the Spanish praesidium of San Francisco. Initially, the trade was conducted by small private companies but as hunting focussed on the American seaboard and voyages extended from 1-2 to 5-7 year enterprises and the Russians came into competition with the Americans and British in the 1780s there was a process of concentration. By 1795 three companies dominated the Russian maritime fur trade: the Golikov-Shelekhov or American Company on Kodiak Island, the Lebedev - Lastachkin Company at Chuvash bay on the Alaskan mainland and the Kiselev Company in the Aleutians. These ultimately were concentrated in the

Russian-American company in 1798/9 which dominated the trade to its dissolution in 1868. The increasing trade, moreover, allowed the maintenance of the important China trade. As late as the beginning of the nineteenth century this comprised as much as an eighth of total Russian trade, for as the supplies of Siberian furs dwindled the eastern *promyshlenniki* were able to sustain the growing trade with Pacific products.

For more than a century from ca. 1630-1780, therefore, the fur trade had made a major contribution to the evolution of the Siberian economy. Its development pattern was a complex one, however, far removed from the continuous drive to the east often portrayed in the literature. Rather it was characterised by an irregular pattern of spatial displacement and economic intensity. Phases of intense activity in the Siberian north-east (in ca.1630-50, 1696-1716 and 1775-1835), normally associated with an active fur trade, alternated with equally intense phases of exploitation of the resources of Dauria-Amuria (in ca. 1650-89 and 1725-75) when activity in the north-east was eclipsed. In these latter periods, initially, activity in Amuria was also concentrated on the fur trade. In the eighteenth century, however, a new force entered the Siberian economy - precious metal production. The mines of Amuria and the Altai rose to a position of European dominance and activity in the workings was such that the pattern of fluctuations was superimposed upon a trend of increasing concentration of manpower and resources in the mining regions where by the close of the century there were the heaviest densities of population in the whole of Siberia.

Russian-Chinese Trade, 1727-1800.
(‘000 rubles)

Date	Total exports	Furs	Furs, % of total
1700	47	38	81
1755	606	423	70
1781	1806	1175	65
1800	6164	2047	33

In the eighteenth century, therefore, the fur trade and mineral industries had contributed to the evolution of a distinctive Siberian economy. Fur trading and mining communities, supported by their own agricultural networks rooted in indigenous peasant society, conducted an extensive foreign trade which brought wealth and prosperity to the rapidly developing society whose population throughout maintained an extraordinarily high level (ca. 65-75 rubles per head) of income.

7. Russia and the North Pacific¹

THE RUSSIAN NORTH PACIFIC FUR TRADE. In 1700 the limits of European knowledge of the North Pacific was defined by the seaway along which the Manilla galleon took passage each year from Acapulco (Mexico) to Manilla (Phillipines) and from thence to Canton (China). Beyond this boundary the only presence was the diminutive Russian settlement at Okhotsk. This was first discovered in the 1640s when Dezhnev became the first Russian to lay eyes on the Pacific. His report, delivered at Yakutsk in 1659, however, thereafter gathered dust as all eyes turned from 1650-1690 to the rich furs of the Amur only to be re-discovered by G F Müller in 1736. Only when the Russians were expelled from the Lower Amur in 1689 did attention again focus on the North-east leading to the slow growth of Okhotsk to 1726 when it became the base for the first of Vitus Bering's expeditions which were part of Peter I's Great Northern Expedition. This ushered in a steady expansion of the Russians along the Aleutian chain:

Bering-Copper Is. (1740s); Near-Rat Is. (1750s); Fox Is. (1760s)
Kodiak (1770-1780s) and Sitka (1800s)

The story of the Russian fur trade was a relatively simple one. On their arrival at each of these groups of islands the incoming Russians rapidly assimilated themselves into the local trading system. Casting anchor at the end of the northern spring (July-August) they began trading with the Aleuts, who in the early part of that season (March-May) had hunted the sea otter to meet their own requirements. The first Russians to arrive in a new location thus became just another purchaser of furs in a pre-existing market structure, acquiring semi-fabricated skins as well as prime pelts. As their numbers and the volume of trade goods they brought increased, however, the Aleuts began to augment the amount of sea otter supplied to the market. This was achieved by both more intensive hunting of the animals and by selling to the Russians supplies which had previously been destined for their own consumption: their dress became increasingly made of seal-skin rather than the otter fur which for them had a steadily inflated opportunity cost. Increased hunting, however, posed problems. The supply of adult sea otter skins (*morskii bober*) was not easily

¹ For a wide ranging survey of maritime activity in the North Pacific: J R Gibson, *Otter Skins, Boston Ships and China Goods. The Maritime Fur Trade of the North-West Coast, 1785-1841* (1992)

expandable. Accordingly as the quantity of furs increased the proportion of skins from young animals (*koshloki*) also grew until finally the skins of pups (*medvedki*) began to appear amongst the goods proffered for sale. This signaled the beginning of the end of the local boom. The female sea otter bore only one pup a year and the killing of these offspring and the younger animals led to a rapid depletion of stocks and - the departure of the Russians for new trading grounds. From 1746-1796 the fur trade thus pursued a peripatetic course. Successive bonanzas in 1746-1762, 1762-1777 and 1778-1798 witnessed a boom-and-bust pattern of activity, peaking (save in 1762-1777) at about 7,000 but always averaging some 2,200 pelts a year, in the Bering, Copper, Near and Rat islands; the Fox and Andreanov islands and the Kodiak archipeligo. Nor did this pattern change when settlement, at Three Saints Harbour on Kodiak (1784-), Yakutat (1796-1805) and Sitka (1799-1802, 1804-), and the suppression of the local Aleuts' and Kodiaks' martial instincts transformed the Russians from traders into hunters. The boom-and-bust pattern of activity continued, though now initially peaking at a higher level of 15, 000 and averaging 4, 000 pelts a year, as the Russian hunters continued their peripatetic course: to Sitka (1798-1822) and the Columbia river-California (1824-1845).

The Russian fur trade thus developed during the years 1742-1842 along classic resource-depletion lines. Successive island groups were hunted-out, creating a distinctive pattern of trade-cycles of about twenty years periodicity. Yet depletion and abandonment of a particular island group was not a product of an absolute destruction of its animal population but was the result of an economic decision, as at prevailing levels of activity merchants were unable to cover the high fixed costs of their enterprises. Thus each trade-cycle was superimposed on a 100-year long-cycle which even as it closed in the final Californian trade-cycle (1824-1845) saw a sufficient recovery of sea otter populations in the Kurile-Commander islands for it to start all over again.

The dynamics of the trade were equally simple. Demand for the traders' products was largely conditioned by conditions at the Kiakhta market, periodic stoppages in 1726-46, 1762-78, 1786-92, 1802-12 and 1817-26 causing recessions in activity among the islands and on the north-east coast of America. The traders also operated within supply side constraints related to the provisioning of their expeditions. Lacking an adequate source of supplies at their point of departure on the Russian Pacific seaboard, merchants in the fur trade had been forced to obtain grain, by way of a long and circumlocutious route, from distant Yakutsk. At best this was an expensive operation. When the Nerchinsk silver mining boom from 1726-1775 created acute inflationary pressures in the region it was nothing short of prohibitive. Merchants were accordingly forced to evolve a new introspective policy in order to assure adequate provisioning of their expeditions. To reduce costs, they eschewed the acquisition of high-cost provisions at Okhotsk or Kamchatka and determined to obtain supplies in passage. Ships departing the Russian mainland in the autumn of the year, sailed not for the fur-rich islands of the Aleutians but rather passed directly to the Commander islands where already by 1754 the sea otter had been hunted-out. Here they over-wintered. From October to April or May crews spent the time gathering provisions for the forthcoming voyage comprising for food, roots, dried

fish and the meat of sea animals, and also fat; and, for making baidars (leather canoes) and clothes, they used the skins of these animals, particularly of sea lions, sea bears, and large seals. In July-August, loaded to the gunwales with food and equipment, they set forth and as from 1754 expeditions passed further and further eastward they were able (save during the years 1762-1777) to eke out their supplies over an extended range of search for furs. Their quest was assisted by the quick turn-round achieved in each of the islands visited as a result of their restricting activity to trading with natives already well provisioned with furs. Only when the Nerchinsk silver mining boom aborted and from 1775-1802 the north-eastern Siberian economy underwent a marked deflation did the Russian promyshlenniks' situation change. Each of the fur trading companies, which in 1799 were amalgamated into the Russian-American Company, was now able to obtain regular Siberian grain supplies and established settlements - at Three Saints Harbour on Kodiak (1786-), Yakutat (1795-) and Sitka (1799-1802, 1804-). This, moreover, enabled the Russians for the first time, to hold permanent groups of hostages, thereby ensuring their control over the local Aleut and Kodiak populations. A small number of vessels thus now regularly shuttled back and forth between Okhotsk and the settlements of the eastern Aleutians. They carried outward provisions and returned with furs. Other ships arriving on the coast could stay for up to four or five seasons and the numbers active there at any one time accordingly increased markedly. Each captain, moreover, could now employ his crew each winter to trap the arctic fox and other land-based fur bearing animals. They were also able to secure the services of Kodiak- Aleut hunters who, carried each spring with their baidars to the hunting grounds, were able to obtain as many as 1,000-2,000 prime sea otter pelts in a single season. With more ships on the coast and each vessel more intensively used, during the years 1778-1798, when not impeded by market-induced restrictions on their activities, the Russian fur traders enjoyed a veritable bonanza as the harvest of sea otters. This once again peaked at some 7,000 pelts a year and was supplemented by enhanced numbers of pelts derived from the trapping of land-based fur bearing animals.

Thus, having established a low-level trade during the years 1746-1776, the traders' ability thereafter to obtain supplies of affordable provisions permitted an increase in activity. The pattern of resource-based trade cycles was accordingly superimposed upon an expanding pattern of commercial activity, which was also subject to a pattern of demand-induced fluctuations. With stoppages at Kiakhta prices fell and maritime activity contracted. The corollary on the Chinese side of the border was that fur prices rose, tea (the principal Chinese export) prices fell and with the highly integrated nature of the Chinese economy these conditions were replicated at Canton.

THE CANTON MARKET From 1762-1778 each stoppage at Kiakhta created new conditions on the Canton markets and the Euro-American traders' response to these from 1768/78 was partly conditioned by reports of the famous navigator, Captain Cook's third and final voyage when, bringing back sample furs from the north-west coast of America found prices elevated (\$50 a piece). This encouraged the British East India Company to chance an investment to explore the potential profitability of

the new trade. With the connivance of the British government it was able, moreover, to maintain secrecy, delaying the publication of the Cook-King report until 1784. This came to naught, however, with the UK publication in 1781/2 of the Rickman-Ellis pirated copies and in 1783 the appearance in the US of Ledyard's journal. Excitement ran high but news of the East India Company's fortunes after 1778 when prices fell, dampened this until 1786 when new trade pattern of commercial activity became clear at Canton. Each stoppage at Kiakhta (in 1786-92, 1802-7 and 1812-17) in lowering prices of tea, raising that of furs opened up new opportunities and provided at least in part the means of exploiting them

Each stoppage at Kiakhta (in 1786-92, 1802-12 and 1817-26) engendered a trade boom at Canton. On each occasion whilst East India Company trade languished, "Country" and American shippers transported goods from about the Pacific region to Canton-Macau to generate cash to finance a buoyant export trade to Europe from China. From 1786-92 one element in this trade was that to the North-west Coast. Thus when in 1786-92 the stoppage in Sino-Russian trade caused fur prices to again rise the British in particular rushed in to exploit the situation:

- (1) Bengal Fur Co. (John Henry Cox-John Meres)
- (2) King George Sound Co. (Messrs. Etches)
- (3) James Strange-East India Company (David Scott)

Their efforts were largely a failure as a result of prevailing British trade patterns which required protracted stays on the coast and suffered from high provisioning costs at Honolulu. The British trade was predicated on high prices and when the Russian trade at Kiakhta was resumed 1792-1799/1802 it collapsed. The Americans who followed in their wake during the years (1799/1802-1812) were somewhat more successful. The key to success was discovered by one O'Cain. He exchanged provisions (from California-Hawaii) against Russian furs. When the Russians were active in the trade the Americans thus benefited, when not the latter could diversify, during slumps substituting indigenous Pacific goods, notably sandalwood, to stabilize their activity. The Anglo-American War of 1812, however, brought this pattern of activity to a close. The Russians (allies of the British against Napoleon) sought to exclude the Americans from their North Pacific preserves, a pattern which was reinforced during the years 1817-26 when trade stoppages at Kiakhta again encouraged American poaching. By their policy the Russians might be able to monopolise the fur trade but they denied themselves access to American-supplied provisions and thus were forced to establish direct links thence. These years thus saw the Russians establish a settlement at Ross, just north of San Francisco, in California and attempts by them to annex Hawaii and the Philippines. They also undertook to supply their settlements with goods by bi-annual round-the-world voyages. Non of these efforts were particularly successful and from 1826-1848 the preceding (1799/1802-1812) pattern of activity was resumed but by this time the trade was declining and the Russians were forced to diversify, exchanging ice and timber against provisions.

POST-1825 TRADING SYSTEMS During the years 1826-48 new patterns of trading were emerging as changes in the international economy transformed conditions on the Chinese market. The post-1810 collapse of Central- and South American silver production, particularly when coupled with a post-1825 increase in world gold output created major bi-metallic disturbances which fundamentally altered the foreign-trade sector of the economy of the Celestial Empire. As international silver prices rose the flow of that metal to China dwindled and from the 1820s was reversed engendering a counter-inflow of Russian gold. In these circumstances specie displaced commodity flows, only price inelastic wares (like opium) being marketable.

Such conditions spelt the demise of the Russian fur trade. The overpricing of Siberian provisions forced the Russians to abandon their exclusivism and once more re-establish trade links to California-Hawaii (at least to 1848) but in a situation where their exchange product -furs - were increasingly unvendable at either Kiakhta or Canton. Inevitably in these circumstances the commercial system involving the old fur trade and its suppliers was doomed.

In its place a new trading pattern emerged

There was a southward shift in the commercial frontier to Canton (tea)-Hawaii (sugar/copra) and California (hides). Each of the erstwhile nodes of the North Pacific system became a source of raw materials in a bi-lateral trade with the Euro-American world, or, became way-stations for those predatory resource-depleters - sealers and whalers- who, engaged in a similar bi-lateral relationship with the Euro-American world, came to be the major transient denizens of the North Pacific.