

Russian Economic History

Lecture 1

Econ 472

Fall 2020

Introduction

- Why Study Russia?
 - The great economic and social experiment of the 20th century
 - How did Russia go from backwards to the first country to launch satellites? To nuclear weapons in one generation?
 - Russia was the last country in Europe to end serfdom and the first country in the world to launch a man in space
 - How did the Soviet Union become a superpower yet remain unable to produce adequate and sufficient consumer goods, even housing, for its citizens?
 - How could Russia and the Soviet Union be a literary superpower, a scientific leader, yet rank incredibly low internationally in personal freedom and personal security?
- Russia is not a normal country

Overview

- Russian Characteristics

- Russia is the largest country. It is the coldest country. More of its population lives in extremely cold climates than anywhere else.
- Russia started as a trading country in Kiev, riverine trade
- Muscovy: Importance of resource dependence
- Does cold climate explain Russia's peculiar history?
 - 1990: the population of Siberia and Far East reached 25% of Russian Federation's total. Population of Canadian Yukon and North-West territories, comparable in climate to Siberia, is only 0.3% of the total
- Serfdom much later than anywhere else.

Russian Empire

Russian Empire, 1913



Real GDP per capita in the Long Run

Markevich-Harrison Diagram



Overview

• Argument

- The Russian economy has been shaped by the rents from its natural resources, mainly oil and gas.
- Resource abundance had profound effects on Soviet industrialization
- Russia might have evolved like any resource abundant economy, but the Soviet experience had a profound effect.
- This transformation of the economy created addiction to resource rents, which primarily derive from oil and gas production.
- Resource abundance has had an important impact on the Soviet experiment, and this is important for drawing lessons about Soviet economic history

Early Development

- Russia's export of furs began in the middle ages and fueled the growth of Kiev, Novgorod, and other cities of the early Rus.
- The exploitation of Siberia was driven by the abundance of beaver pelts, until the exhaustive exploitation of this resource led to near extinction. Indeed, the primacy of Muscovy owes in large part to its leadership in exploiting Siberian fur resources.
- Not just furs
 - "In 1740 Russia produced 31,975 metric tons of cast iron, England 20,017, France 25,970 and Germany only 17,691. It was only from 1805 that Russia, in the production of cast iron fell behind England, from 1828 behind France and the United States, and from 1855 behind Austria and Germany." Baykov (1974: 7)

Question

- Why did Russia squander its lead?
- Why was Russia behind by the end of the Nineteenth Century?
- Need to talk about serfdom, which came late and stayed too long in Russia

Some characteristics of the Empire

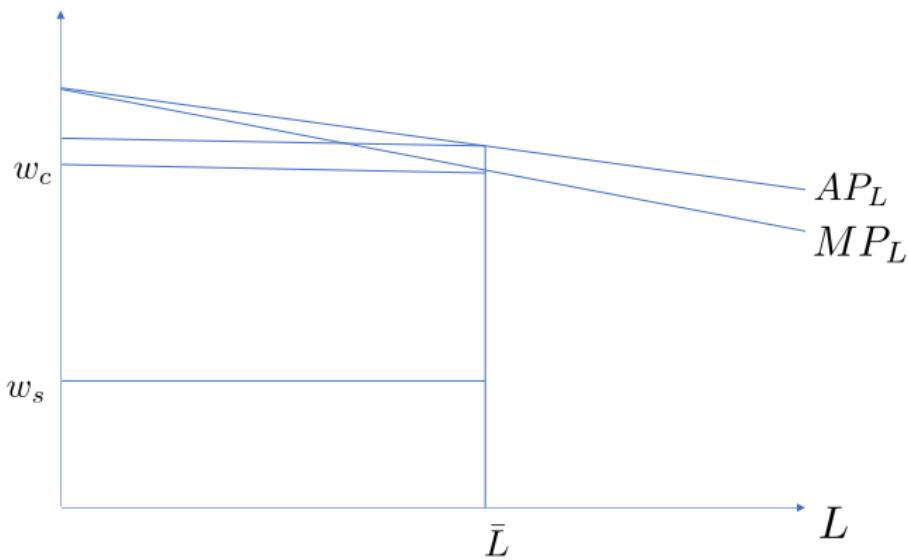
- Population more than doubled from 161 to 1914
- Growth was primarily in rural areas. Urban population grew From 1811 to 1913 6.6% to 14% of total population
- Very multinational. By 1897 Russian empire had 126 million people with 110 nationalities speaking 54 languages
- Although Russian orthodoxy dominated, expansion of territory meant that Catholics, Protestants, Moslems, and Buddhist populations also were important. Jews were concentrated in the Pale of Settlement in Russia and Poland.

Serfdom

Domar on Kliuchevsky:

The economist would recast Kliuchevsky's account as follows. The servitors tried to live off rents (in one form or another) to be collected from their estates. But the estates could not yield a significant amount of rent for the simple reason that land in Russia was not sufficiently scarce relative to labor, and ironically, was made even less scarce by Russian conquests. The scarce factor of production was not land but labor. Hence it was the ownership of peasants and not of land that could yield an income to the servitors or to any non-working landowning class.

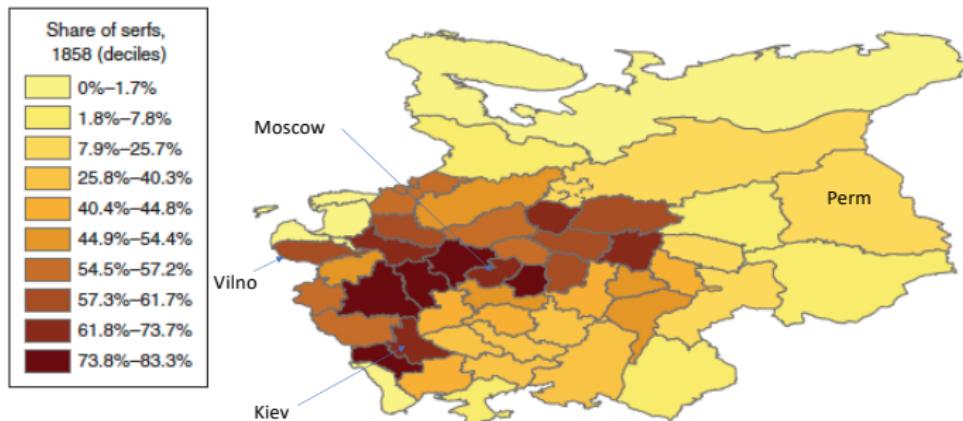
Serfdom



Russian Empire

Geographical Incidence of Serfdom

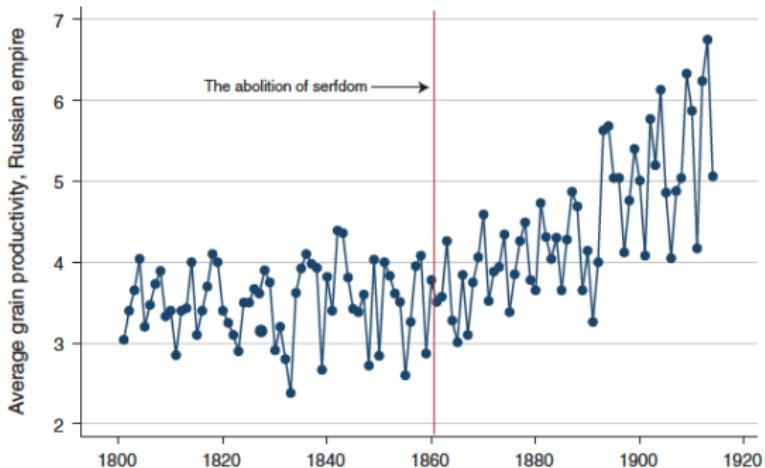
Geography of Serfdom: Serfs in 1858 as a Share of Rural Population



Russian Empire

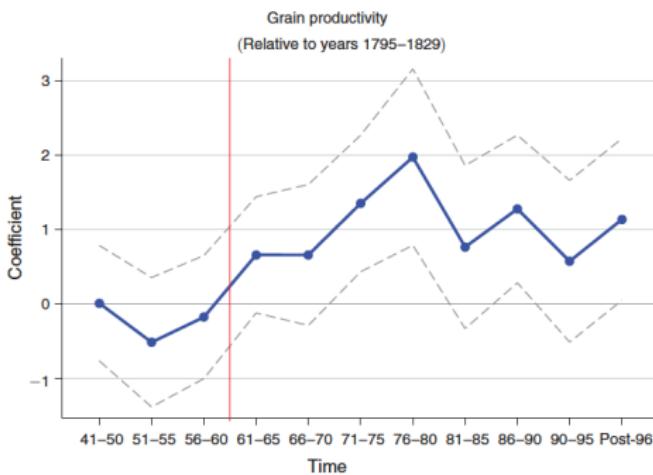
Agricultural Productivity

Dynamics of Agricultural Productivity in the Russian Empire



Russian Empire

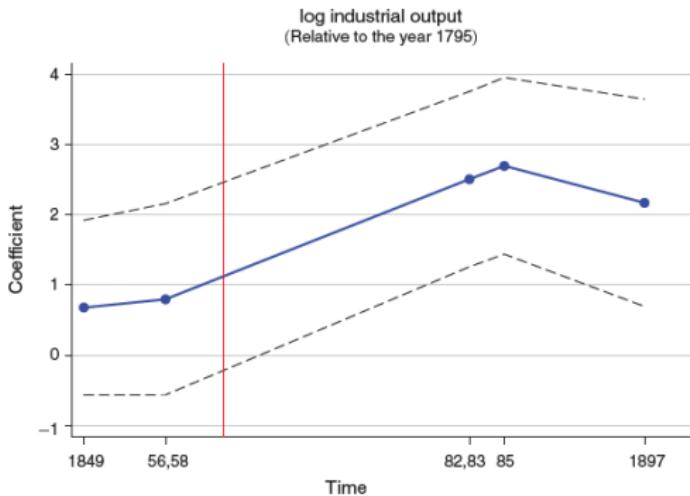
Emancipation Effect on Grain Productivity



The Time-Varying Effect of Emancipation: Grain Productivity

Russian Empire

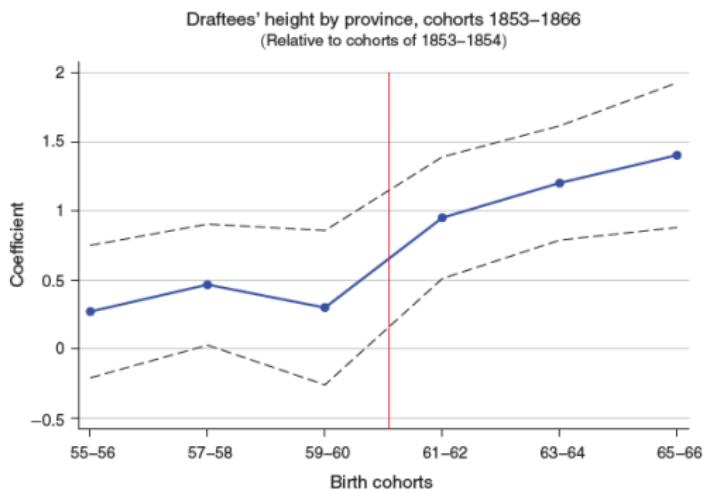
Emancipation Effect on Industrial Development



The Time-Varying Effect of Emancipation: Industrial Output

Russian Empire

Emancipation Effect on Nutrition



The Time-Varying Effect of Emancipation: Draftees' Height

Late Russian Empire Economic Development

Leadership



Sergei Witte



Pyotr Stolypin

Late Russian Empire Economic Development
Major Project

The Trans-Siberian Railroad in the Early 20th Century



Late Russian Empire Economic Development

Trans-Siberian

Along the Coast of Lake Baikal



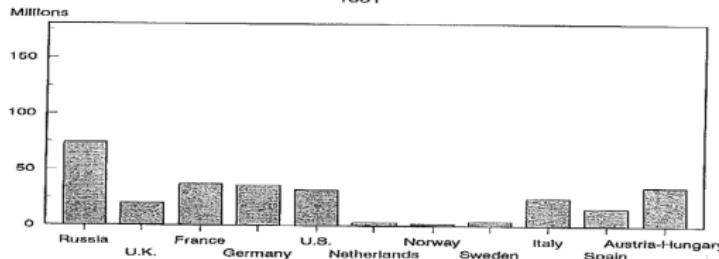
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Population in Comparative Perspective

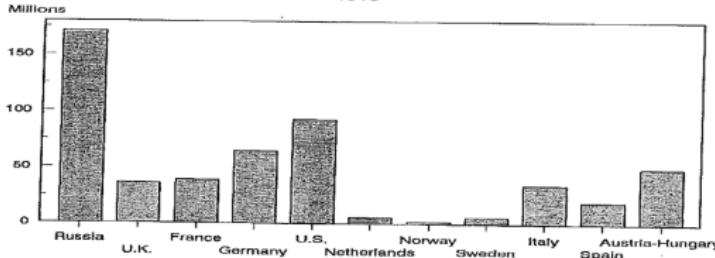
Population in 1861 and 1913

A. Population

1861



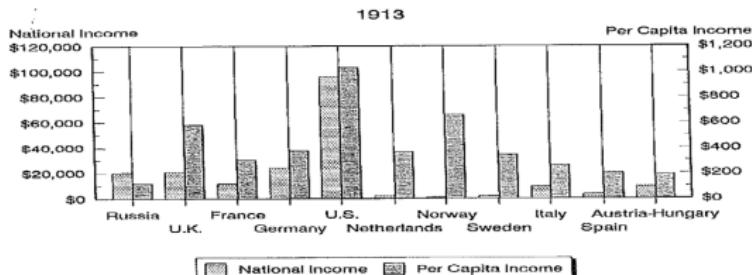
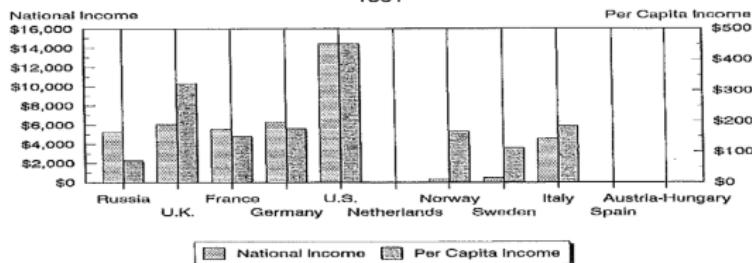
1913



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National Income

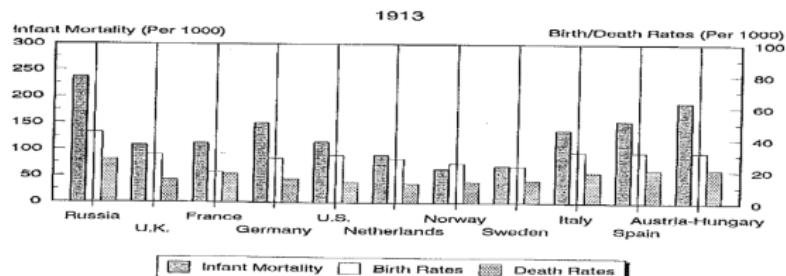
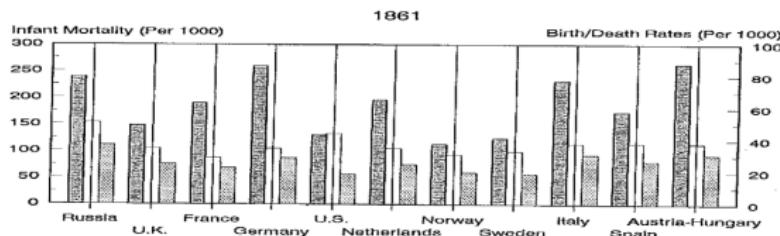
B. National Income (Million 1913 Rubles)
and Per Capita Income (1913 Rubles)
1861



Late Russian Empire Economic Development

Infant Mortality

Infant Mortality, Birth and Death Rates, 1861 and 1913



Late Russian Empire Economic Development

Structural Change

Structural Change: The First Thirty Years of Modern Economic Growth, Russia and Other Countries

	Initial Date of Modern Economic Growth	National Income, 1965 \$ at Initial Date	(A) Agriculture			(B) Industry			(C) Services		
			(1)	(2)	Initial Date + 30 Yrs. (1 - 2)	(1)	(2)	Initial Date + 30 Yrs. (1 - 2)	(1)	(2)	Initial Date + 30 Yrs. (1 - 2)
			Date	Date		Date	Date		Date	Date	
1. Russia	1883-87	260	57	51	-6	24	32	+8	20	17	-3
2. United Kingdom	1786-85	227	45	32	-13	35	40	+5	20	28	+8
3. France	1831-40	242	50	45	-5	32	35	+3	18	20	+8
4. Germany	1850-59	302	32	23	-9	33	43	+10	35	24	-1
5. Netherlands	1865	492	25	20	-5	—	—	—	—	—	—
6. Denmark	1865-69	370	47	29	-18	—	—	—	—	—	—
7. Norway	1865-69	287	34	27	-7	32	35	+3	34	37	+3
8. Sweden	1861-69	215	39	36	-3	17	33	+16	44	31	-13
9. Italy	1895-99	271	47	36	-11	20	21	+1	25	28	+3
10. Japan	1874-79	74	63	39	-24	16	31	+15	21	31	+10
11. United States	1834-43	474	45	30	-14	24	39	+15	31	31	0
12. Canada	1870-74	508	50	36	-14	31	36	+5	19	28	+9
13. Australia	1861-69	760	18	21	+3	31	30	-1	51	48	-3

Source: Kuznets, *Modern Economic Growth*, 88-93, 131-32; Kuznets, *The Economic Growth of Nations*, 144-51, 24.

Note: Generally, the time spans covered by the Kuznets data exceed thirty years. In such cases the percentage changes are apportioned by the factor 30 divided by the number of years covered. Dash indicates data not available.

Late Russian Empire Economic Development

Agricultural Productivity relative to Industrial Productivity

The Growth of Agricultural Labor Productivity Divided by the Growth of
Industrial Labor Productivity, Russia and Selected Countries

<i>Country</i>	<i>Period</i>	<i>Relative Growth Rate</i>
Russia	1883–1913	0.75
Germany	1850–1909	0.67
France	1870–1911	0.99
United States	1870–1910	0.87
Japan	1880–1920	0.86
Norway	1875–1930	1.00
Canada	1880–1910	0.77
United Kingdom	1801–1901	0.74

Source: Gregory, Russian National Income, 169.

Late Russian Empire Economic Development

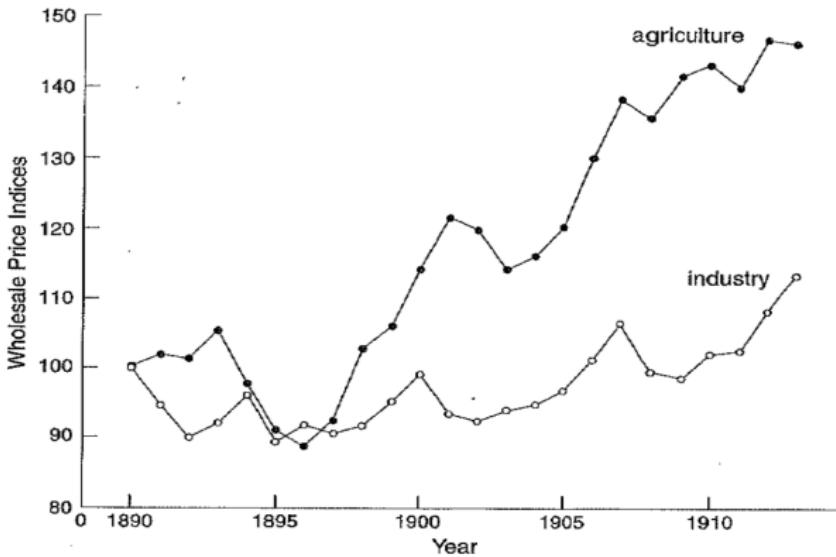
National Income Growth

Growth of the Russian Economy by Sector, 1885–1913

	<i>Output growth factor</i>	<i>Increased value added</i>	<i>Percentage of increased value added</i>
Agriculture	2.04	5250	44.9%
Heavy industry	9.31	1457	12.5
Light industry	3.48	991	8.5%
Handicrafts	2.80	746	6.4%
Transportation/communications	5.88	974	8.3%
Construction	2.33	590	5.0%
Trade	1.89	771	6.6%
Government	3.03	379	3.2%
Housing	1.92	357	3.0%
Medical	2.70	79	0.7%
Domestic service	1.28	58	0.5%
Utilities	1.67	47	0.4%
National income	2.36	11698	100.0%

Late Russian Empire Economic Development

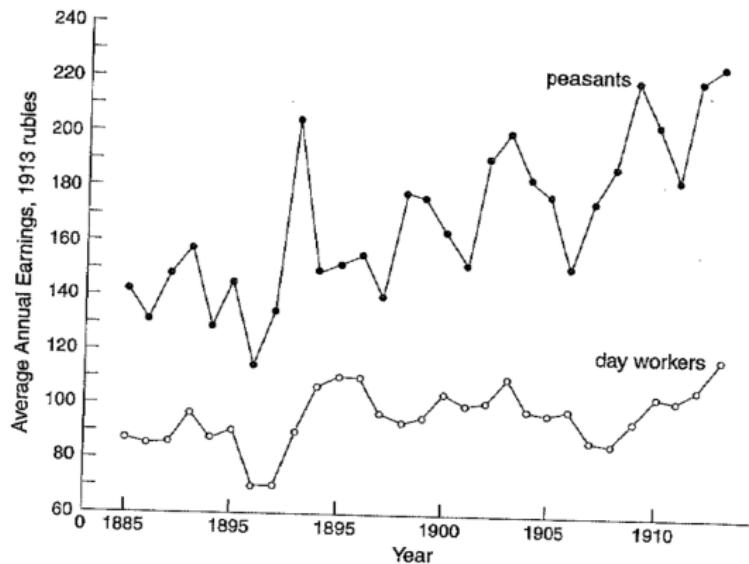
Terms of Trade in Imperial Russia



Late Russian Empire Economic Development

Earnings in the Countryside

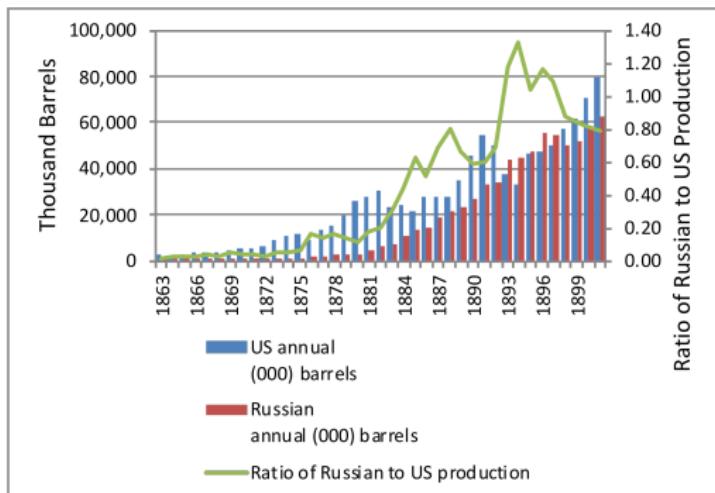
Earnings in the Countryside



Late Russian Empire Economic Development

Oil Production

Early Russian and US Oil Production



Graham's Paradox

- Russia has had many innovators and innovations, but not great success from them.
- *Lonely Ideas*: The idea appears first in Russia but is developed elsewhere
 - Tula Gun Factory
 - Railroads
 - Lighting
 - Lasers
- Problem of commercial exploitation and lack of diffusion
- Why was technological development not sustainable?
- Russia problem: Czarist and Soviet and post-Soviet

Tula

- Tula armory produced rich ornamental guns that won awards
- Master craftsmen at Tula resisted any innovation that would reduce their status to the ranks of the state peasants.
 - Similar to what happened at Harpers Ferry, but not Springfield
 - In Tula most of the armorers worked at home
 - for many, moving to the factory would mean becoming industrial employees instead of artists
- Early success followed by failure to adapt to new technology: interchangeable parts
- Czarist pressure from above and social pressure from below

Some Causes

- Graham argues that Many Russian inventors and scientist show a common trait which he says is important. They think business is dirty.
 - "success in technology is just as much a matter of business acumen as it is technological brilliance."
- But he also argues that Autocrats distrust entrepreneurs
- Lomonosov's diesel innovations, Sikorsky's aviation
- Is it only a Soviet problem?
 - "This conclusion is unwarranted. Neither the tsarist government nor the Soviet one favored individual enterprise and private initiative, and neither provided an environment in which private investors could support talented innovators."

Causes

- Is it cultural?
- Mokyr:

"Russia's uneasy and vacillating attitude toward Western culture and values is an intermediate case. While obviously suspicious of Western values and anxious to protect its Slavic culture, there were episodes in its history in which Russia made deliberative efforts to westernize. Much like other non-Western societies, the transfer was partial and spasmodic."

- But there is the scientific success and innovations appear
- Soviet command model worked against innovation,
 - But why the continuity across regimes?

Defense

- What about Defense?
- Similar stories, early success not sustained
 - semiconductors, computers, space
- Defense sector was priority
- Lack of commercial opportunity for development
- Conflict with political imperatives for control

Argument

- Role of resource abundance
- Extractive institutions result of resource abundance
- In rent abundant economy all wealth looks like rents
 - Russian phenomenon, accentuated in Soviet period
- Rent management system develops to tax rents
- Soviet system exacerbates this via addiction