

Original citation:

Harrison, Mark (2017) The Soviet economy, 1917-1991 : its life and afterlife. Working Paper. Coventry: University of Warwick. Department of Economics. Warwick economics research papers series (WERPS) (1137).

Permanent WRAP URL:

<http://wrap.warwick.ac.uk/90559>

Copyright and reuse:

The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions. Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

A note on versions:

The version presented here is a working paper or pre-print that may be later published elsewhere. If a published version is known of, the above WRAP URL will contain details on finding it.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk

**The Soviet Economy, 1917-1991 :
Its Life and Afterlife**

Mark Harrison

May 2017

No: 1137

Warwick Economics Research Papers

ISSN 2059-4283 (online)

ISSN 0083-7350 (print)

The Soviet Economy, 1917-1991: Its Life and Afterlife

Mark Harrison*

Centre on Competitive Advantage in the Global Economy, University of Warwick; Centre for Russian, European, and Eurasian Studies, University of Birmingham

Abstract

In terms of economic development, Russia before and after the Soviet era was just an average economy. If the Soviet era is distinguished, it was not by economic growth or its contribution to human development, but by the use of the economy to build national power over many decades. In this respect, the Soviet economy was a success. It was also a tough and unequal environment in which to be born, live, and grow old. The Soviet focus on building national capabilities did improve opportunities for many citizens. Most important were the education of women and the increased survival of children. The Soviet economy was designed for the age of mass production and mass armies. That age has gone, but the idea of the Soviet economy lives on, fed by nostalgia and nationalism.

Keywords: command economy, communism, economic growth, incentives, power, security, Soviet Union, war economy

JEL Codes: H1, N44, P20.

Acknowledgements

This draft contributes to a Symposium on The Hundredth Anniversary of the Russian Revolution to be published in *The Independent Review* in 2017. It is based on presentations to the GB-Russia Society in London on 2 March and to a panel on The Russian Revolution in Historical Perspective at the conference of the British Association for Slavonic and East European Studies, Cambridge, on 1 April. I thank the organizers and participants for discussion, and also Michael Ellman, Paul Gregory, and Gavin Wright for comments.

* Mail: Department of Economics, University of Warwick, Coventry CV4 7AL, United Kingdom. Email: mark.harrison@warwick.ac.uk.

The Soviet Economy, 1917-1991: Its Life and Afterlife

We think of Russia before the Bolshevik Revolution as a poor country, and this was so by the standards of other great powers. In 1913, as Figure 1 shows, Russia was far behind the global frontier marked by the United States. But by another standard, that of economic development around the world, Russia was just an average economy. Per head of the population, its real output stood at the global mean in both 1900 and 1913. Over the century from 1913, the eve of World War I, to 2008, the edge of the recent world financial crisis, Russia's real output per head multiplied more than five times – but so did that of the World. So, in 2008, Russia was again an average economy.

If the twentieth century saw Russia develop at the same pace as the global economy, neither faster nor slower, one might wonder why the years between deserve much attention.

In fact the years between were extraordinary. The Bolshevik Revolution began with an economic disaster as output plunged. It did not recover to the prewar level until the end of the 1920s. During the 1930s Soviet production regained the global mean and rose above it. The margin of Soviet advantage over the world average was 10 per cent by at the outbreak of World War II, and 40 to 50 per cent for much of the Cold War. For half a century Russia's output was forced by the relentless pressure of state-led modernization and mobilization. The level of output was pushed up, but there was no sustainable path to the global frontier. With the collapse of the Soviet Union, the pushing stopped, and everyone breathed out. Output fell back to the world average, and then below it, before reverting once more to the mean.

Before and after the Soviet era, therefore, Russia had an average economy – exceptional only in size. And size mattered.

Size and mobilization

Size was reflected in Russia's large population and abundant natural resources. These things mattered, not for consumer welfare, but for power and security. In the world as the Bolsheviks saw it, the survival of states was decided by their relative economic and military capabilities. Lenin (1917: 369) wrote that, while the Revolution had moved Russia forward politically, it lagged economically. "The war is inexorable; it puts the alternative with ruthless severity: either perish or overtake and outstrip the advanced countries economically as well." Greater powers, Stalin (1931: 40-41) observed, had continually beaten Russia "for falling behind, for her backwardness. ... That is why we must no longer lag behind. We are fifty or a hundred years behind the advanced countries. We must make good this distance in ten years. Either we do it, or they crush us."

Power and security were often neglected when Western economists turned their attention to the Soviet economy during the Cold War. Many of them followed a shared outlook, explaining Soviet economic policies as a strategy for growth or a model of development (e.g. Nove 1961; Spulber 1964). They acknowledged that, for the sake of modernization, the Soviet state relied on methods that were authoritarian or paternalistic. The secret police and thermonuclear weapons entered the story, if at all, as undesirable and costly by-products of the quest for growth.

The Soviet archives have shown what this perspective left out.¹ Considerations of national security were decisive at every turning point. As the Bolsheviks understood the world, they faced a double threat. The external enemy was continuously in collusion with the enemy within, and these enemies encouraged and reinforced other, so that threats from abroad incited internal resistance, and conversely, so that internal and external security were inseparably linked.

¹ But Kontorovich and Wein (2009) maintain that the deficiencies of our Cold War understanding should have been obvious at the time.

The economy was reorganized, therefore, to mobilize against the foreign enemy and suppress the enemy within. Forced industrialization allowed the economy to be diversified into mass production of the guns, planes, tanks, and shells that would hold off the external enemy in the “future war.”² Peasant farmers were collectivized to prevent them from starving the towns and the army, as in the Great War. Mass killings eliminated “potential enemies” who cheered the leaders when it was costless to do so, but would betray them in time of war. Intense secrecy and continual surveillance of society would limit the scope for the enemy to organize disruption of the party’s plans and directives.

War was not always in the future. Throughout its history the Soviet state engaged in many actual conflicts, usually with neighbours, sometimes with allies, occasionally reaching around the world. World War II, however, is the experience that continues to validate Soviet rule for many Russians, and not only in Russia. In 1941, Stalin and the entire state experienced a tremendous shock. There were colossal defeats and horrifying losses. Faced with only bad choices, millions of soldiers and citizens chose the other side. Under a lesser challenge, Imperial Russia had collapsed. For a time it appeared that Stalin’s preparations had been insufficient or misjudged. But the Soviet state did not collapse. The command economy was mobilized, successfully prioritized military resistance, and overcame the enemy in the supply of its mass army. At the war’s end, the Soviet Union was starting on atomic weapons and space missiles. The Soviet system replicated itself across Eastern Europe—and spread its message to new allies: be vigilant; defend the revolution against internal and external enemies; prepare for future war.

When Western economists tried to name the system, they often called it a command economy. By design, it directed capacities and efforts to a few public priorities, imposed rigid quantitative controls on the entire supply chain from final products back to food, materials, land, and labour,

² “Future War” was the title of an influential report by the Red Army intelligence directorate in 1928 (Samuelson 2000: 22-28).

and suppressed private motivations in favour of patriotic appeals and direct compulsion. What was the origin of this design? It could be traced not to the theories of Marx and Engels but, as the Polish economist Oskar Lange (1962: 18) observed, to practice: this was what every society now did in time of war. What called itself socialism, he concluded, was really a “war economy.”

To Lange, a reform-minded socialist, this seemed like a mistake. But to the Bolsheviks and their successors there was no mistake. Once in power, they wanted an economy permanently mobilized, if not for war in the present, then for the “future war.”

Judged by the criteria of productivity or welfare that every student learns in Economics 101, the Soviet economy is generally thought to have failed. On such measures, as Figure 1 confirms, it did not catch up and overtake the West. But Lenin, Stalin, and the rest did not take Economics 101, and if they had cared above all for productivity or welfare there were many things they should have done differently.

On the one criterion that they cared about in practice, the Soviet economic project was a great success. Figure 2 shows the Soviet Union in the National Material Capabilities dataset, developed by the Correlates of War project to capture “the ability of a nation to exercise and resist influence” in the world. On a composite measure of national capability the Soviet Union, starting from third place in 1913, rose through the interwar period, made second place after the war, and overtook the United States around 1970.

A large population, rich natural resources, and a mobilized economy were complements in this success. Permanent mobilization enabled the Soviet Union to punch above its economic weight for half a century. But a small country could not have aspired to lead the world in national power, no matter how productive or mobilized.

Living in the Soviet economy

My story tells of the Soviet economy as an instrument for building national power. But it cannot be the whole story. What were the stories of

the hundreds of millions born within its frontiers over two generations, who lived, learned, did business, made a home, made children, grew old, and died?

The business of the Soviet citizen was, first of all, secret. Most business was government business, and most government business was secret. The KGB controlled access to secret matters and used this to screen all office workers for political loyalty. Pervasive secrecy impeded evaluation of policies and the holding of leaders and managers to account. Major outcomes of Soviet rule were concealed for decades: famines, mass killings, the uses of forced labour, and the scale and scope of the military-industrial complex. Official secrecy was matched by private secrets: for good reason, many people hid their true life stories and inner beliefs from each other.

Officially, the business of the Soviet economy was planned by directives that cascaded from Moscow down through ministries and regional capitals to factories and offices. While providing for defence and investment, the directives were supposed to ensure that enough was left for the citizens to lead a decent life. But in the planned economy it was normal that supplies fell short of demands. The outward signs of this were continual shortages and queues. Shortages arose because managers were accountable to the state, not the buyer. The state incentivized them to produce the quota by volume first, and only then look after costs. In factories and offices, fraudulent exaggeration of performance was widespread. Goods intended for consumption were “siphoned” back into production, and cost overruns added to shortages, which were worsened when everyone became a hoarder in anticipation.

To mitigate the shortfalls, everyone made use of privileged connections and traded under the counter—if they could. Sometimes black markets and favours greased the machine by shifting resources to better use, so that the economy ran more smoothly. But sometimes the same activities worked as sand, clogging the gears and diverting effort away from the state’s priorities.

The distribution of money incomes in the Soviet economy was relatively equal, but money was not the key. Great inequalities arose from privileged access to goods and services. The people who waited in line to buy bread or sausage were the unprivileged. To get things without waiting in line, you had to be important—or to know someone who was important, for a privilege could sometimes be borrowed through personal networks. To borrow privilege, you needed something with which to repay later, and to be trusted to repay. Building trust took time and repeated interaction, so the most productive networks matured over many years. Not everyone could do this, so some people just had to wait in line, perhaps forever.

The Soviet economy changed hundreds of millions of lives, sometimes for the better. The improvements were consistent with a focus on building national capabilities. In 1897, barely one in five Russian women between the ages of 9 and 49 could read and write—around half the rate of male literacy. For women, the rate rose to 80 per cent by 1939 and 98 per cent by 1959. Women who were literate were no longer predestined for drudgery in fields and factories. They could work in offices and lead respectable lives. By 1970 women comprised half of students in higher education and more than half of employees in government administration (TsSU 1972: 35, 348, 445). There were still a glass ceiling and job segregation. Working women (that is, nearly all women of working age who were not pregnant or nursing) faced a double shift: housework came after a day working for the state. Since the state could not organize effective contraception, women also bore the burden of family limitation through abortion. In historical perspective, nonetheless, their life chances were strikingly improved.

Because men are less robust than women at every stage of life, the survival of men can illustrate the advances and limits of Soviet public health. For context, since the mid-nineteenth century the world has seen two revolutions in human survival. First, survival in early life was transformed by the germ theory of disease, applied through clean food and water, the control of infections, and antiseptic childbirth. The Soviet

Union saw this revolution applied from the 1920s to the 1950s. Russian males' life expectancy at birth doubled in consequence, rising from less than 30 years in 1897 to more than 60 in 1959 (Goskomstat Rossii 1998: 167-168).

In a second global revolution, survival in later life has been transformed by the science of non-infectious and degenerative diseases, applied through promotion of a healthy urban environment and life style, and by medical and surgical interventions to prolong life. Of this second revolution, the Soviet Union's historical demography gives no sign. In 1989, the life expectancy of a 40-year old Russian male was unchanged on a century before.

When was the Bolshevik century?

Born in the Great War, the Soviet economy existed entirely within the twentieth century, so it is natural to think of it as a product of that century. But the roots of the "Bolshevik century" can be found long before 1900.

The large, centralized Soviet economy was designed to exploit the advantages of mass production: high volume, low cost, standard quality, and interchangeable parts. The century of mass production began in the United States in the 1870s as railways widened markets and corporations learned how to grow by centralizing information and control. That era was ended in the 1970s by the rise of services and by flexible production based on sharing information across the market (e.g. Broadberry 1997).

Another century is also relevant. This was the century of mass armies. In the American Civil War, railways first enabled hundreds of thousands of soldiers with mass-produced weapons to be concentrated on single fronts. The Soviet economy was designed to supply that kind of war. But the era of mass armies was also ended in the 1970s—by cruise missiles which, armed with battlefield nuclear weapons, turned the mass army from a threat into a target (Onorato et al. 2014).

With the 1970s mass production was over, and mass armies were over, and after that the Soviet economy was on borrowed time. It hung

around for a while, then collapsed. Naturally there was more at work in the timing than just deep forces. In the 1980s the Soviet system was shaken at many levels, strategic, economic, political, and moral. The end came when new leaders lost the will to power at any price.

Will the Soviet economy come back to life? Something like it lives on in Cuba and in North Korea. In Russia, the idea of returning to a “mobilization economy” has been floated (Ivanov 2014). Russia today is highly exposed to the world economy through oil prices and international lending. Every war scare repeats old patterns. The Putin administration asks: Will external weakness encourage trouble at home? Will domestic discontent encourage the foreign enemy to intervene in Russia? “Patriotic” scholars and officials ask: Can a new mobilization free Russia from dependence on its enemies? Can it prepare Russia for the threat of future war? As they ask these questions, they invoke memories of forced industrialization under Stalin, and of war mobilization against Germany and Japan.

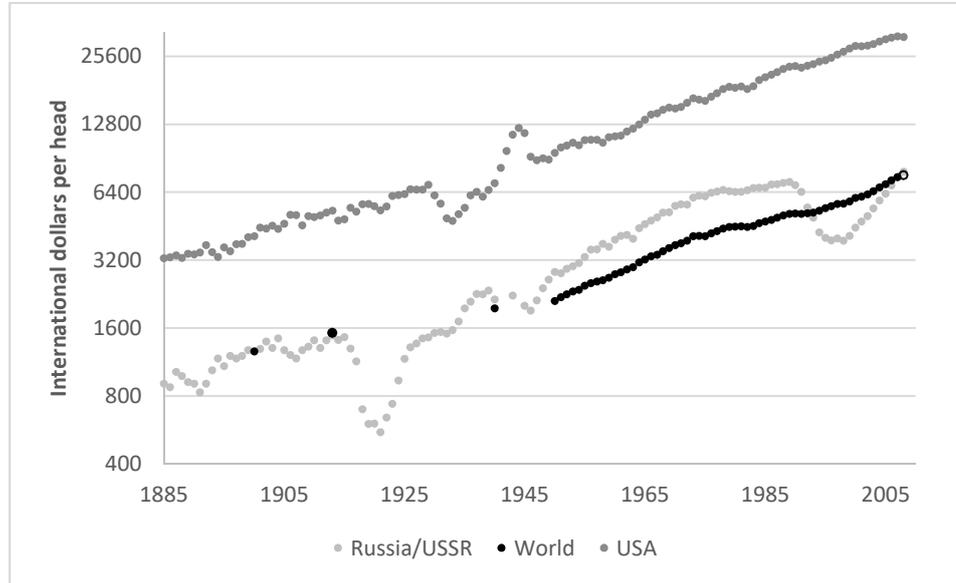
Such thinking raises huge issues. Might readiness for “future war” again become the Russian state’s first priority? In our new era of information-sharing, can a centralized mobilization economy still work? Can a mobilization economy still supply massive military power to a battlefield where nuclear weapons will be delivered by drones? The scholar is curious, but the citizen might hope not to find out.

References

- Broadberry, S. N. 1997. *The Productivity Race: British Manufacturing in International Perspective 1850-1990*. Cambridge: Cambridge University Press.
- Goskomstat Rossii. 1997. *Naselenie Rossii za 100 let (1897-1997). Statisticheskii sbornik*. Moscow: Goskomstat Rossii.
- Ivanov, Andrei. 2014. "Mobilizatsionnaia ekonomika: kakoi ona mozhets byt'?" *Svobodnaia pressa* (October 28, 2014), at <http://svpressa.ru/economy/article/102320/>.
- Kontorovich, Vladimir, and Alexander Wein. 2009. "What Did the Soviet Rulers Maximise?" *Europe-Asia Studies* 61(9): 1579-1601.
- Lange, Oskar. 1962. "Role of Planning in Socialist Economy." In *Problems of Political Economy of Socialism*, pp. 16-30. Edited by Oskar Lange. Delhi: People's Publishing House.
- Lenin, V. I. 1974. "The Impending Catastrophe and How to Combat It" (1917). Reprinted in *Collected Works*, vol. 25. Moscow: Progress.
- Markevich, Andrei, and Mark Harrison. 2011. "Great War, Civil War, and Recovery: Russia's National Income, 1913 to 1928." *Journal of Economic History* 71(3): 672-703.
- Nove, Alec. 1961. "The Soviet Model and Under-Developed Countries." *International Affairs*, 37(1): 29-38.
- Onorato, Massimiliano Gaetano, Kenneth Scheve, and David Stasavage. 2014. "Technology and the Era of the Mass Army." *Journal of Economic History*, 74(2): 449-481.
- Samuelson, Lennart. 2000. *Plans for Stalin's War Machine: Tukhachevskii and Military-Economic Planning, 1925-1941*. Basingstoke: Macmillan.
- Singer, J. David, Stuart Bremer, and John Stuckey. 1972. "Capability Distribution, Uncertainty, and Major Power War, 1820-1965." In *Peace, War, and Numbers*, pp. 19-48. Edited by Bruce Russett. Beverly Hills: Sage).
- Spulber, Nicolas. 1964. *Soviet Strategy for Economic Growth*. Bloomington: Indiana University Press.
- Stalin, J. V. 1949. "The Tasks of Business Executives" (1931). In *Works*, vol. 13 Moscow: Foreign Languages Publishing House.
- TsSU. 1972. *Narodnoe khoziaistvo SSSR. 1922-1972. Iubileinyi statisticheskii sbornik*. Moscow: Statistika.

Figures

Figure 1. Real GDP per head of the United States and Russia/the Soviet Union compared with the World, 1885 to 2008 (international dollars and 1990 prices)



Source: Data by Angus Maddison at <http://www.ggd.net/maddison>, except Russia from Markevich and Harrison (2011). Territorial coverage: Russian Empire to 1913, then USSR and Former USSR.

Figure 2. Great powers in the international system, 1913 to 1987 (selected years), by the composite index of national capability



Source: The National Material Capabilities (ver. 4.0) dataset, described by Singer et al. (1972), and available at <http://www.correlatesofwar.org/> (accessed 7 January 2016).

Notes: The composite index of national capability combines six measures of a country's relative weight in the international system at each point in time: total population, urban population, iron and steel production, energy consumption, military personnel, and military expenditure. Austria-Hungary is omitted.