Lessons from Trade and Payments between Centrally-Managed Economies

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All grand schemes to change the world tend to be far better at pointing out the failings of the *status quo* than at providing detailed plans on how to improve the situation, and particularly at showing – or even at outlining – how to achieve this ideal state. The catastrophically murderous utopias of the twentieth century proved no exception to this rule, but also managed to wreak devastation on a massive scale. It is worth recalling the background to these utopias, which can teach us lessons that can – and should – be generalised.

A society of the future without blueprints

The founders of Marxism made a virtue out of a necessity. In contrast with the numerous so-called utopians of the 19th century, they considered themselves superior – or 'scientific' – because they did not 'draw maps of the future', or certainly not in any detail. Instead, they stuck to the broadest of outlines. Their vision of tomorrow's society would be a continuation of the grand trends of the 19th century Western Europe, and at the same time a dialectical negation of them. Friedrich Engels, in particular, lived to see the first phase of the technological revolution of the late 19th – early 20th centuries. He saw many of the seeds of the future in this revolution, which would bring about huge productivity gains and goods in abundance as a result. Crucially, Karl Marx had already highlighted the Coasian contrast between hierarchically structured industrial organisations and supply and demand-based markets. In the society of the future, and the former would win over the latter – on an economy-wide and international scale.

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This remained a fundamental pillar of pre-World War I socialist thought. German and Austrian theoreticians added little to what they had adopted from Karl Marx and Friedrich Engels. The argument remained unchanged, despite challenges from the Austrian School of theoretical political economy, which should perhaps more aptly be called social philosophy. It was never answered in any way before Oskar Lange, the general equilibrium economist at Chicago University, provided a neat argument for market socialism in the 1930s. Lange returned to his native Poland after World War II, but there is no evidence that he intended the market socialist solution to be implemented in practice. In Poland, as in many other Central European societies taken over by the Soviet Union and its local subordinates, the only solution available was to adapt the Stalinist Soviet model of central management and – over time and across countries to a varying degree – the model of dictatorial political regimes too.

This was a huge paradox. Not only had there been no 'map of the future' available. In addition, towards the end of their lives, both Marx and Engels spent a great deal of time pondering whether their historical schemes were at all applicable to Russia. Early in his life Marx had argued that Russia was little more than a peculiar example of the oriental despotism most pronounced in China. The country nevertheless had vibrant revolutionary movements with what the Marxists would call a utopian world-view. Over time self-defined Marxists also emerged. Marx died in 1883 before these movements arose and Engels, who lived until 1895, was also unable to provide an answer to Russian 'scientific socialist' dilemmas.

As late as 1917 Vladimir Lenin, an emerging Russian Marxist theoretician and aspiring revolutionary leader, had resigned himself to the thought that 'we, the Revolutionary elders' would not live to see socialism in Russia. He was 46 years of age at the time. In fact, the Tsarist regime collapsed speedily under the pressures of World War I, industrial development and political protests. After a civil war the mortally ill Lenin and his comrades found themselves leading a huge country ranging from the borders of Poland and Finland to the Pacific Ocean, from the Arctic to

Central Asia. Russia was an agrarian country, where industries and cities had grown fast, but peasants accounted for the overwhelming majority of population. They had only been freed from serfdom in the 1860s. As a key political concession, the peasants had been promised land-rights by the Bolsheviks or Communists, as the Left-wing Russian Social Democrats called themselves after the revolution. This promise was to be revoked in dictatorial fashion and with deadly consequences within less than just ten years.

As is sometimes the case in history, the total collapse of the Tsarist regime gave way to revolutionaries who had not expected to reach power, and had little idea of what to do with it. The Socialist revolution was supposed to take place in highly developed Germany, which would somehow then show the way and provide the models for Russia and other less developed societies. Having gained power, however, the Russian communists were not about to give it away. In their view, the hierarchical ways in which war economies had been organised in Germany and elsewhere, and the ruthlessly military organisation of the Russian society fighting a Civil War proved important glimpses of the Socialism-in-One-Country solution to be built in time.

It is somewhat incredible – and another lesson to be learned – that despite all this, the Soviet centrally-managed system was established in just a few years, basically between 1928 and 1932. More strangely still, and against all the odds, it survived until 1990/1991. Even then there was no fundamental economic reason for it to collapse, or at least not in the absence of basic policy mistakes committed by the Gorbachev leadership, which was advised by the best Soviet reform economists of the time.

Before the system could be established, however, Russia had to take a breather and recover. It also had to re-organise itself, and consider what to do next. The years from 1921 to about 1927 were a peculiar period. The foundations of centralised political dictatorship were laid, but at the same time, some liberties were allowed in the economy. The Golden Age of Russian arts, literature and sciences is usually considered to span several decades prior to 1914. A Silver Age followed in the 1920s.

Several key economists of the 20th century had a Russian background, but they or their parents left the Soviet Union early. Mathematical economics had been introduced in Russia by V. K. Dmitriev at the turn of the century. He was also an early precursor of the input-output–thinking further nurtured in the 1920s and refined by Wassily Leontief, who left the Soviet Union in 1931. Key issues of economic development were later addressed by Alexander Gerschenkron, who, however, left Ukraine as a teenager in 1920, and was educated in Austrian Economics in Vienna. Evsey Domar, originally Domashevitsky, was born in Lodz, Russian Poland, and raised in Harbin, Manchuria, where many Russian emigrants resided at the time. He moved to the United States in 1936.

The post-revolutionary brain drain deprived the Soviet Union of a generation of high-class economists. It is true that some economists educated during Tsarist rule had key roles in the development of Soviet economics, even until the 1960s and early 1970s. Often in disguise, and with varying degrees of public acceptance, people like V. V. Novozhilov and Stanislav Strumilin were carriers of earlier traditions, and to the expert eye, especially since the death of Josef Stalin in 1953. The most important Soviet economist, however, was Leonid Kantorovich, born in 1912. He was the sole recipient ever of the Nobel memorial prize in economics born and living in a centrally-managed communist-dominated country, and originally a Leningrad mathematician. An early developer of linear optimisation and optimal planning theory, he proposed his methods for application to Soviet planning authorities in 1940. They, however, probably did not understand what Kantorovich had written about, and had other, more pressing worries to think about. In all events, they lacked the computing capabilities and credible statistics that would have been needed to back up Kantorovich's ideas. Optimal planning theory later rose to be the prominent challenger of Marxist-Leninist – as it was by then called – orthodoxy. It provided useful tools, but failed to modernise Soviet central planning in the way that Kantorovich and others wished.

The USSR was the first country ever to announce, publicly and with a lot of fanfares, high growth as the overwhelming economic policy target, and this happened with the first five-year plan in 1928. The Soviet economic debates of the Silver Age had little, if any, direct impact on the plan. The planning apparatus in existence until the collapse of the Soviet Union was developed over just a few years. It is true that Soviet economic planning and management probably did not have the degree of consistency in practice that they did on paper, which is so evident now to economists and economic historians, who have taken a thorough

backward look at the turbulent years from 1928 to about 1963. Statistics were mixed with propaganda, errors and lies. Given the speed and turbulence of change, what actually happened is uncertain at best. There is, in any case, little doubt that the Soviet economy grew rapidly in the 1930s and also, with the recovery from the war, in the 1950s.

Its growth performance had two roots. The country's investment ratio rose from its traditional level of around 10 percent to 30+ percent in the course of just a few years. Deciding on the allocation of investment was something that the Communist leaders always wanted to retain as their prerogative. There was never a clear-cut dividing line between political and economic decision-making. In the beginning, as the existing dictatorship – some would even call it despotism – made it possible to keep the list of priorities short, it included investment goods and military equipment. Karl Marx had already argued with numerical examples in his often neglected *Das Kapital,* volume 2, that a growth economy needed to increase the production of investment goods faster than that of consumer goods. The Soviet system first made this an inviolable dogma, but as despotism gave way to dictatorship, and finally to a tough form of authoritarianism, consumption could no longer be neglected. This fact was driven home first in Eastern Germany in 1953, then in Hungary, in the Soviet Union (in Novocherkassk in 1962) and finally in Czechoslovakia in 1968. Priorities proliferated, but the political leadership still wanted to have the final say on investment allocation. Work for them, however, was getting more complicated. Economic advice was called for, but it was never allowed to question the fundamentals of the system.

As a result, there was always little for the plants to decide. This was in contradiction with the proliferation of priorities. Here was a key reason for the slowdown in growth culminating in economic stagnation in the early 1970s. Political stagnation also set in that was to continue until the perestroika policies of Mikhail Gorbachev as of 1985.

Tinkering at the margins, not reforming

The situation was deeply paradoxical. Proposals to improve the system had been called for and delivered ever since the early 1930s. They could never, however, come even close to addressing the fundamentals of the system. There was, over the decades, only one important proposal for radical economic reform. In 1970 and 1971 Nikolai Petrakov, a prominent Soviet economist, proposed for the Soviet Union what was actually to be the original Chinese economic reform concept of 1978. He was rewarded with a publishing ban of four years. The Soviet model had proven incapable of reform, at least outside of China. Petrakov was born in 1937. As one of the chief economic advisors of Mikhail Gorbachev, Petrakov belonged to the last Soviet generation who still hoped and worked for an improved, more efficient and humane centrally-managed society. Later generations would not share such illusions.

The Soviet high investment share growth model was formalised as the Domar–Harrod model in the 1950s, but Soviet economic growth can also be seen from another angle. Like in 19th century Britain, labour was moving from low productivity farms to higher productivity factories, from the countryside to cities and towns. The scale of movement was huge in the Soviet Union, and its speed unprecedented. Only a dictatorship combining coercion with incentives like access to better housing and improved access to food could implement it. Several millions of peasants perished.

One more lesson emerges. The Soviet model itself was not planned. No blueprint for it ever existed. Economists were encouraged to tinker at the margins, but attempting to offer proposals on deep reform was highly risky. The system, as it emerged, nevertheless had a logic of its own: resource mobilisation with ensuing excess demand in key sectors, priority-based planning and soft budget constraints. The fact that it did follow some logic, so it must be concluded, also provided the system with a survival capability. This and much more was scrutinised by Janos Kornai in the 1970s and 1980s.

Foreign trade and investment

Until 1945 this was Socialism in One Country, not by choice but by necessity. Foreign trade and investment had been important for Tsarist Russia. A simple structure of flows had emerged. Russia had become the major grain exporter of Europe. Investment goods and luxuries for the elites were imported. Foreign investment, both direct and financial, was important too. The Swedish Nobel brothers established the first modern oil industry in the world in Baku, today's Azerbaijan. They also built the first-ever commercial

oil pipeline, from the Caspian to the Black Sea. Siemens and many others followed suit.

The reform-minded civil servants of late Tsarist decades like Sergey Witte and Pyotr Stolypin detected a colonial trade pattern here. Exchanging grain and wood for technologies and luxury goods was not a matter of rational division of labour for them, but somehow humiliating. This complaint was prominent all through the Soviet decades, and is still heard. One must ask, however, what might – in addition to large domestic markets – be the relative advantage of Russia without the blessing of rich natural resources. Without them, Russia would be badly squeezed between low-cost Asia and high-technology Western Europe.

These Tsarist-era foreign investments, however, were lost in the Communist revolution. The Soviet Union had a large domestic market, and while some potential investors were tempted in the 1920s, after 1928 the Soviet Union essentially became closed territory. Technology imports for industrialisation, however, played an important role. In propaganda films, rows of tractors plough the black earth of Ukraine. Looking carefully one sees Fordson written on their sides. A Ford plant had been imported, using money earned from grain and wood exports, and established in Leningrad. There are many other such examples, but only for the priority industries. A large share of technology imports were negotiated, while others were, and still remain, non-negotiated, and are based on scientific and industrial espionage and related activities.

To simplify a complex picture, the Soviet economists of the 1920s were debating paths of economic development. Stalin and his colleagues chose a ruthless dictatorial path that had been previously proposed by nobody. Since the 1930s most people calling themselves political economists engaged in propaganda and scholasticism. There were a few proponents of planning rationalization, like Kantorovich mentioned above. The post-Stalinist generation included genuine reformers like Petrakov. But all through the decades, as far as we know, little if any scholarly attention at all was devoted to the foreign economic relations of the Soviet Union. Ideologically, the country was supposed to be the model of a bright revolutionary future, but what the economic relations of future communist and aligned countries were to be like was not discussed. Perhaps that was all supposed to be the Soviet Union magnified, but by the 1950s and 1960s that simply was not a credible image of future by any stretch of the imagination. It is true that there were economists specialising in developments in Eastern and Central Europe, but they were scarce, severely constrained by political orthodoxies that changed over time, and had little impact on Soviet domestic discussions. Ignorance of China, India, Cuba and Vietnam was wide and deep.

The Second World War brought about three unforeseen additional inflows of foreign technology. The first one was lend–lease assistance provided by the United States. It was particularly important to the mobility of the Soviet military from Moscow to Berlin. Small Studebaker trucks are legendary in Soviet war novels, and the aggregate figures are imposing: 375,833 trucks, 51,503 jeeps, 14,795 airplanes and 185,000 telephones, as well as almost half of the tyres used and half of the trails built during the war. The scale of the support received by the Soviet Union is about one third of the assistance received by Britain.

The second inflow was imbedded in war reparations. The allied powers had agreed in 1943 that the ancient tradition of imposing a burden on the losers in war would also be observed in the case of the Second World War. The Versailles Treaty had imposed a probably non-excessive burden on Germany, but unfortunately stipulated that the reparations should be paid in currency, which Germany was actually largely unable to earn. After 1943 the value of war reparations for countries like Bulgaria, Romania and Finland was established in dollars, based on what were supposed to be 1938 prices. Fortunately, the reparations were to be paid in commodities, not in currency. In the case of Finland, for example, most reparations were paid in engineering industry products like vessels and steam locomotives for trains. They were a useful contribution to the excess demand economy that the Soviet Union was at that time, particularly as the country had become a truly Baltic Sea state by taking over the Baltic countries, and its stock of locomotives had suffered badly at war.

Crucially, the Soviet leadership was thinking deeply in terms of geopolitics. One main current of Russian 19th century thinking had defined enlargement as the Russian national idea. A victory in the Second World War offered the possibility to once again pursue both direct and indirect enlargement. The Baltic countries were annexed and Poland was geographically shifted westwards. In 1945/46 the Soviet occupation zone of Germany was essentially looted. Based on an agree-

ment between the Allied powers, the Soviet Union took over German property in occupied lands. In Austria, property held by the Jewish population had been taken over by Germany after 1938. Some 300 companies were turned into Soviet property in eastern parts of Austria as a result.

According to current, very uncertain estimates, the value of property transferred from Hungary may have been 1.5 billion dollars, while that from Austria may have amounted to 1.4 billion, 1.5 billion from Romania and property from the German occupation zone was worth 10–19 billion dollars.[1] These figures are in dollars for that period. Adjusted for inflation, today's values may be ten times larger, in other words simply huge. These were not promising starting points for relations during the years to follow.

Transporting the Soviet model

Soviet geopolitical thinking argued that after war, victorious states would change occupied states according to their own models. A communist political take-over was complete in states ranging from eastern parts of Germany to Bulgaria by 1948. Yugoslavia was a different story, and Finland was never occupied and always remained a democracy with a market economy.

The American approach to preventing a repetition of the Second World War was not totally different. A new constitution was established in Japan. After the original idea – also supported by the Soviet Union – of making Germany a militarily weak agrarian-industrial state was abandoned, the Western Allied states helped West Germany to stabilise its economy and embark on the *Wirtschaftswunder*. The Marshall Plan is remembered for the monetary aid that it provided, but more importantly it was, as Barry Eichengreen and others have noted, the largest scale technical assistance programme of all times. It is inconceivable that the transformation of Western Europe would have been as fast as it proved without the guiding hand of the United States. In just ten years Western Germany was being integrated into military cooperation between democratic states, the spaghetti bowl of some two hundred European bilateral trade agreements was replaced by the beginnings of economic integration, welfare levels were rising, and there was no probability of Communist or any other extreme left – or right – domination in any of the countries involved.

The availability of democratic alternative political leaderships in key countries like Western Germany and Italy, but not in Spain and Portugal, was naturally also of central importance. These countries knew that the future belonged to Atlantic cooperation, which was also the safeguard against possible Soviet Communist aggression.

None of this was true in what came to be called Eastern Europe. There was at least some support for the adoption of the Soviet model in all countries involved, but it did not represent the free will of the population anywhere. Although prominent economists from Oskar Lange through Michal Kalecki to – somewhat later – Janos Kornai emerged in Poland and Hungary, none of them had pondered the characteristics of the Soviet-type economy, none had planned how it could – or why it should – be established in their respective countries, and none had thought about the rules and institutions of trade and other economic relations between Communist-ruled centrally-managed economies.

The only model available was that of the Soviet Union, but it had been developed as a mobilisation economy, in response to the growth, industrialisation and urbanisation needs of a predominantly peasant-dominated poor country. That was not an apt characterisation of all the Eastern European countries. By the late 1980s some of these countries were to boast that they had once been normal European countries – whatever that might have meant – and they were now returning to Europe. In fact, agriculture was never socialised in Poland, and the country had a power center in the Catholic church that acted as a kind of an alternative to the Communist rule.

The second major problem was that the Soviet Union was not a truly monetised economy. Although labour power was managed by administrative methods and there were non-market routes of access to consumer goods, households basically lived in a monetised economy. They reacted to wage differences and some consumer goods markets – the so-called *kolkhoz* markets – fundamentally had flexible prices. This was in contrast with the state sector of plants, ministries, planning and management agencies and the monobank. The planning and management of production and distribution was fundamentally in physical terms. Prices

[1] See articles in Gertrude Enderle-Burcel *et al.* (eds. 2006), *Zarte Bande,* Mitteilungen des Österreichischen Staatarchives, Special Issue 9, Vienna.

of some kind were needed for planning, control and statistics of heterogeneous items like ‘steel’. Furthermore, this was not a true command economy: plants and their employees were given incentives for ‘fulfilling and over-fulfilling’ plans from the outset. Therefore, even monetary values used nominally for reasons purely of aggregation had an impact on economic behaviour. Some planned targets were always more advantageous than others.

In view of all this, a key issue in all proposals to modernise or reform the Soviet economic system was about finding the proper basis for prices and incentive schemes. Whatever the proposals, they always moved on the cost plus–basis and did not aim to balance supply and demand.

This was not a good starting point for international economic relations. The ruble exchange rate was one of the arbitrary prices. This was addressed by establishing so called foreign trade coefficients. In the case of the Soviet Union in its later decades, several thousands of these coefficients effectively amounted to commodity, country and time specific exchange rates. This was a true jungle mastered by nobody.

Joint central management and multilateral trade – alternative illusions

If sub-national planning had existed, this may not have been an unsurmountable problem. But no such planning existed, even if the Soviet Union was the dominant centrally-managed economy in Europe. The scale of the exercise would have been excessive, the Soviet Union could not simply dictate its will over the other countries, and the political crises starting with Eastern Germany in 1953 showed what a touchy issue was at stake.

Joint central management was aired as the preferred alternative by the Soviet Union in late 1950s and early 1960s, but that was not a feasible alternative. The uneven distribution of country size, economic potential and political goals condemned any such ideas with the same degree of realism as the propaganda on reaching full communism and an abundance of commodities in the Soviet Union in the foreseeable future. This is an obvious lesson for European integration.

Finally, the commodities produced and consumed in these economies can be divided somewhat neatly into ‘hard’ and ‘soft’ commodities. Hard commodities had relevant world market prices. Soviet oil and gas, Romanian oil products, Polish coal and to a degree Czechoslovak cars and machinery were examples of hard commodities. Many other commodities were more or less hopelessly soft. The key problem was that the distribution of produce into hard and soft commodities differed between countries, and devising somewhat efficient and equitable exchange relations was impossible in principle, though inevitably tried in practice.

Just as the Soviet Union was never an autarchy, the group of European centrally-managed economies could never become one either. Moreover, whatever the official goals set for ‘socialist economic integration’, trade inside SEV (or Comecon, as the integration arrangement established in 1949 was usually called in English) always remained a huge network of bilateral agreements between countries. This naturally had also been the case in Western Europe until about the mid-1950s, but the lack of joint management on one hand, and the absence of congruent market economies on the other, made this an inevitable outcome.

Bilateral trade relations were executed using equally bilateral clearing payment arrangements nominated in Soviet rubles. There were some mostly project-tied multilateral arrangements, but they were few and did not – usually at least – involve all the SEV-countries. With the advance of Western European integration the goal was also set for SEV to become a truly multilateral arrangement, with the ‘convertible ruble’ taking over the role that the Soviet ruble had played. It is totally unclear how a centrally-managed economy might have a convertible currency, and the discussion above has provided many reasons why a convertible rule never actually emerged. The name existed, but that did not hide the fact that what existed behind the name was the same old Soviet ruble. Pretensions of ruble convertibility were, in fact, abandoned within a few years.

The prices used in intra-SEV trade were supposed to be cost-based. In the case of hard commodities, world market prices had to be taken into account. According to an agreement, the oil price was to follow the world market price of the five previous years. This implied that when the world market price rose, the Soviet Union suffered major book-keeping losses. The other countries, naturally, had suffered and continued to suffer hugely from their forced transformation into

Soviet–type economies. In 1938 the income level in independent Estonia was at least as high as in Finland. By 1990 the income gap on the Gulf of Finland was huge. The people of Northern Estonia could usually follow Finnish TV, and Soviet authorities interpreted advertisements for meat shops as seriously harmful anti-Soviet propaganda.

In practice, prices in intra-SEV trade varied hugely. Information on Hungarian trade in the mid-1960s is available.[2] Hungary exported 1,020 commodities to at least two SEV-countries. For 293 commodities price differences exceeded 25 percent. For 45 commodities the variation was 100 percent or more. As could be expected, variation was particularly widespread for machinery and equipment, as well as industrial consumer goods.

Bilateralism was an issue for those market economies willing – for one reason or another – to pursue major trade with centrally-managed economies. Finland was a case in point. Exports to the Soviet Union averaged from 1952, when war reparations were finalised, to 1990 as fifteen percent of total exports. There was a peak in 1982/83, when the Soviet share was about a quarter. Due to particularities the 1953 share was even higher. This figure is a couple of percentage points higher if the smaller centrally-managed economies are included.

Finnish exporters liked bilateral trade, especially when the price of oil increased, providing additional room for Finnish exports on the clearing account. Until about the 1980s Finnish export industries had competitiveness problems in Western markets, while, although trade was supposed to be priced at world market levels, exports to the Soviet Union were assumed to be of above-average profitability. There were, however, limits to the amount of oil Finland could absorb, and finding new goods to import was next to impossible. Therefore, early in the 1950s, trade policy came up with triangles. Finland would import coal from nearby Poland. In the statistics, this was accounted for as Finnish imports from the Soviet Union, and Finnish profitable exports could be increased. How the accounts were written between Moscow and Warsaw was not a matter worried about in Helsinki. In 1957, however, Poland and other Eastern European countries declined to continue triangle trade. There was obviously a joint decision behind this unwillingness.

Given the small volume of Finnish trade with centrally-managed economies other than the Soviet Union, it is no surprise that some hopes were placed on SEV–integration. Perhaps it would create a common market. These hopes, as we now know, were misplaced. Bilateralism was decided on in 1957 and 1963, but never implemented. As late as in 1974 Finland traded with the Soviet Union bilaterally, using the ruble as the clearing currency. There was also bilateral trade with Eastern Germany, Hungary, Romania and Bulgaria. The US dollar was usually used as clearing currency, with the exception of Romania, with whom the ruble was used. Annually renewed dollar–based trade was pursued with Poland and Czechoslovakia on an ‘experimental’ basis as of 1970 (the impact on trade flows was subject to debate.) As centrally-managed economies started joining the IMF, bilateral trade between any two IMF member countries was naturally ended. To complicate matters further, trade with China was bilateral, but used Finnish *markka* as the trading currency. Very low volumes of trade with Cuba and Yugoslavia were based on dollars.

An afterword

The reasons why the ruble zone between former Soviet republics was not a feasible alternative after the collapse of the Soviet Union are mostly clear from the discussion above. In addition, some new or re-constituted states wanted little to do with the others. Other states had been effectively forced into independence. Institutional and economic policy competence was not only in short supply everywhere, it was also very unevenly distributed.

[2] Sandor Ausch cited in Michael Ellman (2014), *Socialist Planning,* 3rd edition, Cambridge: Cambridge University Press.