

A stylized world map composed of a grid of dots in various shades of gray, with several dots highlighted in red. The map is centered on the Atlantic Ocean.

Oil or Cars

The Prospects of Russia's Reindustrialisation

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- Russia's economy is in a deep crisis due to the combined effects of the stalled transformation into a market economy, the sanctions imposed since mid-2014 and the parallel slump in the oil price. The Russian rouble has depreciated substantially and in 2015 a harsh recession looms.
- The crisis has brought an old catchword back into fashion among the political elite: import substitution. Russia's industry should revive its old strengths and in future itself manufacture the products that have been imported since the rapid deindustrialisation of the 1990s. The downward plunge of the rouble exchange rate, in this respect, operates like a protective tariff for Russian producers. As paradoxical as it might sound, the crisis raises the prospect of Russia's reindustrialisation.
- Russia can already point to an example of successful industrial policy: the domestic automobile industry has for years been undergoing modernisation within the framework of classic import substitution. The successful boost given to local production comes at a price, however: Russian manufacturers have been crowded out by international automobile groups. Even Lada manufacturer Avtovaz, once a jewel in Russia's industrial crown, has been incorporated into Renault-Nissan.
- If Russia's central bank continues to pursue a policy of a low-valued rouble Russia could become a location for an auto export industry. A return to a strong rouble in the wake of a – perfectly conceivable – recovery of the oil price, by contrast, would lead to the flight of foreign automobile groups and strangle Russia's reindustrialisation.



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Preliminary Remarks

Russia's economy is in a deep crisis. Three mutually reinforcing causes are combining to produce this effect. As early as 2013 economic growth weakened to only 1.3 per cent. At the end of July 2014 the EU and the United States stepped up sanctions against Russia because of the Ukraine crisis, excluding Russian companies and banks from western financial markets. In July 2014 oil prices began to plummet, falling by 45 per cent by the end of the year. Since then the exchange rate – falling from 45 roubles to the euro in January 2014 to 70 roubles to the euro at the end of December 2014 – has followed, inflation is rising and the central bank is trying to respond with higher interest rates. If the oil price remains at its level at the end of 2014 (around 60 US dollars a barrel) for long, the economy will slide into deep recession. Although the government has hardly any foreign debts and can use its foreign exchange assets of around 400 billion US dollars to finance imports Russian companies have around 600 billion US dollars in foreign debt and many large firms could find themselves in repayment problems.

Since the sanctions came into force a new buzzword has been doing the rounds in the political elite: import substitution. If access to western markets is blocked Russians can simply produce these products themselves. Russia still has a substantial industrial sector from the Soviet period, which has shown itself able to compete as an international player in space travel, military technology, nuclear power stations and other sectors. Now it may really be called upon to demonstrate its worth. Ministries and the Kremlin have caused surprise with their repeated assertions¹ about how many products will be produced by which year by Russian manufacturers. In the pharmaceutical industry the share of locally manufactured medicines is supposed to rise from 25 per cent to 50 per cent by 2020²; civilian shipbuilding, which is almost completely outsourced to East Asia, is supposed to become predominantly Russian; and civilian aircraft manufacturing is slated to grow strongly,³ as are the machine tool

industry (cf. GTAI 2014a), the electro industry (cf. GTAI 2014b) and many other branches.

In fact, the current crisis does offer opportunities for industrialisation projects. Barriers to entry – based on sanctions or the effects of devaluation – could boost domestic production. However, bringing production home – insofar as it is technologically possible – usually results in a fall of productivity and rising manufacturing costs. The decisive question for medium-term prospects is thus whether productivity will rise shortly after at relocated manufacturing sites, thereby compensating for cost disadvantages due to import substitution. With strong devaluation, if it continues for long, a new effect would arise. The price disadvantages that Russian companies long faced in the export sector would vanish and thus sales opportunities would open up.

The effects that the crisis will have on the industrial sector depend on several factors. They include the duration of the sanctions, price developments on the oil market and monetary policy. Of particular importance is the strategy adopted with regard to import substitution. Almost every country has resorted to protectionist promotion of its own industries at some time in its history. However, it makes a decisive difference at what point in time such intervention is applied, what sectors are favoured and whether the strategy is aimed at private or state-owned companies, foreign or local investors or private or state consumption.

The analysis presented here is in two parts. Part 1 deals with the transformation of the Russian economy towards a market economy. The dramatic effects of this on the manufacturing sector (the term is used synonymous with »industry«) are traced, which led to a massive deindustrialisation. Although the »affluent years« of the oil price boom stabilised industry they also led to new upheavals.

Russian industry also contains sectors that have not only stabilised, but have been modernised for a number of years and are again showing growth. This applies to the automobile sector, on which Part 2 of the analysis focuses. Based on vehicle manufacturing it can be shown that, for a decade or so, deindustrialisation has been combated using traditional industrial policy in the form of import substitution. The automobile sector is an example of the need for state intervention in order to preserve manufacturing capacity and of the fact that industrialisa-

1. Already after the 2008/2009 economic crisis there was a lot of talk about import substitution, although subsequently little was done in terms of practical policies.

2. »50% of the country's pharmaceutical production should be localized by 2020. Currently Russia imports about 75% of all its medicine, according to DSM Group, a pharmaceutical research group« (*The Moscow Times*, 26–28.9.2014).

3. Cf. *The Moscow Times*, 20.11.2014.

tion policy – if essential factors are taken due note of – can also be successfully implemented in Russia.

Part 1: Transformation – Deindustrialisation – Special Features of Russia’s Market Economy

1.1 Transformation and Economic Crisis

Russia’s economy is experiencing enormous structural upheavals. They arise from the Soviet industrialisation model, but also from the two major adjustment periods that the Russian economy has since undergone in order to adapt to the new market-economic reality, the transformation phase of 1990–1995/97 and – as remarkable as it might sound – the period of the so-called economic miracle of 2000–2008, when Russia dazzled observers with annual growth of 10 per cent of GDP and appeared to gain new economic strength.

The Soviet planned economy, driven by the goal of enabling a largely agricultural economy, lagging behind in terms of productivity, to match the imperialist West or even supersede it by means of accelerated industrialisation, focused on the heavy goods industry and made research and technological development available primarily to the military-industrial complex. Large state corporations were formed that operated outside economic competition, were vertically integrated and organised value creation chains without widely diversified suppliers largely within themselves. In a new kind of territorial policy, in addition, industrial centres were distributed across the country.⁴ Economic self-sufficiency was considered as an expression of domestic political strength. In striving for independence from imports Soviet foreign trade remained insignificant, even when, from time to time, major efforts were undertaken to generate foreign currency for the purchase of strategic goods from the West.

Among the foreseeable consequences of this was the need for a deep-cutting restructuring when the new

economic policy regime was applied as from 1989/1990. The transformation was imposed by means of so-called »shock therapy«, whose familiar forms of intervention in the economy included enterprise privatisations, price liberalisation (including floating the exchange rate) and opening for foreign trade. The upheavals were enormous, even though it did not take place at the same pace as in eastern Germany. However, no one in the leadership appeared to have a sound knowledge of what economic policy would be appropriate for transforming economies and the management of the transition was rather guided by trial and error than in accordance with a clear concept. In the political confusion of the first transformation years parts of the economy withdrew from monetary transactions, barter emerged again between suppliers and manufacturers and many branches of the economy collapsed entirely. Opening up of borders and reduction of protective tariffs made no longer competitive Soviet products disappear from the market. The »market economic gains« in productivity and the emergence of new products and branches were slow to materialise.

Compared with other reform societies it would be fair to characterise the Russian transformation as perhaps the greatest destruction of production capacities suffered by a country in world history, apart from during wartime or natural catastrophes.⁵ Between 1990 and 1999 GDP plummeted almost 50 per cent and the great majority of the labour force were caught up in the maelstrom of economic reforms.⁶

The squeezing of national production by imports should have come to an end at the point at which productivity lags in the Russian economy were balanced by falling wages. In fact, the lowering of the wage level at the end of the 1990s had got to the point that Russia would have been in a position, at least in places, to have taken the

4. Instead of permitting a concentration of companies with a wide range of products on a larger site (growth pole), which would have triggered a corresponding migration of workers, a »territorial investment policy« was pursued which aimed at a fair distribution of production locations. Hundreds of monotowns emerged that accumulated around a large state-owned corporation. Another aim was to stabilise the Soviet Union as an empire by promoting manufacturing also in non-Russian regions.

5. Even the dramatic events in China in 1995–2002, when 50,000 state-owned companies were restructured, privatised or wound up, pale in comparison with the radicality of the Russian upheaval. In China during this period 50 million of the 300 million or so (17 per cent) municipal employees lost their jobs.

6. One peculiarity of the Russian transformation crisis was the »abnormal« behaviour of the labour market. Instead of leaping up in inverse ratio to the slump in GDP unemployment rose by only a »relatively modest« 10 million to 15 million. This persistence of employment was compensated for by wages, which even outdid GDP, falling over 60 per cent. Millions of employees continued to go into their traditional workplaces (even after enterprise privatisation), while their wages were constantly devalued by the extremely high inflation (1993: 2,750 per cent) or often not even paid at all. In the 1990s there was massive wage retention on the part of employers. In 1997 over half of all employees were owed several months’ wage arrears.

Chinese and eastern European reindustrialisation path, setting up special economic zones with cheap labour. This possible new embedding in the international division of labour by means of low-wage workers never came to fruition, however. In 1999, just at the time Vladimir Putin became president, the oil price boom set in and with the rapidly rising foreign currency revenues from energy exports the economic environment suddenly changed once again.

1.2 Oil Boom, Deindustrialisation and Government Control

The oil years from 1999 brought Russia enormous revenues. Oil is not produced, but extracted and oil revenues, over and above extraction costs, represent only rents, which have no allocatory relationship to the production process. By virtue of its energy exports the country was »gifted« with purchasing power from abroad and thus was able to import and consume without expanding its material production. National purchasing power was decoupled from national production capacities.

With the monopolistic rents from the oil trade and their distribution among consumers Russia found itself faced with the »Dutch disease«. Because the government and the central bank did not absorb the inflowing purchasing power and withdraw it from circulation, and the domestic economy was unable to absorb the income gains by expanding the range of domestic goods available the excessive demand triggered an inflationary surge, as well as an import boom.⁷ Goods and services produced abroad became relatively cheaper. Price changes due to rising real exchange rates were transmitted to consumption. With more or less stable nominal rates the real exchange rate rose in accordance with the inflation differentials with international trading partners. Real gains amounted to an annual 5 to 10 per cent. From 1999 to 2012 the real value of the rouble rose by 130 per cent (see Figure 1).

Figure 1 includes the final months of 2014 and so depicts the course of the rouble also after the exchange rate crash. In terms of a structural analysis this is not yet significant, because reallocation of investment takes place

only in response to long-term changes in relative prices. If the real exchange rate of mid-December 2014 persists, however, the »Dutch disease« will recede.

The real threat of the »Dutch disease« lies in its squeeze on the producing sectors. With an import surge due to rising real exchange rates domestic companies are plunged into increasing competition with imports. The economy experiences deindustrialisation.

After the liberalisation shock in the 1990s Russia's industry as from 2000 onward was faced with a second knock-out blow due to the oil price boom. This time the oil-financed consumer upswing threatened to reduce sales of domestic commodities. Buried once and for all in the economic boom, would have been a reasonable diagnosis of the 2000s.

The development of the manufacturing sector is depicted in Figure 2. The fall in its percentage of GDP from 27 per cent in 1991 to 20 per cent in 1995 confirms the thesis of deindustrialisation for the first years of the transformation. With one interruption the decline continued until 2003, after which the level stabilised at around 15 per cent.

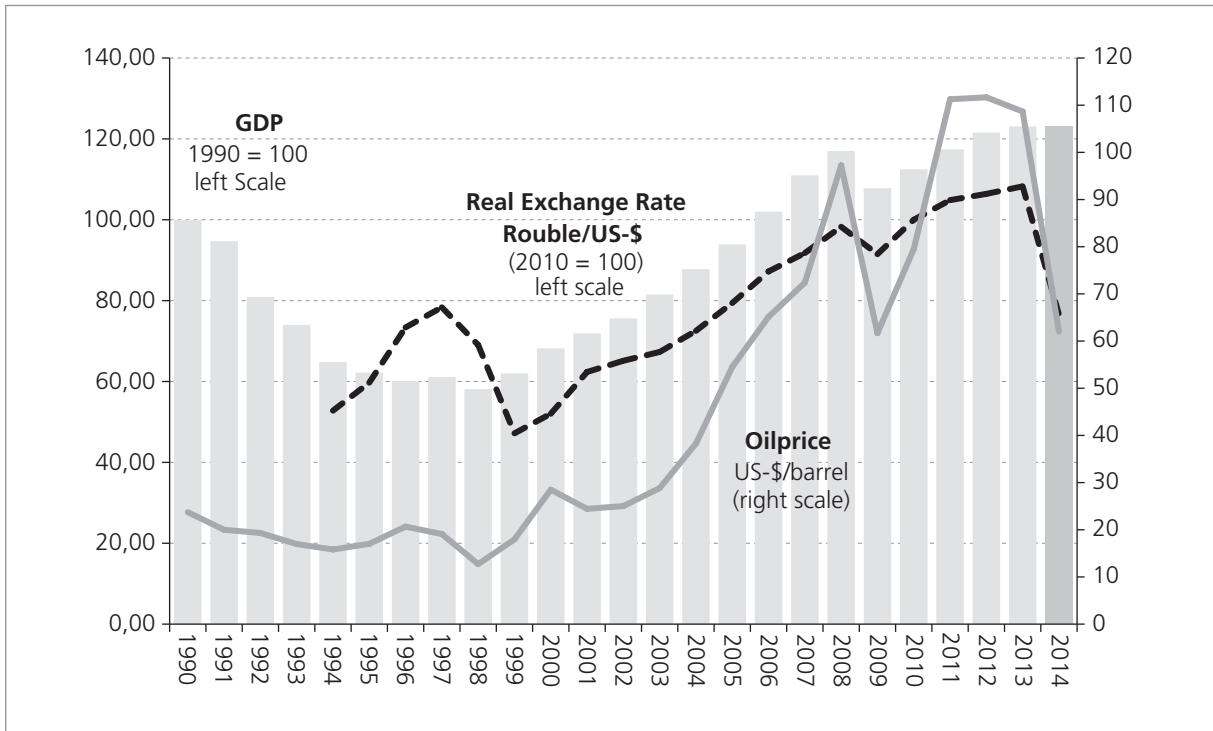
Looking at relative shares distorts the picture, however, because overall economic development up to 1999 was very negative, turning positive thereafter. Looking at real industrial turnover shows, first and foremost, the dramatic 60 per cent collapse of 1991–1995 (from 160 billion to 65 billion US dollars). Up to 2002 output remained unchanged at a low level, after which a rise is discernible, though without reaching the starting point of 1991 (by 2012).

Developments in individual branches confirm this trend, although with variations. None of the branches depicted in Figure 3 made it through the 1990s without enormous losses. The textile sector was hardest hit (–75 per cent), while the chemical industry came through the chaotic decade relatively well (–30 per cent). Since then development has diverged. Textile sales have remained at a low level, with textile production in 2012 only a quarter of what it was in 1991. Employment figures in Ivanovo – the main location of the textile sector in Russia – confirm this: today, only 50,000 people are employed there, down from 200,000 in the past.

7. The argument that high foreign exchange inflows necessarily lead to a revaluation has been refuted by the actions of the Chinese Central Bank over decades. The constant surpluses were neutralised and with an undervalued currency the export trade continued its triumphal march.



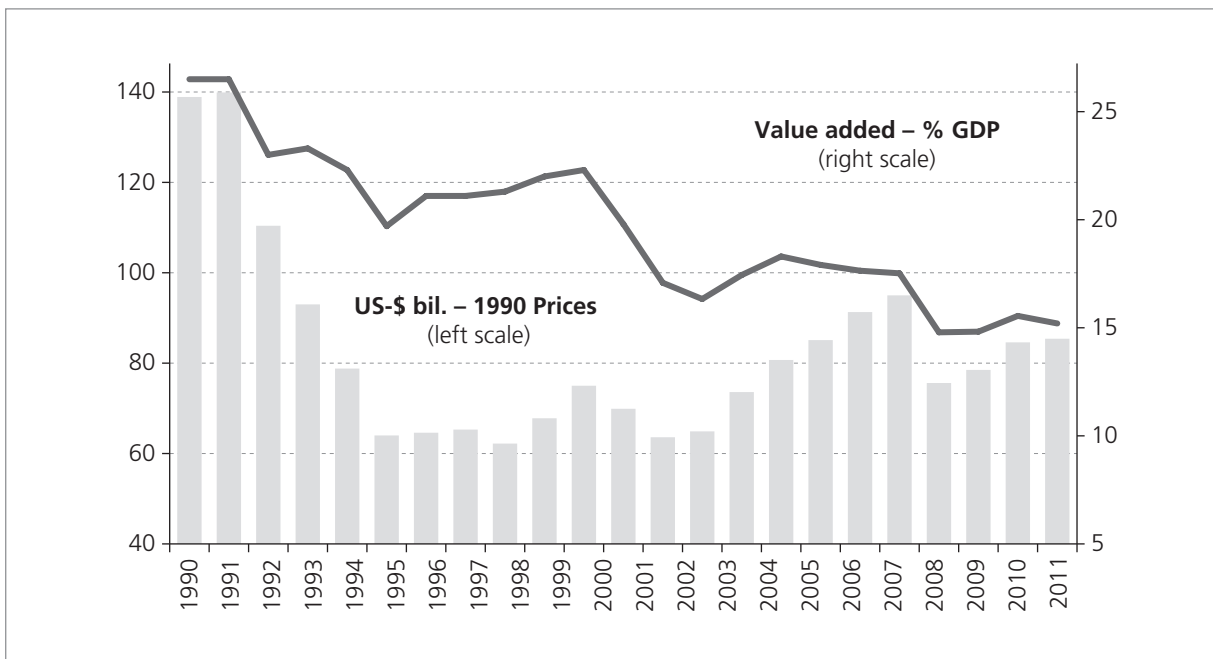
Figure 1: Development of GDP, oil price and exchange rate, 1990–2014 (rouble/US dollar)



Note: Values for 2014 refer to mid-December.

Sources: World Bank Development Indicators 2013; BP Statistical Review of World Energy 2014; Rosstat; author's calculations.

Figure 2: Value added in the manufacturing sector, 1990–2012



Source: World Bank development indicators; Kushnirs Data Bank.

During the whole period 1991–2012 only rubber and plastics can be identified as a growth sector (+79 per cent). Some branches – such as foodstuffs and chemicals – have been able to return to the starting level of 1991 over the past 20 years, but production volumes in others remain substantially below that.

This applies, for example, to the machinery and equipment sector and the transport sector, which includes the automotive branch. Both sectors are technological core areas in contrast to simple consumer goods industries, such as textiles and clothing, as well as plastic products and food processing, and are representative of the level of Russian engineering skills and capacity for mass production in the medium technological segment. Its decline lies at the heart of deindustrialisation and shows that Russia risks losing its industrial-technical inheritance, which was built up with so much suffering in the Soviet era. Having said that, both branches have exhibited an upward trend since 2000.

What is notable about this development of industry is not the crash from 1991, which followed the logic of cost and productivity differences under conditions of economic liberalisation. Rather it is the stabilisation of industry and the rise in production from 2002. At the very time the oil

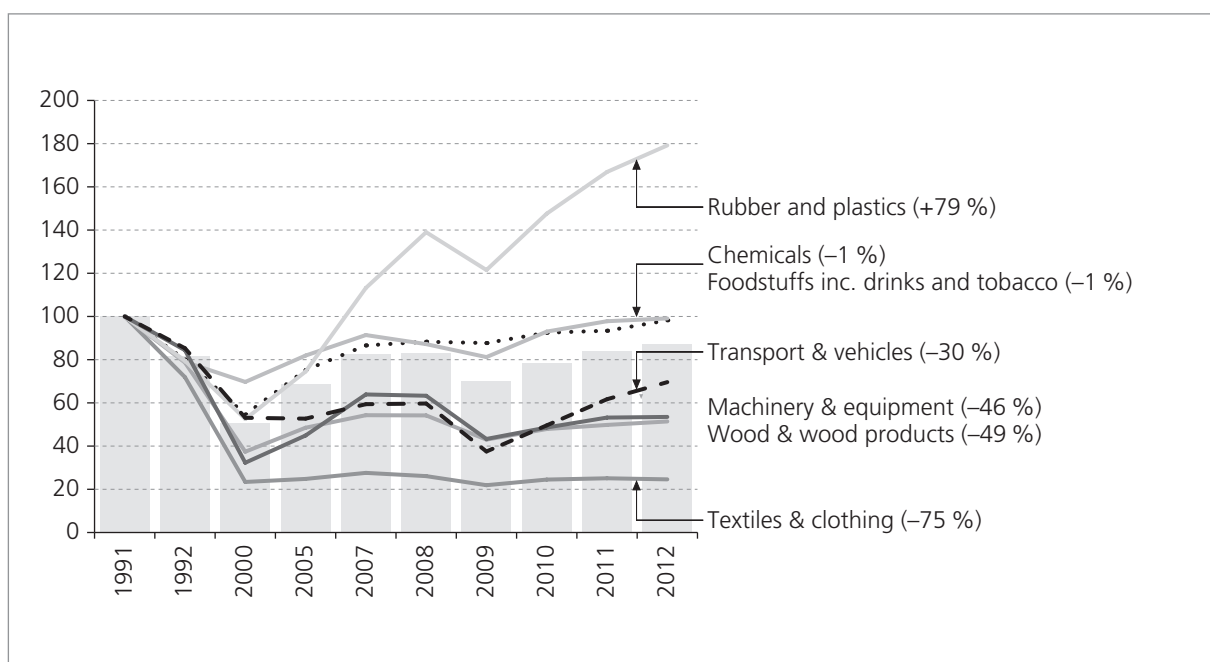
price boom was getting into full swing, the real exchange rate rose sharply and the »Dutch disease« is supposed to have been waging its campaign of destruction against the remnants of industry, the sector showed its resilience. Two explanations are worth considering:

- either industry raised productivity through investment in modernisation and managed to make up for the competitive disadvantages due to rising exchange rates; or
- the government prevented collapse with protectionist intervention.

1.3 Specific Features of the Russian Corporate Sector

Price liberalisation and other liberalisation measures are not introduced for the deliberate purpose of destroying companies but in order to compel them to boost productivity and improve competitiveness. It is difficult to describe the course and evaluate the dynamics of this process for Russian companies because statistics for the corporate sector as a whole and more precise breakdowns for subcategories are lacking. Furthermore, even if statements concerning general trends are correct, they easily

Figure 3: Output in the manufacturing sector, selected branches, 1991–2012 (1991=100)



Source: Rosstat.

overlook subcategories that behave differently, form a new core and in future can become growth poles. With these constraints a number of features can be identified in relation to Russia's corporate sector:

Privatisation without foreign investors

The focus of the Yeltsin government's privatisation in the 1990s was not rapid access to modern technologies; instead, the upheaval was the result primarily of political considerations. The idea behind the wide distribution of shares in the first round of privatisation was to create a class of private owners ready and willing to organise social resistance to a return to power of the Communist Party. The second privatisation wave, which favoured selected large-scale investors («oligarchs») by means of »loans for shares«, also served primarily political ends. Yeltsin's 1996 election campaign was financed by these new cronies. In this way foreign investors were blocked and thus access to new technologies. Privatisation and acquisition of technologies were decoupled. In the 1990s little foreign investment flowed into Russia. Only after 2000, especially in the period 2004–2008, did foreign investments in joint or stand-alone ventures pick up substantially, although at no time could Russian industry have been said to be dominated by foreign capital (see UNCTAD 2013).

Market concentration

Neither voucher privatisation, nor loans for shares or other direct transfers to private buyers foresaw the breaking up of large state-owned companies into smaller entities. Dominant market positions were consolidated and privatisation was the prelude for an enormous concentration of ownership (Heigl 2012). Competition could emerge only by way of founding new companies, which occurred in services, such as trade and transport (not including rail), while in other sectors it was generally lacking. Even though around 65 per cent of the economy is now in the private sector⁸ it is not small and medium-sized enterprises (SMEs), but the big companies that have continued to expand their market share. In 2000, the turnover of the largest 100 companies still represented

8. Figures for 2008; little can have changed since then because the privatisation programme is proceeding at a snail's pace.

around 50 per cent of GDP, while in 2007 this was already 60 per cent (Liuhto/Valtra 2009: 3), which is enormous by international comparison.⁹ Medium-sized companies (100–249 employees) lead a marginal existence. While in the European Union and eastern European economies their GDP share is around 20 per cent, in Russia it languishes at a mere 5 per cent (EBRD 2012: 33).¹⁰

Management reforms on hold

To be sure, many Russian companies have invested in the acquisition of modern production and management methods. This does not apply to the great majority, however, who continue to keep innovation at arm's length. An examination of 1,000 manufacturing firms came to the conclusion that only around 15 per cent had undergone modernisation.¹¹ Overall, the pace of reform in Russia lags well behind that in eastern Europe (see Bloom et al. 2011). Many products and technologies still cleave to Soviet standards, the level of automatisation is only creeping upwards and digital control systems are almost non-existent. Managements have delayed shortening value chains in-house and as regards outsourcing coordination with suppliers and quality assurance do not meet Western standards. Bringing in external management consultants and just-in-time-delivery practices are largely unknown (see Kuznetsov et al. 2010: 16).

9. Guriev and Rachinsky (2005: 148) offer another perspective: »Russia's oligarchs do control a substantial part of the economy including natural resources industries. The concentration of ownership in modern Russia is probably higher than in other countries (...) While the relative weight of their firms in the Russian economy is huge, they do not seem to be excessively large by the standards of the global economy where most of them are operating.« However, this neglects the close relations between the managements of such companies and the state, and has no relevance for companies that operate primarily in the Russian market.

10. In sociological terms, this development also finds expression in the composition of the middle class. The EBRD Transition Report (2013: 32) found that: »Since the mid-2000s the Russian middle class has increasingly comprised bureaucrats and employees of state-owned corporations (...) The number of entrepreneurs within the Russian middle class has been declining in recent years, as many Russian small and medium-sized enterprises face a more challenging economic environment.«

11. »(...) Russian industry has developed a cluster of enterprises with top quality management staff employing a total range of the latest management technologies. This enclave is not vast, just about 15 percent, and it has not yet become dominant in determining the overall quality of management in Russia's manufacturing. According to the 2009 data, almost 45 percent of firms are doing quite well in their markets without innovation and major investment, as they only sluggishly undertake some management improvements« (Kuznetsov et al. 2010: 16). Manufacturing industry is characterised by »low innovation and investment performance, accompanied by a persisting technology gap vis-à-vis international rivals. It may be said with some stretching that Russian enterprises generally continued manufacturing the same products using the same production capacities and technologies, while selling them to the same buyers« (Kuznetsov et al. 2010: 22).

Current management methods are often characterised by an authoritarian leadership style that is opposed to participation reforms for employees and the sharing of information. Informal networks and patronage prevail over formal rules. Although remuneration systems do contain substantial non-static components, among other things to avoid taxes and social contributions, and are claimed to be established as performance-related (bonus) pay, they are set up at the whim of the bosses and are seldom based on individual performance. Trade unions remain stuck in the role they played under the Socialist regime, running company celebrations and organising family vacations for employees, but play virtually no role in organising production processes, efforts to identify productivity improvements and wage determination.

The return of the state as owner

If the years of the Yeltsin government in the 1990s can be described as a »wild market economy«, the beginning of the Putin government can be described in terms of the return of the state to the commanding heights of the economy. Endowed with rising oil revenues the state resumed control of strategic companies by means of share buy-backs, expropriations or takeovers of insolvent companies. This applies to the energy sector, in which the state share in oil production was increased by the acquisitions of Rosneft, and to the banking sector, in which privatisation plans were constantly postponed and the main banks remained under state control (see Vernikov 2012). The state arms group Rosoboronexport, set up in 2000, also acquired a number of large industrial enterprises from 2005. State holding company Rostekhnologii (Rostec), set up by presidential decree in 2007, comprised over 400 companies in 22 economic sectors with a million employees. Even though the renationalisation of company property after 2000 in relation to the economy as a whole did not represent a return to Soviet times, state influence over large companies was considerably strengthened.

The Russian economy is not heading back to a centrally-planned economy, but at the behest of the state now finds itself in a structural imbalance, in which small and medium-sized enterprises have little prospect of growth. Industrial policy since 2000 has gone through a number of phases, but beyond all the rhetoric and paper reforms the constant focus has been the stabilisation or exten-

sion of the market share of big companies or politically favoured sectors. This certainly applies to the military-industrial complex, which was on its knees at the end of the 1990s, but given a new lease of life by cash injections and orders from the state. Other cases in point include mining, metallurgy and banking. The state acts as both consumer and principal, dispensing cash injections in hard times and constantly increasing its influence over economic activity. On the other hand, the state has been conspicuously reluctant to formulate regulatory principles for establishing a competitive market framework (see Simachev et al. 2014).¹²

1.4 Excursus: Transformation of the Economies of Eastern Germany, China and Russia by Comparison – Significance of Competition

The former Socialist countries have taken different approaches to their transformation into market economies. The particular way in which institutions were restructured and the establishment of economic competition have largely determined the development of the manufacturing sector under market conditions. The examples of eastern Germany and China are briefly examined here and compared with Russia.

■ *Eastern Germany*

Eastern Germany's somewhat privileged position set it apart from the upheavals in other post-Socialist countries, which were not able to emulate its path of institutional transfer, emulating western Germany. From 1990, with the start of the economic and monetary union, it experienced the same systemic shock as Russia, when its transformation involved the dismantling of manufacturing industry and the tertiarisation of the economy. After

12. It may be true that subsidies for companies have rarely exceeded 2–3 per cent of the state budget, but this ignores indirect handouts via price distortions. One permanent subsidisation of big companies, for example, takes the form of the concurrence of fiscal and monetary policy in relation to the credit sector. Companies with access to foreign financial centres have avoided the Russian capital market and have obtained liquidity abroad. Given the enormous differences between domestic and foreign interest rates and inflation they could raise loans with negative real interest rates of 5 per cent or above. No wonder that between 2000 and 2013 Russian large corporations incurred foreign debt to the tune of 600 billion US dollars. Loans that are virtually »gifted« to the recipient in most instances are not generally used for the purpose of rationalisation, but to keep uneconomic businesses afloat.

In particular this subsidisation of going into debt has led to a major currency problem since the financial sanctions were put in place. The debts with Western banks can no longer be carried forward to the coming years but have to be repaid in full as they fall due.

the market was opened up in 1989, GDP fell by 23.5 per cent over the next two years, with manufacturing industry plummeting by 71.1 per cent, while trade, banking and insurance, real estate and commercial services experienced rapid growth. Eastern Germany and Russia had similar experiences of the first phase of restructuring, but diverged thereafter. In eastern Germany the collapse of production was followed, from 1993, by the rebuilding phase, with deindustrialisation (decline of the GDP share of manufacturing industry from 30 per cent to 14 per cent) succeeded by reindustrialisation (increase to 20 per cent by 2008).

It would be going too far to present eastern Germany's reindustrialisation as a simple success story, however (see Blum et al. 2010). Even two decades down the line, there remain structural imbalances in terms of its ownership structure and the integrity of production processes.¹³ Furthermore, manufacturing industry has yet to match its level of development in western Germany. On the other hand, at 20 per cent it does lie above the EU average.

There are several reasons for Russia's different development path. Western Germany has, to date, invested more than 1.5 trillion euros in eastern Germany, primarily in the modernisation of housing and transport infrastructure and in social services, and thus has created positive conditions for the influx of western German and foreign private investments. Russia, by comparison, has received no foreign support, although since 2000 similar sums have been available due to oil revenues. It was crucial that, from the very start, eastern Germany found itself in a legal area that functioned along western German lines and provided security of investment.

Additional economic factors also need to be emphasised. The common economic and monetary area gave rise to direct cost competition, whose modernisation pressures Russia was able to elude by means of exchange rate policy, protective tariffs and procurement policies. Especially important for the line of argument pursued in the present paper, however, is the completely different institutional restructuring of the economies and, in particular, the manner in which private ownership was introduced.

13. Thus in places where western German companies are dominant, research and development, as well as procurement and sales are generally outsourced outside eastern Germany, while many companies are subcontractors. For an overview see Blum et al. (2010).

In eastern Germany the Treuhand took over around 270 conglomerates, in which 90 per cent of industrial workers were employed, broke them up into individual companies, made 70–80 per cent of the employees redundant and then sold 15,000 small and medium-sized enterprises to private investors as viable units (see Windolf 1996). This dismantling cut up Socialist reproduction cycles whose aim was to gather complete production processes under the roof of a single company. Privatisation was not implemented by means of voucher procedures or so-called »people's shares«, but by the sale of companies in their entirety. The Treuhand looked for companies to act as buyers in order to expedite immediate access to new technologies and management methods for eastern German businesses. Furnishing conditions conducive to competitiveness and getting individual firms fit for capitalist competition were paramount.

■ *China*

China's economic transformation can rightly be described as gradualist as distinct from the »shock therapy« undergone by other transforming economies. This doesn't mean that individual interventions were not far-reaching, but rather that they were stretched out over time and by sector. The consequences for the economy as a whole were thus easier to control and made adjustment policies feasible. There was no master plan behind this transformation process, as Deng Xiaoping, chief architect of the reform and open-door policy, described with his image of »crossing the river by feeling for the stones«. ¹⁴ The point was to prevent the failure of radical reforms and forestall the danger of a reversion to Maoist economic principles.

The economic upturn began from 1980 and had nothing to do with the privatisation of state-owned companies – which occurred only in 1997–2002 – or the inflow of foreign direct investment into export production zones (which was significant from the mid-1990s onwards). The economic boom was triggered by a combination of two reforms: the »fiscal decentralisation« of the state (see Shen et al. 2012) and the new economic framework for a municipal type of state-owned enterprise, the so-called Town and Village Enterprises (TVE). In the collective economy the TVEs were tightly integrated with agriculture and had to restrict themselves to specific ar-

14. Another image from Deng Xiaoping is apt in this context: »It makes no difference whether the cat is black or white. The main thing is that it catches mice.«

eas, although with the dissolution of the rural communes these spatial bounds were removed. Provincial and district administrations, furnished with autonomous rights by »fiscal decentralisation«, saw the growth of the TVEs as an opportunity to expand their tax revenues. From this point on the TVEs began to operate also in neighbouring administrative areas. With the dissolution of the communes the residential obligation for workers (*houkou*) was gradually relaxed. Having previously been compelled to remain in their place of residence peasants were now permitted to hire themselves out as wage labourers in the municipal companies of other administrative districts. The opening up for investment and the establishment of mobility of wage labour created competition between TVEs for domestic market share and helped trigger the economic boom.¹⁵ Between 1980 and 1995 growth rates averaging 8 per cent a year were achieved and employment in the TVE sector grew to over 100 million. Only during the period after 1995 did private companies contribute to China's economic development.

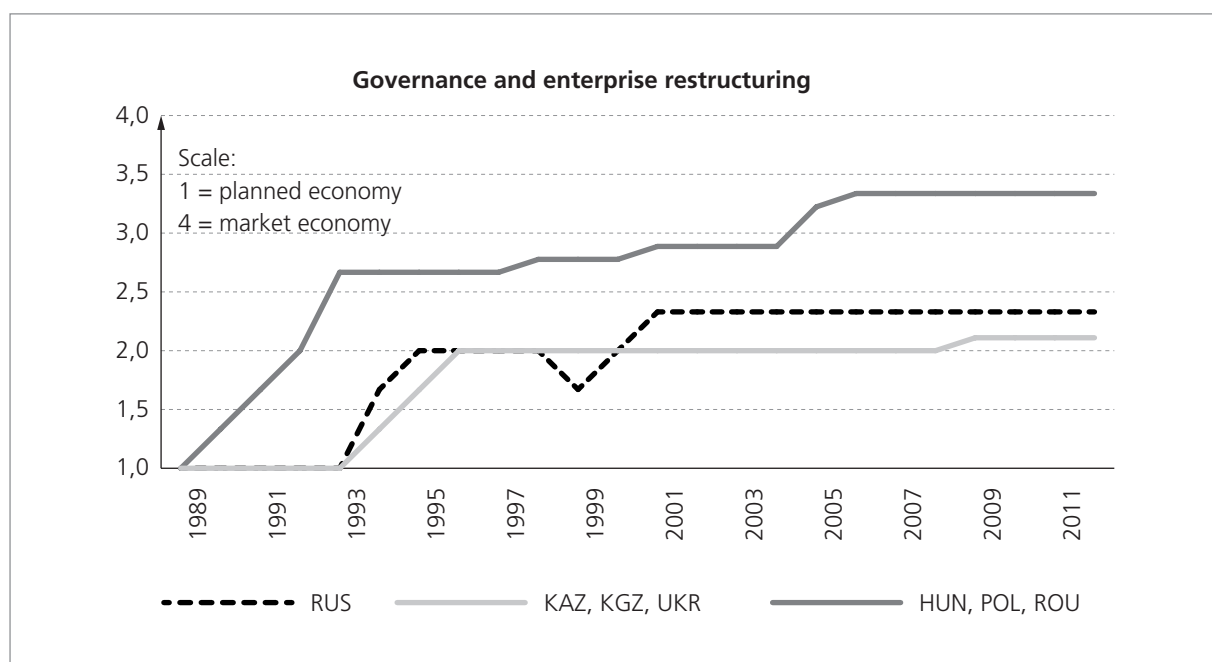
15. The fact that this form of wage labour in municipal companies remains without social insurance and that even today social services for so-called »rural migrants « are still patchy, is the social down-side of this economic boom. Cheap labour was built (and remains) on a lack of social rights.

A brief comparison of the transformation economies of China, eastern Germany and Russia shows that a number of robust criteria constrain the successful establishment of a competitive regime and competition between companies. Privatisation is insignificant or even harmful if economic competition does not emerge and market-dominating state-owned companies are put into the hands of private investors. In that case it is also less important whether share ownership is concentrated or widespread. To date, transformation policy in Russia has largely failed to establish economic competition.

This is also confirmed by the *transition indicators* calculated annually by the European Bank for Reconstruction and Development (EBRD) since 1989 (see Figures 4 and 5). They indicate in relation to Russia that in the areas of *governance and enterprise restructuring* and *competition policy* little progress has been made, that policy has remained stagnant since 2000 and that the Russian economy – measured in terms of these indicators – is not yet even halfway towards a free market set-up.

However, looking at such indicators in isolation gives a distorted picture. If the Russian state had not put a protective shield around its manufacturing industry un-

Figure 4: EBRD transition indicator »Governance and enterprise restructuring«, 1989–2012



Source: EBRD, Transition indicators.

der conditions of constant rouble appreciation and the accompanying distortion of competition, most companies would have been plunged into insolvency and the country would have been condemned to languish as a primitive market economy without further processing. Because the state did not neutralise rouble appreciation it had to absorb some of the negative effects by means of protectionism.

It is thus one of the specific features of Russian development that the mechanism known as the »Dutch disease« was partly annulled after 2002. In the Russian state – now under the leadership of President Putin – the Soviet legacy of production orientation was revived due to the tax revenues gushing from oil sales. With the room to manoeuvre provided by full coffers the quality and purchase price of products became a secondary matter and subordinate to maintaining national production. The state bought »Russian«, put a stop to competition with more reasonably priced foreign goods where it saw fit and prevented the further decline of industry where government contracts dominated market demand. Incentives for modernisation were largely lacking.

Part 2: Import Substitution in the Automobile sector

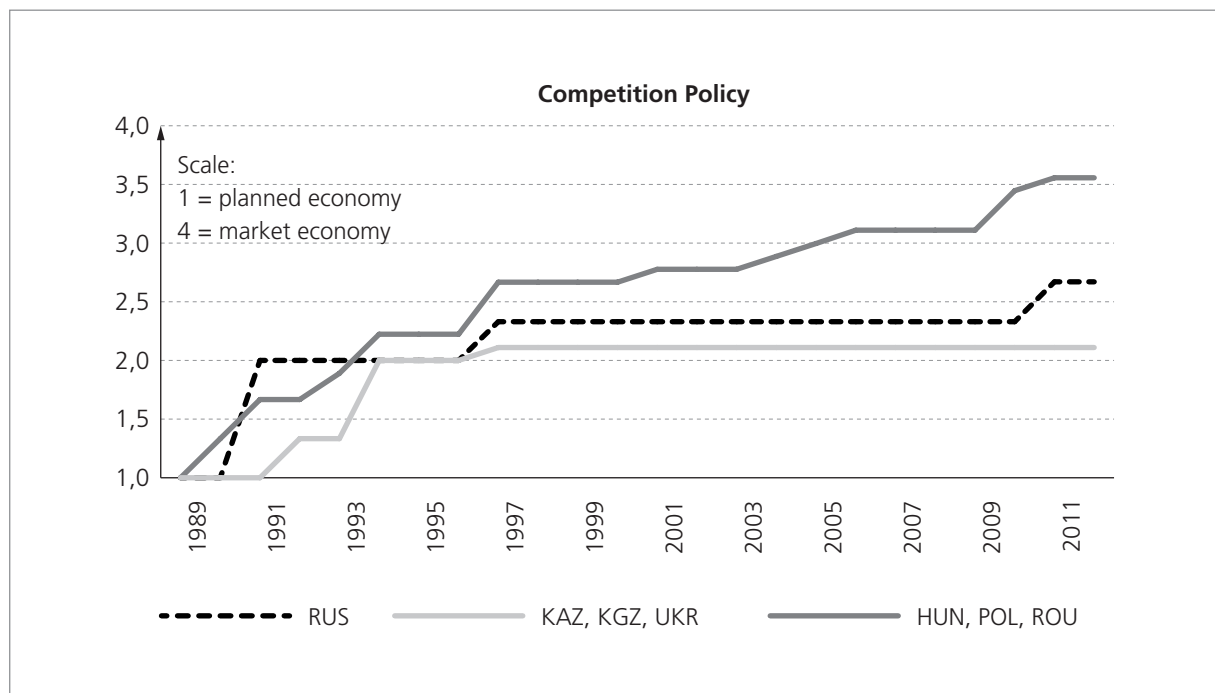
2.1 From the Planned Economy to the Sales Crisis

Russia’s automotive industry emerged in the early years of the Soviet period. The first production locations were established in the 1920s, with the emphasis on trucks and tractors. The expansion of Soviet automotive manufacturing occurred with the assistance of foreign manufacturers; the first cars were assembled in small quantities and consisted of replicas of Ford models (see Ford Russia).

In the mid-1960s a grand project was launched to modernise production and the supply of private households with cars. Based on a cooperation agreement with Fiat an auto-city – Tolyatti on the Volga, named after leader of the Italian Communist Party, Palmiro Togliatti, for his efforts in bring Fiat on board – sprang up out of the ground. The production halls of the new manufacturer Avtovaz (Avtomobili Volzhskogo Avtomobilnogo Zavoda or »Cars of the Volga Automobile Plant «) achieved an annual capacity of 700,000 cars and the Lada¹⁶ became

16. Known in many countries as the Zhiguli.

Figure 5: EBRD transition indicator »Competition policy«, 1989–2012



Source: EBRD, Transition indicators.



Table 1: Automobile production in the Soviet Union and in Russia, 1960–2007

	1960	1970	1975	1980	1990	2000	2005	2006	2007
Automobiles, total	523 600	844 300	1 963 900	2 195 000	2 071 950	1 202 589	1 354 504	1 508 358	1 660 120
Commercial vehicles	384 800	550 700	762 700	872 000	858 380	236 346	285 993	330 440	371 468
Car production	138 800	293 600	1 201 200	1 327 000	1 213 570	969 235	1 068 511	1 177 918	1 288 652
Car imports	low	low	low	low	low	???	452 000	733 000	1 253 000

Source: Organisation Internationale d’Automobiles (OICA).

the showpiece project of the Soviet automobile sector. With high sales figures (see Table 1) Avtovaz, ahead of other companies, such as GAZ (Gorkii Automobile Works), became the biggest car manufacturer and had a market share of 70 to 80 per cent.

Protected by insurmountable import barriers the Soviet market was huge. However, 30–40 per cent of Russia’s car production went for export, to other Soviet republics, eastern Europe and western markets. Given the lack of consumer choice and a necessarily high savings rate due to a low Gini coefficient (around 0.2) Soviet automobile production experienced only supply bottlenecks – low quality was no hindrance to sales. By 1985 around 15 per cent of all private households owned a car and millions hoped to obtain one (Gatejel 2012).

Between 1970 and 1975 the manufacture of the Lada under Fiat licence was a quantum leap for Soviet car production, but further expansion did not happen and the whole range of Russian vehicles stagnated at an annual output of around 1.3 million cars. With manufacturing under licence the Soviet automobile sector temporarily gained access to western technology standards, but subsequently innovation petered out. The quality gap with Western car makes widened constantly in terms of production methods and product features.

Like all other branches of manufacturing industry the automobile industry was plunged into a deep sales crisis after 1990. Car exports to other former Soviet republics collapsed due to the emerging customs and currency barriers, while many Russian companies reduced their investments and economised on their vehicle fleets. Sales of commercial vehicles fell by over 70 per cent (1990: 0.86 million/2000: 0.24 million vehicles), car sales by 20 per cent (see Table 1). The advent of a market economy now brought foreign competition. Domestic producers were

initially protected by low wage costs and in the 1990s virtually only the »nouveaux riches« were in a position to buy foreign cars.¹⁷

In 2000 a new phase began. With the oil price boom demand for consumer durables picked up and initially domestic automobile firms also benefited. On top of that, however, came a new development: wage rises now outstripped productivity (see Section 2.5) and this cost development was reinforced by rising (real) exchange rates. Falling price advantages and considerable quality deficiencies on the part of domestic vehicles induced more and more customers to buy imported models. While total demand rose markedly domestic manufacturers could not even achieve the capacity utilisation level of 1980. The additional demand for commercial vehicles and cars turned almost exclusively towards imports. Thus from 2005 to 2007 alone car imports rose by 177 per cent, achieving a market share of 50 per cent (see Table 1). Given the dynamic of these sales shifts it could be foreseen that Russian manufacturers would face extinction within a few years.

2.2 Import Substitution: Concept, Strategy and Special Russian Features

Decrees 166 and 566

Alarmed by the appeals for help from Russian manufacturers and trade unions the government intervened. With Decrees 166 (29.3.2005) and 566 (16.9.2006), which were tightened up with subsequent amendments, the

17. Statistics on car imports in the 1990s are not particularly meaningful because many vehicles were brought into the country illegally and without customs registration. A glance at the register of vehicles on the road confirms the large number of imports, however. The share of foreign makes rose from 1991 to 1995 from 1.9 per cent to 8.1 per cent (see Holtbrügge 2006: 141).

government's aim was not to close off the Russian market, however, which is what domestic lobby groups were demanding, but to get foreign companies to set up in Russia. Protective barriers were established only against foreign car manufacturers not willing to come to Russia. The following measures were implemented in order to attract investors:

- reduced tariffs or tariff-free import for production plants;
- reduced tariffs or tariff-free import for car components needed for industrial assembly;¹⁸
- reduced tax rates for profits (either on agreement with regional authorities or privileges in special economic zones, which also provided favourable access to the national transport network);
- reduced levies to local authorities for using land, water, electricity and other resources.

The privileges for industrial assembly of vehicles were extended to car components (Decree 566). The establishment of a foreign supplier industry was supposed to deepen value added chains in the automobile sector within the framework of national economic circuits (see GTAI 2010: 48ff).

In order to be able to enjoy such privileges investors had to undertake a number of obligations:

- commence production within a certain period of time;¹⁹
- annual serial production of at least 25,000 units (in the case of a contract signed before 10.11.2007); the lower limit for agreements signed later was 300,000 units;
- gradual reduction of imported car components after two years. Automobile production was supposed to be localised at 30 per cent within 5–7 years. Subsequently, this was raised to 60 per cent.

18. Tariff rates were lowered to between zero and 5 per cent for 56 classes of goods (see GTAI 2010: 49).

19. Decree 166 laid down 18 months in the case of expanding production and 30 months in the case of new investments.

On top of this came technical requirements for car assembly and the manufacture of components.²⁰ In this way the building of *semi-completely knocked down* and *completely knocked down* plants, which merely imported parts manufactured abroad and put them together on the spot, was to be prevented.

Import substitution as a strategy

Import substitution is a widespread development strategy used in the course of building up a domestic industry. All countries with highly developed industry today used it. Even though representatives of these countries today call for free trade and customs duty reductions, during their own development stage they did not shy away from establishing industrial policy defence mechanisms to promote their own industries (see Chang 2003). Decisive for government action is not whether, but how and when. If monopolies become more widespread behind trade barriers, whether public or private, local or foreign, the state must have the capability and the will to substitute the market mechanism and ensure productivity development with targets.²¹ If it is not ready or willing to take the lead here or has other priorities, such as employment policy, then import substitution threatens to become a case of permanent subsidisation, hindering the development of other economic sectors.

From a costs standpoint import substitution has two specific limitations that have to be heeded. A market has to be of a minimum size so that economies of scale can work. It also requires a source of foreign currency. Import substitution usually begins at the final stage of a supply chain and thereby, shifts import dependencies from the end product to the previous stages. A net saving on imports only occurs if further stages of a production chain are subjected to import substitution. In the absence of sufficient foreign currency revenues import substitu-

20. For example, guidelines on welding and painting and machining cylinder heads.

21. If import substitution leads to monopoly rents and consumers are permanently disadvantaged a state monopoly watchdog is needed that imposes guidelines to compel productivity increases and sales price reductions. Where state supervisory authorities do not act under the aegis of development policy and enter into political marriages of convenience with company managements we can expect cronyism and corruption. The economic criticism that all protectionism leads to efficiency losses and that a globalised company operating on free markets produces more efficiently than companies operating in the confinement of protected markets may be true, but it is beside the point, because it neglects the income effects on the relevant host societies.

tion can be depleted with regard to financing or even instigate a debt spiral.

Specific features of import substitution in Russia

Although the programme Russia launched after 2005 for import substitution in the automobile sector obeyed the classic principles of offering incentives it established a specific framework and had a number of other local peculiarities:²²

- the aim of import substitution was not to build up a new industry, but to revive a branch already in existence for many decades;
- import substitution did not concern a market segment in which the state plays a central or exclusive role as customer; companies were primarily supposed to meet the demand of private households;
- import substitution did not establish a monopoly, but heightened competition;
- import substitution did not compel the formation of joint ventures with Russian firms – manufacturing plants could remain 100 per cent foreign-owned;
- although localisation constraints were imposed there was no compulsion to transfer foreign technology to Russian firms;
- foreign investors found a developed transport infrastructure and an industrially trained workforce and thus the phase from investment up to market entry was short;
- even requirements to raise the share of components purchased in Russia did not privilege Russian companies; the supply industry remained open to foreign investors and they even had the chance to push Russian suppliers out of the market.

22. The fact that standard criticisms fail to find their target from the very outset and that the Russian version of import substitution in the automobile sector and the characteristic features of local constraints deviate from the standard version practiced predominantly throughout the world is illustrated by a broad-based investigation of »the LCR Phenomenon«: »Local-content requirements (LCRs) are an old protective device with two simple but powerful appeals: create jobs at home rather than abroad and channel business to home firms rather than foreign firms. Historically, LCRs have been associated primarily with government procurement and mandates imposed on publicly funded projects.« (Hufbauer et al. 2013: 1).

2.3 The Advance of Foreign Automobile Groups

With the organisation of import substitution the government conceded the failure of earlier efforts to make domestic producers into global automobile groups with state assistance. Without any compulsion to transfer technology to Russian companies, with privileges that reduced costs for capital investments and a market that had the potential to move into first place in the European automobile market within a few years it is not surprising that all the major international automobile manufacturers soon concluded location agreements with the government (see Table 2).²³

Table 3 summarises the development of the automobile market in Russia between 2005 and 2013. Particular attention should be paid to the following:

- The total market doubled in the period 2005–2008, from 1.5 million to just under 3 million cars. After enormous losses during the economic crisis of 2008/2009 things picked up again and returned to the pre-crisis level. Since 2013 low economic growth has dampened demand.
- Growth is extremely volatile. In an economic crisis the automobile market collapses disproportionately, while in an upturn it grows disproportionately.
- The share of imports – which leapt to 59 per cent by 2009 – has fallen sharply within a few years (2013: 25.4 per cent).
- The share of Russian vehicles, which in 2005 was still 60 per cent, also fell sharply and in 2013 stood at only 22.4 per cent.
- The largest producers are now foreign companies with production plants in Russia. Their share grew from 10.1 per cent (2005) to 52.2 per cent (2013).

The data convey a clear picture: import substitution has had a dual crowding-out effect. As intended, the import sector has been crowded out. Automobile production

23. »At the beginning of 2010, 80 memoranda or contracts had been signed under Decree No. 566 with the Ministry for Economic Development. In addition, 27 agreements were signed under Decree No. 166.« (GTAI 2010: 50).



Table 2: International automobile groups – manufacturing capacity in Russia

Company	Location	Since	Ownership	Capacity 2007	Capacity 2010	Capacity 2015
Renault-Avtoframos	Moscow	1998		80 000	100 000	160 000
Ford-Sollers	St Petersburg	2002	Joint Venture	72 000	100 000	125 000
GM-Avtovaz	Tolyatti	2002	Joint Venture	60 000	60 000	110 000
VW	Kaluga	2007			115 000	300 000
Toyota	St Petersburg	2007			50 000	200 000
Nissan	St Petersburg	2007			50 000	100 000
General Motors	St Petersburg	2008			70 000	70 000
PSA Peugeot-Mitsubishi	Kaluga	2010			100 000	125 000
Hyundai-KIA	St Petersburg	2010			100 000	100 000
Ford-Sollers	Yelabuga (Tatarstan)	2011	Joint Venture			200 000
	Naberezhnye Chelny (Tatarstan)	2011	joint Venture			200 000
VW-GAZ	Nizhny Novgorod	2013	joint Venture			110 000
Renault-Nissan-Avtovaz	Tolyatti	1966/ 2013	Russian / joint Venture	800 000	800 000	1 150 000
Great Wall	Moscow-Tula	2017				2017: 150 000

Note: Not including Russian firms that assemble foreign models on behalf of international automobile companies, such as Avtotor (Kaliningrad/Kaluga), Gaz (Nizhny Novgorod) and Tagraz (Rostov).

Source: EBRD 2010, media reports.

Table 3: Car sales in Russia by origin, 2005–2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013
ABSOLUTE FIGURES									
Total	1 520 225	1 911 240	2 541 920	2 897 459	1 465 742	1 912 794	2 653 688	2 755 384	2 597 720
Imports	451 714	733 322	1 253 268	1 428 030	866 477	704 432	915 525	786 595	660 000
Car production in Russia	1 068 511	1 177 918	1 288 652	1 469 429	599 265	1 208 362	1 738 163	1 968 789	1 936 865
of which: Russian firms	914 288			877 000	316 000	581 000	679 000	640 000	580 935
of which: foreign firms	153 857			591 000	280 000	627 000	1 060 000	1 329 000	1 355 930
MARKET SHARE (%)									
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Imports	29,7	38,4	49,3	49,3	59,1	36,8	34,5	28,5	25,4
Car production in Russia	70,3	61,6	50,7	50,7	40,9	63,2	65,5	71,5	74,6
of which: Russian firms	60,1			30,3	21,6	30,4	25,6	23,2	22,4
of which: foreign firms	10,1			20,4	19,1	32,8	39,9	48,2	52,2

Sources: Ernst & Young: An Overview of the Russian and CIS Automotive Industry, March 2013 (Figures 2008–2012), Organisations Internationale d'Automobiles (OICA) – www.OICA.net

has »migrated to Russia« once again. A major segment (around 25 per cent) continues to be covered by imports. This concerns mainly models not produced locally, especially luxury makes.

However, the winners from this localisation strategy are not Russian firms. Import substitution offers Russian producers no special protection and in free market competition they lose out to the subsidiaries of global automobile groups.

Unfortunately no detailed statistics are available on the development of the supply industry. It is clear that with the relocation of final manufacturing to Russia the import of components initially rose.²⁴ Suppliers and vehicle manufacturers have close ties and suppliers waited before establishing their own manufacturing sites in Russia until the development of the market for the relevant models became clearer. Under pressure for localisation the automobile majors lobbied international component suppliers to join them. In this second investment wave the major suppliers, such as Magna, Siemens, Bosch and Schaeffler, were involved. In individual instances they entered into joint ventures with Russian suppliers, but often they decided to go it alone. The increase in local content has now also led to crowding out among suppliers. Although localisation has brought market growth, it has been at the expense of the advance of foreign capital.²⁵

The effects of these processes on the formation of national enterprise over the medium and long term can be discerned by analysing the organisation of the largest joint venture, Avtovaz.

2.4 Avtovaz – the Russian Automobile Industry under a Magnifying Glass

Transformation into chaos

The development of Avtovaz²⁶ since the break-up of the Soviet Union is representative of the Russian automobile sector as a whole (see Bloomberg 1998 and Avtovaz History [no date]). In 1993 the conglomerate was transformed into a joint stock company by way of voucher privatisation, in which the workforce received 51 per cent of the shares. In Russia there is no obligation to name shareholders publicly, so that the development of ownership remains opaque. As in the case of other privatised companies, however, behind the scenes wealthy interests and the managers of the company seem to have been able to amass shares. Presumably, the Avtovaz management soon obtained a majority.

The transformation period was a unique crisis for the automobile manufacturer and it was constantly on the verge of collapse. Dealings with suppliers largely took place without cash on a barter basis,²⁷ without clear value accounting. The distribution network got into the hands of the Russian mafia or those of its own managers, who set up their own sales firms, passed on vehicles to them without prepayment and paid up only months later with sums massively devalued by inflation.

Already deeply in debt from the Soviet period the company was in constant search of new credit and could not pay its taxes. The attempt to bring on board foreign investors in the 1990s failed. Time and again the government deferred tax payments or provided cash injections.²⁸ As surety for the outstanding tax payments Avtovaz handed over 50 per cent plus one of its shares

24. A study of the CIS as a whole states that the »Commonwealth of Independent States (...) is marked by a very impressive progression of the far-distance share. Situated in 2000 at an intermediate level of 57 %, it goes up to 94.5 % in 2012. This sharp increase reflects the fact that carmakers from the »historical core« set up assembly plants in this zone, whose auto parts procurements are essentially provided by far-distant located mega-suppliers.« (Frigant/Zumpe 2014: 23).

25. »Local firms are seemingly caught by the fact that to become a supplier to Volkswagen Group, Renault-Nissan or PSA Peugeot Citroën, a long and expensive process of certification needs to take place. The problem for many Russian vendors is that they lack a strong track record of delivering high quality components in large volumes to existing foreign customers. To gain even a handful of such contracts takes years and requires very deep pockets« (Brooks 2013).

26. It is very difficult to get a good view of the history of Avtovaz from its annual reports. The first publicly available annual report dates from 1998. The data are minimal and refer to reforms rather than go into detail about them. Practically nothing is said about ownership structure, no details are given about employment figures and production data vary in presentation. Since 2005 only financial reports have been available. Many of the events and assessments mentioned here were gathered from media reports.

27. Avtovaz managing director Vladimir Kadannikov: »In order to get components from our former suppliers, we have to give away 190,000 cars a year for barter« (Avtovaz History [no date]). Avtovaz only ceased to engage in barter in 1999.

28. In 1999 the government provided 700 million US-dollars and in 2002 800 million US-dollars (see Kolesnichenko 2009).

in trust to the Russian Federal Property Fund (Avtovaz Annual Report 1999: 26).²⁹

Nationalisation and employment guarantee

Avtovaz commenced restructuring. Part of its social facilities – for example, medical establishments and kindergartens – were outsourced to the local authorities, others (such as the children's holiday facilities and sanatoriums administered by the trade unions) remained in-house. The management was restructured, a new accounting system complying with international standards was introduced and units were allocated to cost centres. The distribution network was cleaned up and brought under company control,³⁰ supply chains were shortened, some units transferred to separate firms and with them further component manufacture was outsourced.

The reforms improved technical processes but created other problems. Outsourced company units remained tied to the company on the basis of complex nesting of shareholdings and were provided with long-term contracts and order commitments. Although nominal employment at the plant fell with restructuring, in the group as a whole it remained at around 150,000. Because the plant brought in little foreign currency foreign suppliers were replaced with domestic firms (see Avtovaz Annual Report 2002), to the detriment of quality. The Russian supplier network remained sparse and there were often monopoly situations on both sides of a transaction.³¹ Overall, productivity gains remained modest and sales opportunities were based primarily on low wages. The financial situation remained precarious; there are references to major liquidity problems in almost every annual report.³²

With the help of government loans and tax deferrals the plant was able to keep its head above water; invest-

29. It remains unclear whether and when this share package was returned and whether the government undertook supervisory functions.

30. Once the army was brought in to help clear the company premises of unauthorised dealers.

31. The list of suppliers for 2001 numbered 613 firms; of these, 67 were larger firms, strongly dependent on Avtovaz, which accounted for between 25 per cent and 90 per cent of their turnover (see Avtovaz Annual Report 2001: 73).

32. »Over the past five years Avtovaz has experienced chronic difficulties with liquidity (...) Avtovaz's working capital is not yet sufficient to maintain operations of Avtovaz, let alone provide the necessary finance for the development of new models« (Avtovaz Annual Report 2002: 77).

ments in modernisation and new models were out of the question, however. The government prevented collective redundancies,³³ although it commenced partial renationalisation with a debt/equity swap. On its behalf the state armaments group Rosoboronexport took up management of Avtovaz in 2005. Together with Russian investment bank Troika Dialog, which had held 25 per cent of Avtovaz's shares for a consortium of private investors since the 1990s, the state regained control. There is no evidence that the renationalisation was planned; there was no staff or organisational restructuring. Because loan repayments were not on the cards only the ownership structure was modified, without changes in management control.

The search for a foreign investor yielded partial success in 2001/2002. The US automobile giant General Motors (GM) rejected direct involvement but founded a separate joint venture with Avtovaz and build the new Chevrolet-Lada in Tolyatti on a parallel production line.³⁴

Renault takeover – the last chance?

The booming demand for cars from 2006 improved the chances of finding a foreign investor. In competition with GM and FIAT, Renault prevailed. The French group stepped in with a capital contribution of 1 billion US dollars in 2008 and took a shareholding of 25 per cent. The Russian government replaced Rosoboronexport with state holding company Rostekhnologii (Rostec) and Avtovaz now had three major shareholders.

A few months later the global economic crisis of 2008/2009 struck the Russian automobile market with full force. Lada sales plummeted by 50 per cent to only 350,000 vehicles, and over 150,000 were stockpiled. The plant reacted by throttling production and wage cuts. It was once more in a struggle for its very survival. In the Samara region GDP fell by 38 per cent (see Kolesnichenko 2009).

The government, the Avtovaz management, the municipal authorities in Samara and Renault fought over

33. In the mono-city Tolyatti around 40 per cent of all workers are employed at the automobile works and indeed the Lada manufacturer and its suppliers are the main employers for the whole region of Samara.

34. The Chevrolet-Lada was initially produced under Russian license in a quantity of 50,000, later 100,000.

Table 4: Employment and car production at Avtovaz

Year	Employment whole company	Employment Avtovaz-Automobiles	Number of vehicles produced
2000	150 000	110 000	706 000
2001	151 343	124 091	774 000
2002	161 148	121 628	675 000
2003	161 228		718 000
2004	159 953	116 808	722 000
2005	154 846		
2006	150 092		
2007	129 514		681 610
2008	130 698		
2009	103 852		
2010	99 393		550 000
2011	95 889		613 000
2012			611 000
2013		65 891	506 000
2014		52 000 planned	
2020		25 000 planned	1 500 000?

Notes: The data on employment in the Annual Reports vary between data on the company as a whole and on the car plant. The data on vehicles produced also include exports and unsold vehicles.

Sources: Avtovaz Annual Reports 2000–2013, media reports for 2014 and 2020.

a rescue package. The government at first kept the company from going under with a new capital injection, but demanded that Renault provide financial support or dilute its shareholding. After intense, sometimes public disagreements, in which the Ministry of the Economy even demanded the end of all state support for Avtovaz, a restructuring plan was arrived at (see Renault Press 2010):

- the government increased its crisis contribution to 1.67 billion euros;
- the provincial government of Samara took on the wage costs of 14,600 employees, hived off to two Avtovaz subsidiaries;
- plant social facilities were transferred to the central and municipal authorities;
- Renault did not hand over any money, but provided technology, machinery and a production platform from

its Romanian budget-make Dacia to the value of 240 million euros.³⁵

Renault came out on top. In light of what happened next the 2009 rescue strategy can be evaluated as a paradigm change with regard to the management of Avtovaz:

- The company was henceforth to be managed in an economically viable way and do without government bailouts. To that end, employment policy was to be the sole concern of the management. Avtovaz cut around 30,000 jobs as early as 2009, primarily in administration; another employment cut has since taken place, in stages.
- Renault assumed technological leadership and drove modernisation forward by preparing production plans for Dacia's B0 platform. In this way in future capacity will be expanded by 350,000 to over 1 million cars a year. Of this 70 per cent of production is to be for Avtovaz and

³⁵ The car maker's debt mountain was still 1.7 billion euros at the end of 2010.

30 per cent for Renault-Nissan, whose own models can be produced on the assembly line.

- Renault had already tried to bring in French managers when it acquired 25 per cent of the shares. It was blocked by Russian management and desisted. Renault now decided to bring Nissan on board and together to try to obtain a majority stake. In this way the Russian management was to be brought under French-Japanese control.
- The government supported the restructuring approach by boosting sales with a scrappage premium in 2010 that would apply only to Russian cars.³⁶

The restructuring of ownership took place in 2012. In the newly founded alliance, 74.51 per cent of the share capital was transferred to Rostec Auto (ARA). Renault increased its share in ARA to 50 per cent with a further capital injection of 742 million US dollars; Nissan got on board with an investment of 376 million US dollars and acquired a shareholding of 17.13 per cent. Rostec retained 32.87 per cent (see Avtovaz Annual Report 2013: 9). Troika Dialog sold its shares. The 25.5 per cent of shares held outside ARA remained in free float. With the change in the ownership structure Renault-Nissan acquired a majority stake, eight of the 15 seats on the supervisory board and also management control. Although the Russian state retained a veto right it largely withdrew from company management. Business policy is now determined abroad and Avtovaz has become a regional subsidiary of an international group. Integration also affects procurement and coordination with suppliers. Avtovaz is part of the Renault-Nissan Purchasing Organisation (RNPO). By 2016, 80 per cent of purchases will take place via RNPO.

The direction in which Avtovaz is being taken was evident in 2014 when the Russian automobile market again suffered a serious downturn. There were another 14,000 job cuts. In an interview Bo Andersson – from 1 January 2014 the first foreign managing director in the plant's 48-year history – laid out developments for the coming years: » Productivity was 20 cars per employee per year in 2013. We should double it to 40 by year-end and 60 is our next target«. ³⁷

36. At this time Russia was not yet in the WTO and thus did not infringe any trade conditions.

37. Interview with Bo Anderson, *Automotive News Europe*, 7.10.2014.

Avtovaz is not Renault-Nissan's only presence in Russia. Since the end of the 1990s it has been involved in a joint venture with Avtoframos, in which various models are assembled. Nissan has had a presence in St Petersburg since 2009, where its own models roll off the production line. Taking all production plants together Renault-Nissan wants to take 40 per cent of the Russian market. This expansion strategy is intended to enable Renault-Nissan to climb from fourth to third place among the world's biggest automobile groups.

The production location in Russia is becoming a key strategic pillar in a worldwide marketing strategy. In this way Renault-Nissan are going beyond the commitment of other foreign producers, which to date have planned production in the region of 150,000 to 350,000 vehicles. For the latter the Russian market remains of secondary importance. Renault-Nissan, however, has tied its expansion strategy to the fate of Avtovaz and is now committed to raising productivity in the main works in Russia to international level.

2.5 Future Development Trends

Market development: an uncertain picture

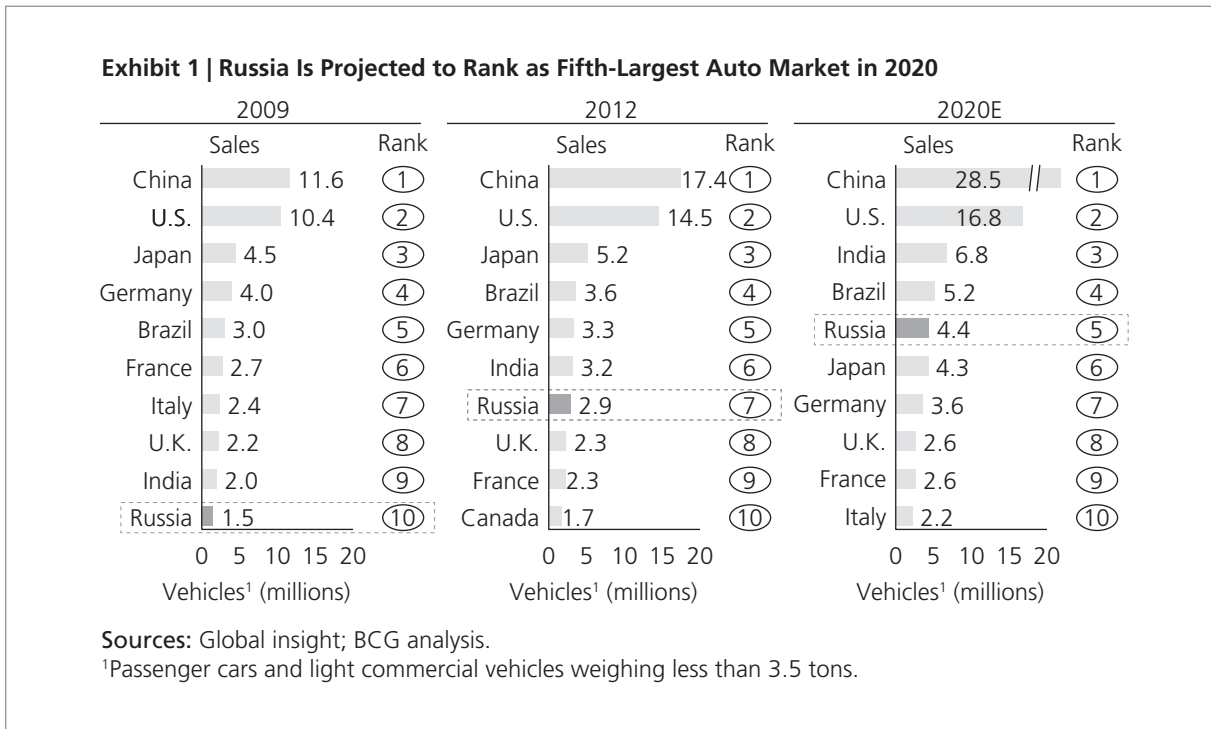
Up to mid-2013 prognoses concerning the future of the Russian automobile market were characterised by great optimism. Forming the basis for this were the low market saturation,³⁸ the high share of old cars in Russia's vehicle stock and expectations concerning economic growth that would provide the requisite purchasing power. Russia was to overtake the German market and achieve first place in Europe. An annual demand of 5 million cars seemed possible. The Boston Consulting Group saw Russia as poised to assume fifth place in global rankings (see Figure 6).

In the meantime, however, pessimism has become predominant. Roland Berger Consulting adjusted its scenarios in May 2014 (see Figure 7). Now a stagnating market is feared or only low growth. It is rare, in the midst of a sales crisis and the dominant pessimism, to find anyone with something positive to say about market developments. Sales plunged by over 10 per cent in 2014. If the

38. In 2013 supply stood at 220 cars per 1,000 households, while countries with a high density of supply have over 400 per 1,000.

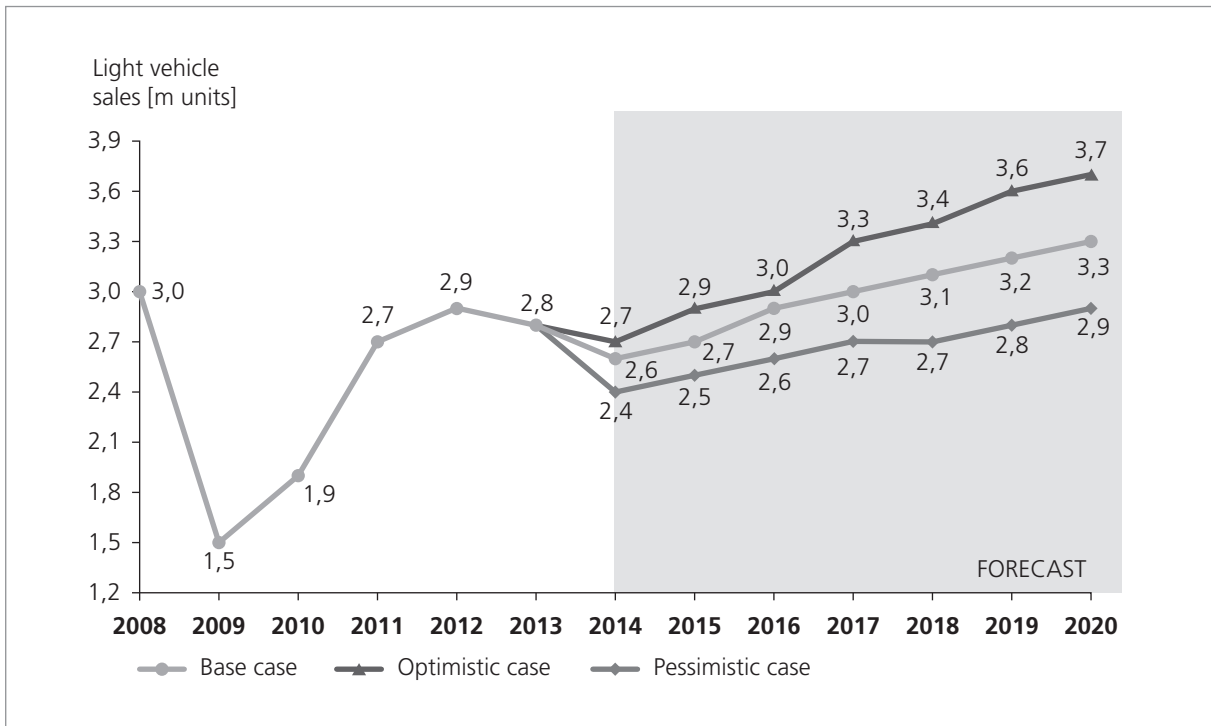


Figure 6: Russia poised to become the fifth largest automobile market by 2020



Source: Boston Consulting Group (2013: 5).

Figure 7: Growth scenarios for the automobile market, 2014–2020 (million vehicles)



Source: Roland Berger (2014).



domestic market remains at its current size three growth strategies are possible nevertheless:

- (1) the share of imports, which now stands at around 30 per cent, can be further reduced;
- (2) new buyers can be attracted with lower prices;
- (3) sales can be boosted through exports.

WTO membership – special regulation for the automobile sector

In 2012 Russia joined the World Trade Organisation (WTO) after a marathon eighteen years of negotiations. Whether it makes sense for an oil economy to join WTO that does not engage in resource trade is doubtful and there was considerable opposition to accession at each stage of the negotiations in Russian business circles. Because Russia primarily exports energy and armaments the focus of the debates was not the opening up of foreign markets, but protective tariffs and the deployment of further protectionist instruments. The import substitution policy and the ceiling for continuing import duties for finished cars were inserted in a special protocol only after tough negotiations, granting exemptions for a period of six years (2012–2018) (see Table 5).

The special arrangements end in 2018, after which only a 15 per cent protective duty can be imposed on imports. Similarly, the provisions on localisation of production (local content) under Decree 166 will cease to apply. In the commercial vehicles sector these WTO cuts will be even more pronounced.

Also important is that with the cessation of the localisation provision vehicle producers will be free to reduce local value added even further. They can source from

abroad components that they have so far bought in the local market.

Wages and productivity

Apart from product quality and capital costs, unit wage costs and exchange rates are the determinant factors of economic competitiveness. Although calculations of the development of unit wage costs are not available for the Russian automobile sector, they are available for the manufacturing sector as a whole. According to the calculations of the Boston Consulting Group unit wage costs did soar by international comparison (see Figure 8). Although this says nothing about current cost levels it does state that cost advantages will be diminished and competitiveness impaired.

Calculations across industry as a whole are of limited significance for the automobile sector, however. Because the latter is dominated by newly arrived foreign manufacturers rises in productivity are likely to be substantial and above-average.

A straight wage comparison, however, results in a similar picture. If Russian wages are converted into euros and compared with the level in neighbouring regions we see a development like the one depicted in Figure 9. Starting from an extremely low level (2000: 87 US dollars a month) remuneration in Russia rises rapidly, soon overtakes the wage level of other post-socialist transformation countries (Kazakhstan, Belarus, Ukraine) and almost draws level with that of the new EU member states of eastern Europe.³⁹ Given this increase, from now on productivity in the Russian automobile sector has to keep pace with production in these neighbouring countries, otherwise

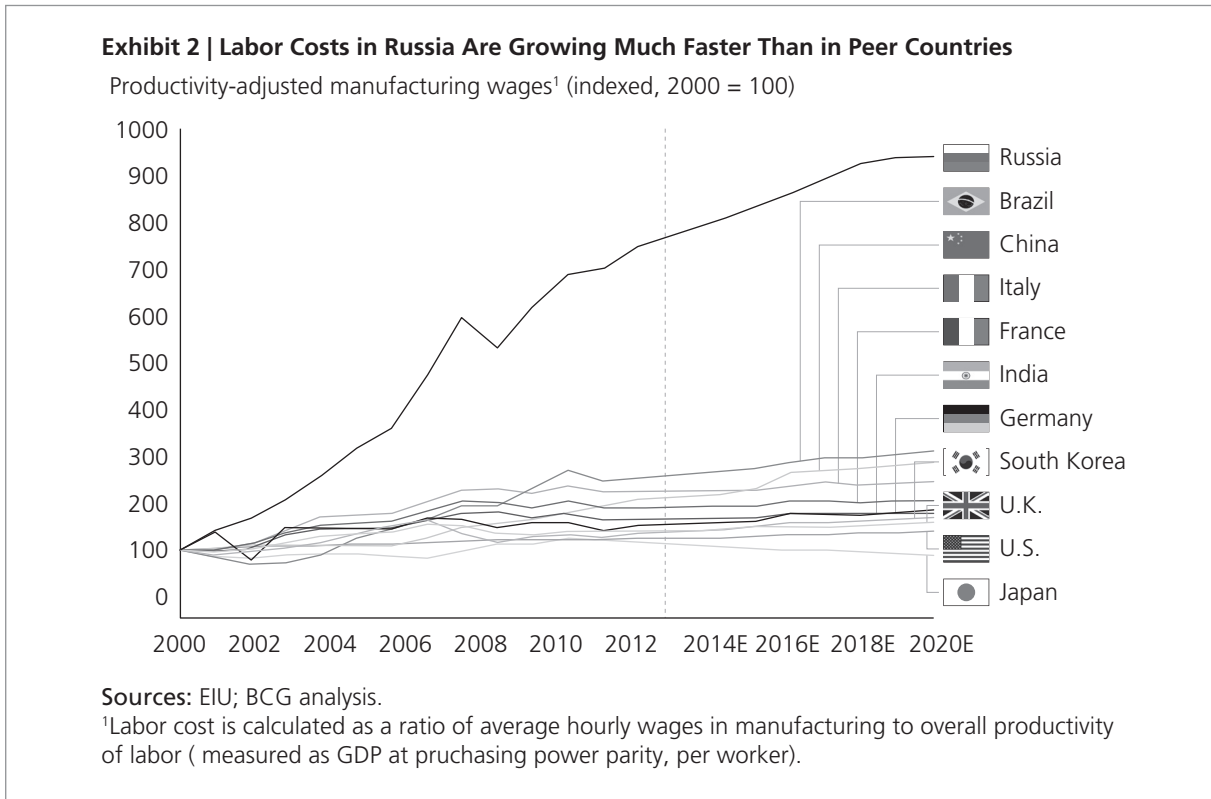
39. Supposedly, during the period 2000–2013 Russia experienced the highest real-wage growth in the world.

Table 5: Import duties for vehicles, 2011–2018 (%)

Import duties	2011	2012 WTO accession	2015	2018
Cars	30 %	25 %	22,5 %	15 %
Commercial vehicles (5–20 tonnes)	25 %	15 %	15 %	15 %
Commercial vehicles (from 20 tonnes)	25 %	10 %	5 %	5 %

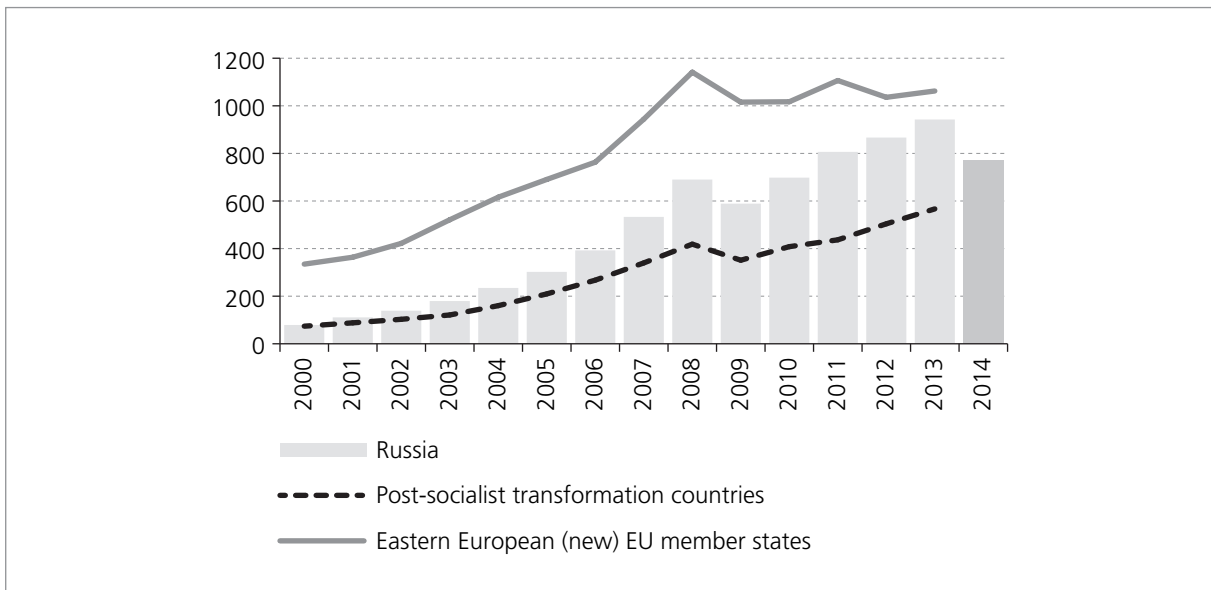


Figure 8: Unit wage costs in Russia and selected countries, 2000–2013/2020



Source: Boston Consulting Group (2013: 8).

Figure 9: Development of average wages in Russia and selected countries, 2000–2014 (US dollars/month)



Note: Data for 2014 based on calculations for mid-December.

Sources: UNECE; author's calculations.

the dismantling of tariff barriers threatens to flood the Russian market with vehicles from eastern Europe.

The crash of the rouble at the end of 2014 ended this adjustment for the time being. Real wages fell by around 5 per cent in 2014, calculated in roubles. In US dollars, however, they fell by over 20 per cent. With the devaluation wages in Russia and eastern Europe drifted further apart and Russian vehicle manufacturers have regained a competitive advantage.

Exchange rates

Real depreciations affect costs like wage cuts or productivity increases and create locational advantages for local production. The manner in which depreciation has affected competition on the Russian vehicle market depends on several factors, however:

- The economic crisis has led to an overall decrease in domestic demand and for many suppliers has squeezed sales to quantities at which economies of scale are lost. Accordingly, average costs are rising, thus further diminishing earnings prospects.
- With real depreciation, costs of imported vehicle components rise more rapidly than local costs, especially wages. Thus the cost profile shifts in favour of those manufacturers with a higher local value added.
- With depreciation, Russian vehicles gain export advantages. If real depreciation were to remain at the level of the end of 2014 for some time the domestic market crash could be balanced by exports or even overcompensated.⁴⁰

There is every indication that Renault-Nissan-Avtovaz could emerge victorious from this competition.⁴¹ The joint venture has invested in new platforms, focused on raising productivity and has the highest level of localisation. While local value added among the other foreign

40. According to media reports Russian vehicles were in high demand close to the border with Kazakhstan in December 2014. The Kazakh tenge had up to that point not followed the slide of the rouble and prices for Russian vehicles were 30–40 per cent lower in Kazakh currency. If the rouble does not »recover« the tenge will soon have to be devalued in order to eliminate the Russian cost advantage.

41. One handicap for Avtovaz, however, is the poor general opinion of product quality and brand prestige, as indicated by surveys.

automobile groups still stands at 30–40 per cent, at Renault-Nissan-Avtovaz it is over 70 per cent. Although the group will also suffer from the sales shrinkage on the domestic market the cost surge due to depreciation has been comparatively low. The lower cost increase and devaluation also confer export advantages and may lead to gains in the Russian sales crisis.

Automobile groups currently face a number of crucial decisions:

- Should they invest in order to increase the level of localisation?
- Should they attempt to sit out the crisis in the hope that it will soon be over?
- Or should they pull out of manufacturing in Russia and resume supplying the Russian market from outside?

If monetary policy resumes its focus on a strong rouble, the reduction in protective tariffs and the elimination of import barriers after 2018 may bring about the withdrawal of foreign investors.⁴² If the policy continues of keeping the rouble low local production would obtain location advantages even without import barriers. Above all, however, export opportunities would open up and vehicles manufactured in Russia would henceforth become competitive in eastern Europe and other regions, too.

Summary

In recent years Russia has commonly been characterised as an emerging nation and its affiliation with the BRICS group – Brazil, Russia, India, China and South Africa – has led to assumptions of dynamic growth. From a structural perspective this has always been false. Like Brazil and South Africa it is suffering from deindustrialisation (Naude et al. 2013). Russia has not been able to build up a competitive industry and the oil boom has only reinforced structural distortions. Although the economic rents flowing into the energy sector have boosted GDP, industry has not gained traction. Unproductive companies were protected by the state and a competition-oriented market economy in which investments in modernisation

42. This assumption underlies the market analysis carried out by Roland Berger (2014), which considers that a rise in the import share to 50 per cent is possible.

determine sales prospects has not developed,⁴³ or only in niches. Falling energy prices have plunged this economic model into crisis and the inversion of price ratios represents another opportunity to strike out on a different development path.

Russia has to some extent already reversed direction in the automobile sector. Avtovaz, the pride of the Soviet Union, exemplifies the mistakes of the transformation phase. Privatisation and liberalisation led to a crash and only renationalisation could prevent collapse. The regulations on the localisation of production in the automobile sector in 2006 and 2011 exacerbated the situation of the vast works in Tolyatti. The strategy chosen by the Russian government did not throttle the import sector, but provided foreign investors with incentives that induced all major automobile groups to set up production plants in Russia, at the price of crowding out domestic production. Avtovaz was rescued in a joint venture with Renault-Nissan to avoid insolvency. Other Russian suppliers never threw off their role as producers on license for foreign markets and play no technological role.

With this strategy Russia decided on a path that differs fundamentally from that of China. While China declared that automobiles were a strategic sector for the growth of national companies and compelled foreign investors to participate in joint ventures – with requirements concerning technology transfer in favour of domestic automobile producers – the Russian variant led to the crowding out of national producers. The Russian state did not assume the role of »structural development agent« for domestic companies, but pursued macroeconomic aims, such as reducing subsidies or maintaining jobs. There is thus no longer independent national automobile manufacturing in Russia.

What are Russia's prospects as a location for international automobile groups? Russia's domestic market does not have the volume of China or India and thus its ability to attract and control foreign investors is limited. Technologically and economically Russia is an isolated location and thus of interest to most automobile groups only because of its domestic sales. With production plants for 100,000–200,000 vehicles the Russian market is not appropriate for incurring the high development costs

of new platforms and models. It is stuck with second-generation production technologies and there is little modernisation pressure from either policy – for example, emissions limits – competition or consumer demands. Low energy prices also reduce the incentive to introduce fuel-saving innovations. Technical changes in the global market, such as electrification of drive trains or the development of communication-networked cars, take place at other locations and enter the country only via imports.

The Russian market has also been isolated to date with regard to marketing strategies, apart from in the premium segment, which is served by imports. With the removal of customs barriers and the cessation of localisation requirements after 2018 the market will open up and automobile groups will have to decide whether to reduce local production or further deepen local value added. As customs barriers cease it could be more profitable to serve local demand via foreign locations. If the government sticks with its strategy of keeping the rouble low in order to boost industrialisation, local supply chains will maintain their advantages. This could encourage international automobile groups to step up their commitment to Russia or at least to maintain it. If monetary policy returns to keeping the value of the rouble high – for example, if the oil price starts to rise again – then a broad withdrawal of foreign manufacturers after 2018 is on the cards.

Only Renault-Nissan-Avtovaz diverges from this dependence on monetary policy. The French-Japanese group has invested four to five times more than any other automobile manufacturer. It considers Avtovaz as a geostrategic pillar in the process of climbing up the global rankings. With projected quantities of over 1 million vehicles and value added of 70 per cent it is far more embedded in the local economy. If the government continues to support the Russian automobile sector by keeping the rouble low then we can expect that the car plant will export much more than the 100,000 vehicles sold abroad thus far. Renault can already point to the successful transformation of a former Socialist manufacturer into an export company with its commitment to Dacia. Rostec, the voice of the Russian state at the shareholders' meeting, declared that the aim was to export 50 per cent of production in future. As during Soviet times Russian vehicle production could again be dominated by one large plant. However, this would not be an independent national plant with a local monopoly position, but the regional pillar of a global company with its headquarters abroad.

43. This analysis did not deal with the export sector. With regard to energy and extractive metallurgy Russian companies are integrated in the world market and are in competition with other multinational companies.

The growth prospects of automobile manufacturers remain closely linked to restructuring in the supplier segment, however. In order to improve the poor quality of domestic components, Russian suppliers have to modernise or more foreign investors enter the domestic market. With its high level of localisation Renault-Nissan-Avtovaz also has a strategic role to play here. Manufacturers bringing component production back in-house could be one Russian solution to the quality problem among suppliers.

Does this »partial success« of import substitution in the automobile sector tell us anything about the reindustrialisation prospects of other sectors? There is no import substitution in the production of military equipment – which supposedly makes up more than half of all industrial processing – because Russia is self-sufficient. In that case the political debate concerns rather the additional purchase of modern weapon systems than the production of replicas. Modernisation of Russian military production by bringing in foreign companies is improbable on security-policy grounds.

In civilian production import substitution is conceivable in principle, but various problems arise. Although an economic crisis due to sanctions provides a motive for import substitution it represents the most unfavourable time imaginable for implementing it. Building up domestic companies suffers from both a collapse in demand and rising capital costs. Furthermore, import substitution has to be tackled in different branches and phases of a supply chain at the same time, instead of cherry-picking individual products and stages one after the other and only in due course completing a sequence of manufacturing stages, thus taking account of learning costs. Localising different production stages of a long processing chain at the same time gives rise to considerable frictions in coordination. Furthermore, massive subsidies are needed throughout the whole period.⁴⁴ Foreign investors, if they can be enlisted, would further increase the import dependence by relying on imported components and domestic producers would possibly suffer the same fate as Russian automobile manufacturers.

A particular problem arises when the state not only sets the conditions, but is also the single purchaser. In this instance import substitution runs the risk of creating a twofold monopoly. Foreign investors ask for long-term purchase commitments in order to be able to calculate the investment risk, but precisely that is what the state may not be willing to accept with a view to preventing a supply monopoly. And where it does so nevertheless the familiar problem may arise: after an initial investment further modernisation is not forthcoming. The solution is again obvious: before import substitution the market must first be got into a competitive condition that prevents the state from focusing on the well-being of individual companies.

Finally, if import substitution is sought via foreign direct investment, clear investment conditions must exist, legal protection must apply to investors and there must be political security that makes expropriations or market-inhibiting intervention by the host state improbable. These conditions do not exist during an economic crisis, especially not when it goes hand in hand with a political crisis.

Russia has much better industrialisation prospects in areas in which it enjoys comparative advantages and could count on export growth. This includes the processing of mineral and agricultural raw materials. With a liberal investment regime and state infrastructure services in communication, storage and transport, food processing and petrochemicals could become the focus of a reindustrialisation strategy. Russia has the world's largest reserves of agricultural land (see, for example, Belaya et al. 2014), as well as enormous water resources (see Korytny 2014), and with subsidies on energy sources the country could attract east Asian industrial capacities for further processing. Export diversification is more promising than import substitution, although here too it would depend on the low value of the rouble.

44. In the machine tool industry the market share of domestic producers has fallen to 9 per cent (2012). Despite protectionist intervention changes are slow because the supplier industry is lacking, producers lack the requisite financing or customers are dissatisfied with the quality on offer (see GTAI 2014c).



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