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Drawing on foundational arguments from the literature on emerging market institutional strategies, and employing a realist historical analysis, we present a retrospective on the Russian automotive industry. We begin by tracing the origins of the sector and synthesizing salient post World War II developments. We then recount the subsequent expansionary decade of the 1960s, followed by the stagnation of the late 1980s, culminating in the eventual collapse of socialism and the breakup of the USSR. Attracted by both the rapid growth in the local market, and the preferential tax rates that accompanied investments, we then document the swift expansion of production facilities in Russia by major global manufacturers in the 2000s. We show how eventually an ensuing sharp halt in local market growth, and an accompanying rise in spare production capacity, saw most manufacturers pursue institutional strategies aimed at obtaining new tax concessions and leveraging intra-industry cooperation, rather than divesting their recently established production facilities. Overall, our retrospective, in particular, calls attention to how global manufacturers were able not only to acquire and rejuvenate existing production facilities or install new greenfield ones, but also to exercise their agency in shaping the broader policy framework and in fashioning new sectoral institutions designed to buttress and sustain the industry.

JEL Classification: F23, J23

Keywords: Russian automotive industry, foreign direct investment, institutional strategy, historical analysis, intra-industry cooperation, transition economy.

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1 | INTRODUCTION

In 2008, in the midst of the global financial crisis, the Russian government created a list of 'backbone organizations', which were to be prioritized for state aid in the event that such aid would be required as a result of the unfolding crisis. That list included five automobile manufacturers – all of them in Russian ownership; although in the case of one (KAMAZ) a blocking stake of shares was purchased by a foreign company in 2008, and in a second (GAZ), a contract for the assembly of foreign trucks was signed, also in 2008. Roll forward to April 2020 and, faced with the first wave of COVID-19, the Russian government moved once again to create a new list of organizations qualifying for state aid. On this occasion, 12 automobile manufacturers were included – seven Russian subsidiaries of major global MNCs (two subsidiaries of Renault and one each of Volkswagen, Nissan, Peugeot-Citroen, Hyundai, and Toyota), and five Russian-owned companies, all of them performing contract assembly work for foreign manufacturers as either their core business or as an important additional undertaking to their own manufacturing activities.

This comparison of the two lists of companies in the same industry prioritized for state aid serves as a barometer of the radical transformation that the Russian automotive industry has undergone over the past 20 years. It involved major global manufacturers (and their worldwide suppliers), along with the government, acting in consort to bring about conditions favorable to the establishment and maintenance of modern manufacturing facilities in the auto industry, and in ancillary sectors. Within those 20 years, ageing local-owned factories, where some 70% of production had been given over to manufacturing models designed in mid-1980s, were replaced by a dozen newly installed foreign-owned assembly plants and almost one hundred newly established foreign-owned facilities operating in the auto parts and support sectors. The largest existing car plant came into total foreign ownership and was completely retooled to produce a new line of models. The overall assembly capacity of the whole industry doubled. More importantly, starting from 2002, the industry was the object of several governmental policies aimed at making Russia attractive for foreign investors across the whole value chain of automobile production. Finally, in what might be characterized as an 'island to nation strategy', the automotive industry became the birthplace of new policy instruments and new institutions, including, among others, the establishment of industry clusters and the creation of industrial parks. These developments were to eventually to serve as models for the renewal of other sectors across the economy.

In this paper we document how foreign MNCs were able to engage in institutional strategies not only to acquire and rejuvenate the existing production facilities or to install new manufacturing facilities, but also to influence the institutional and the policy framework by either assisting the government to frame and introduce particular institutions and policies or by creating 'prototypes' of new institutions designed to buttress their competitive and sectoral position.

The remainder of our paper proceeds as follows. Firstly, we outline the rationale and value of anchoring our work in ideas from the literature on emerging market institutional settings and in adopting an historical paradigm. We then present our research methodology and data sources. Our historical analysis of the automotive industry in Russia covering the last years of the former Soviet Union through to the present day is then presented. In this section we highlight the milestones of industry development from two sides, namely: 1) market entries of the major global auto makers using different forms of entry (licensing, contract manufacturing, joint ventures, installation of wholly-owned manufacturing facilities); 2) forms and methods introduced to facilitate foreign direct investments including import regulations, tax concessions, creation of economic free zones designed to accommodate facilities related to car production, covering the recycling costs, export subsidies etc. The next section spotlights significant policy frameworks and institutions that emerged as a result of the institutional strategizing engaged in by major foreign MNCs operating in the sector. This is followed by a broader discussion of some of the identifiable process developments that occurred in this mature industry in a large transition economy context, along with several issues related to the behavior of the major global automakers involved.

2 | BACKGROUND AND APPROACH

2.1 | Situating Our Analysis

There is little doubt that evolutionary economics has served as the dominant approach to studying industry development [Nelson and Winter, 1982; Nelson, Dosi, Helfat, Pyka, Winter, Saviotti *et al*., 2018]. Employing this theoretical paradigm, the evolution of a sector is commonly presented in formal models assembled around four main building blocks - demand; technological landscape; firm innovative behavior; and industry dynamics captured in the intensity of entries and exits [Garavaglia, 2010; Li, Capone and Malerba, 2019]. Each of the elements is typically presented in a set of quantitative parameters that facilitate sophisticated mathematical models and that test particular hypotheses. However, even some evolutionary economists would concede that the models of industry dynamics generated using this approach

can be general and abstract, and sometimes removed from the rich evidence emerging from empirical studies [Capone, Malerba and Orsenigo, 2019]. To overcome purely economic models of industry dynamics, an approach to studying industrial dynamics referred to as "history friendly modeling" has gained traction [Malerba, Nelson, Orsenigo and Winter, 1999]. Models developed in this genre acknowledge to a much greater extent institutional aspects and the role of government decisions in industry evolution than the standard evolutionary models [Malerba, Nelson, Orsenigo and Winter, 2008; Landini and Malerba, 2017]. Nonetheless, even such history friendly models remain quantitative in orientation. Thus, for example they commonly assemble data from large samples of firms relevant to the study period in order to statistically test such models [Fontana and Zirulia, 2015; Pereira and Dequech, 2015; Li, Capone and Malerba, 2019], with studies concluding at the point when the industry has become dominated by a few larger players [Klepper, 2002].

In light of some of the limits attaching to evolutionary models, and given the emerging market context for our work, along with the particularities of the automotive industry as our sector of interest, we draw upon guidance from two alternative literatures, namely ideas curated from emerging market institutional scholarship and the literature on employing an historical lens. The particular value of the literature on emerging market institutional strategies [Marquis and Raynard, 2015: 291] lies in its calling attention to some of the particular mechanisms by which organizations, especially in emerging market contexts "navigate institutionally diverse settings and capture rents outside of the marketplace". Concomitantly, the adoption of a realist historical analysis approach [Bansal, Smith and Vaara, 2018: 1192], through the generating of an "accurate a reconstruction of historical events and trajectories as possible", can assist in elucidating "the historically embedded agency of decision-makers or managers".

2.2 | Features of Organizational Engagement with Institutions in the Emerging Markets

All organizations are embedded within an institutional setting which serves to enable or constrain their activities. Described as a 'portmanteau term' [Horwitz, Budhwar and Morley, 2015: 470], emerging markets as particular institutional settings, Russia being a specific case in point, are often marked by unique idiosyncratic contextual, structural and functional features and dynamic evolving contexts. It has been suggested therefore [Khanna, 2015: 185] that both of the words in the appellation "emerging markets" need to be given due consideration whereby markets "are simply institutional arrangements that allow buyers and sellers to come together", while "emerging" is "the recognition of the incompleteness of such arrangements". The result is that firms have a persistent concern about the extent to which institutional voids in emerging

markets generate increased transaction costs and therefore demand particular strategies on the part of the organization. The recent review of institutional strategies in emerging markets and the resultant framework by Marquis and Raynard [Marquis and Raynard, 2015], in which they underscore "the agentic and intent-driven nature of organizations engagement with institutions" (p. 294) is particularly instructive in this regard. They define institutional strategies as "the comprehensive set of plans and actions directed at leveraging and shaping socio-political and cultural institutions to obtain or retain competitive advantage (p. 291). They review and synthesize an interdisciplinary body of work examining the strategies organizations adopt in maneuvering the institutionally diverse settings of emerging markets. Their review highlights that in such settings organizations show a tendency to pursue three particular types of institutional strategizing, namely *relational, infrastructure-building* and *socio-cultural bridging*, doing so in order to "manage or alter aspects of their institutional environment to obtain or retain competitive advantage" (p. 296)

Relational strategies relate to the importance of engaging in networking as part of the overall approach to growing and preserving particular relationships with important stakeholder groups, not least government. Arising from the belief that the acquiring of mere material resources is not necessarily a sufficient condition for survival, relational strategies serve to generate "social approval and legitimacy" from relevant "referent audiences" [Marquis and Raynard, 2015: 304]. The basic premise is that organizations that are observed to be acting within the web of cultural and political norms, values and beliefs within which they are embedded may achieve greater institutional legitimacy and sustainability [Oliver, 1997]. The result is that strategies that enhance that legitimacy will serve as a goad to action for the organization in establishing and maintaining a network of relationships.

Emerging economies tend to have significant inequities and heterogeneities in terms of infrastructure and resources central to business performance, the presence of which raises concerns about the likelihood of increased transaction costs. As a response, infrastructure building strategies designed to plug particular gaps in infrastructure and regulation that are necessary, both for the functioning of business activity and the mitigation of risk, are often pursued. Marquis and Raynard [Marquis and Raynard, 2015] in their review highlight that a range of mechanisms are commonly invoked in order to address such infrastructural deficits encompassing "informal mechanisms such as collective organization and networks, and formal processes such as developing or following international standards" (p. 309). Once again, the combination of these informal and formal processes can serve to reduce uncertainty, build legitimacy and increase contextual fit.

Finally, socio-cultural bridging strategies are designed to deal with issues that act as a means constraint on development such as political or social unrest or fewer human capital endowments as a result of lower literacy rates and weaker skill sets. In engaging in socio-cultural bridging, organizations exercise their agency to "shape the socio-cultural and demographic characteristics of their competitive environment - for they are not merely subject to socio-cultural and demographic issues, but also active participants" [Marquis and Raynard, 2015: 312]. Among the strategies which they identify that may be pursued in this regard are, for example, the provision of more extensive training and development in order to grow the skills base within their location, or the facilitating of knowledge transfer through sponsoring talent mobility programs and expatriate assignments.

Overall, as Kostova, Roth and Dacin [Kostova, Roth and Dacin, 2008: 999] observed "MNCs enjoy a rich institutional landscape, being exposed to a multitude of diverse practices and patterns of activity". This is especially salient in the emerging market context. Marquis and Raynard's [Marquis and Raynard, 2015] framework of institutional strategies as the actions that organizations engage in to shape institutions and maintain competitiveness in the emerging market context serves to underscore the criticality of understanding the multiple dimensions of that context, along with realising the agency that they can invoke in order to actively shape their environment through institutional strategizing. In other words, institutional settings can and do provide opportunities for organizations to take an active, strategic approach to gaining and maintaining legitimacy, something which has a particular resonance in the emerging market contexts because as Marquis and Raynard [Marquis and Raynard 2015: 291] note, many are characterised by "weak capital market and regulatory infrastructures and fast-paced turbulent change".

2.3 | A Realist Historical Approach

Turning now to how our analysis proceeds, we intentionally adopt an historical approach [Bansal, Smith and Vaara, 2018]. In this method a researcher is freer to establish the important factors in industry evolution beyond demand, technological landscape, firm behavior, and industry dynamics, and may retrace and spotlight the role of government policies and actions, the individual and collective efforts of players who have sought to re-shape government policies or local institutions, along with other relevant contextual factors. In pursuing an historical approach, the researcher may choose between realist, interpretative, and poststructuralist approaches [Vaara and Lumberg, 2016] to elucidate particular aspects of the historical phenomenon of interest. Finally, the historical approach facilitates the researcher in

the use of a wider range of relevant sources and methods of data collection beyond company reports and statistical sources, and provides, for example, for the studying of narratives, the analyzing of video materials, the conducting of interviews and even the performing of action research.

Academic studies on industry evolution adopting an historical approach are relatively uncommon in leading business and management journals [Turcan, Boujarzadeh and Dholakia, 2020], with such studies, where they do exist, being more commonly reported in monographs because accounts of events as they unfolded over time may require detailed contextual treatment [Pavlínek, 2008]. Specifically referring to the case of the evolution of the Russian automotive industry, little by way of documentation and analysis has gone on. There are several articles which are devoted to examining the development of manufacturing subsidiaries of foreign corporations in Russia [Holtbrűgge and Puck, 2009; Golikova, Karhunen and Kosonen, 2011; Karhunen, Kosonen and Ledyaeva, 2014; Gurkov, 2014; Gurkov, 2016a; Gurkov, 2016b; Gurkov and Saidov, 2017; Gurkov, Kokorina and Saidov 2018; Gurkov, Kokorina and Saidov, 2020a], but none specifically on the evolution of Russia's automotive industry. A handful of articles have explored East-West cooperation in the automotive industry [Fava and Luminita, 2017; Fava, 2018] or documented recent trends [Baronina, 2016; Baronina, 2020].

2.4 | Data and methods

Based on the premise that "realist historical analysis can uncover the process dynamics … implying a need to focus on as accurate a reconstruction of historical events and trajectories as possible" [Bansal, Smith and Vaara, 2018; 1192], we chose the realist approach for our study and assembled detailed information in order to reconstruct historical events and landscape the key relevant trajectories. To this end we use mixed methods – reconstructing the sequence of important events, conducting observation studies and interviews, studying video footage, culminating in an in-depth analysis of all of the curated evidence.

To establish the prevailing market conditions, we collected detailed statistical information on the automotive market and auto production for the period 1986-2019 using official statistical sources and publications from several agencies dealing with the sector. For recent years, we also used special industry reports completed by different consultancy firms (Deloitte, EY), along with a series of overviews of the Russian automotive market prepared by the Association of European Business in Russia (AEB). In addition to statistical sources, we also drew on other AEB materials, especially annual position papers. These papers routinely

contain information prepared by industry facing AEB sub-committees, including the Automobile Manufacturers Committee and the Automotive Components Committee. They provide key insights into the agreed positions adopted by the leading foreign actors of each sector arising from an assessment of the regulatory issues and general situation they face. We also assembled a set of official documents pertaining to the regulation of the automotive industry including laws, governmental decrees and orders, along with texts of strategic governmental programs.

To build a temporal profile of the industry's dynamics we hand-crafted a database of the key events in the Russian automotive sector between1994-2019 encompassing the signing of both licensing agreements and assembly contracts, the establishment of joint ventures, the purchasing of significant stakes in existing companies, along with the commissioning of new plants or the closing of others. In addition, covering the period 2012-2019, we built a database of all the official opening ceremonies of foreign owned MNCs in the sector that had established operations in Russia. As these ceremonies are mandatory for the opening of new plants and indeed also widely used in situations where significant extensions are made to existing production facilities, we were effectively able to develop a profile of the installation of all new foreign-owned plants in the automotive sector and in ancillary industries. For each of these ceremonies, we were able to obtain information on the attendees, on the type of facility (location, legal status of the territory and type of the investment i.e., greenfield or brownfield investment). In the case of some 40% of these ceremonies, we were also able to find publicly available recordings of events. Speeches made by participants, especially those by senior executives from corporate HQs, served as important accounts of the motives attaching to the investments and their plans for the Russian market [Gurkov, Kokorina, Saidov and Balaeva, 2021].

In order to get a contextual understanding of more recently established production facilities in the industry, in particular the levels of technological sophistication and the intensity of innovations in some of these recent ventures, we studied the local websites of the major manufacturers, and we also visited an automotive plant in foreign ownership – PSMA Rus – a joint venture of PSA and Mitsubishi in order to see first-hand the facilities. Overall, we assembled and triangulated data from a range of different sources which allowed us to retrospectively landscape the industry from the final years of the USSR up to the present.

3 | HISTORICAL OVERVIEW OF THE DEVELOPMENT OF THE AUTOMOTIVE INDUSTRY IN RUSSIA

3.1 | The latter years of the former USSR (1985-1991)

The origins of the Soviet automotive industry can be traced back to a number of major factories producing foreign models via licensing agreements. The first Soviet automotive plant (ZIL), opened in Moscow in 1924, and produced trucks under license for the US firm Autocar. Another plant (GAZ) followed in 1932 in the Volga region and produced cars and trucks under license for the Ford Motor Company. In 1947, a new car manufacturing facility was opened in Moscow, initially producing a replica of the 1938 "Opel Kadett". This facility was partially built with German equipment received as reparations after World War II. The 1945 Potsdam conference saw Germany pay the Allies over $20 billion mostly in machinery and manufacturing plant and equipment. Reparations to the Soviet Union continued until 1953. By the late 1950s the Russian automotive industry was producing several different classes of cars, off-road vehicles, trucks and buses, though overall production volumes remained relatively low.

The period 1960 to 1970 saw a significant expansion in the industry, once again with the strong support of foreign investors. In 1966, after the visit of the then French President, Charles de Gaulle to the USSR, the reconstruction of a Moscow car factory began with the support of Renault. That facility was to go on to reach a production capacity of 200,000 cars per year. A sister plant, again with the support of Renault with a similar production capacity and manufacturing identical models, was opened in Volga region. In 1966 an ambitious project to build the largest car factory in Europe (AvtoVAZ) commenced in the Volga region. On this occasion, the major partner was Fiat. The facility was opened in 1970 with an initial capacity of 660,000 cars per year which was eventually to grow to 730,000. Some 70% of the production equipment installed in the manufacturing site was of foreign origin (see Fava, 2018). In 1976, with the support of Ford, the largest truck manufacturing facility in Europe (KAMAZ) was opened, again in Volga region, with a capacity to manufacture some 150,000 trucks and 250,000 diesel engines per year.

Arising from the establishment of these facilities, by 1986 the total output of cars, trucks and buses had reached 2.2 million, placing the USSR 5th in the global automotive industry behind the USA, Japan, Germany and France. There was a thriving export market for cars (mostly the Lada model) to both Eastern and Western Europe, Africa and the Middle East, and for trucks to Eastern Europe, Africa and Asia. The whole industry was managed by a special governmental body – the Ministry for Automotive and Agricultural Machinery which established detailed annual plans for each production facility operating under its remit.

The years 1986-1990 brought a period of stagnation as a result of a confluence of circumstances. The growth in the production of passenger cars slowed down considerably, eventually settling at 1.3 million per year. R&D within the industry had also become overly protracted. In addition, the quality of components and assembly remained low, and there was a persistent shortage of spare parts. New models developed in the mid-1980s occupied a very small share of overall production. Under State rules governing foreign trade, the import of cars from abroad was forbidden, though the importation of buses from Hungary and trucks from the former Czechoslovakia was permitted.

3.2 | The lost decade (1992-2001)

The break-up of the USSR saw an end to the system of central planning that had been so influential in governing the fortunes and the fate of automotive industry. Each manufacturing facility became independent and took charge of their own strategic and operational decisions. However, this period of newfound independence following the demise of socialism was relatively short lived. The mass privatization that took place initially saw the transfer of automotive plant shares (from both assembly plants and components manufacturers) to employees who, in turn, quickly sold them on to outside interests. Various financial groups achieved full ownership of several automakers and also secured indirect control over others through acquiring ownership of components manufacturers and dealers' networks. These new owners were particularly interested profit maximization, with the result that the old models were labeled as 'classics' and continued to occupy the lion share of the total production. In addition, the break-up of the USSR saw the ending of the state monopoly rules governing foreign trade. In the car market it resulted in a massive increase in 'wild imports' (imports by unauthorized dealers) of used cars. Initially Ladas, exported in the 1980s to Western Europe became a key focus of the first wave of imports. This was followed by a wave of German manufactures cars and, in the Russian Far East, right-hand drive Japanese manufactured cars became commonplace.

Among the major manufacturers, only AvtoVAZ managed to maintain its production volumes during the early years of the transition process. In 1997 it produced 740,000 cars, slightly more than it was producing in 1990. Others decreased their production through low-capacity utilization. This had the effect of increasing production costs, decreasing profitability and creating a downward spiral. The lack of available funds for developing new models made production obsolete, which in turn decreased sales and profits and further reduced the funds available for R&D. In 2001, the first death knell rang – the Moscow car manufacturing facility

completely ceased production. A part of the complex was subsequently used by Renault to install its own production facilities. Its brand "Moskvich" was purchased by Volkswagen and complemented VW stock of inactive brands. The Moscow truck factory (ZIL) suffered a similar fate, completely ceasing production in 2013, with the facility eventually being completely demolished in 2015 to make way for the construction of a large residential complex.

It was during the 1990s when major international auto manufacturers such as Volkswagen, PSA, GM, FIAT, Renault, Daimler, among others, actively acquired existing industry players and established new manufacturing facilities in different locations throughout Central and Eastern Europe, including the Czech Republic, Slovakia, Hungary, Poland, and Romania. The result was a dramatic rise in auto manufacturing in those countries, especially from 2000 onwards. Of particular note, the key industry players that acquired or established greenfield sites in the Region (Volkswagen, Hyundai, Toyota/PSA in the Czech Republic; Volkswagen, PSA and Kia in Slovakia; Audi, Suzuki, GM and Daimler in Hungary; FIAT, Volkswagen and GM in Poland; Renault and Ford in Romania), were, with the exception of FIAT, Audi and Suzuki, the very same players who would, a decade later, go on to perform acquisitions, create joint ventures or pursue significant greenfield investments in Russia.

However, the "lost decade" was not completely wasted in terms of designing and mastering the production of new classes of vehicles and in engaging in new forms of cooperation with foreign firms. In 1994, GAZ designed and engineered the mass production of a type of vehicle that had previously not existed in the former USSR, namely light commercial vans and micro-buses which became extremely popular as smaller entrepreneurial enterprises developed in Russia. Also, in 1994, the first successful joint venture was created between the Russian truck factory, the state gas monopoly, Gazprom and the Italian industrial vehicle manufacturing company Iveco S.p.A. In 1997, the first assembly of foreign cars (Kia) started in Kaliningrad by the locally owned company Avtotor. In 1998, Renault created a joint venture with the government of Moscow to use part of the Moscow car factory's territory to build its own production line, which began production in 2005. In 1999, Avtotor began contract assembly of BMW models. In 2000, two major locally owned corporations that were involved in ferrous and non-ferrous metallurgy entered the local automotive industry by purchasing several car and truck assembly and engine plants. Both corporations had serious ambitions to become world players in the automotive industry (one corporation even bid for Opel in 2006), but they later scaled back some of those ambitions. One subsidiary of the non-ferrous metallurgy company (currently known as the GAZ Group) is now producing light commercial vehicles and serves as a major assembly contractor for Volkswagen. A second subsidiary of

the ferrous metallurgy company (currently known as Sollers) is involved in numerous joint ventures with foreign MNCs to install and operate assembly plants for leading global brands.

3.3 | Capturing the explosive but unstable demand growth (2001-2012)

Starting in 2000, the transitional economic crisis in Russia gave way to a strong economic recovery. Real disposable income per capita grew by 8 to 10 percent per year between 2000 and 2008; the bulk of that additional family income was oriented toward purchasing cars (for 70% of families, that car was their first). In general, car sales in Russia increased from 925,000 in 2000 to 3,332,000 in 2008; Russia became the second largest European car market after Germany (see Figure 1). Between 2000-2008, the growth in demand was mostly satisfied by an increase in imports (car imports increased from 72,000 in 2000 to 1,993,000 in 2008), with local production beginning to grow in particular in 2006. The positive market dynamics encouraged foreign car manufacturers to give serious consideration to establishing their own production facilities in Russia. In 2001, GM created a joint venture with AutoVAZ to produce a new model of off-road car (Chevy-NIVA). The first company who ventured to build a wholly owned assembly plant in Russia was Ford, which opened its own assembly plant near St. Petersburg in 2002. Spending some US$350 million - US$150 million in construction costs and US$200 million for a large warehouse of car components and further facility development - Ford built an assembly plant with a capacity of 125,000 cars per year. Although it never reached its full capacity, the Ford Focus became the most popular foreign model in the Russian car market in 2004. In 2006, Ford used the locally-owned company Sollers for licensed production of cars in Nabarezhnnye Chelny (1000 km east of Moscow), and in 2012, Ford created a joint venture with the same company to produce light commercial vehicles in Alabuga (just across the river from Nabarezhnnye Chelny). In so doing it availed of the tax incentives that came with locating in a designated special economic zone. In 2003, Volvo Trucks opened its assembly plant in Zelenograd (a remote part of Moscow) and in 2009 it opened another factory with a production capacity of 15,000 trucks per year near Kaluga (150 km southwest of Moscow).

St. Petersburg and the Kaluga region became the destinations of choice for installing new assembly facilities wholly owned by foreign MNCs. In addition to a Volvo Trucks plant, the Kaluga region accommodated a new Volkswagen assembly plant (opened in 2007) and a Peugeot-Citroen and a Mitsubishi plant (opened in 2010). The St. Petersburg region was chosen not only by Ford for building new solely owned assembly plants, but also by GM (opened in 2008), Nissan (opened in 2009), and Hyundai (opened in 2010).

The opening of these new facilities coincided with a significant drop in the market around this time. For example, in 2009, sales of new cars in Russia were 1,079,000, some 30% of their 2008 levels. Nonetheless, the major international players in the sector continued their ongoing program of establishing and commissioning new facilities in Russia, demonstrating high strategic resilience and a positive sentiment toward how the market was likely to develop in the years ahead.

As it turned out the market did recover quickly, and the level of new car sales in 2012 was only slightly less than the 2008 level (2,933,000 versus 3,332,000 in 2008). New car production in Russia increased between 2010 and 2012 from 1,210,000 to 1,964,000 (the historical maximum). Nevertheless, after 2010, the wave of new assembly plant openings slowed to a trickle. Foreign MNCs preferred expanding their established facilities (in 2012-2014, Renault and Nissan engaged in major expansions of their Russian plants) to redesigning plants to produce a wider range of models with smaller production volumes of a particular model (PSMA) or installing new lines in their factories to produce new types of vehicles; they also expanded contract manufacturing. For example, in 2011, Volkswagen signed a contract agreement with locally owned GAZ to produce up to 110,000 cars annually (VW Jetta, Škoda Yeti and Škoda Octavia). Avtotor achieved the highest output in its history in 2012 (250,000 cars), producing different Kia, Hyundai, BMW, and GM models.

We have collected various official corporate statements about the technical levels of plants in Russia that were fully owned by foreign car manufacturers. Among these statements, we note that Volvo Trucks' official website states that "the factory in Kaluga is the most modern factory among all Volvo Trucks factories in the world." St. Petersburg's Nissan factory was officially recognized in 2012 and 2013 by its corporate parent as "Nissan's best assembly plant in the world."

An additional development worth calling attention to relates to the progressive improvement in employee relations in foreign automakers' plants over the years following their opening. The first factories established by foreign manufacturers had a rather poor record of employee relations, including several strikes, and the experiences of the first entrants in this regard were carefully studied by later entrants. For example, we were told in PSMA: "We closely monitor the social atmospheres of other foreign car makers in Russia and are trying to detect and remove in advance the possible causes of employee discontent." In general, the later a foreign MNC opened its wholly owned assembly factory in Russia, the better the employee relations record in the factory was likely to be.

3.4 | "Up the Down Staircase" (2012-present)

We use this title of a famous novel by the American author Bel Kaufman to characterize the current position of foreign car manufacturers in Russia. On the one hand, they achieved total dominance in the local market. Renault's acquisition in 2015 of the largest Russian car factory AvtoVAZ was the final step in achieving such a position. The last remaining locally owned car manufacturer that produces its own car models is UAZ, owned by Sollers, which produced a mere 19,000 off-road cars and 16,500 light commercial vehicles in 2019. On the other hand, there has been a gradual decline in sales since 2012. A critically important influence here was the two-fold devaluation of the local currency in December 2014 which effectively halved the level of car imports from 704,000 in 2014 to 350,000 in 2015. New car production also experienced a decline between 2015 and 2016 and slightly recovered only in 2018-2019 (see Figure 1). The projected car sales outturn in Russia for 2020 and the years ahead is only 50% of the existing assembly capacity across all the major manufacturing sites in the country.

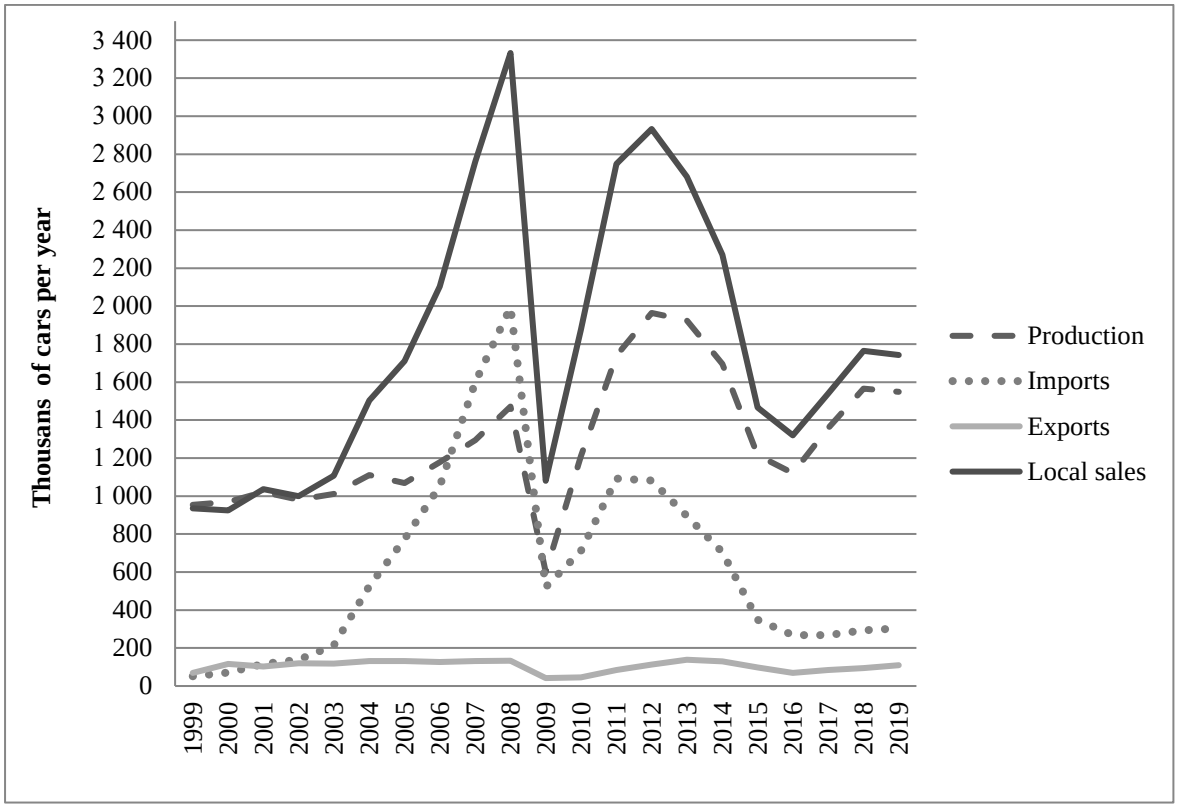

Figure 1. New Car Production, Imports, Exports and Sales in Russia between 1999 and 2019

Source: Data from the Annual Reports of the Russian Statistical Committee and the Russian Customs Authority

Of particular note, the car assembly industry dynamics involving the installation and then the disposing of production facilities has become something of a revolving door. In 2019, three new assembly factories were opened in Russia by international companies; one was Daimler AG's assembly factory near Moscow, which plans to produce the top Mercedes models (E-class, S-class, and GLS). Another was a facility by the Chinese company Lifan in Lipetsk, and the third was a joint venture between Sollers and Mazda in the Russian Far East. Daimler AG's factory was created under very specific conditions (a "special investment contract," which brings with it unique tax benefits); the ribbon-cutting ceremony for that plant was attended by the President of Russia who signed the hood of the first car assembled [see Gurkov, Kokorina and Saidov, 2018]. At the same time, GM and Ford largely withdrew from car manufacturing in Russia in 2019 (although Ford continues to produce light commercial vehicles through a joint venture with Sollers).

A rather different picture can be observed in the auto parts sector. Under pressure to localize production of cars and trucks, auto makers expended all their efforts to bring their worldwide partners engaged in the production of auto components and other elements including glass, tires, etc. to Russia. New factories for first, second- and third-tier suppliers of auto components saw some 28 new foreign-owned factories installed in the period 2012-2019, including facilities for producing cabins for trucks, engines and parts of engines, car batteries, and other electrical equipment. In addition, three tire factories were opened in that period, and Saint-Gobain and the Chinese Fuyao Glass Industry Group also established new automotive glass factories. Producers of auto components and related products prefer to install their factories in close proximity to assembly centers, so the Moscow, St. Petersburg, and Kaluga regions and Tatarstan in the Volga region have become the locations of choice for these auto parts suppliers.

One of the major on-going concerns of these foreign auto makers in Russia is the requirement to adjust their production capacities to match the demand inherent in a more fragmented market. This is particularly illustrated by the example of the PSMA Rus plant in Kaluga (a joint venture of PSA and Mitsubishi). Plant construction started in 2008, and the plant was officially opened in 2010. When we visited the plant in 2013, the Pant Manager explained the principles used in its design and installation:

> "Our corporation's last plant was designed a decade ago. Thus, for the launch of production facilities in Russia, we accepted the concept of 'excellent factory,' where we tried to use all recently developed effective solutions. The next problem was how such solutions could be contextualized in Russia. For this production site, we accepted several design principles. First, the production site should be compact, thus lowering

operating costs. At the same time, we increased precautionary stocks and, subsequently, logistics areas—this increased the robustness of operations against possible disturbances in overseas supplies. Second, we redesigned most workplaces to enable women to work in assembly operations. Therefore, we almost completely eliminated all weightlifting or carrying of heavy loads. Third, we found an optimal point in automation. If the price of labor increases, the level of automation can be easily augmented. However, a large factory cannot be designed 'to the last bolt.' Around 30% of workplaces were redesigned after the launch and during the operations phase. The launch team of French engineers and technicians expect to leave the factory within a few weeks."

The next steps in that plant's development were presented in a video recorded press conference in March 2018, which was devoted to the launch of a new production line of light commercial vehicles, the Citroën Jumpy and Peugeot Expert:

> "After the two-fold devaluation of the local currency at the end of 2014 and the consequent fall of the markets, PSA opted to stay in Russia. The group had to develop a new business model. First and foremost, the Kaluga plant was transformed to produce a wider range of models with smaller volumes of production…This allowed the PSA operations in the Eurasian region to return to profitability in 2017. A strategic plan called 'push to pass' was developed, which envisaged greater localization and transformation of the Kaluga plant into a valuable asset. Thus, in 2016, a new investment project began, aimed at producing two models of commercial vehicles in Kaluga. For PSA, it was important to produce models of both brands - Citroën and Peugeot. After that project was completed, the factory began producing six different models simultaneously. To achieve this, we extended the assembly line, doubled the number of components used in production, and changed the testing equipment. All these changes were designed and implemented by a group that works in the Kaluga plant."

Another current concern of foreign automakers in Russia relates to amending the existing industry policies and regulations, which were originally designed to accommodate the needs of foreign investors and to decrease the cost of installing manufacturing facilities. In the "the new reality," these policies and regulations in their existing forms became obstacles to development. This has to be understood against the backdrop of the industry's evolution and the governmental policies and regulations governing foreign investments in Russia's automotive industry.

3.5 | Government policies and regulations regarding foreign direct investments in Russia's automotive industry

In the 1990s, the Russian government sought to attract foreign investment in all major sectors. In 1994, the Foreign Investment Advisory Council (FIAC) was established to advise the Government on how to improve Russia's investment climate. Starting in 2000, the Government began to pursue more selective policies regarding foreign direct investments—

some sectors were almost completely closed to foreign investors, while only minority stakes of foreign ownership were allowed in other sectors. At the same time, consumer goods, including food products, tobacco, beverages, construction materials, agricultural machinery and equipment, and car manufacturing, were selected as sectors where foreign investments of all types were welcomed and promoted.

In 2002, the first formal governmental proposal for developing car manufacturing was accepted. Essentially, it envisaged integrating the Russian car industry into the global industry via: organizing new production with the participation of foreign investors for car assembly and car components; implementing an effective customs tariffs policy, establishing special economic zones to accommodate new production facilities in automotive industries, along with certain other measures. A more detailed program for developing the Russian automotive industry was launched in 2010 and amended in 2013. This time, attention was not devoted to creating new production capacities (the car assembly capacity in Russia reached almost 3 million cars in 2013), but rather toward developing a whole value chain, including promoting local R&D and facilitating exports from the newly built production capacities.

Arising from the combination of these measures, the period 2002-2018 resulted in a number of critical developments:

- In 2002, the government imposed prohibitive customs tariffs on imported used cars older than seven years. This gave room for new car imports to familiarize local customers with the new brands and models and also created the pre-conditions for installing foreign firm production capacities in Russia.
- In 2005, a regime of "industrial assembly agreements" was introduced. Foreign investors received zero customs tariffs on imports of machinery necessary for building new factories, as well as zero customs tariffs on imported auto components. In exchange, foreign investors had to install capacity to produce the agreed-upon volume of production and also gradually increase the proportion of locally incurred final production costs. As the major global car manufacturers established their factories in Russia under a regime of industrial assembly agreements, the conditions of such agreements began to strengthen. Since 2011, the government has demanded localizing a greater number of manufacturing operations, not necessarily always considering the economic rationality of localizing such operations. Since 2016, new industrial assembly agreements could be applied only to very large new projects aimed at building new or retooling

existing factories (an annual production capacity of 300,000 cars was set for industry assembly agreements for new factories, and an annual production capacity of 350,000 cars was set for industry assembly agreements for reconstructing existing factories)[4]. Nevertheless, between 2005-2016, there were 31 assembly agreements for auto manufacturers and 86 assembly agreements for auto parts manufacturers; all the foreign manufacturers entered into those agreements, and assembly capacity for 2 million cars was created [DLA PIPER, 2016]. According to the rules of the World Trade Organization (WTO), all industrial assembly agreements should be terminated in 2020.

- In 2012, facing the need to decrease the customs tariffs on new imported cars according to the commitments made by Russia after its accession to the WTO, the government introduced a new protective measure: end-of-life vehicle (ELV)/scrappage incentives, including subsidies to domestic companies to cover the disposal fees. This measure was an efficient protective measure for locally produced cars for several years, but now the Automotive Committee of the AEB recommends considering "the possibility of a gradual reduction in rates as funds from scrappage fee collections accumulate and, after the established full-scale disposal industry passes its breakeven point, cancellation of the scrappage fee" [AEB, 2019, 17].
- In 2015, a new "special investment contracts" measure was introduced. From 2015-2019, most major carmakers (AVTOVAZ, Renault–Nissan–Mitsubishi, Hyundai-Kia, Daimler, Volkswagen, Toyota, PSA) and a few local car assembly companies (GAZ and Avtotor) signed such contracts, which provide additional tax benefits, access to support programs, and access to public procurement. The exact conditions of a special investment contract are individually set for each investor and remain confidential. However, there are requirements about the amount of investment necessary to sign a special investment contract, which depend on the production site's location. For example, in the Kaluga region, the minimal amount of investment is 300 million rubles (US$5 million), while in the Moscow region, the minimum investment amount is 1 billion rubles (US$15 million).
- Finally, beginning in 2018, new government-supported incentives were introduced for exporting cars and auto parts made in Russia. Unable to subsidize production

[4] The only Russian factory with such annual capacity was AutoVAZ, owned by Renault.

costs due to WTO regulations, the Government subsidizes a significant share of the transportation costs for exported cars and car components. In 2019, more than 100,000 cars were exported from Russia. Foreign producers explore opportunities in Russia due to the absence of customs duties on cars within the Eurasian Economic Union, which embraces six countries of the former Soviet Union and also benefits from free trade agreements between Russia and several other former Soviet Republics. Foreign manufacturers in Russia also follow the traditional destinations of Soviet automotive exports (Egypt and other countries in the Middle East and North Africa, Mongolia, and Iran). At the same time, most foreign manufacturers in Russia strongly oppose exporting to the European Union in order to avoid putting additional competitive pressure on factories in their home countries or those in Eastern Europe (the Czech Republic, Slovakia, Hungary, Poland, and Romania).

The automotive sector also benefited from two broader developments which had been introduced, namely the creation of special economic zones (SEZs) and "territories of outrunning socio-economic development" (TOSEDs)

The development of special economic zones started in 2005; the tax benefits offered were especially favorable for large capital-intensive manufacturing projects. The development of TOSEDs began in 2015, and these tax benefits were most favorable for small labor-intensive manufacturing projects [Gurkov, Kokorina, Saidov and Balaeva, 2020b]. Both forms were used by foreign companies producing car components and in other car production facilities, such as testing equipment. The largest SEZ specializing in the automotive industry was created in Alabuga (Tatarstan), near KAMAZ. The Alabuga SEZ became the most successful SEZ in Russia, accommodating more than 60 occupants in 2020, including an assembly plant and a few dozen producers of auto components. A smaller SEZ also exists near AvtoVAZ, accommodating 22 occupants that are primarily involved in manufacturing car components and systems. Unlike SEZs created outside cities, TOSEDs embrace a particular city's entire territory. The first TOSEDs were created in two "motowns"—Naberezhnye Chelny (the city where KAMAZ is located) and Togliatti (the city where AutoVAZ is located). Moreover, in 2016, both KAMAZ and AutoVAZ established private industrial parks, offering their occupants a complete set of industrial services, well equipped production spaces tuned to the particular needs of a tenant; and the possibility of receiving TOSED tax benefits.

The major contours of the Russian automotive industry between 1986-2019 encompassing the actions of local and foreign companies, along with key governmental policies, are summarized in Table 1.

Table 1. Key Actors and their Actions in the Soviet Union/Russian Automotive Industry 1985-2019

Period	Actions of local automakers	Actions of foreign automakers	The state policies regarding the automotive industry
1985-1991	• Stagnation of production of cars and trucks. • Delay of launch of new models	• No possibilities of direct imports or direct investments	• Truck production propped up by the significant orders from state-owned bodies (production of GAZ and ZIL) and the army (KAMAZ)
1992-2000	• Quick degradation of most truck producers (GAZ, ZIL) and some car producers (Moscow car factory) • Launch of production of light commercial vehicles (LCV) (GAZ, 1994) • Maintaining the level of production of the major local car maker (AvtoVAZ, 1992-1997) • Establishing of the first local company specialized in contract assembly (Autotor) – 1997 • Takeover by the local large steel producers of several local car and truck manufacturing facilities (1997-2000)	• First attempts to establish direct imports through authorized dealers – 1992-1999 • First joint ventures with local companies – Iveco (1994), and government agencies - Renault (1998) • First contracts issued for contract assembly in Russia by Kia (1997) and BMW (1999)	• Liquidation of the industry's governing body (The Ministry for Automotive Industry) – 1992 • Establishing the Foreign Investment Advisory Council (FIAC) to advise the government on how to improve Russia's investment climate - 1994 • Decreased state orders for trucks – 1992-1999 • 'Spontaneous privatization' resulting in the loss of the state control over the major car and truck manufacturers – 1992-1996
2001-2012	• Serving as participants of joint ventures (KAMAZ, Sollers) or acting simultaneously as independent producers and contract manufacturers for foreign car makers (GAZ Group)	Massive efforts to capture the growing local demand: • Signing new car assembly contracts with local companies (Ford, 2006; Volkswagen, 2011 or extension of the existing contracts (Kia, Hyundai, BMW, GM) • Establishing joint ventures with local firms for production of trucks (Volvo, 2003)	Active measures to promote foreign investment into the automotive industry: • Introduction of prohibition customs tariffs on imported used cars older than seven years - 2002 • The creation of special economic zones (SEZs) near major centers for car and truck production (since 2005)

		and cars (GM, 2001; Ford, 2012) • Installation of wholly owned car and truck-assembly manufacturing facilities (Ford, 2002; Volkswagen, 2007; GM, 2008; Volvo Trucks, 2009; Nissan, 2009; Hyundai, 2010; Peugeot-Citroen and Mitsubishi, 2010) • Installation of facilities of foreign companies producing car components, tires, automotive glass, car batteries etc. (Approximately 100)	• Introducing a regime of "industrial assembly agreements" (zero customs tariffs on imports of machinery necessary for building new manufacturing facilities, as well as zero customs tariffs on imported auto components) – 2005 • Introducing end-of-life vehicle (ELV)/scrappage incentives, including subsidies to companies to cover the disposal fees -2012
2013-Present	• Combining contract assembly for foreign manufacturers and production of its own LCVs (GAZ Group) • Establishing new joint ventures (Sollers-Mazda, 2019) • Development of niche brands and production facilities (off-road vehicles UAZ by Sollers) • Development of private industrial parks to accommodate suppliers (KAMAZ, since 2015)	Combination of 'retrenchment' and divestments • Reconstruction of the previously build car assembly plants (Peugeot-Citroen and Mitsubishi, 2015) • Installation of plants by first, second- and third-tier suppliers of auto components – 2012-2019 • Gaining the full control over important Russian assets or increasing the share in some companies (the increase of the stake of Diamler AG in KAMAZ in 2014; the takeover of AvtoVAZ by Renault in 2015) • Installation a number of new car assembly plants (Daimler AG, 2019; Lifan, 2019) • Development of private industrial parks foreign-owned automakers (Volkswagen, AutoVAZ) (since 2015) • Closure or divestment of assembly plants by US automakers (GM – 2015, 2019; Ford - 2019)	Pursuit of new measures to promote foreign investment into the automotive industry replacing elements of previous measures: • Introducing "special investment contracts" which provide additional tax benefits, access to support programs, and access to public procurement -2015 • Creation of "territories of outrunning socio-economic development" in cities which accommodate the major car and truck producers – 2015 • Introducing subsidies for the transportation costs for exported cars and car components -2018 • Strengthening the conditions of "industrial assembly agreements" – since 2013, all "industrial assembly agreements" should be terminated in 2020 in order to comply with Word Trade Organization (WTO) rules.

4 | CREATION AND INFUSION OF NEW INSTITUTIONS BY FOREIGN INVESTORS

The final important act in the evolution of the Russian automotive industry under the influence of major foreign manufacturers links with Marquis and Raynard's [2015] notion of institutional strategizing resulting in the creation of institutions and the implementation of policy provisions. Initiated by foreign manufacturers, these institutional strategies were designed to reduce risk and retain competitive advantage. Here, the establishment of industrial parks and the pursuit of cluster policies represent important attempts by foreign manufacturers to shape their environment and secure their future.

The government's 2002 vision for developing the automotive industry envisaged creating SEZs but made no mention of either industrial parks or industrial clusters. The large-scale development of these institutions occurred through what we refer to as a process of infusion, analogous to Marquis and Raynard's infrastructure-building strategy. The process saw the establishment of an institution in a particular region, usually involving a joint initiative of the local government and a large foreign MNC. The institution eventually becomes picked up by the Federal Government, who in turn establish a legal framework for its formation and encourage its adoption in new locations through offering particular incentives. The most remarkable cases relating to the founding of new institutions are related to Volkswagen's activities. Volkswagen leveraged the development of two types of institutions as part of its own overall competitive positioning: industrial parks and industrial clusters. After opening its plant in Kaluga, Volkswagen experienced the need to accommodate its suppliers nearby. Establishing production facilities for suppliers required free land for industrial use with a ready-to-use supporting infrastructure, including electricity, water, sewage systems, natural gas, and dense driveway systems. Shortly after the decision to establish a manufacturer assembly factory in the Kaluga region, the local government allocated land to a special state-owned development corporation, borrowed funds from the national institution of economic development—Vneshekonombank (VEB)—and created a new industrial park. Volkswagen then served as the "anchor enterprise" for creating that industrial park, which currently has, among other tenants, the Volkswagen factory itself and six first-tier suppliers. PSMA became the anchor factory for another industrial park, which now lists among its tenants PSMA itself and five other companies related to car production. Volvo Trucks is the anchor enterprise of a third industrial park, whose occupants include three major auto component producers. The same approach to creating industrial parks around anchor foreign MNEs was later followed in the St. Petersburg region.

Besides the need for land and supporting infrastructure, an equally important need of newly established subsidiaries of foreign car manufacturers and auto components producers was the requirement for a qualified workforce, motivated to master new skills, and engage in new working habits. Volkswagen initiated the creation of the first industrial cluster in Russia, which was created by the Kaluga government in 2007. The following year, the idea of an active cluster policy was included in the long-term government program for economic development. The Kaluga industrial cluster currently embraces all three leading OEM companies in the region and 22 suppliers of auto components. All the cluster members have access to some shared industrial facilities and, what is more important, to the pool of graduates of several educational establishments. As noted by the FIAC: "Today, we face a shortage of qualified engineers, especially those with world-class cutting-edge expertise and foreign language knowledge" [FIAC 2018, pp. 6-7]. The members of the Kaluga automotive cluster engaged in what Marquis and Raynard (2015) classify as a socio-cultural bridging strategy in order to overcome this problem. They actively supported the local branch of the Bauman Technical University, and also engaged in recruiting graduates of a technical college that uses teaching programs and practices co-created with Volkswagen.

This industrial cluster founded as a result of the institutional strategizing engaged in by the automotive sector was eventually transferred to other industries, especially pharmaceuticals and biotechnologies. For example, the Kaluga pharmaceutical cluster, created a number of years later, embraces several world-class pharmaceutical companies, medical equipment and expendables producers, along with a scientific center for nuclear medicine.

5 | DISCUSSION

The history of the Russian automotive industry's development raises several issues concerning the evolution of a sector by actively involving foreign investors. The first relates to the role of government policies in promoting foreign investments. As we have demonstrated, the Russian government regularly introduced various measures to promote and later retain foreign investors in the automotive industry. The major challenge here lay in the differences in the underlying logics governing the evolution of governmental regulations and those relating to the evolution of business. Business always prefers timely and simple rules for state aid, which can be quickly accessed when needed and equally quickly terminated when the requirement for particular protective measures disappears. Bureaucratic logic, on the other hand, results in the opposite – typically the sets of rules and regulations grow increasingly more complicated and, over time, become less a support and more of an impediment to an industry's

effective functioning. Recent AEB position papers contain several references to how particular governmental orders such as for example mandatorily increasing the range of locally produced components for auto manufacturers have worsened the initial conditions foreign investors faced when they set up.

Another interesting matter thrown up by the Russian automotive industry's development relates to the ongoing opening of new car assembly plant openings in 2009 in the midst of the financial crisis and rapidly falling new car sales. On the one hand, this episode could be interpreted as being illustrative of what Schönbohm and Zahn [2016] characterize as "cognitive biases and flaws of the international capital budgeting process". An alternative interpretation might lie in the observation that such actions can be considered rational resilient behavior designed to minimize the possible financial and reputational losses for foreign investors. This is important in light of the commitments assumed by foreign investors through industry assembly contracts, the relative value of the option to open a new facility that works at a fraction of its planned capacity and generates some revenues versus completely postponing the launching of operations and generating only net losses, along with the underlying calculation of their being a relatively quick economic recovery. The ongoing investments against the backdrop of the financial crisis illustrates the resilience of major global auto manufacturers but also raises the issue of how demand conditions should be addressed in studying industrial evolution and what the appropriate time span is for evaluating such conditions in different industries.

An additional significant issue surrounding the development of the automotive industry in Russia, primarily through actively securing foreign investors, relates to the pursuit of a location strategy encouraging the establishment of facilities in different regional settings. We mentioned that the massive investments in Eastern Europe's automotive industry preceded the investments by the same corporations in Russia. There may be different objective and subjective factors underpinning why the leading global car manufacturers preferred Eastern Europe over Russia in 1990-2006 as the place to acquire existing and install new manufacturing facilities, including for example, more rapid institutional transformations in Eastern European countries, the anticipation of their accession to the EU and the subsequent free access to the single European market, and the amount of government aid offered by host countries. However, beyond these macro-factors, several others of equal importance may govern launch decisions including a lack of resources, even by large manufacturers, to simultaneously perform a large number of such launches in different countries, given that these projects are usually overseen and delivered either by a firm's own personnel assembled from its central engineering

departments, or temporary teams relocated from older established facilities. The question of how many launch teams working simultaneously in different countries an MNC may be able to sustain depends on the total pool of available specialists, preferences for using employees over contractors, and so on. Nevertheless, a deficit of staff for forming a significant number of effective launch teams for industrial projects creates an important bottleneck in the international expansion of operations. It may also relate to the ability of headquarters to simultaneously supervise a large set of important development projects that have to be adapted to local prevailing conditions, both in initial design terms and during the launch phase.

An added issue relates to the unwillingness to achieve higher capacity utilization by growing exports from Russia which may also be underscored by several motives. First, increasing capacity utilization, i.e., producing more cars or trucks will in most cases lead to an increase in the share of imported components. However, industry assembly agreements stipulate the requirement to gradually decrease the overall share of such imported components. Thus, the assembly agreements that initially served as a support measure for installing the production facilities eventually became a trap for full capacity utilization of those newly installed facilities. Allied with this, there are logistics challenges. Only the plants near St. Petersburg are located in close proximity to a major port, but, in 2018-2019, these car assembly factories (Hyundai/Kia and Nissan) enjoyed a high level of capacity utilization in serving the local market for budget cars (Hyundai/Kia) and the top crossovers (Nissan). Other foreign-owned assembly factories located in Kaluga or in the Volga region were installed with the ultimate purpose of serving the local market, so exports from these factories face high costs, including the "invisible costs" of achieving quick customs clearance and timely transshipping[5]. Furthermore, there are also some technical specificities: the cars and light commercial vehicles produced in Russia are designed for specific Russian conditions, especially cold winters and poorer roads.

Broader considerations may also be at stake in accounting for the low exports of cars from Russian factories. In particular, the existence of large export-oriented car assembly facilities in Eastern Europe serves to dampen the enthusiasm among parent companies to use Russian production facilities to export to those countries. So doing would put many foreign-owned Russian factories into direct competition with their Eastern European plants that often produce the same models. This speaks to the important issue of the internal corporate logic of

[5] During our visit to the PSMA plant, we witnessed a small informal celebration, namely the first shipment of imported engines reached the factory, bypassing both the port of St. Petersburg and the Moscow transshipping railway center.

appropriately managing a portfolio of geographically dispersed production facilities so that they don't end up in a position where they are in direct competition with each other.

6 | CONCLUSION

We have chronicled the evolution of a large mature industry in a large transition economy that occurred through the combined efforts of foreign investors and the host country's government. The developmental path of the automotive sector in Russia differs significantly from the path that unfolded in both Eastern Europe and indeed in China. The former saw the quick selective acquisition of several local firms and the installation of new fully owned production facilities by foreign investors, while the latter was characterized by significant expansions of locally owned companies following early foreign greenfield investments. Foreign investors' initial penetration into the Russian automotive industry was slow, the period of large-scale installation of new fully owned capacities was relatively short (2002-2010), and the last decade was spent on localizing almost all the links in the value chain and on finding and occupying dynamic segments in a largely stagnant market. Against this backdrop, institutional strategizing engaged in by the major foreign manufacturers in the sector, combined with the efforts of local governments, have resulted in both the emergence of new institutions and a revised policy framework, the combination of which have proved vital for industry development, for uncertainty reduction and for overall sustainability.

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References

Association of European Business (AEB). 2019. *European business in Russia: Position paper* 2020. Moscow: AEB, 2019.

Bansal, P.(T)., Smith, W,K. and Vaara, E. 2018. From the editors. New ways of seeing through qualitative research. *Academy of Management Review*, 61[4]: 1189–1195. http://doi.org/10.5465/amj.2018.4004

Baronina Y. 2016. Foreign investment into Russian automotive industry. *World Economy and International Relations*, 60[6]: 61-69. http://doi.org/10.20542/0131-2227-2016-60-6-61-69 (in Russian)

Baronina Y. 2020. Transformation of European automobile TNCs' strategies on the Russian market. *World Economy and International Relations, 64*[5]: *93-100.* http://doi.org/10.20542/0131-2227-2020-64-5-93-100 (in Russian)

Capone, G., Malerba, F. Nelson, R.R., Orsenigo, L., and Winter, S.G. 2019. History friendly models: retrospective and future perspectives. *Eurasian Business Review*, *9*[1]: 1–23. http://doi.org/10.1007/s40821-019-00121-0

Capone, G., Malerba, F., and Orsenigo, L. 2019. Spinoffs in context: Entry and performance across industries. *Industrial and Corporate Change*, 28[2]: 259-282. https://doi.org/10.1093/icc/dty071.

DLA PIPER. 2016. *On the current and planned changes in regulation of industrial assembly of cars and automobile components for the support of the Russian automotive industry*. 19th of December, 2016. www.dlapiper.com (in Russian)

Fava, V. 2018. Between business interests and ideological marketing. The USSR and the Cold War in Fiat corporate strategy, 1957–1972. *Journal of Cold War Studies, 20*[4]: 26–64. http://doi.org/10.1162/jcws_a_00822.

Fava, V., Luminita, G. 2017. East–West cooperation in the automotive industry: Enterprises, mobility, production. *The Journal of Transport History, 38*[1]: 11–19. http://doi.org /10.1177/0022526617698157.

Foreign Investment Advisory Council 2018. *32nd session, October 15, 2018: Issues and recommendations of the working groups*. https://fiac.ru/pdf/Issues%20and%20Recommendations_FINAL_2018.pdf

Fontana, R., Zirulia, L. 2015. "…then came Cisco, and the rest is history": A history friendly model of the local area networking industry. *Journal of Evolutionary Economics, 25*[5]: 875–899. htpp://doi.org/10.1007/s00191-015-0422-8.

Garavaglia, C. 2010. Modelling industrial dynamics with "History-friendly" simulations. *Structural Change and Economic Dynamics, 21*[4]: 258–275. htpp://doi.org/10.1016/j.strueco.2010.07.001

Golikova, V., Karhunen, P., and Kosonen, R. 2011. Subsidiary evolution in a transition economy: Kemira GrowHow in the Russian fertilizer market. *Journal for East European Management Studies, 16* [1]: 9–30. https://doi.org/10.5771/0949-6181-2011-1-9

Gurkov, I. 2014. Management practices in Russian manufacturing subsidiaries of foreign multinational corporations: Challenging some beliefs about contemporary Russian industrial management. *Post-Communist Economies, 26*[2]: 220–240. https://doi.org/10.1080/14631377.2014.904108

Gurkov, I. 2016a. Oriflame CIS: The successful evolution of a regional subsidiary's mandate. *Global Business and Organizational Excellence*, 35[4]: 44-54. http://doi.org/10.1002/joe.21683

Gurkov I. 2016b. Against the wind – New factories of Russian manufacturing subsidiaries of Western multinational corporations. *Eurasian Geography and Economics*, *57*[2]: 161-179. https://doi.org/10.1080/15387216.2016.1191366

Gurkov, I., Kokorina, A., and Saidov, Z. 2018. Performance of Russian manufacturing subsidiaries of foreign multinational corporations opened in 2012-2016. *Eurasian Geography and Economics*, *59*[5–6]: 585–605. https://doi.org/10.1080/15387216.2019.1581630

Gurkov I., Kokorina A., and Saidov Z. 2020. Russian territories of outrunning development in mono-cities: Current and prospective opportunities for foreign investment into manufacturing. *Journal of East-West Business*. *26*[4]: 365-390. https://doi.org/10.1080/10669868.2020.1769794

Gurkov I., Kokorina A., Saidov Z., and Balaeva O. 2021. Rituals of opening ceremonies of overseas manufacturing facilities of multinational corporations in Russia. *Thunderbird International Business Review*. *63*[2[: 145-157. https://doi.org/10.1002/tie.22110

Gurkov I., Kokorina A., Saidov Z., and Balaeva O. 2020. Foreign direct investment in a stagnant economy: Recent experience of FDI in manufacturing facilities in Russia. *Journal of East-West Business*, *26*[2]: 109-130. https://doi.org/10.1080/10669868.2019.1689219

Gurkov, I., Saidov, Z. 2017. Current strategic actions of Russian manufacturing subsidiaries of Western multinational corporations. *Journal of East-West Business*, *23*[2]: 171–193. https://doi.org/10.1080/10669868.2017.1290004

Holtbrugge, D., Puck, J. F. 2009. Stakeholder networks of foreign investors in Russia: An empirical study among German firms. *Journal of East European Management Studies*, *14*[4]: 369–394.

Horwitz, F., Budhwar, P. and Morley, M.J. 2015. Future trends in human resource management in emerging markets, in Horwitz, F. and Budhwar, P. (eds.), *Handbook of Human Resource Management in Emerging Markets*, Chelthenam: Edward Elgar: 470-488.

Karhunen, P., Kosonen, R., and Ledyaeva, S. 2014. Institutional distance and international ownership strategies in Russia. A subnational approach. *Baltic Journal of Management*, *9*[3]: 254-276. http://doi.org/10.1108/BJM-07-2013-0125

Khanna, T. 2015. A case for contextual intelligence. *Management International Review*. *55*: 181–190. https://doi.org/10.1007/s11575-015-0241-z

Klepper, S. 2002. The capabilities of new firms and the evolution of the US automobile industry. *Industrial and Corporate Change, 11*[4]: 645–666. http://doi.org/10.1093/icc/11.4.645

Kostova, T., Roth, K., and Dacin, M. T. 2008. Institutional theory in the study of multinational corporations: a critique and new directions. *Academy of Management Review, 33*[4]: 994-1006. https://doi.org/10.2307/20159458

Landini, F., Malerba, F. 2017. Public policy and catching up by developing countries in global industries: A simulation model. *Cambridge Journal of Economics, 41*[3]: 927–960. https://doi.org/10.1093/cje/bex017

Li, D., Capone, G., and Malerba, F. 2019. The "Long March" to catch-up: A history-friendly model of China's mobile communications industry. *Research Policy, 48*[3]: 649–664. https://doi.org/10.1016/j.respol.2018.10.019

Malerba, F., Nelson, R. R., Orsenigo, L., and Winter, S. G. 1999. 'History-friendly' models of industry evolution: The computer industry. *Industrial and Corporate Change, 8*[1]: 3–40. https://doi.org/10.1093/icc/8.1.3

Malerba, F., Nelson, R. R., Orsenigo, L., and Winter, S. G. 2008. Public policies and changing boundaries of firms in a history-friendly model of the co-evolution of the computer and semiconductors industries. *Journal of Economic Behaviour and Organization, 67*[2]: 355–380. https://doi.org/10.1016/j.jebo.2006.10.010.

Marquis, C., Raynard, M. 2015. Institutional strategies in emerging markets. *Academy of Management Annals*, *9*[1]: 291-335. https://doi.org/10.1080/19416520.2015.1014661

Nelson, R. R., Dosi, G., Helfat, C. E., Pyka, A., Winter, S. G., Saviotti, P. P., *et al*. 2018. *Modern evolutionary economics. An overview*. New York: Cambridge University Press.

Nelson, R. R., Winter, S. G. 1982. *An evolutionary theory of economic change*. Cambridge: Harvard University Press.

Oliver, C. 1997. Sustainable competitive advantage: Combining institutional and resource-based views. *Strategic Management Journal, 18*[9]: 697–713. https://doi.org/10.1002/(SICI)1097-0266(199710)18:9<697::AID-SMJ909>3.0.CO;2-C

Pavlínek, P. 2008. *A successful transformation? Restructuring of the Czech automobile industry*. Helderberg: Physica-Verlag.

Pereira, M., Dequech, D. 2015. A history-friendly model of the Internet access market: The case of Brazil. In A. Pyka & J. Foster (Eds.), *The evolution of economic and innovation systems* (pp. 579–610). New York: Springer.

Schönbohm, A., Zahn, A. 2016. Reflective and cognitive perspectives on international capital budgeting. *Critical Perspectives on International Business, 12*[2]: 167–188. https://doi.org/10.1108/cpoib-02-2013-0006

Turcan, R.V., Boujarzadeh, B., and Dholakia, N. 2020. Late globalization and evolution, episodes and epochs of industries: Evidence from Danish textile and fashion industry, 1945–2015. *Thunderbird International Business Review. 62*[5]: 515–530. http://doi.org/10.1002/tie.22155

Vaara, E., Lamberg, J.-A. 2016. Taking historical embeddedness seriously: Three approaches to advance strategy process and practice research. *Academy of Management Review, 41*[4]: 633–657. http://dx.doi.org/10.5465/amr.2014.0172.

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