Institute for Financial Studies

The results, trends and prospects of the automotive industry development

Moscow, 2008

Content:

Assembly localization can have a strong effect on Russia's automotive industry medium-term technological growth and substitution of imported products. The agreement with the Ministry for Economic Development and Trade stipulates a mechanism that can encourage the Russian motor industry to progress. Without proper governmental control over observance of the stated conditions, the domestic car production might be discontinued.

Performance and trends in the past years

The emergence of increasingly competitive machine-building industry in Russia is one of the landmark achievements of the industrial policy led by the government in the past years. Consolidation of companies aiming to form strong aggregates – a backbone of the industry - is seen as the major instrument in this process. Expanded, these entities will be able to rival their foreign counterparts and create truly promising cars using the government money and their own finance. With more state and private money available, the capabilities of these industrial aggregates have augmented significantly. It is not yet clear how efficient this strategy is; yet, there are no grounds to assume that tougher state control will trigger off any negative trends, all the more so because several positive international experiences can be extrapolated on the Russian machine-building industry. For instance, Airbus, a leading aircraft manufacturer, has been Europe's consolidated aircraft corporation since 1971.

Russian aircraft and shipbuilding industries have been consolidated and reorganized: the former – into the United Aircraft Corporation, the latter – into the United Shipbuilding Corporation. Nuclear industry, electronics, aircraft engine industry, armored vehicle building and aerospace industry will be consolidated, too. The only industry not involved in the consolidation process is automotive - presently on the wane. However, there is likelihood that no consolidation would be required for the industry revival because it will be enhanced by a growing competition with foreign carmakers under mutually beneficial conditions.

Remarkably, Russia's largest carmaker, AutoVAZ, succeeded in turning out two new car models that are so far keeping afloat despite the competitors' expansion. However, competition is likely to skyrocket in the medium-term perspective; and AutoVAZ lacks own resources. Assuming that 'resources' implies technology, we have grounds to state that Russia's automotive industry is not able to plug the broad technological gap between Russian carmakers and those European, US, and Japanese. Therefore, several large-scale projects have been launched in Russia. If they are accomplished, the industry will have all the odds to catch up with foreign auto manufacturers. What

is more important however is creating conditions for the industry's technological advancement in the long run. With upgraded technology, the Russian motor industry will be able to keep its stake in the domestic market and grasp a part in the international market.

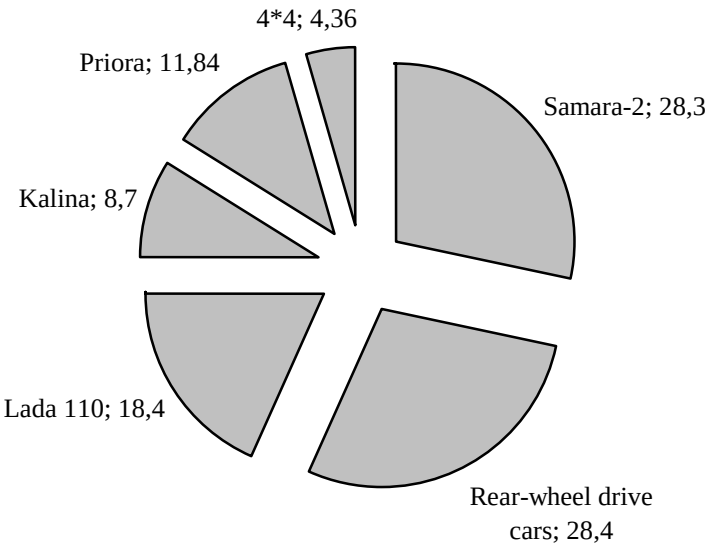
Kalina and Priora – a leap forward

The year 2005 saw the first Kalina sedan – now available in the estate and hatchback body styles – coming off the production line. 16-valve 1.4 liter engine was designed to power Kalina. Also, the 8-valve 1.6 liters engine option is available. The newly designed engine meets the Euro 3 standard while the 1.6 liter one complies with Euro 2. Kalina comes with ABS, airbag and electrically assisted steering booster options.

In 2007, AutoVAZ unveiled a new model based on Lada 110 – Lada Priora, the first model equipped with airbags. Priora hatchback will be presented in February 2008, which is an outstanding fact. In Kalina case, the time lag before the release of each new body style variety was several years. In case of Priora, hatchback will come out much earlier, favoring a growth in demand because many customers prefer certain type of car body styles and, if a carmaker's lineup does not have the wanted product, they are more likely to turn towards other makes. Kalina sales showed that hatchbacks are more popular than sedans. All Priora cars meet Euro 3.

Although VAZ cars continue to be comparatively uncompetitive, the wide product array and all body styles (for Priora) immediately arriving on the market will positively impact the domestic demand. The both VAZ models can rival economy-class cars like Renault Logan and Chevrolet Lanos. This is the most important achievement as Logan and Lanos claim to dominate the sector of competitively priced urban cars that are increasingly popular. Lada 110 and Samara-2 (the 21013, 21014 and 21015 family) are unlikely to compete with Renault and GM models. Priora and Kalina held 20% of the market in 2007.

Fig. 1. AutoVAZ sales in 2007, %



Source: AutoVAZ

We foresee that AutoVAZ sales structure will not be seeing any drastic changes through 2010. On the one hand, low-priced rear-wheel drive cars will continue to sell well; on the other hand, all price hikes will affect sales of this particular model. Samara-2 sales are not likely to change markedly because the demand for these cars is stably high and no analogues are so far planned. Kalina and Priora will be expanding further into the market ousting Lada 110. The production of sedan variety has been discontinued, and Lada 112 (which is actually the 110 model in the hatchback style) will be seeing high demand until Priora hatchback is unveiled in February. Lada 111 (110 in the estate style) also sells well, but the situation will change after Priora estate cars are put on sale. In 2010, when automobiles will be made under the Euro 4 standard, sales structure will change, mostly because demand for the VAZ classical models will decline.

A Strategic Partnership: Renault or Fiat

After AutoVAZ announced it planned to team up with Magna, a question arose who will be AutoVAZ's partner to design the B-class concept car expected to replace cars with rear-wheel drive. Renault, Fiat and GM were identified as the probable partners. Negotiating was hard because all that AutoVAZ's urgently needed was foreign technology rather than investments into its production facilities. Besides, AutoVAZ insisted on keeping the Lada brand the Russians are loyal to. Renault

and AutoVAZ failed to reach understanding in what concerns the Lada brand - Renault's position was clear as Lada was a direct rival to Logan.

Then AutoVAZ intensified talks with Fiat who said that, understanding the plant's most dramatic problems, it was ready to negotiate different variants of cooperation. Shortly after, AutoVAZ and Renault signed a preliminary agreement. It is quite clear why the two eventually joined hands: as competition in the car market is growing Renault agreed to produce cars under the Russian brand. Another potential partner, GM, turned towards Russia's another largest carmaker, GAZ Group.

Despite the preliminary agreement with Renault has been already signed, it is still not clear who will become AutoVAZ's partner, the uncertainty is fed by the fact that AutoVAZ used to cooperate with Fiat in manufacturing the VAZ 2101 model – the cooperation was effective.

AutoVAZ and Renault will make motors and gearboxes for the both models. Naturally, Renault will transfer technology to the Russian plant. Renault will receive an opportunity to produce cars on the existing and would-be AutoVAZ facilities which fits into the company's plans to master Russia's thriving market. Ramping up production is becoming especially important as the number of competitors grows.

Last May, AutoVAZ and Magna signed an agreement. The newly launched joint venture will design and produce a C-class automobile. The company can put out around 220,000 units per year. The cars will be available in sedan, hatchback and estate body styles.

What this cooperation can result in? The Russian automotive industry is somewhat technologically retrograde, so transfer of the European technology will give a massive impetus to the innovative development of the industry. Focus on economy-class cars urges carmakers to manufacture auto parts locally rather than import them – this is a vital condition to achieve cost-effectiveness. These policies will give a rise to technological development of end production and related businesses like part production and assembly; and quality of car assembly, now poor, will vastly improve.

After 2010, AutoVAZ may reveal two new B and C class concept cars able to replace the classical rear-wheel drive cars and Samara-2 models. By 2010, foreign carmakers will unveil their economy-class cars that would rival AutoVAZ products. Cooperation with Renault and Magna will only be efficient provided all phazes are completed as scheduled. Putting off the release of new concept cars after 2010 can entail AutoVAZ losing the segment presently occupied by rear-drive Lada, all the more so because all automobiles are likely to become more expensive with Euro 4 introduction.

Importantly, this cooperation will be beneficial within a short time, and the evolution is likely to be extensive.

Today, the economy-class car segment is the vastest and fastest growing both in the cities and regions where incomes are traditionally lower. Evidently, the demand for cars like this will be stable, but the growth of this demand is questionable. It is highly probable that demand can soften over time due to surging personal incomes. Big cities like Moscow are facing the demand shifting to the segment represented by more expensive cars. Daewoo announced it would expand its footprint into the regions. However, in a couple of years' time, incomes will yet grow and used, thus offered at bargain prices autos, will 'move' from Moscow to the regions. These cars will rival new, yet less comfortable and safe, economy-class cars. In this connection, joining hands with Renault and Magna is insufficient to ensure long-term progress in the automotive industry.

To secure a stable growth, Russian plants should team up with other carmakers who produce more expensive autos. Although no such partners have been contracted so far we believe that this strategy can be implemented through a local assembly mechanism that is stipulated in agreements with the Ministry of Economic Development and Trade. In other words, localization of assembly can contribute to intensive development of the Russian motor industry in the mid- and long-time perspective.

Assembly localization

Foreign cars were first assembled in Russia in 1999 when BMW and Autotor (based in Kaliningrad region) signed an agreement of SKD-assembly. Presently, Autotor produces more than 25 car models including BMW, Hummer, Chevrolet, Cadillac etc. Soon, however, Autotor can drop SKD-assembly due to several reasons.

First, assembly of major units is restricted to 'screwing' because major units and junctions are supplied from overseas and then just put together at the plant – so no local part production is existent.

Second, with no local production, the motor industry is not evolving. The positive effect on the country's and regions' economy is insignificant – creating few jobs and a small gross added value.

Third, other producers are conquering the Russian market under totally different conditions which can cause reasonable misunderstanding with investors: Autotor is authorized to import component parts under preferential conditions while cars assembled at its premises are sold in the Russian market, i. e. BMW, GM and other carmakers found themselves in unfair competition.

There are no other examples, and other carmakers are running or intending to run their businesses in Russia under new conditions, more beneficial to the economy. Remarkably, many foreign economy-class car models are assembled in Russia under license agreements.

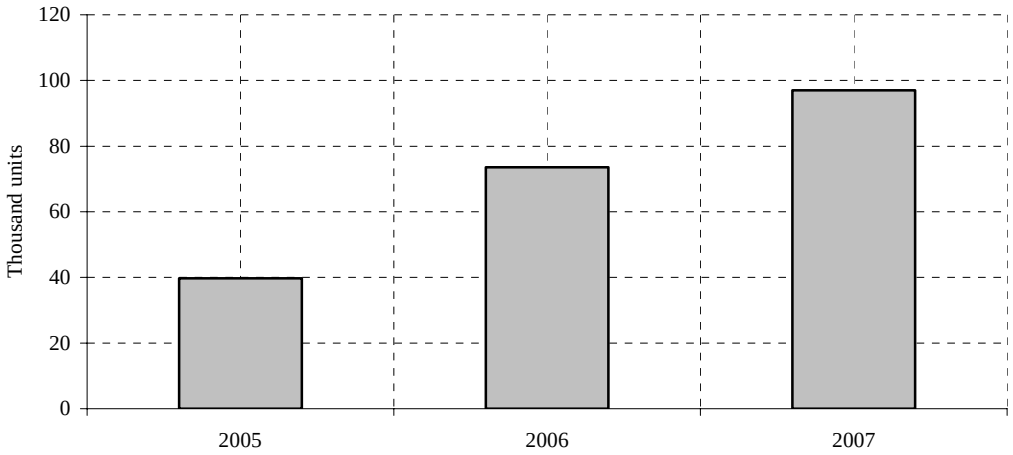
Foreign cars produced in Russia

Producer	Start year	Licensor	Models
Severstal-Auto	2004	Ssang Yung	Rexton, Kyron, Action
Severstal-Auto	2006	Fiat Group	Albea, Doblo, Linea
Severstal-Auto	2007	Fiat Group	Ducato
Severstal-Auto	2006	ISUZU	
TaGAZ	2001	Hyuindai	Accent
TaGAZ	2004	Hyuindai	Sonata
TaGAZ	2007	Hyuindai	Santa Fe
SOK Group (Izh-Auto)	2005	Kia Motor	Spectra
SOK Group (Izh-Auto)	2006-2007	Kia Motor	Rio
SOK Group (Izh-Auto)	2006-2007	Kia Motor	Sorento
Autoframos	2005	Renault	Logan
Ford	2005	Ford Motor Company	Focus

Source: carmakers' information

Ford Focus is the most popular foreign model assembled in Russia.

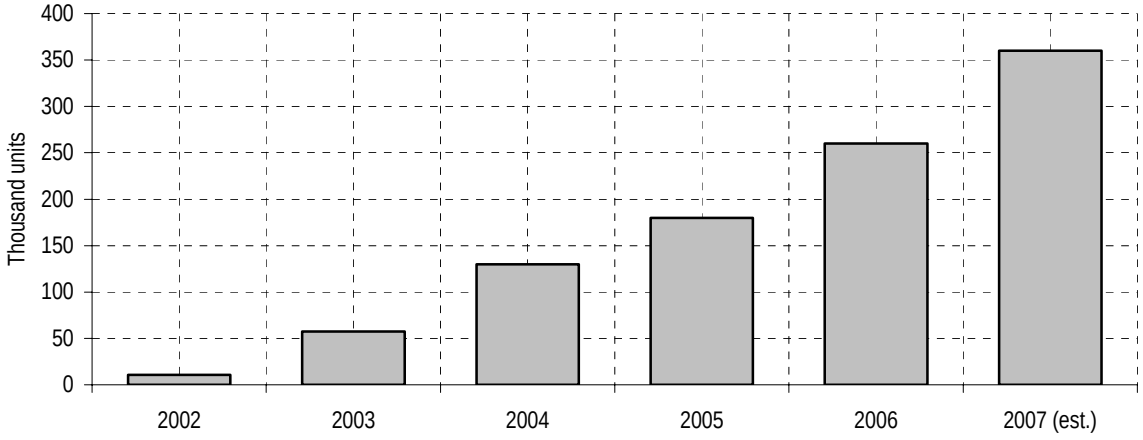
Fig. 2. Ford Focus sales growth



Source: The Automakers Committee

Production of foreign cars in Russia is ramping up every year, and we expect a 40% surplus in 2007.

Fig. 3. Russian-assembled foreign car output in 2002-2007



Source: carmakers information, IFS estimates

Alongside accomplished projects, the Ministry of Economic Development and Trade signed several agreements with world's leading automakers based in Europe, US and Japan.

Started in 2002, the project was in full sway in 2006-2007 when most assembly contracts were signed.

New car plants planned in Russia

	Start year	Output, thousand units*	Models**	Investments***
Toyota	2007	40	Camry	4 billion rubles
Nissan	2009	50	Almera, Primera, X-Trail	200 million dollars
Suzuki	2009	30	Liana, Grand Vitara	3 billion rubles
Mitsubishi	2009	50		under 220 million dollars
Hyundai	2010	100		390 million dollars
VW	2008	150	Polo, Passat, Jetta, Tiguan, Skoda Octavia, Fabia	under 370 million euro
Peugeot & Citroen	2010	60	308, Citroen C4	350 million dollars
GM	2008	70	Opel Antara, Astra, Chevrolet Captiva	300 million dollars

*) Carmakers' medium-term estimates

**) The array may be different – depending on the demand in the Russian market

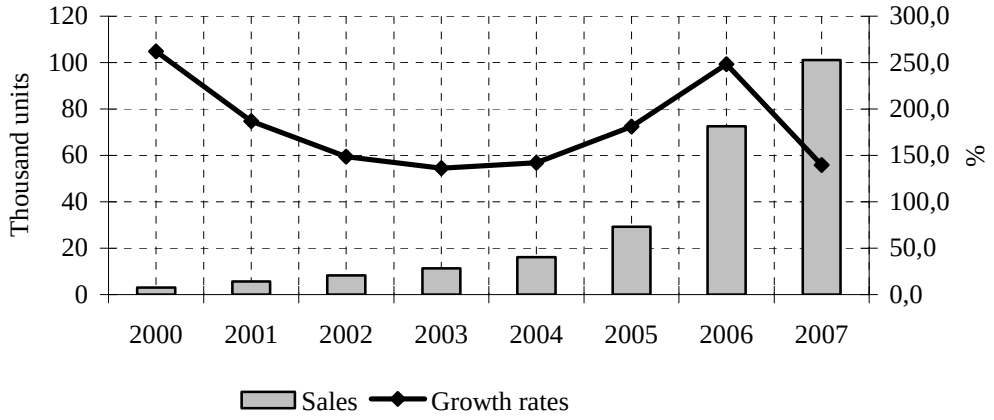
***) The stated amounts can augment due to the plans to double the output

Source: carmakers' information

The VW and Toyota plants have been already built. Furthermore, Toyota has launched production, and the newly made models were presented to the general public (Camry luxury car priced at $35,000). The Toyota concern decided to build another plant by 2010. The decision is justified because the planned plant will produce cheaper models – most probably, Corolla and Auris – to meet the domestic use.

The basic reason forcing producers to conceive expensive plant projects, alongside the intent to reduce production costs, is months-long waiting lists for cars. Automakers seeking to keep up with the Russian fast growing market do not want to lose potential clients who get sick and tired of having to wait for the desired car for ages. Furthermore, Renault's experience proved that sales tend to grow after automakers start producing cars in Russia.

Fig. 4. Renault sales growth in 2000-2007



Source: Renault Group

It is clear from fig. 4 that after launching Logan production in 2005 sales began to soar - rising 2.5 times in 2006. Sales of more popular Toyota, GM and Hyundai can yet rise because Renault models (except for Logan) are not popular in Russia. At the same time, GM models occupy five positions in the 2007 top 10 cars. Almost all Toyota models are found in the list of 20 best selling cars: Corolla (11th position), Camry (17th), RAV4 (19th) and Avensis (20th); and two more GM models enter the top 20 - Chevrolet Aveo (18th) and Opel Astra (14th).

Top 10 best selling cars in 2007

No. in 2006	No. in 2007	Model	2006	2007	Growth rate, %
1	1	Ford Focus	73,530	97,060	132.0
2	2	Renault Logan	49,162	67,844	138.0
7	3	Chevrolet Lanos	36,647	57,902	158.0
6	4	Hyundai Accent	38,852	53,616	138.0
3	5	Mitsubishi Lanser	46,969	52,101	110.9
4	6	Daewoo Nexia	43,402	49,044	113.0
5	7	Chevrolet Niva	41,155	47,748	116.0
9	8	Ford Fusion	16,532	43,362	262.3
8	9	Daewoo Matiz	23,302	42,258	181.3
10	10	Chevrolet Lacetti	16,191	40,627	250.9

Source: autoNews.ru

Ford Fusion, Chevrolet Lacetti and Opel Astra were seeing the fastest growing sales in 2007. Opel Astra sales more than tripled over this time. That caused GM to focus on producing Opel cars – C-class Astra and crossover Antara – at the plant under construction in Shushary (Leningrad region).

Sweden's Volvo started building a truck-making plant in the Kaluga region.

After consideration of the foreign carmakers' interest towards the Russian market, impacts of local assembly enhancement on the Russian automotive industry and national economy should be foreseen.

First, industrial assembly plants are expected to have brought $2 billion into the automotive industry by 2010. However, assembly localization is paramount.

Assembly localization will ensure gross added value being produced at Russian enterprises, i. e. localization has a direct influence on the GDP and economy growth.

Agreements with the Ministry of Economic Development and Trade, alongside a minimum output of 25,000 units per year, stipulate carmakers' responsibility to step up production localization. Hypothetically, assembly localization will be increased to 50% by 2015; it means that a half of each car will be produced in Russia. In reality, carmakers are reluctant to expand localization, largely because Russian car part production industry is really old.

No secret that domestic cars are technically unreliable and their owners have to visit auto care stations a bit too often. This is not the problem of the car as the end product, for any car is just an aggregate of component parts, units and junctions. It is low durability of parts that makes an entire car unreliable whatsoever. Knowing this, foreign producers do not hurry to increase localization in order not to expose to risks their reputation and product reliability. Increasing localization requires streamlining of facilities of associated productions, which entails extra investments and expenses. If

the government exercises due control, the producers will be forced to develop Russian motorcar industry.

To make the industry evolve, automobile concerns will not only have to invest in ramping up production. The Russian automotive industry is technologically retrograde; hence foreign technology should be transferred in order to boost the industry. Furthermore, such companies as Toyota, Nissan and VW can ensure massive localization expansion and technology transfer because they offer a wide choice of car models targeting various market segments. Technological growth will not have any time limits either, because the auto concerns have come to Russia with long-term projects. The risk of demand stagnation in one segment will be balanced by a growth in another.

The more expensive cars will be produced in Russia, the more advanced technology it will get. With up-to-date technology, Russian plants will be soon empowered to produce car parts.

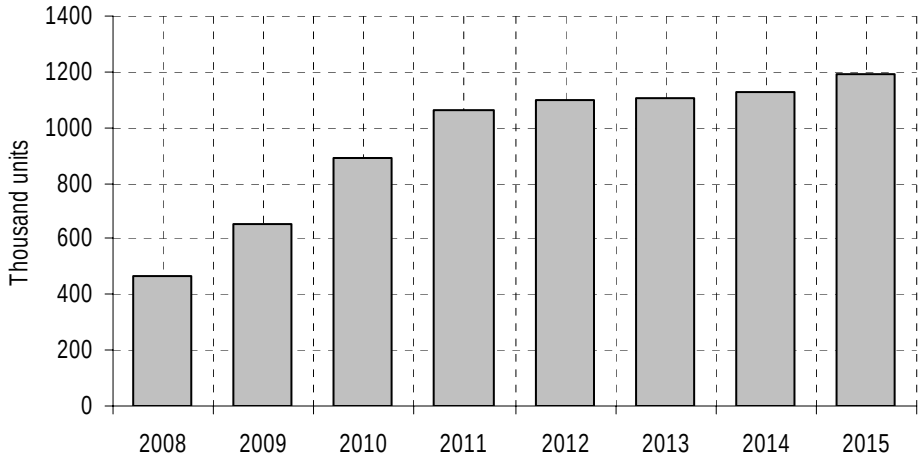
On the one hand, this will be possible due to the experience gained, on the other – owing to novel technology. With new technology, parts could be mounted in the domestically made cars, which will improve their reliability. The tire industry has such experience. Nokian Hakkapeliitta 4 tires are manufactured in Russia and the rights for the Nokian Hakkapeliitta 2 technology have been already purchased.

Taking into account that Toyota and Severstal-Auto announced their intent to put their products to export throughout Eastern Europe, the foreign technology will be transferred even faster than initially intended. However, this will only be possible provided the government tighten up control over the producers' observing their obligations. Otherwise only simple components (like seats and plastic body parts) will be produced in Russia.

Along with inflow of capital and technology into the automotive industry and provided localization grows, import substitution will be favored. The import substitution policies will reduce car imports, while Toyota and Fiat Ducato (by Severstal-Auto) could be put to export. As a result, the country's export structure, now 60% consisting of raw materials, could be diversified with technologically complex products.

Taking into account that several large plants are being built at present, we can make predictions up to 2015. More than 1 million units of foreign cars will be assembled in Russia by 2011.

Fig. 5. Estimated output of Russian-assembled foreign cars 2008 through 2015



Source: IFS estimates

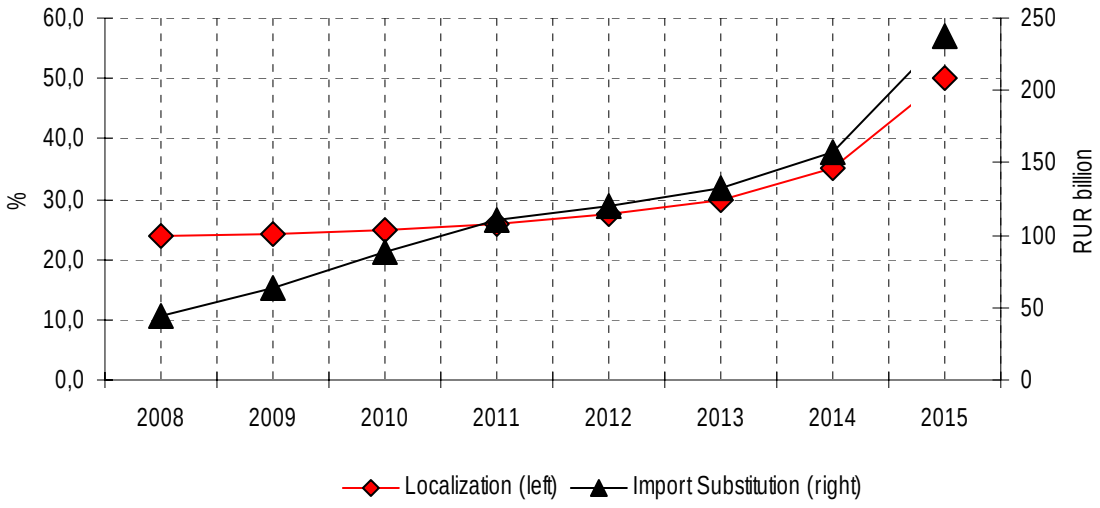
It is clear from fig. 5 that following 2011 output volumes will be stabilized. There are two reasons for that.

First, all plants being built at present will have been launched. It's impossible to forecast the number of new agreements.

Secondly, the plants' capacities are only anticipated and the carmakers do not yet know to what extent they will be operational after 2011. This happens due to uncertainty of the Russian market. Moscow is seeing the demand drifting towards more expensive foreign cars and the same trend will be soon observed in other large cities. The growth of individuals' incomes outstrips the demand however according to various estimates, the salary growth may stabilize in the years to come. This will probably curb the demand.

Despite possible stabilization, provided the target localization (50% by 2015) is reached, the volume of import substitution will top RUR 1 trillion by 2015 and may further expand if car-making plants ramp up production.

Fig. 6. Localization and import substitution dynamics 2008 through 2015



Source: IFS estimates

Conclusion

After thoughtful consideration, the following conclusions have been made.

First, in highly competitive environment, Russia's largest carmaker, AutoVAZ, has unveiled new models that are markedly better than the previous car families by a number of important parameters.

Lada Priora based on Lada 110 is highly competitive compared to such successful economy-class models as Renault Logan and Chevrolet Lanos. Moreover, despite the 2008 surge in prices for Lada, meeting Euro 3 standard allowed for keeping the Lada Priora price at the Logan and Lanos level.

Rivaling economy-class cars

	Priora	Logan	Lanos
Engine displacement, l	1.6	1.6	1.5
Speed (max), km/h	183	175	172
Power, HP	72	90	86
Acceleration 0-100 km/h, s	11.5	11.5	12.5
Fuel consumption (min), l	from 6	from 5.8	from 5.2
Price, RUR thousand	282	303	247

Source: carmakers' information

VAZ adequately addresses the market upheavals and cuts the time lag between launching new car body styles. Judging by Kalina experience, a prompt launch of the Priora hatchback is likely to push forward the demand for this model.

Despite AutoVAZ's success, it badly needs foreign technology because the automotive industry and adjacent productions are ancient. Without foreign producers' presence, the industry is likely to regress – production and sales will decline, especially after 2010, when Euro 4 will come into force. The industry might lose a big slice in the market presently held by the rear-wheel drive 'classics' (more than 28%).

Considering the looming foreign producers who are building plants throughout Russia and getting ready to cease production of rear-drive cars, AutoVAZ is ready to sign an agreement of cooperation with Renault under which the Russian plant will receive European technology. Co-developed with Renault, engines and gearboxes will be mounted in both Renault and AutoVAZ cars, which is expected to raise competitiveness of the produce. Cooperation with Renault will enable the plant to design new B-class concept car under the Lada brand Russian customers are loyal to.

This scenario can be named 'stagnating'. The thing is that in this case carmakers will handle a narrow selection of cars claiming for a small part in the market. Hence, the range of technology transferred will be also narrow not enabling AutoVAZ to target a vaster market. No long-time development will be seen as it will be hampered by Russia's booming economy. Growth in incomes will direct the demand towards more expensive cars, so demand for economy-class autos will be stagnant.

Tightening up localization requirements will create a favorable environment for realizing the third, progressive, scenario.

If the government leads proactive policy, the automotive industry could be given an impetus for long-term innovative development. A wide product array from the leading producers and their interest towards all segments of the car market will ensure the massive advent of foreign technology. Russian producers will be able to make quality car parts and enhance their assembly lines. Russian-made cars will be brought to the international market forming a base for cash inflow into the car industry. Gaining experience and acquiring technology, Russian plants will be able to make parts, junctions and units to be installed in the domestically produced cars thus raising their reliability.

The 'progressive' trend will stimulate import substitution and diversification of exports. With assembly localization, added value will be domestically created, boosting the GDP and encouraging economic growth. Thus, efficient industrial assembly management will push the Russian economy towards innovative development based on foreign technology and provide a new source of growth.

When the fuel and energy industry is being exhausted and the source of growth should be altered, the 'progressive' trend, relying on high technology, is the only righteous strategy.