



The goals, which are aimed towards the internal market on the one hand, and the global market on the other, are essentially pursued by means of two instruments: a protectionist agricultural trade policy based on import tariffs, non-tariff barriers to trade and even import bans should keep imports away from the Russian market. In actual fact, the measures are effective in the sense that imports of agricultural products and food have been drastically reduced. At the same time, additional incentives have been created for investments in the domestic agri-food sector, due to the fact goods produced domestically are intended to replace imports. This purpose is served by extensive financial aid or agricultural subsidies are used within the framework of large-scale agricultural support programmes.

However, this policy brings with it a whole range of risks. Thus, protectionism increases the risk of developing an inefficient indigenous agricultural sector characterised by relatively high production costs or low product quality compared to its competitors in the highly competitive global market. If the Russian import restrictions were lifted, it is conceivable that unprofitable Russian providers would themselves be forced out of the market by foreign competitors.

Furthermore, dissociation from the global market can also lead to an increase in price volatility in the domestic market (e.g. Jacks et al., 2011). Our research suggests that the increase in domestic pork price volatility goes hand in hand with Russia's separation of itself from the international pork markets.

/2/ Russia's international trade in pork

The development of the Russian pork sector is of key importance to Russia's import substitution policy in the agricultural sector. Figure 1 shows the level of Russian pork imports from the main five countries of origin. It makes evident that Russia's increasingly restrictive pork import policy has had a significant impact on the origins of its pork imports. Between 2004 and 2012, Russian pork imports mainly came from Germany, Denmark, Canada, the USA and Brazil. Now, only Brazil of the five countries mentioned, exports pork to Russia.

The import substitution policy in the pork sector commenced in 2004 upon the enforcement of a tariff quota of 450,000 tonnes. Within this quota an import duty of 40% was applied, which increased to 68% for all other import volumes exceeding this amount (Djuric et al., 2015). This customs regime applied until August 2012, when, following Russia's accession to the WTO, the tariff rate was reduced to 5% for the tariff quota and 65% for the imports exceeding this quota. However, despite the lowering of the pork import duties, imports of pork shrunk markedly from 2012 onwards upon the enforcement of non-tariff trade barriers. Thus, in December 2012, for instance, the Russian government imposed a ban on selected pork export companies in Germany. Since this time they have no longer been permitted to export pork to Russia. This ban was extended to all relevant exporting companies from Bavaria, North Rhine-Westphalia and Lower Saxony in February 2013.

Rosselkhoznador, Russia's Federal Service for Veterinary and Phytosanitary Surveillance, officially justified these interventions by stating they failed to complied with Russian phytosanitary standards. Following the

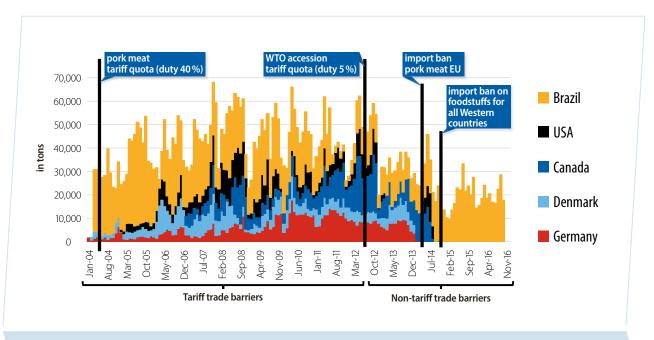


Figure 1: Russia's trade policy for pork: In 2013, the Russian Federation further extended the import ban on pork to all German companies. Since 2014, the country has only been importing pork from Brazil.

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outbreak of African swine fever in the Baltic countries, all EU pork imports were banned in January 2014. Therefore, no pork imports from Germany and Denmark are currently observed. Finally, in the wake of the Ukraine crisis in August 2014, all Western countries were issued with a general import ban on agricultural products. Thus, all pork imports from western countries came to a complete standstill. This also affected Canada and the United States. So far, the Russian import ban on agricultural goods and foodstuffs from western countries has been extended for the third time and is currently valid until the end of 2018.

/3/ **Characteristics of the pork sector**

This protectionist trade policy has been accompanied by extensive promotion of investments in the field of pork production through various modernisation programmes for Russian agriculture. Figure 2a displays the subsidies for the pork sector for the period 2008 to 2016 in roubles and in euros. In actual fact, the import substitution policy is successful insofar as it has already been possible to achieve the self-defined agricultural policy goal of increasing the degree of self-sufficiency in the pork sector to at least 85% by 2015. As Figure 2b illustrates, self-sufficiency in the pork sector increased from 67% in 2012 to 88% in 2016 and 2017.

Figure 3 illustrates that through the expansion of domestic pork production, there have been extensive regional relocations from the Southern Region to the Central Region. Pork production has become increasingly concentrated in Belgorod since 2006. This oblast currently covers almost 20% of total Russian pork production. Pork production in the neighbouring regions of Kursk and Tambow has also increased sharply since 2010. Conversely, production in the previously key pork production regions of Krasnodar and Rostov in the Southern Region has decreased markedly.

This development is accompanied by a forced expansion of the highly integrated agroholdings. Agroholdings control several stages of the value chain, from feed production to pig farms, slaughterhouses and

sometimes even distribution to end consumers through their own supermarket chains. According to the Russian statistics office, the share of agroholdings increased from 31% in 2002 to almost 70% of Russian pork production in 2016. In Belgorod, almost two thirds of pork production is accounted for by the two agroholdings Miratorg and Agro-Belogorje.

/4/ The development of price volatility

We measure the development of price volatility in the domestic pork sector at two stages of the Russian value chain for pork, pig production and slaughter and meat processing, in order to analyse the impact of the import substitution policy on price volatility in the pork

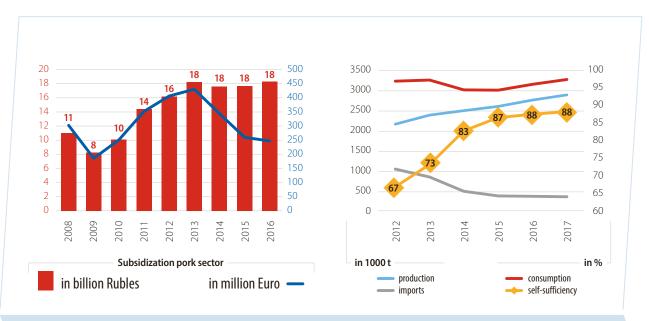


Figure 2a: Subsidising of the Russian pork industry Figure 2b: Degree of self-sufficiency in the pork sector

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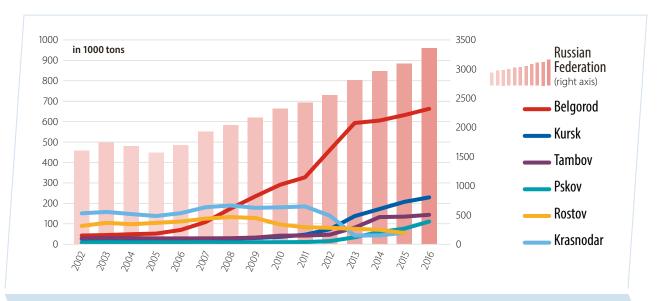


Figure 3: The development of pork production in the key production regions of Russia (2002–2016)

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sector. It can be seen that the prices for pigs according to their live weight and according to their slaughter weight were relatively stable until the beginning of 2013. Following this, and in particular following the imposition of the import ban on agricultural goods and foodstuffs in August 2014, the rates of change and volatility of both prices have increased dramatically. Moreover, all the above pork prices as well as the consumer prices showed a marked increase in 2014/2015.

Our first econometric results (see Götz and Jaghdani, 2017) demonstrate that price volatility increased sharply at the same time as the decline in pork imports and the expansion of domestic pork production. The risks in the pork value chain have thus markedly increased. Price volatility has increased dramatically since the start of 2014. At the same time, the spill-over effects of volatility

and thus the interdependence of the slaughter weight and live weight prices for pigs have greatly increased in the wake of declining pork imports.

Our results suggest that the increase in domestic pork price volatility goes hand in hand with Russia's separation from the international pork markets. This has led to a situation where the domestic offer has a marked impact upon the prices and there are extreme fluctuations in price. Local pork supply shortages or supply surpluses, for example, have been caused by outbreaks of African swine fever and the rapidly increasing regional concentration of pork production in individual regions and the simultaneous decline in production in other areas. A high level of price volatility places special demands upon the risk management, causes additional costs and consequently reduces the profitability of pig production.

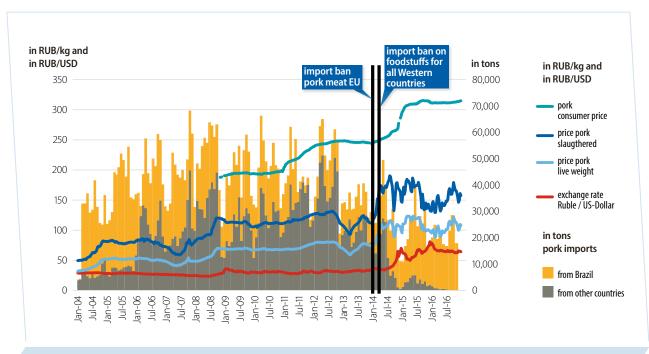


Figure 4: Price developments in the pork value chain

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It is currently not possible to foresee when the Russian import ban, which was extended until the end of 2018, will be lifted, and the Russian pork sector will be fully exposed to international competition. However, there are clear indications that the large integrated agroholdings are able to produce very efficiently and are internationally competitive. Russia is now increasingly acting as an exporter of pork on the international markets. Therefore, despite the increase in risk in the domestic Russian market, it can be assumed that there will only be limited opportunities for the marketing of European or German pork in Russia following the lifting of the import ban.

This study is conducted as part of the STARLAP project funded by the General Federal Ministry of Food and Agriculture (BMEL) and the Federal Office for Agriculture and Food (BLE). The project aims to examine the impact of Russian agricultural and trade policy on the agricultural and food sectors of Russia and their impacts on the EU and Germany. The study is documented as a contribution to the Gewisola conference (Götz and Jaghdani, 2017). You can obtain additional information about the project at

https://www.iamo.de/forschung/projekte/details/starlap/



Figure 5,6: Agroholding in Belgorod, fallow land in European Russia. A rapid increase in the regional concentration of pork production in areas such as Belgorod with a simultaneous decline in other regions can be clearly observed.

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Further literature

Djuric, I., Götz, L., & Glauben, T. (2015). **Trade diversion** and high food prices – The impact of the Russian pig meat import ban, Invited Paper, IATRC Annual Meeting, Florida, USA.

Götz, L. and T. Jaghdani (2017): Russia's agricultural importsubstitution policy: Price volatility effects on the pork supply chain, Contributed Paper, 57th Annual Conference of the German Association of Agricultural Economists (GeWiSoLa), September 13–15, München, Germany, https://ageconsearch.umn.edu/record/262003?ln=en Jacks, D., O'Rourke, K.H. and Williamson, J.G. (2011): Commodity Price Volatility and World Market Integration since 1700, The Review of Economics and Statistics, MIT Press, vol. 93(3), pages 800–813, 01.