7. ECONOMY

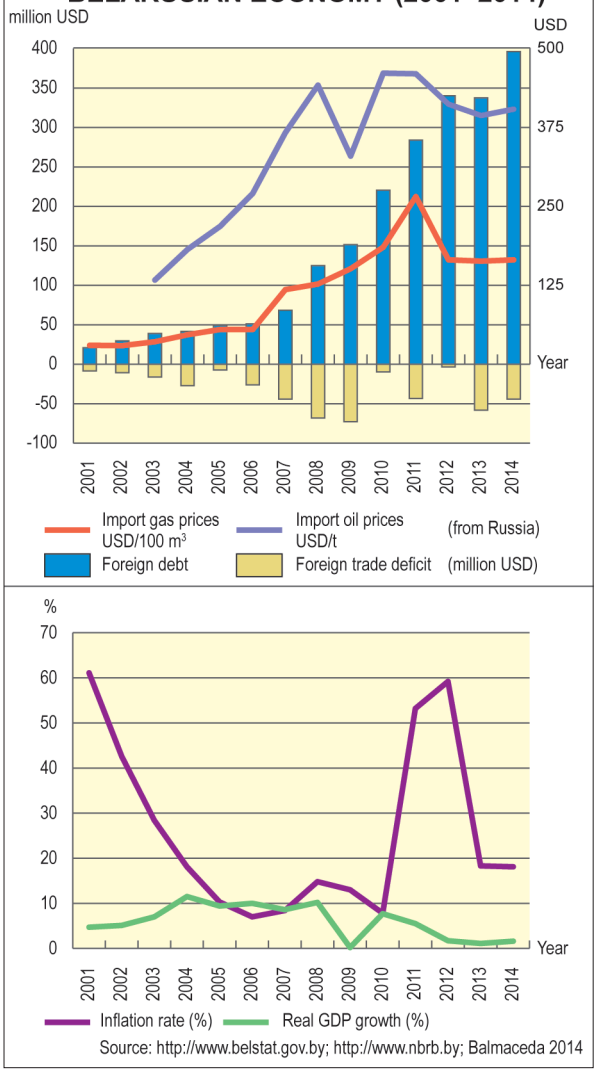
General characteristics of the economy

Since independence, Belarus's economic development has differed from that of the other European countries in the post-Soviet region (*Box 7.1*). The country has not experienced the social polarization and dramatic fall in living standards that were consequences of the economic transition elsewhere. There was no shock therapy in Belarus (Marples, D.R. 2008). Rather, the state has maintained social stability and a kind of welfare system that is available to all and includes free education and healthcare provision (Ioffe, G. 2006). Ioffe, G., Yarashevich, V. (2011 772. p) summarized the Belarusian system as follows: "The social contract established and maintained between the regime and society was explicitly based on surrendering some personal liberties in exchange for a high degree of social safety and equity." In their view, civil liberties are less important values for Belarusians than a desire for order. On seeing the corruption, crime and growing social inequality in Russia and Ukraine, Belarusians attributed even greater importance to domestic order and social stability (Ioffe, G., Yarashevich, V. 2011). According to Frye, T. (2011), however, where there is internal social support and economic development, restrictions on civil liberties are unnecessary. In line with the classical Western liberal view, Frye holds that economic development and Western democracy go hand in hand. Here it should be noted that while the Belarusian model counts as unique in Europe, several communist countries in Asia – for instance, China – have followed a path of development that is similar in many regards.

Alongside the issues of nationhood and domestic politics, Belarus's economic course has been a source of significant controversy. Despite the contradictions, living standards are better and pensions are higher in Belarus than in the neighbouring countries of Ukraine and Russia (Ioffe, G. 2004, 2006). Income inequality is also far lower; indeed, it is closer to the levels seen in the Scandinavian countries (Ioffe, G., Yarashevich, V. 2011) (*Table 1.2*). In the course of the transition, work productivity has increased without a significant decline in the employment level.

Belarus spends a substantially larger percentage of its GDP on health care and education

Fig. 7.1 SELECTED INDICATORS OF BELARUSIAN ECONOMY (2001–2014)



Source: http://www.belstat.gov.by; http://www.nbrb.by; Balmaceda 2014

Table 7.1 ***Dynamics of macroeconomic indicators (2001–2014)***

Indicators	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Real growth rate of GDP (%)	4.7	5.1	7.0	11.5	9.4	10.0	8.6	10.2	0.2	7.7	5.5	1.7	1.1	1.6
Change in industrial output to the previous year (%)	5.9	4.0	6.7	15.3	10.0	11.2	8.6	11.3	–3.1	11.7	9.1	5.8	–4.9	2.0
Change in agricultural output to the previous year (%)	1.7	0.4	6.8	12.6	1.7	5.9	4.1	8.9	1.0	2.5	6.6	6.6	–4.4	2.9
Growth rate of capital investment	–3.5	6.0	20.8	20.9	20.0	32.2	16.2	23.5	4.7	15.8	17.9	–11.7	9.3	–5.8
Change in retail trade turnover (%)	29.1	11.9	10.4	11.4	20.4	17.5	15.0	19.7	3.5	15.7	9.0	14.1	18.0	6.0
Real income of population	28.1	4.1	3.9	9.8	18.4	17.8	13.2	11.8	2.7	15.1	–0.3	21.9	16.3	0.8
Income of population (% to the previous year)	–	48.5	33.4	29.7	30.6	26.0	20.5	28.3	16.0	24.1	52.7	94.0	37.5	19.0
Foreign trade balance (% of the of GDP)	–4.1	–3.3	–3.7	–6.5	1.1	–4.0	–6.2	–7.6	–11.4	–13.6	–2.0	4.6	0.7	–
Export of goods (% to the previous year)	1.7	7.6	24.0	38.5	16.0	23.5	23.0	34.0	–34.6	18.7	63.8	11.2	–19.2	3.0
Import of goods (% to the previous year)	–4.2	9.7	27.1	42.7	1.3	33.7	28.4	37.3	–27.5	22.1	31.2	1.4	–7.3	–5.9
Foreign indebtedness (% of GDP)	–	–	–	–	–	17.0	18.5	27.6	24.9	44.8	51.6	63.2	55.1	55.3
Inflation rate (consumer prices)	61.1	42.6	28.4	18.1	10.3	7.0	8.4	14.8	13.0	7.8	53.2	59.2	18.3	18.1
USD exchange in Belarusian rubles*	–	–	–	2,160.24	2,153.81	2,144.56	2,146.07	2,136.29	2,79.254	2,978.10	4,623.47	8,335.86	8,875.83	10,215.53
Registered unemployment rate (%)	2.3	2.9	3.1	1.9	1.5	1.1	1.0	0.8	0.9	0.7	0.6	0.5	0.5	0.5

Remark: * Mean value of the given year
Sources: http://data.trendeconomy.ru/indicators/Real_GDP_growth/Belarus
http://www.belstat.gov.by
http://www.economy.gov.by
http://www.nbrb.by/statistics/Rates/AvgRate/?yr=2014

than do Russia and Ukraine. Life expectancy is significantly higher, while the preponderance of HIV, hepatitis and tuberculosis is lower. The HDI in Belarus is one of the highest in the post-Soviet region (Ioffe, G., Yarashevich, V. 2011).

When compared to the Baltic countries or to Poland, however, Belarus is relatively backward (*Table 1.2*). Moreover, some authors have noted Belarus's dependence on Russian energy imports, claiming that the country is in an economic cul-de-sac (see Frye, T. 2011) (*Figure 7.1*). Others (see Ioffe, G. 2004) have sought to explain Belarus's favourable position in relation to Ukraine or Russia – or, indeed, its backwardness relative to the Baltic countries and Poland – as the consequence of differences in development that stem from the communist era or that reflect the east-west development gradient.

Interior design of Minsk GUM (department store). (Photo: Karácsonyi, D. 2013)

Box 7.1 The Belarusian economic model

The backdrop to the Belarusian model in the 1990s and 2000s comprises various economic, political, social and cultural factors, which have been given different emphasis by the analysts:

a) The country **rejected the economic liberalization and privatization models** that were employed in other post-communist countries. The transformation of the economy was a gradual process and the state retained a major role. As late as 2004, 80% of the economy was under state control (Buhrova, I. 2004), whereas in Russia the process of privatization was more or less complete by 1996 (Ioffe, G., Yarashevich, V. 2011). Many factories, banks and services remain in state ownership, and a kind of transformed *kolkhoz-sovkhoz* (collective and state-owned farms) system prevails in agriculture. Nevertheless, the Belarusian model contains many of the features that are present in most of the post-communist market economies: Belarus has a parliament, political parties of various persuasions, and a stock exchange – albeit all of these play a merely formal role (Eke, S.M., Kuzio, T. 2000). The country has opted for so-called third-way market socialism (Scharff, R. 1999) or the social market economy (Yarashevich, V. 2014), which in reality means "state capitalism", based on the state's monopolistic position. This has not meant, however, a return to a Soviet-type planned economy. Nor, though, has there been a clear declaration of support for the market economy. The system is more of an odd hybrid of the two (Yarashevich, V. 2014).

The foundations of the Belarusian social market economy differ from those of the Western welfare states. The model is not based on a capitalist market economy, higher taxes in the private sector, and broad social provisions. Rather, it is rooted in the Soviet planned economy, where the state not only shapes economic policy but also acts as an owner. In this way, a close connection is established between economic development and social welfare (Yarashevich, V. 2014). All of this is reflected in wage policy. The 1990s were characterised by stringent price and wage regulations – which have since been significantly relaxed. This policy kept production costs low, thereby assisting exports (Weiner, Cs. 2007).

Although Belarus's economic policy ran contrary to the mainstream neoliberalism of the 1990s (e.g. Belarus rejected shock therapy and wide-ranging privatization), it nevertheless adheres to many principles of capitalism, such as market competition, bankruptcy procedures, and an acceptance of the role of the private sector. The model is founded on the adjustment and reform of the Soviet economic system and the gradual creation of market conditions (Yarashevich, V. 2014) rather than on a radical break with the past.

Yarashevich, V. (2014) underlines how several Western sources have questioned whether the country's economic policy can even be classified as a model grounded on independent principles. Several authors (e.g. Urban, M. 2008, Frye, T. 2011) have interpreted it as manoeuvring for the purpose of exercising or retaining power. The main principles – the objective of full employment, the definitive economic role of the state, the maintenance of a strong social net (Yarashevich, V. 2014), the gradual reform of the old Soviet economic structures, and (in stark contrast to the Soviet system) a focus on the development of rural areas (Balmaceda, M.M. 2014) – are, however, cornerstones of an economic policy that diverges from the mainstream. The five-year socio-economic plans (which were introduced in 1996) and the long-term strategies have reflected these economic policy principles (Yarashevich, V. 2014).

Several authors acknowledge that the model followed by the country lies at the root of its path towards domestic social and political development (Ioffe, G. 2007), but they attribute far greater importance to the favourable external economic factors, to balance-of-power factors or to the legacy of earlier periods. Without a doubt, in the absence of such external conditions, the model would not be functional. Even so, the country's economic policy is the result of some kind of domestic political consensus or "social contract", as Balmaceda (2014) has underlined.

b) Belarus has the **closest ties to Russia** in both cultural and economic terms of any country in the post-Soviet region. The old contacts and cooperation between enterprises have not been abandoned. Indeed, Belarus has been in a union with Russia since 1996 (Pankov, V. 1996). On the one hand, this has meant relinquishing the sovereignty and independence that the country won from the Soviet Union. On the other, it has paradoxically resulted in the retention of this independence and its enhancement within the new confederative framework (Eke, S.M., Kuzio, T. 2000). All of this is symbolized in Belarus's Independence Day, which – unlike in other post-Soviet countries – is not celebrated on the date of independence from the Soviet Union (August 25, 1991), but is tied instead to the liberation of Minsk from German occupation (July 4, 1944) (Marples, D.R. 2005).

Marples, D.R. (2008) has expressed the view that Belarus's economic success is closely linked with the Russian-Belarusian political partnership that arose out of the Act of Union of 1996. In the early 1990s, there were major protests in response to mass dismissals and price increases, but by 1996 the industrial giants had restarted production, owing to the reestablishment of the production chains and the reopening of the Russian market. After 1996, economic growth resumed, and by 2004 the GDP was 40% larger than it had been in 1990 (Ioffe, G. 2006), a unique achievement in the post-Soviet region. In Russia, Belarusian goods found an almost unlimited market. Indeed, the huge Russian market accepted most products, often without regard to quality (Rácz, A. 2013). The Belarusian transition was successful, according to Ioffe, G. (2006), in the sense that enterprises that had long been shut down in Russia or in Ukraine managed to survive in Belarus. Contrary to Ioffe's argument, it should also be noted that the survival of certain plants amid artificial (or manipulated) market conditions also resulted in the continued presence of the structural problems that had been inherited from the Soviet economy. On the other hand, however, Ioffe's argument is understandable, as one can obviously question the extent to which the economic structures that arose out of Russia's wild privatization, for instance, can be considered the result of pure market processes.

c) The Belarusian economy is strongly dependent on **Russian natural gas and oil imports**, which counterbalance its own lack of energy resources (Marples, D.R. 2008) (*Figure 7.1*). In consequence of the economic union with Russia, Belarus continues to have access to energy resources at lower-than-world prices, albeit there have been some price increases especially since 2007. In the 1990s, Russian natural gas was not only a cheap energy resource for Belarus but also a source of budgetary revenue coming from re-export and transit fees. In view of such Russian assistance, the country was in a much better situation than were the other post-Soviet republics. Indeed, Marples, D.R. (2005, 2008) views the success of the Belarusian economic course as the result of cheap energy, which, in his view, functioned as an economic subsidy. This was, in turn, the most important means of retaining political power (Marples, D.R. 2005). Frye, T. (2011) has put forward an even more radical view: The sole explanation for Belarus's economic miracle was the profit drawn from Russian resources. Thus, it is useless to compare Russian and Belarusian economic performance, because the two factors are interdependent.

The import of hydrocarbons at below market prices resulted in stable GDP growth from the mid-1990s, which meant that the economy could avoid shock therapy and the state could retain control over a significant part of industry. According to Balmaceda, M.M. (2014), Belarus itself can be regarded as an oil state, in view of its close economic ties with Russia and because it has many of the attributes that characterize the oil-producing states: oil profits, as beneficial externalities, have a positive impact on the economy, with oil revenues constituting 35–38% of exports in the 2000s. Moreover, the extra revenues – unlike in Ukraine or Russia – did not line the pockets of the local oligarchs but served to secure the social basis for the existing political regime (Balmaceda, M.M. 2014).

Ioffe, G. and Yarashevich, V. (2011) argue that the hydrocarbon subsidy is, in fact, the opportunity cost for Russia: it is the price it pays for Belarus's loyalty as an ally, whether this is manifested in military cooperation, the operation of Russian military bases (e.g. a radar station

in Hancavičy is part of the Russian nuclear missile defence early warning system), or a customs union. In other parts of the world too, there exist unequal economic relations where one of the actors receives some other kind of benefit in the non-economic sphere (Balmaceda, M.M. 2014) (This is also true for the EU regional policy subsidies). Russia seeks even now to maintain this arrangement, though the Russian leadership has attempted to set far tougher conditions for Minsk since the early 2000s (Marples, D.R. 2008).

d) Belarus – together with the Baltic states – was **at the forefront of development** among the various member republics **of the Soviet Union**. The country inherited advanced manufacturing industrial capacities from the Soviet Union in the mechanical engineering, automotive, electrical engineering, and petrochemical sectors. Since the 2000s, attempts have been made to modernize these relatively competitive sectors.

Ioffe (2004, 2006) attributed Belarus's success in the early 2000s almost exclusively to the advanced economy Belarus inherited from the Soviet era and to its favourable economic structure. In his view (Ioffe, G. 2004 88. p), the area of today's Belarus was, at the beginning of the 20th century, one of European Russia's poorest and least developed regions, with a wood and food processing industry that was very small and underdeveloped and with a strong rural overpopulation: "A country of dismal workshops and unproductive wetlands at the beginning of the twentieth century, Belarus 70 years later was dominated by large-scale industry and vastly modernised agriculture." It is unquestionable that Belarus profited more from Soviet industrialization than did any other Soviet republic (Ioffe, G. 2006): by the 1980s "it had become the Soviet Union's great mechanical engineering workshop".

Owing to the relative advantages that were gained from Soviet-type communism, Belarus had become the Soviet Union's showroom by the 1970s and 1980s (Eke, S.M., Kuzio, T. 2000). Housing construction per capita was the highest in Belarus, albeit until the 1970s this trend only affected Minsk, whereby the Belarusian capital became a symbol of Soviet economic success (Ioffe, G. 2004).

Not only was there rapid industrial development, but also the structure of industry was favourable. Development was concentrated in manufacturing industry and high technology rather than the raw material sectors. Nor can one speak of an excess role for the armaments industry (Pankov, V. 1996), despite its multiple ties with the oversized military industrial complex (e.g. the Uragan ballistic missile launchers were produced exclusively by MAZ in Minsk), the importance of which declined substantially in the 1990s.

Economic development during the Soviet era

Under the first Five-Year Plan (1928–1932) production began at the first machine tool and agricultural machinery plants in Minsk, Viciebsk and Homieĺ, but the BSSR remained an underdeveloped, under-industrialized and under-urbanized western peripheral and strategic front zone of the Soviet Union until the Second World War (Ioffe, G. 2004).

In 1941–45, the **wartime destruction** and economic and human losses were the greatest in the Belarusian areas. In the course of the German occupation and the partisan war, one in four of the country's population were killed and most of the towns were destroyed. Indeed, Belarus saw more destruction of its existing industrial capacity than any other part of the Soviet Union (Ioffe, G. 2004).

It was only **after the Second World War** that Belarus experienced dynamic industrial growth. This was due to investments. Belarus no longer lay on the frontline, as the border of the Soviet Union and its sphere of influence had shifted considerably westwards. Moreover, the main supply routes to East-Central Europe – above all, Poland, the GDR (East Germany), and the Baltic republics – crossed Belarus, which also had a stimulating effect on industrial investments, leading in particular to the decision to locate oil-refining capacities in Belarus (Balmaceda, M.M. 2014, Kozlovskaya, L.V. 2004). The transit role grew significantly from the 1970s onwards with the in-

crease in hydrocarbon exports to the West. From the 1950s onwards, Belarus gradually became the Soviet Union's "workshop" and "assembly plant", where tractors, trucks, synthetic fibres, televisions and, later on, microchips were produced. During the Soviet era, industrial production growth significantly exceeded the average Soviet growth rate (Ioffe, G. 2004). Between 1960 and 1975, the growth in per capita investment was higher in Belarus than anywhere else in the Soviet Union (Eke, S.M., Kuzio, T. 2000). In addition, between 1970 and 1986, growth in per capita income was two and half times higher in Belarus than in any other Soviet republic (Ioffe, G. 2004).

The change meant not only quantitative growth but also qualitative development. Belarus had the technologically most advanced industry in the Soviet Union. In terms of economic specialization, research and development as well as high technology received the greatest roles. Alongside the Baltic republics, consumer goods produced by Belarusian industry were known throughout the Soviet Union for their better quality (Ioffe, G. 2004).

Industrial development was focused on four industrial sectors: mechanical engineering, petrochemicals, radio electronics, and metallurgy (Kozlovskaya, L.V. 2004). The whole process of development was more balanced in Belarus than in Russia or Ukraine, since the preponderance of heavy industry was much less conspicious.

In terms of industrialization, the eastern and western halves of the country developed differently (Ioffe, G. 2004). Whereas in the eastern half ten major industrial giants were established and their supplier plants were to be found in all the major towns and district centres, the country's western regions experienced substantial industrialization only at the end of the 20th century (electronics and chemicals in Hrodna and Brest).

Belarusian industry was closely integrated with Russian – and to some extent with Ukrainian – industry at the time of independence, and the close ties have been retained (Ioffe, G. 2006). Enterprises in Belarus typically process raw materials arriving from Russia or use Russian and/or Ukrainian components.

In 1990, 80% of Belarusian products were sold to other Soviet republics or abroad (Ioffe, G. 2006). Even now, the production of domestic and electronic appliances is mainly for export to the Russian market.

Reforms and the role of the private sector after 1991

In Belarus, there was an absence – with the exception of potash – of the extractive industries (oil, ores) that for example in Russia formed the basis for the first wave of privatizations. For this reason in Belarus, there was no question of employing this model in the early 1990s (Ioffe, G., Yarashevich, V. 2011). Moreover, there were few signs in Minsk of the Westernized atmosphere that characterized Moscow or Saint Petersburg during those years. Like the old Soviet enterprises, Belarus's giant companies – MAZ, BelAZ, MTZ, etc. – were not only involved in production but also operated social welfare systems, thereby enhancing the social security of workers. The transformation of the relatively small number of giant enterprises – which all Belarusian governments, including the pre-1994 government, have been reluctant to implement – would have caused huge social tensions and substantial increase in unemployment (Eke, S.M., Kuzio, T. 2000).

By 1994 most Belarusian companies found themselves in great difficulties, owing to the breakdown of the former economic division of labour and of the close ties that had characterized the Soviet Union. Production at the plants was limited to two or three days a week, as either they had been paralyzed by the lack of raw materials or they were unable to sell their products (Ioffe, G. 2004, Ioffe, G., Yarashevich, V. 2011). In the early 1990s, similarly to people in the other former Soviet republics, Belarusian workers produced food in their own household gardens as a means of supplementing their incomes. The period also saw rampant inflation and unemployment, a rapid deprecation in the value of people's savings (Eke, S.M., Kuzio, T. 2000), and a deterioration in public security. The early 1990s was a period of economic and social crisis and chaos throughout the post-Soviet region, which in Belarus too – similarly to the situation in Ukraine and Russia – remains, in the public's collective memory, a "nightmare" and a trauma – a time of empty shelves, skyrocketing prices, payments made months in arrears, corruption, crime and an escalating black market. In both Ukraine and Russia, however, this period was lengthier and more devastating than in Belarus.

Society and government barely dared to touch the collapsing structures of the Soviet era until as late as 1994 (Ioffe, G., Yarashevich, V. 2011). Privatization began spontaneously after 1990, but it received little support from the country's leadership. In addition, the level of entrepreneurial activity in the country was low. After 1994, following a political decision, the voucher-based privatization was brought to a halt.

At the time, restoring economic links with Russia was the only means of economic survival (Eke, S.M., Kuzio, T. 2000). Owing to cheap Russian energy supplies and an improvement in Russian-Belarusian economic relations, the situation had been stabilized by 1996 and economic growth could begin. At the time, most trade with Russia took the form of barter deals; Belarus paid for cheap Russian hydrocarbons by supplying machinery and equipment. In 1996, Russia cancelled Belarus's accumulated debt (Weiner, Cs. 2007). Compared with the other former Soviet republics, the decline in the economy and in industrial production was less severe. In 1999, Belarus's GDP stood at 83.6% of the 1991 level, whereas the corresponding figure in Ukraine was 44.7% (Ioffe, G. 2004).

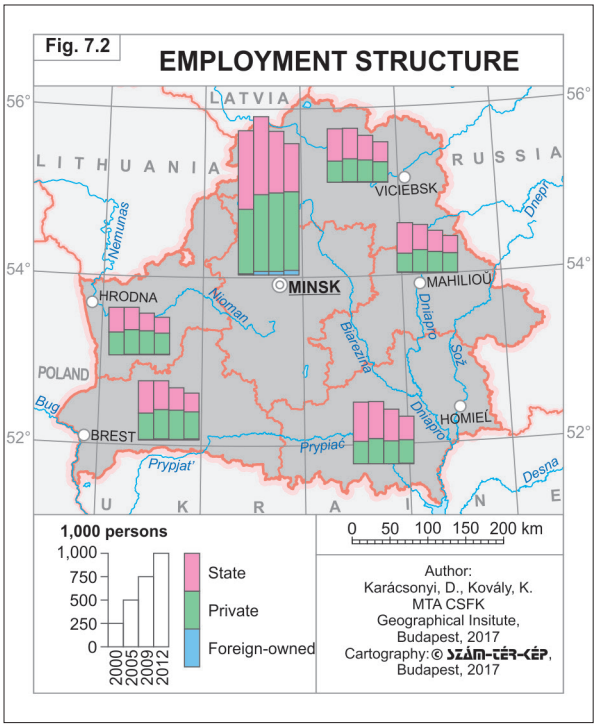
The state firms were transformed into corporations, but the state remained the main shareholder. Almost uniquely in the post-Soviet region an investment law was adopted, but a law introduced in the late 1990s allowed the state to interfere in corporate decision-making regardless of the size of its stake.

The privatization of the industrial enterprises began only much later in the form of joint ventures. In the course of this process, private investors assumed increasingly large shareholdings in the companies involved. As late as 2011, the private sector accounted for barely 25% of Belarus's GDP (Ioffe, G., Yarashevich, V. 2011). As in earlier periods, the state is able to influence – and directly intervene in – the country's economy by way of economic policy at the macro level and through its shareholdings in companies at the micro level (Kruk, D. 2013).

Between 2005 and 2008, Belarus's GDP growth was the highest in Europe (Ioffe, G., Yarashevich, V. 2011). By 2003, it had reached the GDP level of 1990, which Russia achieved only in 2006 and Ukraine has still failed to achieve (2017). The Belarusian government strove to lessen imports by imposing customs tariffs and introducing protectionist measures on imports from Russia. Such measures were designed to assist industry, whose contribution to GDP growth has been particularly significant (Weiner, Cs. 2007).

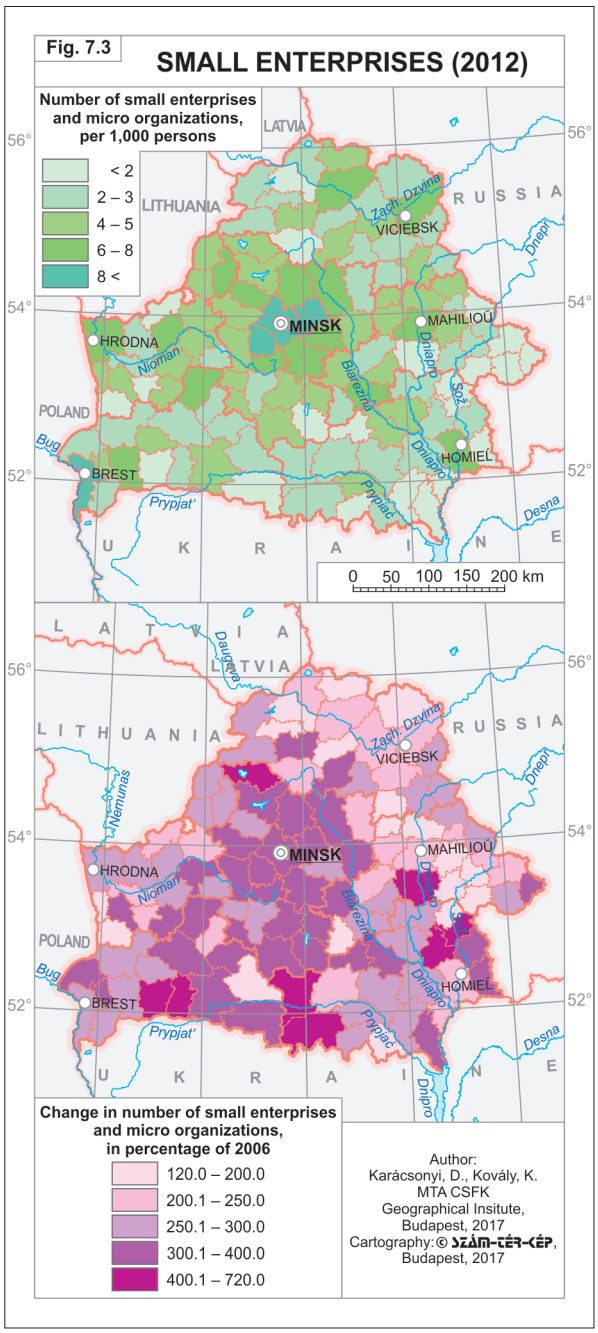
Several industrial sectors grew significantly in the period up to the 2000s, as a consequence of which Belarus now accounts for almost three-quarters of bus production in the CIS, a third of truck production, two-thirds of tractor production, a half of television production, and, indeed, a half of the global production of microchips for watches. At the same time, however, Belarusian industry is losing its competitiveness in Russian markets in relation to Russian enterprises.

While the major industrial plants remain under state ownership, private ownership prevails in the commercial sector – restaurants, cafes, tourist services and mobile service providers (*Figure 7.2*). The state still plays a major role in industrial production, but it has withdrawn from the service sector. Even so, as late as the mid-2000s, the service sector was characterized by a low level of development (restaurants and shops were reminiscent of Soviet times) in comparison with Ukraine or Russia (Ioffe, G. 2004). The diversity of the Belarusian economy is relatively limited, but there are an increasing number of



registered legal entities (mostly private enterprises) (12,735 in 2014) and individual entrepreneurs (49,991 in 2014) (*Figure 7.3*). For the sake of comparison, it is worth noting that Russia, whose population is 15 times greater than that of Belarus, had 267 times more registered legal entities and 97 times more entrepreneurs in 2014.

The entrepreneurial social stratum that arose after 1991 (currently, 3–4% of the population) ranges from market traders to individual entrepreneurs and to the owners of the major companies that have been established since 1991. The oligarchs that one sees in Russia and Ukraine, who grew rich at the time of privatization, are absent from Belarus (Yarashevich, V. 2014). In 2011, more than half of total employees were working in the private sector, and the sector accounted for 15–16% of output (Yarashevich, V. 2014).



Diversification, growing government debt and inflation since 2007

In recent years, Belarus has experienced a growing number of problems, owing to increases in the price of Russian energy imports and to the recession that followed the global economic crisis (2008). Although the problems had external causes, they were exacerbated by the slowness of structural reforms. The effect has been to encourage the acceleration of the country's cautious privatization programme and the diversification of its foreign trade relations.

The Russian-Belarusian "gas war" (political clashes because on gas export prices by Gazprom) of the winter of 2006–2007 fundamentally altered the relationship between the two countries, for it revealed the vulnerability that stemmed from the economy's one-sided dependence (Rácz, A. 2009). Belarus gradually lost state control of "Beltransgaz", with "Gazprom" securing a 50% ownership stake in 2007 and then full ownership in 2011. Since January 2007, Belarus has not imposed duties on oil products made from Russian crude oil or on re-exported oil products. Moreover, in 2009 Russia began to impose duties on oil exported to Belarus (Ioffe, G., Yarashevich, V. 2011). In one memorable episode of the energy spat, in May 2010 the Mazyr refinery began to process Venezuelan oil that had arrived by train from Ukraine, along the Odesa-Brody pipeline. In response, by the end of 2010 Russia cancelled the duties that had been imposed (Ioffe, G., Yarashevich, V. 2011). The Russian-Belarusian oil and gas wars were accompanied by several minor trade spats, including a milk war that broke out in the summer of 2009 when Russia – citing quality concerns – imposed restrictions on milk and dairy imports from Belarus.

Alongside the periodic cooling in Belarusian-Russian relations, Belarus initiated a spectacular opening in foreign trade with the West

and it also stimulated foreign capital investment into Belarus. A privatization process in the form of joint ventures was launched in 2008. After the global financial crisis, the process resumed in 2011 (Ioffe, G., Yarashevich, V. 2011). Indeed, in the same year (2011), the moratorium on privatization was revoked and approximately 150 state-owned companies were listed for privatization (Ioffe, G., Yarashevich, V. 2011).

Until the mid-2000s, Belarus took on very little foreign debt – partly as a result of its negative political rating (Yarashevich, V. 2014). The country's external indebtedness changed significantly after the opening to the West. Moreover, in the post-2007 period, Belarus was forced to incur debt, following a price hike in Russian energy imports (Rácz, A. 2009). From the end of 2008, Belarus took a loan from the IMF. In addition to Russia, China also became a major creditor. Government foreign debt increased rapidly after 2007, around third of GDP by 2012 (*Table 1.2*).

The loans served to sustain the economy and maintain living standards. Even at the time of the global financial crisis in 2009, there was economic growth in Belarus, which was achieved by keeping domestic demand at artificially high levels (Kruk, D. 2013). A feature of the Belarusian economy is import substitution. Indeed, the shelves of retail shops have to meet a quota of Belarusian products. The effects of the global crisis were felt later on, manifested principally in a decline in the Russian export market and in a global decrease in the price of raw materials (potash and oil).

From 2009, the Belarusian ruble underwent a steady depreciation, and further devaluations followed in 2011 (Yarashevich, V. 2014). Kruk, D. (2013) has argued that the Belarusian ruble was overvalued until as late as 2011.

Owing to higher energy prices, Belarus's current account went from surplus to deficit. Thereafter the country's currency reserves were rapidly used up. By 2011 Belarus faced a currency crisis (Yarashevich, V. 2014). A factor that contributed to the crisis was an increase in vehicle imports in the first half of the year, which, in turn, was caused by the announcement of an impending hike in customs duties on imported used cars. Concurrently, the outflow of capital from the country speeded up. In mid-year, restrictions on the buying and selling of foreign currency had to be introduced. The situation caused panic and prices increased rapidly. By August there was a shortage of some goods, due in part to shopping tourism from Russia (Ioffe, G., Yarashevich, V. 2011). The problems led to high inflation rates in 2011–2012 (*Figure 7.1*, *Table 7.1*). In an effort to counterbalance the effects of inflation, the government increased the salaries and wages in the public sector workers by more than 50%, and further significant wage increases were implemented in 2012.

Government debt, which had reached 63% of GDP in 2012, has undergone a decline in absolute terms since the second half of 2014. This decline, however, is due in large part to Russian energy price falls and to the post-crisis recovery in world markets. There is uncertainty about the extent to which the Russian economic crisis, which worsened in 2015, will affect Belarus's economic performance. The Belarusian economy may even draw benefit from the EU embargo on Russia.

Alongside its trade with Russia, Belarus has opened up towards China, Venezuela, Iran and – last but not least – the EU. As a result, the country's role as a bridge (e.g. its role as mediator in the 2014 Ukrainian crisis) has been enhanced, and the country has also seen a gradual modernization of its economy, in particular the industrial sector. In the 2010s, the Belarusian economic model has no longer been defined by cheap energy imports and the production of goods for export to Russia. Rather, Belarus has sought to capitalize on the competitive advantages that stem from its location (EU-Russia, Europe-Asia) and from its relative political and social stability – compared with other countries in the region. Such factors are more likely to have a positive impact on investors. In the 2010s, China's role in offering credit and aid has intensified. Joint investment projects are being realized, and there are an increasing number of Chinese-Belarusian joint ventures.

Sectoral structure of the economy

Gross domestic product at the end of 2014 totalled 76.1 billion US dollars (65th place in the ranking of the International Monetary Fund), an increase of 1.6% compared with 2013. Belarus's share of global GDP is 0.08%. The dynamic GDP growth observed in the period 2002–2008 had

slowed down by 2015 (*Table 7.1*). The worst dynamics, in terms of real GDP growth, were observed during the global crisis of 2009 and in the autumn of 2013, when the goal of economic and monetary policy was not economic growth but the retention of stability in the foreign exchange markets. A negative GDP trend was observed in 2015, owing to the deteriorating Russian economy and the fall in world prices for oil products. GDP growth in the period 2012–2015 was less than 1.6% on a yearly average. The figures reflect not only global growth uncertainties but also the absence of structural reforms in Belarus.

Inflation is a significant factor in the gross figures. A negative dollar deflator (a general decline in prices in dollar equivalent) was recorded only in 2009 (during the global collapse in prices at the time of the global financial crisis, and also because of the January one-time devaluation of the Belarusian ruble) and in 2011 (in a period of currency crisis with an almost threefold increase in the value of the dollar in the country). Between December 2002 and 2014, real GDP had increased a little more than 2 times, and the nominal GDP in dollar equivalent by 5.3 times (GDP in 2014 compared with GDP in 2002). The dollar inflation factor in this period increased the nominal value of the dollar equivalent of GDP by 2.6 times. Currently, the inflation source of growth is on the decline: the dollar deflator (annual dollar inflation in Belarus by GDP) in 2014 amounted to 101.7% (+1.7% compared with 2013), which is comparable with the rate in western countries.

In terms of **GDP structure**, the manufacturing sector is dominant, with a share of 47%. The share of GDP accounted for by services is lower than in the neighbouring countries (Lithuania, Latvia, Poland) and does not exceed 43%. In terms of the sectoral structure of GDP, the largest elements are manufacturing industry, trade and construction. For example, in 2014 manufacturing's share of GDP was 23.2%, while commerce accounted for 12.1% and construction for 10.4% of GDP. It is worth noting that there has been a slowdown in the growth of agriculture. Its share of GDP was 9.2% in 2010, but by 2014 the figure had fallen to 7.7%.

In the **regional structure of GDP,** Minsk (24.9%) is dominant (*Figure 7.4*). This is due to

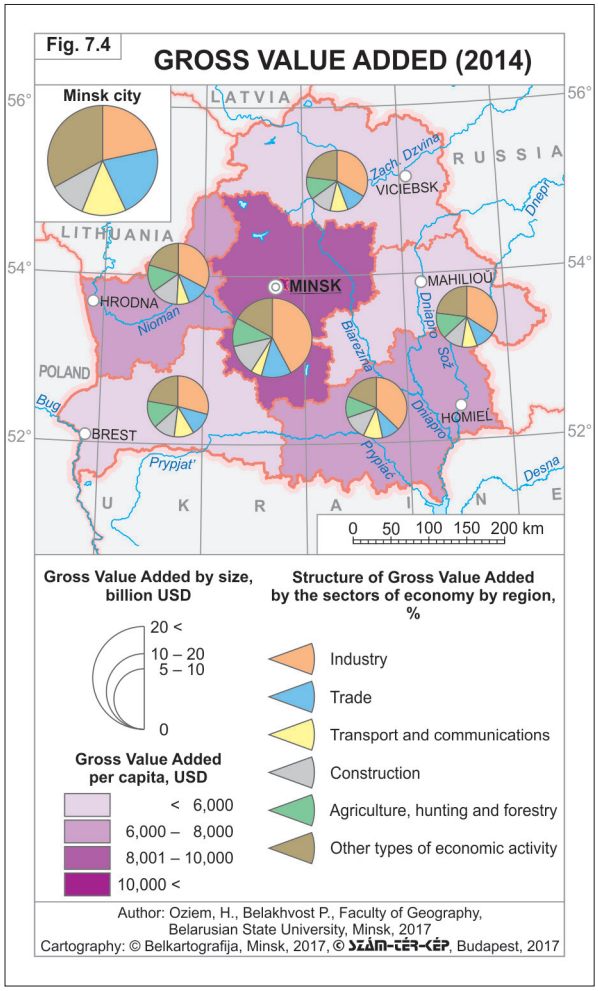


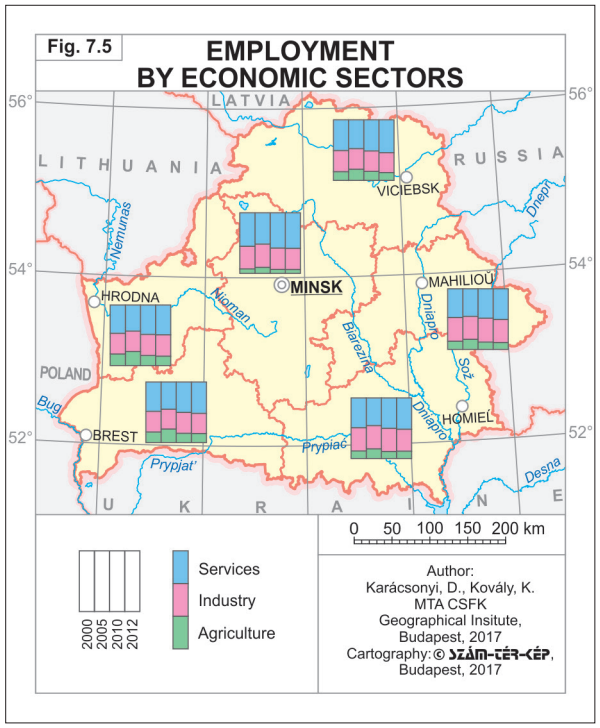
Table 7.2 ***Sectorial structure of the economy (% of GVA)***

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Agriculture	9.8	9.8	9.5	9.8	9.5	10.3	9.1	9.6	7.9
Industry	43.4	42.4	42.4	44.7	41.8	40.7	41.3	41.8	41.0
Services	46.8	47.8	48.1	45.5	48.7	49.0	49.6	48.6	51.1

Source: http://www.belstat.gov.by/en/ofitsialnaya-statistika/macroeconomy-and-environment/natsionalnye-scheta/osnovnye-pokazateli-za-period-s-__-po-____gody_2/structure-of-production-of-gross-domestic-product-by-kinds-of-economic-activity/

the fact that Belarus's major enterprises and companies are concentrated in the capital city. The second place is taken by the Minsk region (GRP in 2014 totalled 10.9 billion US dollars). The smallest regional share of GDP was observed in the Mahilioŭ region – 7.2%.

In 2014, 4.5 million people were employed in the Belarusian economy. Industry accounted for 41% of total employment, and the services sector for 51%. The percentage of people employed in industry or agriculture is on the decline – in line with international trends (*Table 7.2, Figure 7.5*).



Industry

Belarus maintains a leading position in industrial development among the CIS countries. In spite of the reduction in its share of GDP (26.7% in 2014 compared to 37.9% in 1990), industry remains the most important element of the national economy. The total volume of Belarusian industrial production in 2014 amounted to 56 billion US dollars. Whereas the volume of industrial production steadily increased in the 2000s (with the exception of 2009), since 2012 industrial production has decreased in absolute terms (*Table 7.3*). Belarusian industry is, by the nature

Table 7.3 ***Indices of industrial production (1995–2015)***

Indicators	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Electricity generation (billion kWh)	24.9	26.1	25.1	26.5	26.6	31.2	31.0	31.8	31.8	35.1	30.4	34.9	32.2	30.8	31.5	34.7	33.8
Gasoline (thousand tonnes)	1 849	1 964	1 824	1 756	1 895	2 840	3 330	3 498	3 181	3,330	3,272	3,158	3,135	3,730	3,683	3,945	3,969
Diesel (incl. biodiesel) (thousand tonnes)	3 465	3 847	3 880	4 606	4 913	5 845	6 426	6 616	6 693	6,719	7,106	6,137	8,842	11,471	7,809	7,989	8,159
Mineral or chemical fertilizers (in terms of 100% nutrients) (thousand tonnes)	3 349	4 056	4 379	4 495	4 953	5 403	5 669	5 469	5 880	5,870	3,390	6,176	6,288	5,859	5,279	7,368	7,508
Chemical fibres (thousand tonnes)	210.6	218.7	221.1	204.3	202.6	203.4	210.8	203.2	228.6	225.7	200.4	233.1	231.0	239.4	216.1	190.6	182.9
Tyres (thousand units)	1,292	2,440	2,666	2,281	2,765	3,198	3,052	3,563	4,792	5,068	5,073	4,820	5,169	5,732	5,569	5,012	3,911
Machine tools for metalworking (thousand units)	4.9	5.5	5.9	6.0	5.4	5.6	3.9	5.0	4.9	4.9	2.7	3.9	5.3	4.5	4.5	2.8	1.1
Buses (units)	62	914	460	467	499	610	1263	2104	2160	2,196	1,520	2,089	2,162	2,277	2,341	1,691	795
Trolley buses (units)	83	109	62	56	127	118	147	176	311	446	388	283	206	174	118	106	86
Tractors (thousand units)	29.3	23.8	23.3	25.0	27.9	35.2	42.9	51.3	62.3	69.2	51.0	50.9	66.8	71.0	62.6	52.2	34.3
Heavy trucks (thousand units)	12.9	14.7	16.5	16.5	18.1	21.5	22.3	23.2	25.5	26.3	11.5	13.5	23.3	26.2	19.3	12.7	6.0
Refrigerators (thousand units)	746	812	831	856	886	953	995	1,050	1,072	1,106	1,007	1,106	1,197	1,263	1,200	979	899
Televisions (thousand units)	250	532	727	738	690	1262	1308	1067	702	717	352	446	404	594	245	92	22
Washing machines (thousand units)	36.9	88.1	81.0	66.2	63.3	49.6	36.7	12.7	163.3	216.5	236.4	273.8	310.8	323.5	324.3	151.6	203.6
Bicycles (thousand units)	271	586	767	875	775	776	441	458	374	250	130	134	176	184	194	99	59
Paper and cardboard (thousand tonnes)	133.3	219.3	216.5	222.6	239.9	257.4	284.2	286.0	307.7	316.6	272.5	341.9	357.3	381.7	331.7	332.7	292.2
Knitwear (million units)	39	59	49	38	41	39	43	47	51	55	55	64	64	63	61	55	38

Source: http://www.belstat.gov.by/ofitsialnaya-statistika/realny-sector-ekonomiki/promyshlennost/godovye_dannwe_prom/proizvodstvo-otdelnyh-vidov-promyshlennoi-produ_2/

of its specialization, resource demanding and import-dependent (*Figure 7.6*). It is characterized by the dominance of subject specialization and a relatively low participation in the technological and detail specialization. This feature of the national economy emerged in the second half of the 20th century in the period of intense industrialization that took place within the framework of the single economic complex of the USSR. This was when the economic image of the country as

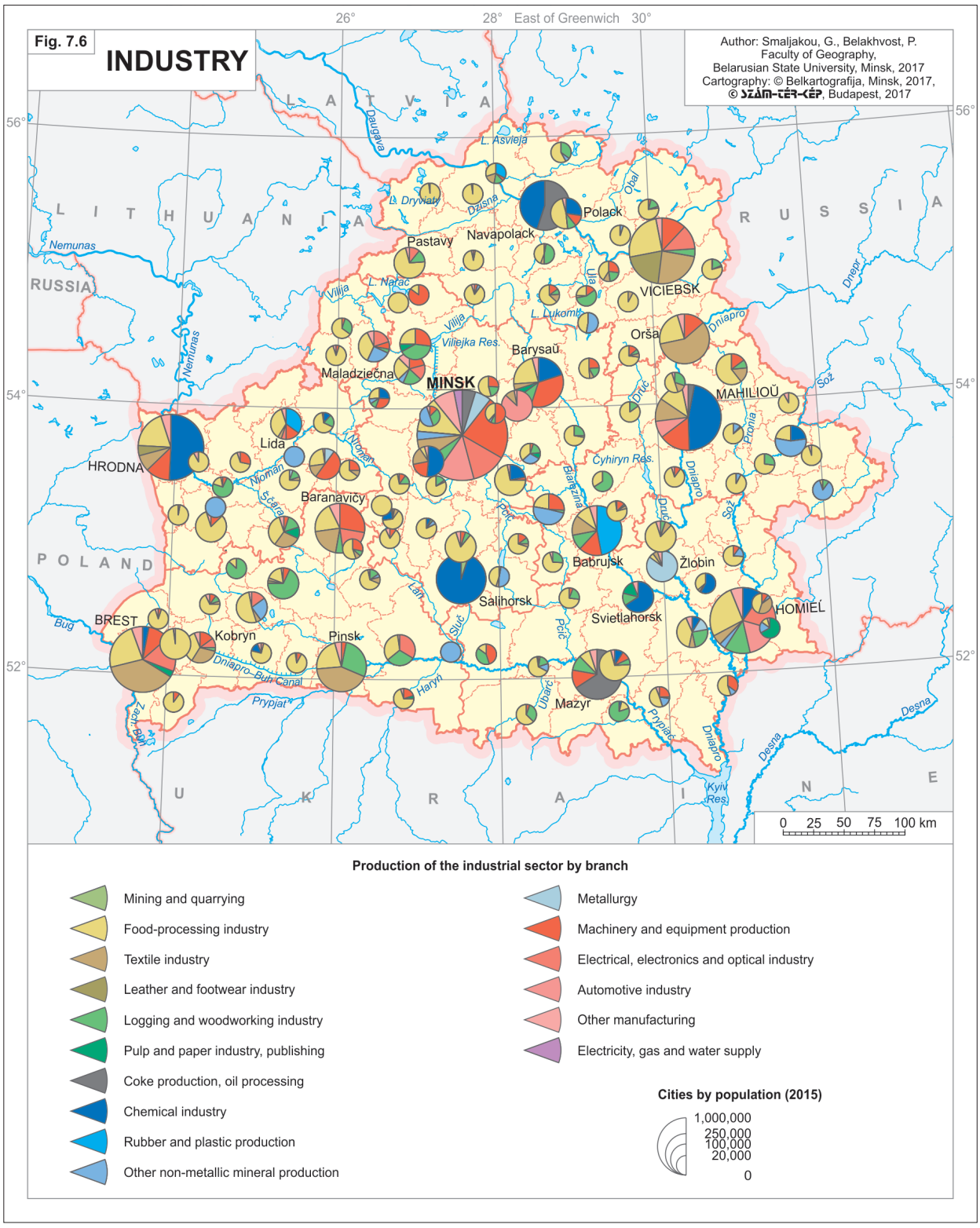
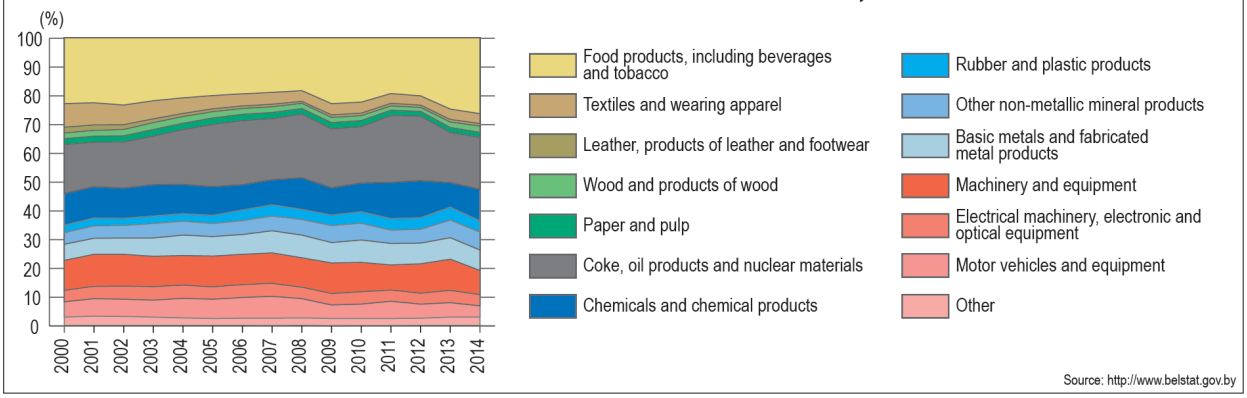


Fig. 7.7

STRUCTURE OF INDUSTRIAL PRODUCTION, 2000–2014



Source: http://www.belstat.gov.by

the "all-union assembly line" arose. The country produces 17% of all combine harvesters in the world, 6% of tractors, and 6.4% of flax fibre. At this time the share of BelAZ dump trucks in the world market is 30%. Belarus produces 1.4% of the world's milk, but at the same time exports of dairy products account for around 5% and butter for around 11% of the world total.

Belarus's economic potential is based on a number of industries, which account for almost 40% of basic production assets. The country has more than 2,300 industrial enterprises of various types (*Figure 7.7*).

Belarus has formed a holding company business model. Companies in major segments of the industry become the unifying core of industrial holdings. The largest holdings are based on joint-stock companies, 100% of whose shares are owned by the state. Almost all of them are enterprises in the mechanical engineering sector.

Regional specialization and industrial clusters are significant factors in Belarusian industry. The petrochemical industry is particularly strong in the Homieĺ and Viciebsk regions (Mazyr and Navapolack), while in Minsk the most significant sectors are mechanical engineering and electronics. Chemicals are particularly important in the Mahilioŭ and Hrodna regions, while in Brest the food industry is the largest sector, based on local agriculture. The "Program for Development of the Industrial Sector in Belarus, 1998–2015" led to the creation of a series of regional industrial clusters: a chemical cluster in Hrodna, a petrochemical cluster in Navapolack, an agricultural machinery cluster in Homieĺ, an auto-tractor-building cluster in Minsk, a chemical-textile cluster in Mahilioŭ, an IT-cluster in Minsk and a flax cluster in Orša.

Energy

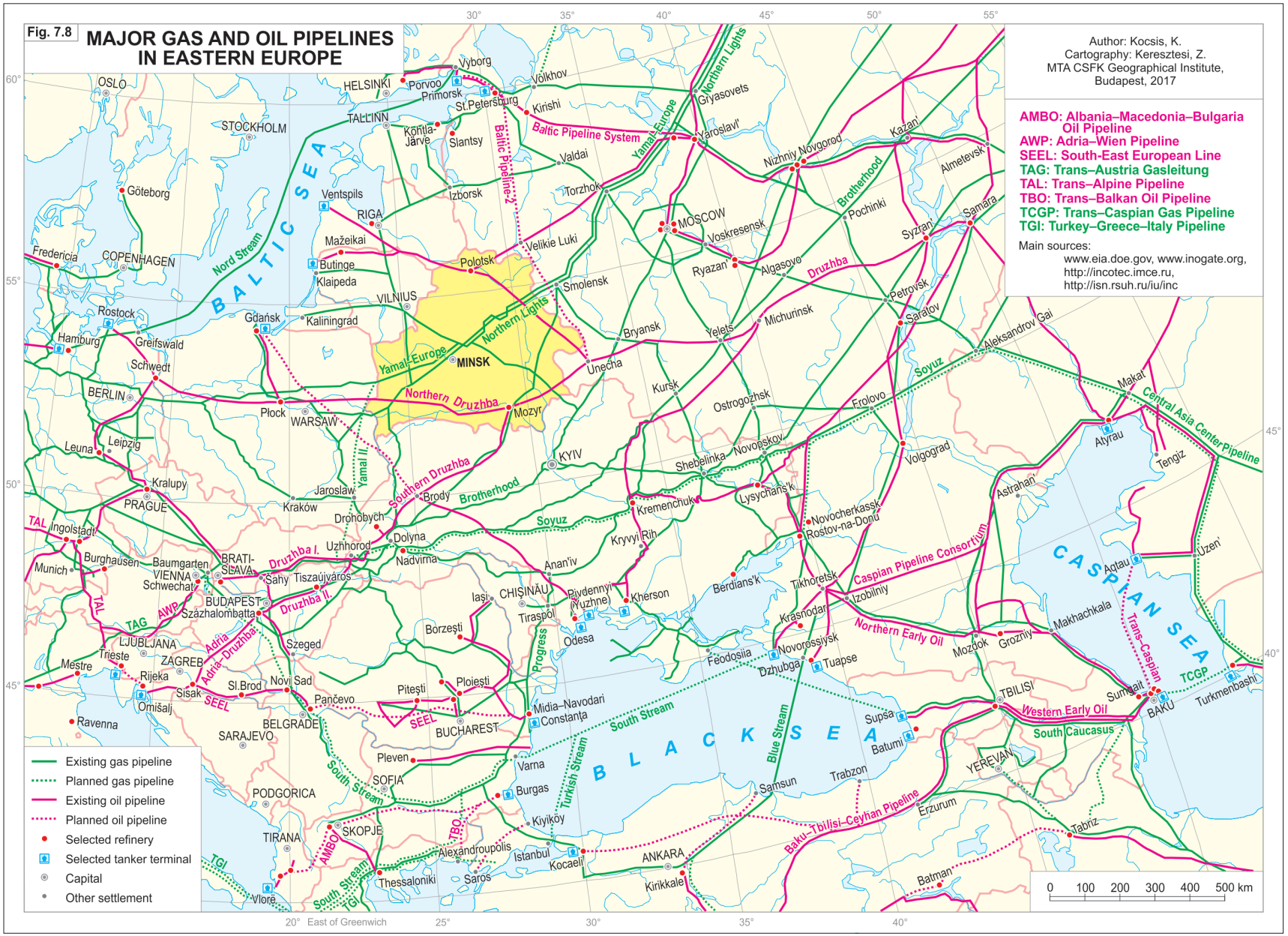
The country is poor in minerals and **energy resources**, and so its processing industry is highly dependent on Russian and Ukrainian raw materials. Since the 1960s, the country's energy industry has undergone significant changes (Kozlovskaya, L.V. 2004). With the construction of oil and gas pipelines, energy imports from other areas of the Soviet Union, principally Russia, gained ascendancy over domestic energy sources. For Belarus a significant source of revenue has been its transit oil and gas trade. Such revenues played a particularly important economic role in the latter half of the 1990s and in the 2000s.

The **oil and gas pipelines** (*Figure 7.8*) that cross the country bring Russian oil into the country at lower-than-world prices. The oil is refined at one of the country's two refineries and then exported to the West or to the neighbouring countries, in particular Ukraine and Moldova. Founded in 1963, the "Naftan" Refinery in Navapolack is Europe's largest (Ioffe, G. 2006), with an annual production capacity of 25 million tonnes. The second refinery, the Mazyr Refinery, was founded in 1975 and has an annual production capacity of 18 million tonnes. The "Naftan" Refinery's products are forwarded along a pipeline to the port of Ventspils in Latvia, while products from the Mazyr Refinery, which lies alongside the Friendship ("Druzhba") Pipeline, are supplied to the EU in tank trucks or by rail (Ioffe, G. 2006).

Belarus's transit role grew rapidly in the 1990s, following the breakup of the Soviet Union. Having inherited ownership rights to the pipelines and to the refineries, Belarus became not

Fig. 7.8

MAJOR GAS AND OIL PIPELINES IN EASTERN EUROPE



only an energy transit service provider but also a major centre for oil processing. The energy industry is a major economic sector in Belarus. It provides energy to the country's domestic industry and it serves as a source of revenue. Such revenue derives from the export of oil products and from the processing and onward sale of oil (Kozlovskaya, L.V. 2004). The possibility of the privatization of the state natural gas company, "Beltransgaz", was raised as early as 2002. After several Russian-Belarusian gas disputes (in 2004, 2007 and 2010), in 2007 "Gazprom" obtained a 50% stake in the company. Since 2011, Gazprom has been sole owner of the company. In 2013, it changed the name of the company to "Gazprom Transgaz Belarus". In 2007, Belarus abolished the duty on Russian oil for transit and an agreement was reached on the price of goods made from Russian oil and sold for export.

Although local oil reserves have never covered the domestic demand for oil, Belarus does have some oil and gas deposits, the extraction of which began in 1965 near Rečyca. Production peaked in the 1970s, but soon the deposits were more or less exhausted. At present, there is no prospect of the discovery of further deposits. Consequently, oil production levels (1.6 million tonnes in 2014) and gas production (222 million m^3 in 2014) are expected to decline further (Kozlovskaya, L.V. 2004).

Peat is another traditional source of energy. It became a vital element in the national energy supply in the 1920–30s. Peat production peaked in the 1960s, but its importance declined as other types of energy (coal, oil, natural gas) appeared. By 1987, peat had been completely marginalized as an energy source (Kozlovskaya, L.V. 2004), and its significance became limited to the agricultural sector, where it is used as a soil improver (1.4 million tonnes in 2014).

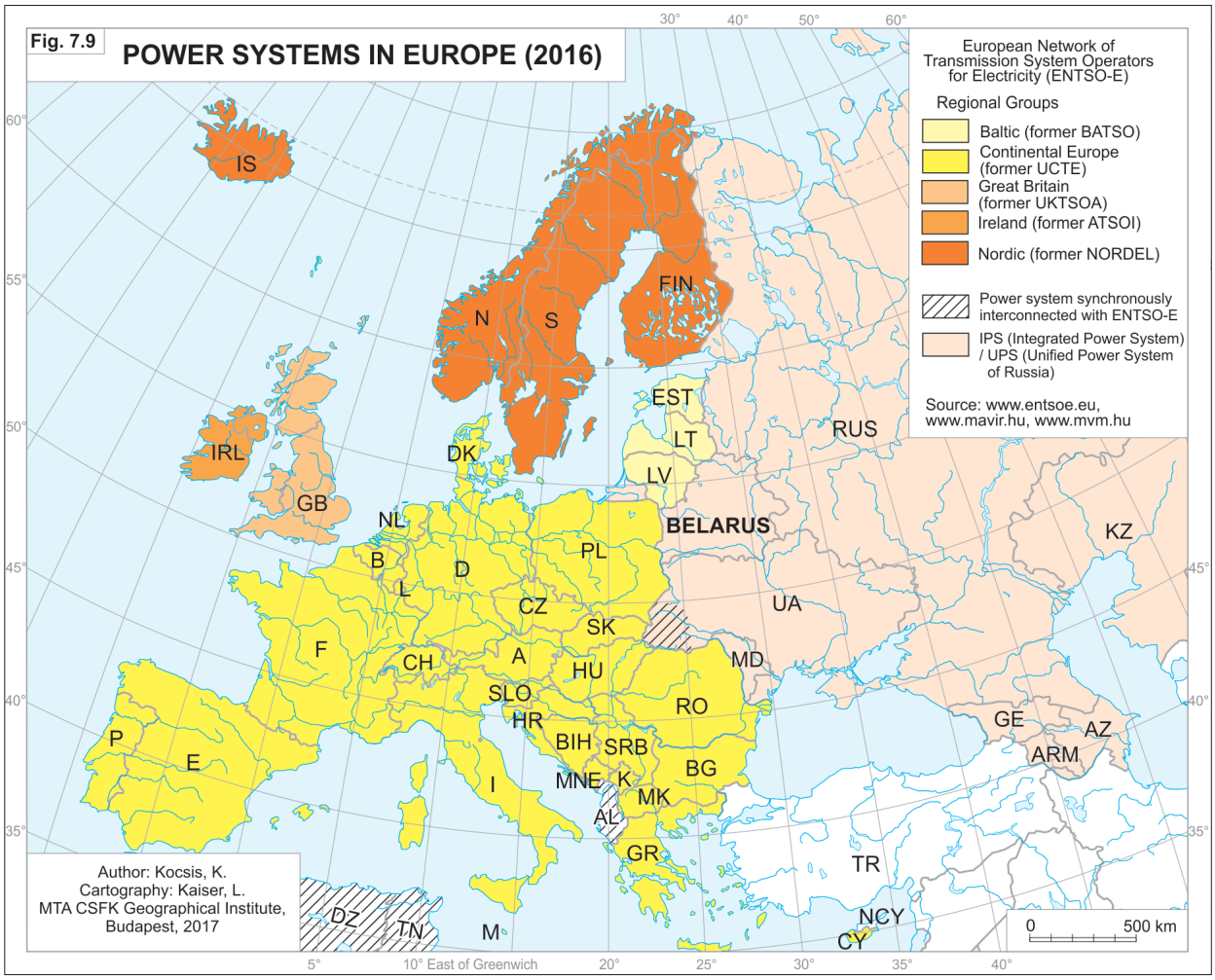
The **electricity** transmission system of the country was formed in the Soviet period. Modern electric power started to be developed in 1921, when the Soviet government set out a plan for the universal electrification of Russia (The State Commission for Electrification of Russia, GOELRO). In 1927, the first large power station was built in the area of today's Belarus. Its design capacity was 34 MW. The main phase of the construction of power stations in the country was in the 1960s–80s. At present, the country's electricity network is part of the post-Soviet Integrated Power System (IPS) (*Figure 7.9*).

Currently, the total capacity of Belarus's power stations is 8800 MW, and production exceeds 30 billion kilowatt-hours (kWh) (*Table 7.3*). The share of the electricity generation sector in industrial production has remained stable at about 8%. In this segment of the economy, there are more than 200 enterprises, which employ around 110 thousand people.

Electricity production in Belarus is centred on the power stations (99%), with steam-turbine (thermal) power plants playing the largest role. Such power plants supply energy and meet the demand for district heating. Most thermal power stations are fuelled with natural gas (60%) or oil (20%). The total length of electricity power lines is about 270 thousand km, including lines with 750 kV between Smolensk and Sluck, where the "Belarusian" transformer station is located (*Figure 7.10*).

The electricity production capacities met in full Belarus's reduced energy needs after the collapse of communism. Still, for Belarus, it proved cheaper to import electricity from outside the country than to produce electricity at its own power stations using imported fuels (Kozlovskaya, L.V. 2004). In consequence of the changes, since 1990, electricity production has fallen to a fifth of its previous level. Nowadays the country cannot meet its own energy needs. The consumption of electricity in the country has been growing steadily, and in 2014 it reached 38 billion kWh. The leading consumers of electricity in the country are manufacturing industry (38%), services and private consumers. Increasing demand has meant that electricity now needs to be imported – up to 8 billion kWh per year. Electricity imports come from the neighbouring countries, in particular the nuclear power stations in Russia (Smolensk) and Ukraine (Rivne). In earlier years, electricity also came from the nuclear power station in Lithuania (Ignalina).

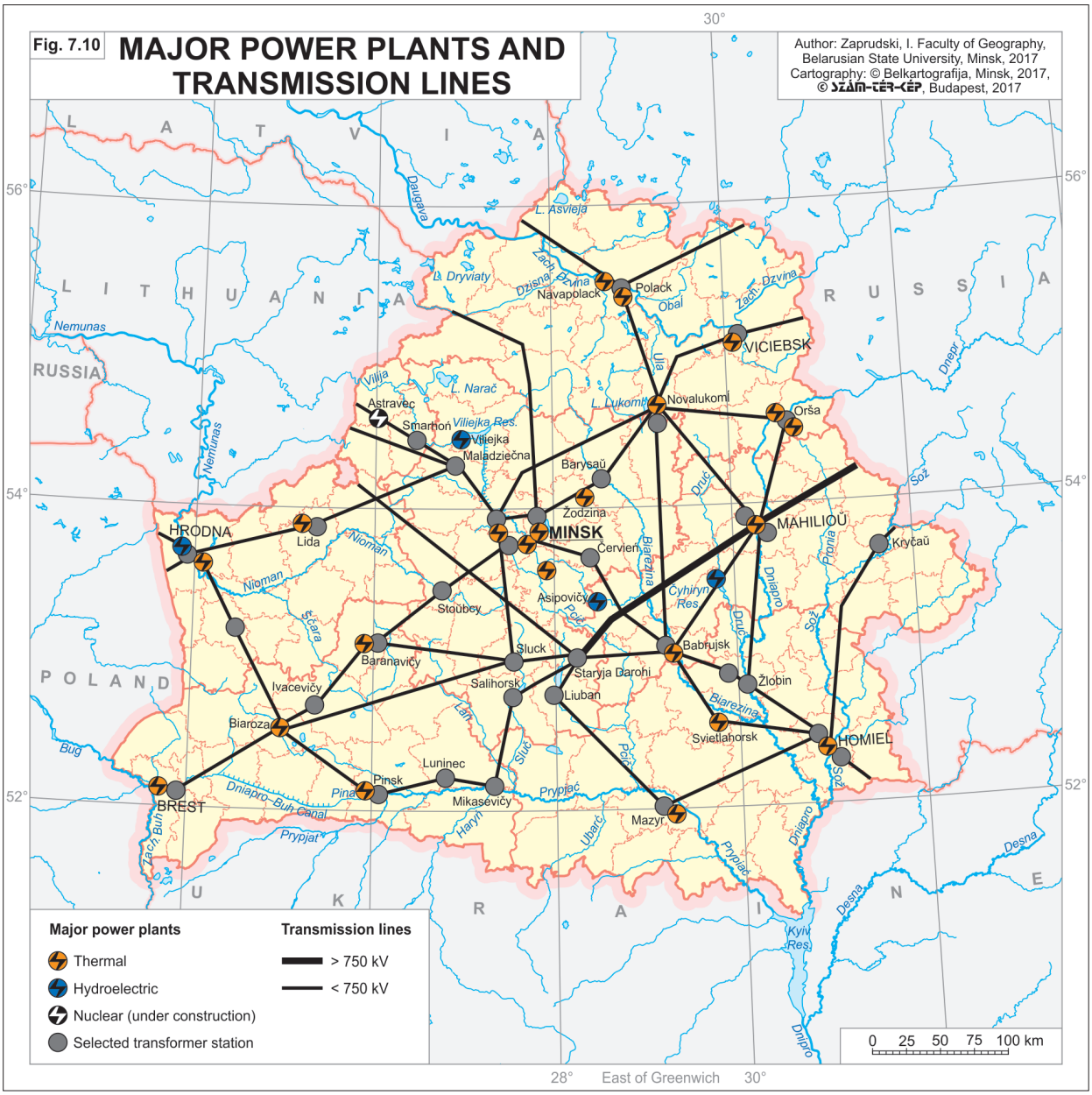
Energy dependence is a long-term risk in view of the one-sided nature of imports and the likelihood of price hikes. A further risk stems from the possible malfunctioning of the supply pipeline system from Russia, which in the winter months could result in the complete shutdown of power stations. In view of Belarus's extreme dependence on hydrocarbon imports (Marples, D.R. 2008), the country has begun the construc-



tion of a 2 000 MW nuclear power station in the vicinity of Astravec. The project is being undertaken in cooperation with Russia's "Rosatom" and using Russian loans. Other sites had been mentioned earlier on, and there had even been talk of Belarus's participation in the expansion of the nuclear power station at Smolensk, which would then have supplied electricity to Belarus (Marples, D.R. 2008). Of course, in view of Belarus's experiences after the disaster at Chernobyl, public opinion research continues to reveal considerable public hostility to the construction of nuclear power stations (Marples, D.R. 2008). Even so, the country remains surrounded by nuclear power stations, including Ukraine's decommissioned Chernobyl power station, which lies just 10 kilometres from the Belarusian border.

The country's energy industry faces numerous problems on account of the dilapidated state of the power stations and the obsolescence of the high-voltage power grid, the oil and gas pipelines and the heating systems. In addition to nuclear energy, the use of such domestic energy resources as the oil shale deposits in Paliessie, the fifth largest deposits in Europe (1 billion tonnes of shale oil), has been proposed. Although the quality of the deposits is worse than that of the Estonian shale oil deposits, Belarus began – in 2010 – seeking out Estonian and Chinese investors for the launch of production. Production has not started yet, however.

Belarus is actively working to save on fuel and power resources. The use of alternative, **renewable energy** resources is also on the agenda. At present, renewable energy in Belarus is almost limited to hydropower. In 2014, wind and solar energy accounted for 0.04% of the country's electricity production, while hydropower stations accounted for 0.5%. Together,



renewables covered 0.5% of consumer demand. Local hydropower stations were constructed in earlier decades in the central and northern hilly regions of the country (21 power stations, with a total capacity of 10.9 MW), and in recent years several new power stations have been built. The largest of these is situated on the River Nioman near Hrodna; it has a capacity of 17 MW (2012). A loan from the China Development Bank was used to build the Viciebsk hydropower station on the River Dzvina; it has a capacity of 40 MW (http://www.cneec.com.cn/). Owing to the relief of Belarus, the country's total hydropower potential – 250 MW – is slight. Prospective resources for electricity generation are waste wood, biogas and rapeseed oil. The first wind energy station opened near Navahrudak in 2011, with a capacity of 1.5 MW.

Metallurgy and engineering

Machinery industry employs more people in Belarus than any other industrial sector. Further, engineering exports are second only to chemicals in terms of export earnings. In the Soviet

era, Belarus, which was poor in raw materials, specialized in mechanical engineering, whereby it processed raw materials and components that were supplied from other Soviet republics. Production in Belarus was supposed to meet the needs of the entire Soviet Union. Most of the engineering and automotive factories were established from the 1950s onwards.

After the breakup of the Soviet Union, mechanical engineering became a major export sector for Belarus. Amid the favourable geopolitical and external market conditions, from the latter half of the 1990s Belarus's machinery industry underwent a period of restructuring and development (e.g. through the purchase of Western licences). Production capacity was also increased. Since then, the share of machinery, equipment and transport vehicles in the total volume of industrial production has been steadily declining. This trend reflects the need to modernize the sector and enhance its innovativeness. Belarus's mechanical engineering products are of lower quality than similar products in the advanced countries; they are only competitive in terms of price.

The most important sectors in engineering are the **automotive industry**, the manufacture of tractors and agricultural equipment, and high-tech industries. The total industrial production of machinery, equipment and vehicles in 2014 amounted to more than 9 billion US dollars, representing more than 14% of the total industrial production of the country. Nationwide, there are more than 2,000 engineering enterprises, which employ around 250 thousand people.

A peculiarity of mechanical engineering in Belarus is the sector's close ties with metallurgy. In the absence of local raw materials and energy resources, steel production developed as a supplementary sector for mechanical engineering (Kozlovskaya, L.V. 2004). The only exception is the Žlobin Belarusian Steel Works, which mostly uses scrap metal and has tended to specialize in the production of steel wires (Ioffe, G. 2006). As much as 80% of Belarus's steel production comes from here.

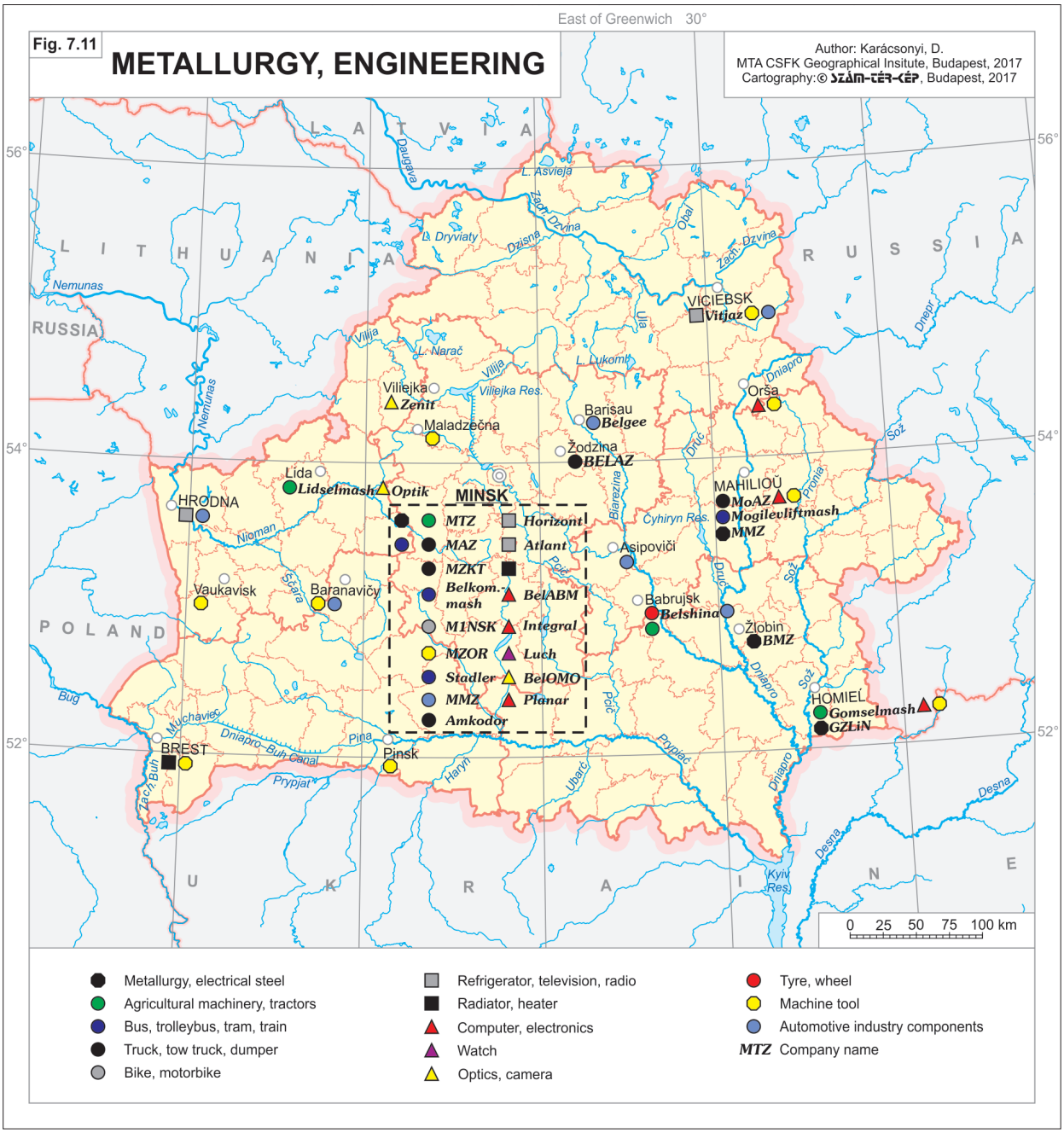
The engineering sector has tended to be focused on Minsk (*Figure 7.11*), but there is cooperation with plants located in most of the country's major cities. Factories based in smaller towns are the subsidiaries of the major companies, and they usually produce components for assembly plants in the major cities, principally in Minsk. The location of the main engineering plants is linked with the availability of labour. Regionally, production of machinery and equipment is concentrated in Minsk city (38.6%) and the Minsk region (19.5%). The lowest production shares in this sector are seen in the Hrodna (4.6%) and Viciebsk (3.3%) regions.

The largest automotive plant, the Minsk vehicle factory (MAZ), which was founded in 1947, produces mainly buses and trucks. By the 2000s, MAZ had become the largest bus producer in the post-Soviet area. Since 1995 the factory has been producing low-floor buses under a licence from Neoplan (http://maz.by). The first such model was the MAZ-101. Since 1998, it has been producing trucks in collaboration with MAN. In 1991 the Minsk Wheel Tractors Plant (MZKT) became independent of MAZ; it had previously been the military vehicle section of the firm and made all terrain heavy duty ballistic rocket launchers and military tractors. Today, under the name "Volat", it makes ballast tractors, crane trucks and dumpers (http://www.mzkt.by/).

In the 1950s, the BelAZ plant in Žodzina near Minsk was established. It has since grown into one of the world's major dumper producers. Since 2013, the 450 tonne BelAZ-75710 mining trucks have been made here too, which is the largest such vehicle in the world (http://www.belaz.by/). Indeed, the truck appears in the Guinness Book of Records as the largest lifting truck in the world. The main advantages of the Belarusian dump trucks are operational reliability, ergonomics and the unique electronic control system of motors. A branch subsidiary within the BelAZ holding company (since 2006) is MoAZ, which was founded in 1948 and makes traction, road-building vehicles and graders in Mahilioŭ.

Another important vehicle production plant is the "M1NSK" motorbike factory, making scooters and quads. Production was begun in 1951 using DKW (which later became MZ) equipment, which had been moved to Belarus from Zschopau in Germany as part of the war reparations (http://minsk-moto.com/).

A range of electric public transport vehicles are produced at the "Belkommunmash" plant in Minsk, which grew out of a Soviet-era trolleybus and tram repair shop, and which now exports low-floor trolley buses to several countries around the world (http://bkm.by/).



Minsk is also the site of the CIS's largest **tractor** factory, MTZ, founded in 1946, which accounts for a half of all tractor production in the CIS and 6% of world production. In addition to the principal export markets (Russia, Ukraine, Kazakhstan), "Belarus" tractors are exported to 120 countries (http://belarusfacts.by/). Belarus is the third largest producer of tractors in the world. The company has component production facilities in six towns, in addition to the one in Minsk (http://belarus-tractor.com/). Currently, the tractor works have more than 22,000 employees. Competitiveness is associated primarily with its operational reliability, the ease of operation and maintenance, and comparatively low prices.

Alongside the "Amkodor" factory founded in 1927, the oldest **agricultural machinery** plant in Belarus is "Gomselmash" in Homieĺ, which has been making combine and other harvesters since 1930 (http://eng.gomselmash.by/). The other centre of agricultural equipment production is "Lidselmash" in Lida, producing smaller ag-

ricultural machinery and accessories, including potato seed drills (http://en.lidselmash.by/).

In vehicle and machinery production, alongside Western – mainly German – investors, recent years have also seen an interest from China, particularly in the Minsk Wheel Tractors Plant, which makes ballast tractors and military vehicles.

In the Soviet era, in almost every major town, there were companies making small turning **machine tools** and manufacturing automatic processing lines, in part for Western export. These plants are still owned by the state. Although production levels have fallen significantly, the range of goods has been broadened (Kozlovskaya, L.V. 2004). In 2014, the companies became part of a holding company under the auspices of "MZOR", the machine tool plant in Minsk (http://mzor.com/).

Major producers of consumer goods include the "Horizont" holding company, the "Vitjaz" television factory (founded in 1976) and the "Atlant" refrigerator factory, formerly knowns as the "Minsk" plant. "Minsk" refrigerators have been produced since 1962. The Horizont holding company produces a wide range of consumer goods, from LCD and plasma TVs to vacuum cleaners, electric kettles and microwave ovens.

The IT and high-tech sector

In the Soviet era, the high-tech sector – precision instruments, radio electronics, communications and optical equipment, laser technology – was closely tied to the armaments industry (Kozlovskaya, L.V. 2004). The state-funded research and development facilities formed part of the Russian-Belarusian armaments industrial complex.

The leading radio electronics company was the "Integral" of Minsk (Ioffe, G. 2006) comprising several plants. It still produces integrated circuits, sensors, and timers for, among other things, consumer electronic equipment and for LCD and plasma TVs.

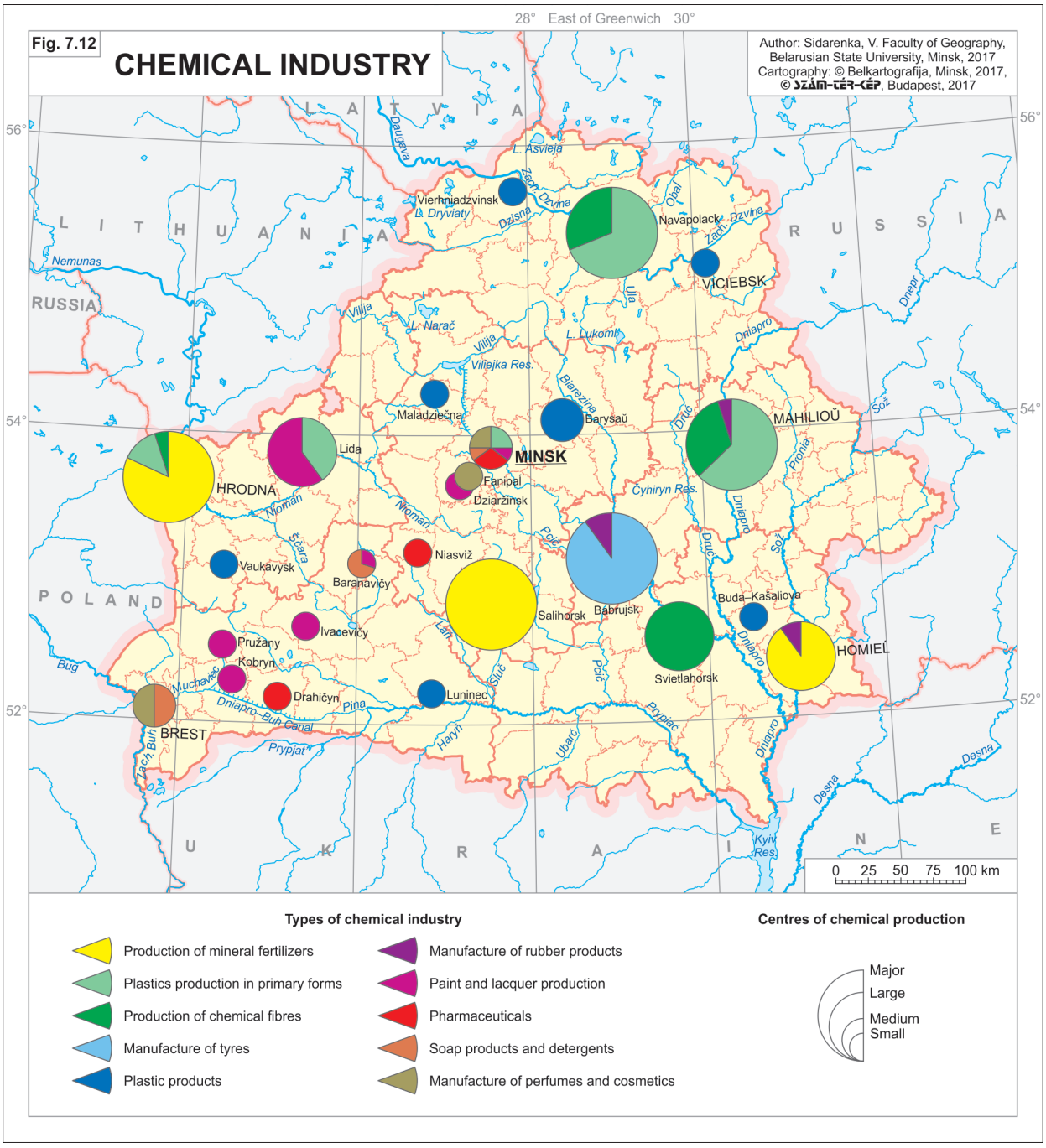
Lenses, prisms and fibre optic cables are produced by the "Optik" Works of Lida, which is the second largest optics manufacturer in Europe after Germany's Carl Zeiss. The Belarus Optical-Mechanical Consortium, founded in Minsk in 1971, specialises in the manufacture of high resolution satellite cameras, but the company's plant in Viliejka used to produce "Zenit" cameras (http://belomo.by). An 80% stake in the "Luch" watch company, founded in Minsk in 1953, was recently purchased by the Franck Muller Company, which then began a program of modernization, while the state retained a 20% share (http://luch.by/).

The first computers were manufactured in Minsk in 1959. By 1970, the "Minsk"-type computers accounted for 70% of all computers in the Soviet Union. The largest computer manufacturer is currently BelABM of Minsk, a partner of Compaq and Fujitsu (http://www.belarusguide.com/).

The IT sector has also been developing very rapidly. In recent years Belarus has earned the reputation of being the leading "IT country" in the Eastern European region. According to the Global Services 100 rating, the country is placed 13th among the 20 leading countries in the sphere of IT outsourcing and high-tech services (http://belarusfacts.by/). According to Forbes Magazine: "Per capita income from IT-services export in Belarus exceeds that of Russia and Ukraine". Following a presidential decree in 2005, the foundations were laid for a new high-tech park (HTP) on the outskirts of Minsk and close to the airport and the motorway. The first building of the high-tech park was completed in 2009. The park, which has received the nickname "Mini Silicon Valley", has become a centre for knowledge-based start-up programming firms, and the U.S. IT sector has gradually turned it into its East European base. The park now provides a home to around 150 firms, employing 6,000 people. Half of these companies are Belarusian, while the remainder are foreign-owned (http://www.park.by/). The export share of total production exceeds 80 percent.

Chemical industry

Belarus's chemical industry (*Figure 7.12*) accounts for a third of total industrial production and 12% of total GDP. The sector contributes a fifth of the country's exports, which, in addition to the processing of Russian hydrocarbon imports, is limited to the processing of the significant deposits of rock salt and potash. Fertilizer industry, chemical fibres and threads, plastics and synthetic resins have a dominant role. The chemical industry of Belarus is characterized by



a high degree of complexity and a high level of regional concentration.

The greatest problems facing the chemical industry in Belarus (albeit potash is an exception) are its dependence on imported raw materials and the gradual reduction in transit duties on oil derivatives. The two factors reduce the sector's competitiveness in both domestic and foreign markets. Another problem is environmental pollution and degradation in a sector that requires modernisation.

Most chemical industrial products are exported to Russia, the Baltic countries or Western Europe. In recent years there has been an increase in exports to China, India, the United States and Latin America, a trend that reflects in part the closed nature of European markets (Kozlovskaya, L.V. 2004).

The **fertilizer industry** consists of three enterprises located in Salihorsk, Hrodna and Homieĺ. The country produces all three main

types of fertilizer: nitrogen, phosphorus, and potassium. Within the fertilizer industry, potash production is the principal sector. It accounts for 15% of the country's hard currency earnings (Kozlovskaya, L.V. 2004). Potash deposits were discovered near Salihorsk and Starobin in 1949, and a potash fertilizer plant was opened there in 1963. The "Belaruskali" company was the Soviet Union's largest potash fertilizer producer, and it is currently the world's largest producer, accounting for one-seventh of world potash fertilizer production (http://kali.by). Belarus is the fourth largest potash producer in the world, after Canada, Russia and China. Since 2003, the "Belaruskali" company has opened several new mines and commenced the production of complex (NPK) fertilizers. To enhance potash industrial exports, the Belarusian Potash Company was established, with "Belaruskali" (48%) and Belarusian Railways (42%) as the principal shareholders. The company is seeking to increase exports, primarily to the BRIC countries (http://belpc.by/). The cartel between the "Uralkali" and "Belaruskali" companies broke up after the so-called potash conflict of 2013, because Uralkali began selling its products independently of the Belarusian Potash Company. As part of a Chinese investment, the "Slavkaly" mining plant was established near Starobin. It intends to sell its products by way of the Belarusian Potash Company.

The development of the **petrochemical industry** in Belarus accelerated in the 1960s. The period saw the establishment of the two oil refineries and the opening of two major fertilizer plants: the "Azot" nitrogen fertilizer plant in Hrodna and the superphosphate fertilizer plant in Homieĺ. The latter processes apatite from the Kola Peninsula as well as Russian and Ukrainian pyrite. Concurrently, the "Belshina" tyre factory opened in Babrujsk, supplying the large automotive factories.

The **plastics industry** has a raw material orientation, because such synthetic resins as caprolactam (Hrodna), dimethyl terephthalate and polyethylene terephthalate (Mahilioŭ) are produced in the country. The largest synthetic fibre factories, such as the polyamide manufacturing "Hrodna-Khimvolokno" plant, the polyester manufacturing "Mahilioŭ" and "Svietlahorsk-Khimvolokno" plants, and the viscose factory at Mahilioŭ, were established at this time, as were also several other plastic and synthetic resin plants (Kozlovskaya, L.V. 2004). The "Polymir" factory at Navapolack specialized in the manufacture of polyethylene and various polyacryl synthetic fibres. In terms of the volume of synthetic fibres and threads produced, Belarus is among the top fifteen countries in the world.

The privatization of the chemical industrial giant "Belneftekhim" – accounting for 30% of Belarus's chemical industry production – began rather slowly. Since 2002, several of its plants have become independent companies in the course of privatization. Examples include "Belshina" and the synthetic fibre producer "Polymir".

Pharmaceutical production developed dynamically in Belarus after the breakup of the Soviet Union. This was due to the existence of a rich network of research and development institutions (Kozlovskaya, L.V. 2004). The main pharmaceutical facilities are in Minsk and Barysaŭ.

Textile industry

Textiles has traditionally been the largest light manufacturing sector in Belarus. Today, the sector retains its significance, even though the problems it faces are similar to those found in other European countries. Competition from the developing countries, which benefit from cheap labour, and high duties in the European markets are two difficulties facing Belarus's textile industry. The major textile industrial town is Orša. The **linen factory** in Orša produces more than 700 types of linen. Both linen production and its processing is concentrated almost entirely in the Viciebsk region.

In the 1980s, Belarus accounted for a quarter of Soviet linen and 10% of world production. Although the volume of processed linen has declined, Belarus has succeeded – unlike the other post-Soviet republics – in retaining its leading role in the manufacture and processing of textiles made from linen. Linen fabrics are mostly made for export to the West.

In 2004, the government decided to establish a holding company, which would unite all the linen plants, the Orša linen plant, and the logistical centres involved in the linen industry up to and including the production of the final product. The theoretical goal was to increase the efficien-

cy and competitiveness of the linen industry in international markets (Kozlovskaya, L.V. 2004).

In Soviet times Belarus was third among the various republics in terms of the manufacture of woollen fabrics and carpets, but in recent years the Belarusian woollen industry has undergone a decline, owing to the lack of raw materials (Kozlovskaya, L.V. 2004). A similar decline has affected the Belarusian cotton industry centred on Baranavičy. Further, both silk and artificial silk production in Belarus, which used to account for 10% of total Soviet production, have experienced production falls.

Despite the presence of raw materials and cheap labour, Belarus's knitting, weaving, sewing apparel and shoe industries, all of which await modernization, face substantial competition from Turkish and Chinese producers. Alongside the old production companies – "Komintern" in Homieĺ, "Znamya industrializacii" (Flagship of Industrialization) in Viciebsk, and "Progress" in Minsk – the year 2000 saw the foundation of the company "Milavitsa" in Minsk. This latter company was privatized in 2006 and has since become Europe's largest underwear manufacturer. As a member of the Silvano fashion group (http://www.silvanofashion.com/), which includes Estonian and Latvian underwear manufacturing plants, its products can be found throughout the world.

Wood and paper industry

Although Belarus has enormous forests and the wood industry is one of the country's traditional sectors, the wood industry's share of industrial output is only 2%. A half of Belarus's forests serve an ecological purpose, while the other half are utilized by the wood industry. On a post-Soviet scale, the forestry companies in Belarus operate efficiently, planting and protecting forests. An important task faced by such companies, however, is the modernization of the wood producers, coupled with the switch to environmentally-conscious selective wood cutting practices. The wood industry firms are controlled and directed by the state company "Bellesbumprom". Major workshops tend to be concentrated at the intersection of forested areas and the main routes of supply, especially in the southern and south-eastern parts of the country (Babrujsk, Barysaŭ, Pinsk, Ivaceviči, Rahačoŭ, Rečyca, Mazyr). In Soviet times, 25% of Soviet wood exports came from Belarus. However, as the natural wood resources were exhausted, the wood industry found that it could only meet domestic demand. In consequence, substantial amounts of raw material had to be imported from the rich forests of Russia. Belarus was once the Soviet Union's principal match producer. There were seven match factories (including the largest in Homieĺ) and a good number of veneer and plywood factories. Cardboard and paper production was also significant.

In consequence of the economic changes of recent years and the planting of forests, Belarus's wood industry is currently able to satisfy domestic demand and increase its exports. To date, Austrian investors have been the most active group of foreign investors in the Belarusian wood industry. The export of raw wood has been increasing gradually ever since 1996, following a period of neglect in the 1990s. Softwoods – less valuable than wood from coniferous species – account for more than a half of Belarusian wood exports (Kozlovskaya, L.V. 2004). Softwoods are used in match and plywood production.

Significant production levels are seen in furniture manufacturing and the manufacture of wooden panels and building elements. A large proportion of the furniture industrial products are made for export to Russia. In recent years, however, increasing energy costs have resulted in a significant decrease in the competitiveness of Belarusian furniture in the export markets.

The cellulose and paper industry is less developed. The first paper factories in the area of today's Belarus were established in the early 19th century (Svietlahorsk, Dobruš, Slonim), whereas cellulose production began only in the 1980s in Svietlahorsk. A factory producing newsprint is operating in Škloŭ. Although there are significant water resources for use in the cellulose industry, the high demand for energy means that low-value softwood is exported, while pulp and paper produced from the exported softwood is then imported (Kozlovskaya, L.V. 2004). In recent times, Chinese investors have shown an interest in the Svietlahorsk plant, while Chinese loans are being used to modernize the "Hero of Work" paper plant at Dobruš.

Agriculture and food industry

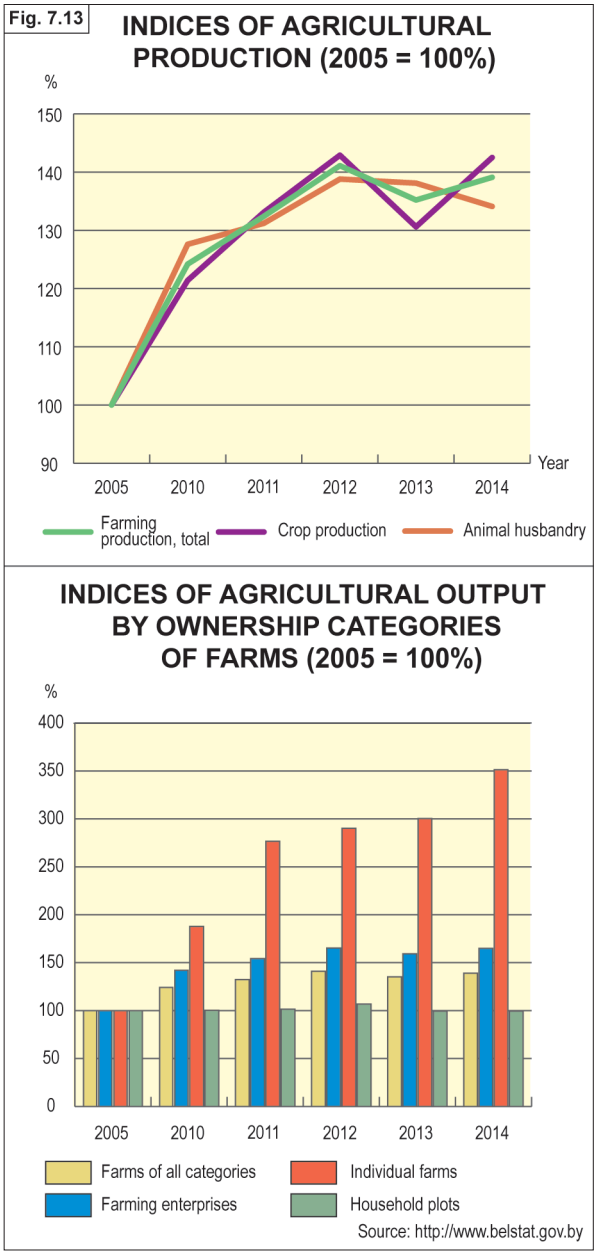
In view of its sandy moraine soils, waterlogged marshes and acidic podzols, Belarus with its cool climate has less agricultural-ecological potential than does its southern neighbour Ukraine. As a result, the significance of agriculture for the national economy is also less, although this is hardly reflected in production levels.

Belarus's territory – in line with the natural conditions – can be divided into three agricultural-climatic zones, running from north towards south. In the central and northern zone, in addition to the sandy and stony moraine soils, climatic factors also exert a negative impact on conditions for agriculture. In the southern region comprising the Paliessie area, however, the number of frosty days is at a minimum and the amount of growing season heat and sunshine totals are at their highest. The alluvial sandy soils – and loess in the eastern part of the country – are highly suitable for the production of grain, sugar beet and buckwheat, as well as sunflower and maize.

The land melioration/reclamation projects and investments of the 20th century affected mainly Belarus's southern areas, which have the best potential. In consequence, agricultural production standards improved considerably (Gusakov, V.O. 2010). In the second half of the 20th century, agriculture began to intensify. Chemicalization, mechanization, land melioration and reclamation, animal breeding and plant selection are the main processes that led to the growth of agricultural production in this period. However, Belarus did not avoid the negative impacts of such large-scale interference in the natural environment (Ioffe, G. 2004): the draining of wetlands led to severe droughts, particularly in the Paliessie area. In consequence of the Chernobyl nuclear disaster, 1.8 million ha of agricultural land became polluted, particularly in the south-east of the country in the Homieĺ region. The country's richest agricultural lands – those with the greatest agricultural-ecological potential – were left in a state of devastation, causing huge losses to Belarusian agriculture.

After the country's independence in 1991, the intensification of agriculture continued, but production levels fell until 1998. In view of these circumstances, attempts were made to reform the sector. Beginning in the early 2000s, the agricultural sector began to receive significant state assistance. Several agricultural development programmes were launched (e.g. the "State Rural Development Program", launched in 2003, or the "State program for sustainable development of rural areas" in 2011–2015), with a view to improving competitiveness, satisfying domestic demand, and enhancing exports. The reforms have resulted in increased agricultural production, the emergence of farming, the privatization of enterprises involved in the processing and/or marketing of agricultural products, and state subsidies for agriculture (*Figure 7.13*).

Fig. 7.13



In Belarus, the **role of agriculture in the economy** is slight; only in 2010 did production reach the level seen before the crisis of the transition (Ioffe, G. 2004; Yarashevich, V. 2011). This indicates a far slower pace of development than that seen in other sectors of the national economy. Even so, compared with situation of the agricultural sector in other post-Soviet countries, Belarusian agriculture is in a far better position. Average yields are higher in Belarus than in any other former republic of the Soviet Union (http://www.belstat.gov.by). In 2014, agriculture accounted for 7% of Belarus's gross domestic product and employed 9% of its working population. In the same year Belarus had 8,632.3 thousand ha of agricultural land (or 41.4% of the total area), whereby arable land and grasslands were prominent.

Land ownership and land use. In Belarus all agricultural land is state-owned and used on the basis of long-term leases of 5–99 years (FAO 2012). The state is the landlord, managing and controlling the highly integrated agricultural sector by means of five-year plans and sector programmes. The former *kolkhozes* and *sovkhozes* have been replaced by production cooperatives and state companies, and agricultural enterprises continue to receive significant state support (Ioffe, G., Yarashevich, V. 2011).

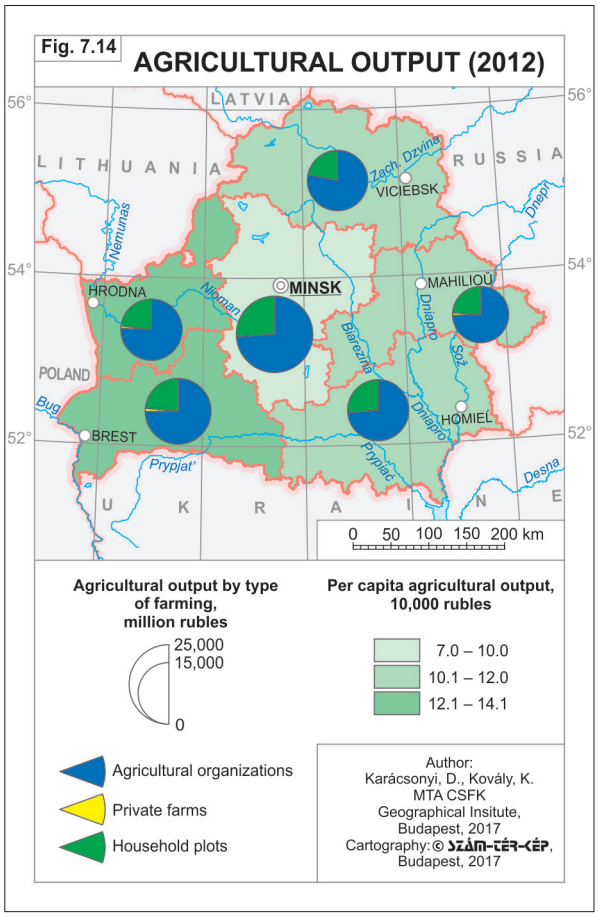
Leading roles in agricultural production are played by the above mentioned agricultural organizations (76.2%) and household plots (22.1%). The share of private farms remains low (1.7%) (*Table 7.4*). In terms of the ownership of agricultural land, a similar division can be observed: in early 2015, the largest share of land (86.9%) was held by the production cooperatives, while 1.8% of land was cultivated by peasant farmers and 9.8% by household plots (http://www.belstat.gov.by). The average size of peasant farms has changed little in recent years – approximately 55 ha. However, the average size of the production cooperatives has increased significantly, rising from 2,930 ha in 2006 to 4,885 ha in 2012. This change is due to the government's reforms aimed at increasing the efficiency of agriculture. In Belarus, there is a peculiar east-west divide in terms of agricultural land use and organization: large cooperatives prevail in the West, while in the East peasant farms and smallholdings play a greater role (Ioffe, G. 2004) (*Figure 7.14*). The western half of the country "missed" the repression of Stalinist collectivization in the 1930s, and so Soviet-type communist agriculture developed later and under more favourable circumstances. Moreover, the western half of the country had a greater capacity to retain its population. This, in turn, led to a land shortage, and so there is no land available for distribution (Ioffe, G. 2004). In contrast, in Belarus's eastern half, available land per capita is greater because of demographic decline. This has meant that family farms and household farming plots tend to be bigger and, therefore, more competitive in an economic sense (Ioffe, G. 2006). Although the historical backdrop is similar, Belarus's east-west divide outlined above is the exact opposite of that seen in Ukraine, where smallholdings are a characteristic feature of the more densely populated western parts of the country. The underlying reason for this stark discrepancy is that agriculture has less economic significance in Belarus than in Ukraine, whereby in the former the economic pressure on the agricultural sector is less pronounced and the role of agriculture as a social buffer is also less significant.

The structure of agricultural production. Belarus's agricultural sector has maintained its

Table 7.4 ***Structure of agricultural production*** *(Percentage of total agricultural production)*

	1985	1990	1995	2000	2005	2010	2011	2012	2013	2014
Agricultural production	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Crop production	38.6	36.5	53.3	35.1	53.1	56.0	52.6	46.0	46.4	48.4
Animal husbandry	61.4	63.5	46.7	64.9	46.9	44.0	47.4	54.0	53.6	51.6
Agricultural organizations	–	–	–	60.8	61.3	63.3	70.9	74.8	76.4	76.2
Individual farms	–	–	–	0.6	0.7	1.0	1.3	1.1	1.5	1.7
Household plots	–	–	–	38.6	38.0	35.7	27.8	24.1	22.1	22.1

Source: http://www.belstat.gov.by



specialization – which evolved in the Soviet era – on dairy and meat cattle farming, pig farming, and potato and flax production. Yet, after the collapse of the Soviet regime, the structure of the agricultural sector has slightly changed. Over the years, the significance of crop production has increased, while that of animal husbandry has declined *(Table 7.3)*.

Agricultural production satisfies domestic demand almost entirely, and only 12% of consumed foodstuffs are imported (Aleksiyevec, M. and Valion, O. 2013). Belarus is, further, a major agricultural exporter. It principally exports dairy products, and the Russian market is particularly significant. Belarus is completely self-sufficient in meat, milk, eggs and potatoes, and it is almost self-sufficient in vegetables. At the same time, there is a lack of domestic production of fruits and berries and fish. Among the CIS countries, Belarus is ranked first in terms of per capita production of potatoes (663 kg) and sugar beet (507 kg), the second after Ukraine in terms of per capita production of grains and legumes (1,009 kg). According to the FAO, Belarus is ranked third in the world in the production of flax and cranberries; it is among the top ten producers of rye and triticale and among the top twenty producers of sour cherries, oats, sugar beet, rapeseed and strawberries.

Crop production. The amount of cultivated land (5,860 thousand ha) and its structure have not changed significantly in recent years. The largest areas are used for cereals and legumes (45%) and fodder crops (38.4%). Industrial crops account for 10.1% of cultivated land, potatoes for 5.3%, and vegetables for 1.2% (http://www.belstat.gov.by).

Potato production (*Figures 7.15, 7.16, 7.17*) is typical of the central and western regions of the country. Individual farms account for 79.1% of production (http://www.belstat.gov.by), while

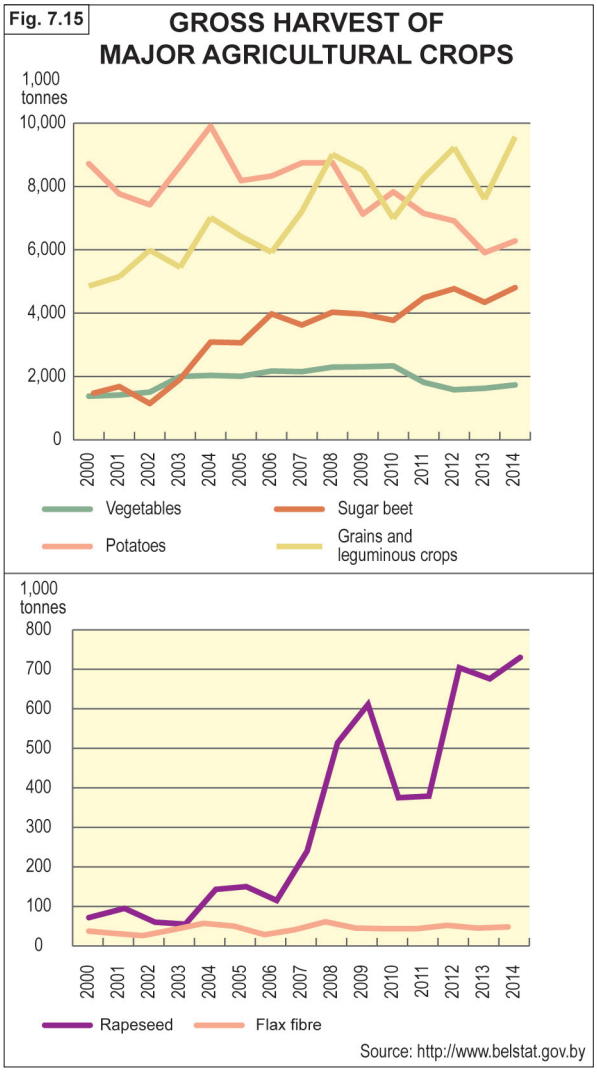


Fig. 7.16

OUTPUT OF MAJOR CROPS (AVERAGE OF 2010–2012)

Author: Karácsonyi, D., Kovály, K.
MTA CSFK Geographical Insitute, Budapest, 2017
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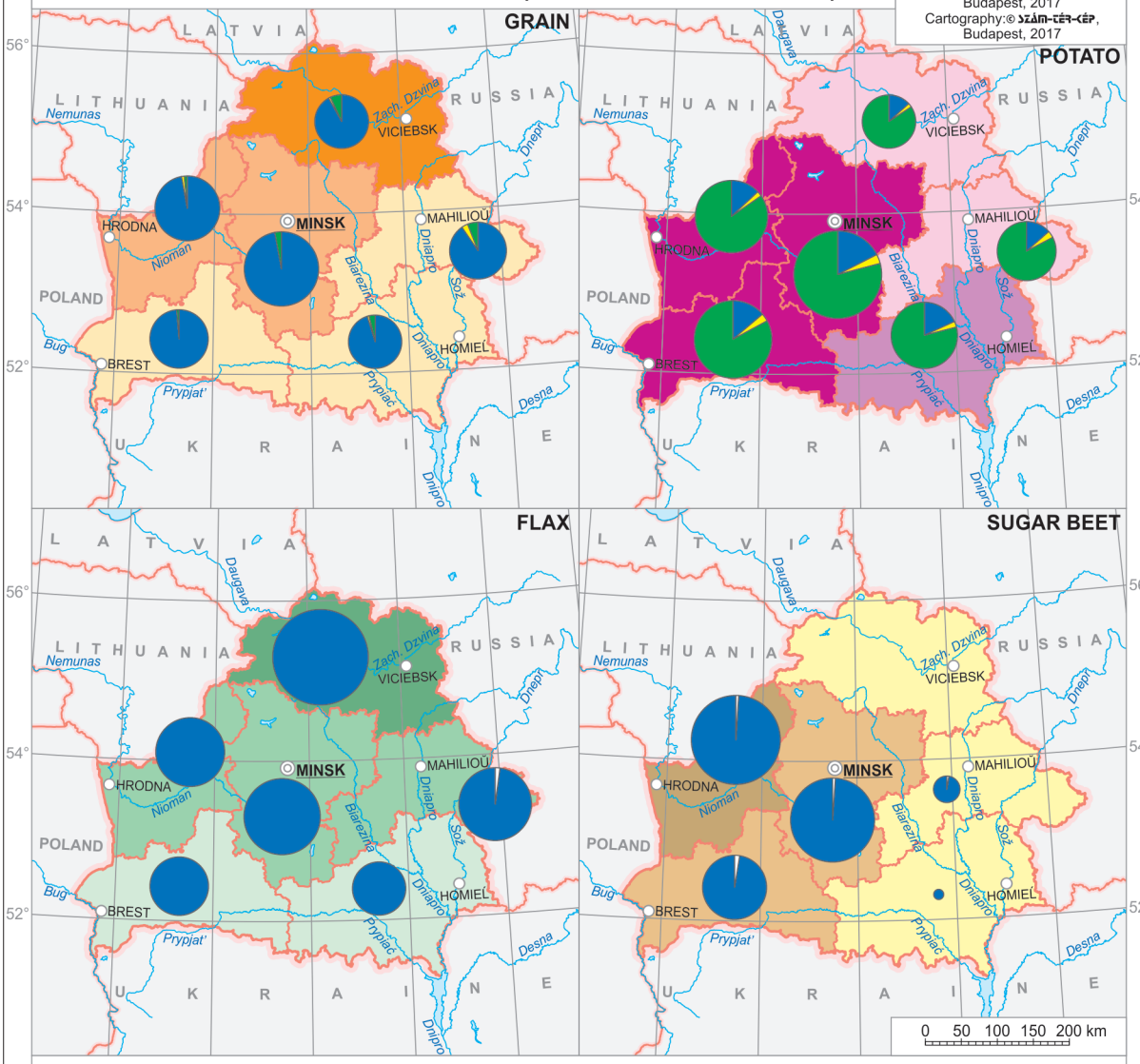


Grain production by type of farming, thousand tonnes

2,000
1,000
0

Potato production by type of farming, thousand tonnes

2,000
1,000
0

Flax production by type of farming, thousand tonnes

15
10
5
0

Sugar beet production by type of farming, thousand tonnes

2,000
1,000
250
100
0

Sown area for grain within the total sown area, %

- 43.0 – 45.0
- 45.1 – 50.0
- 50.1 – 52.4

Sown area for potato within the total sown area, %

- 3.7 – 5.0
- 5.1 – 6.0
- 6.1 – 7.5

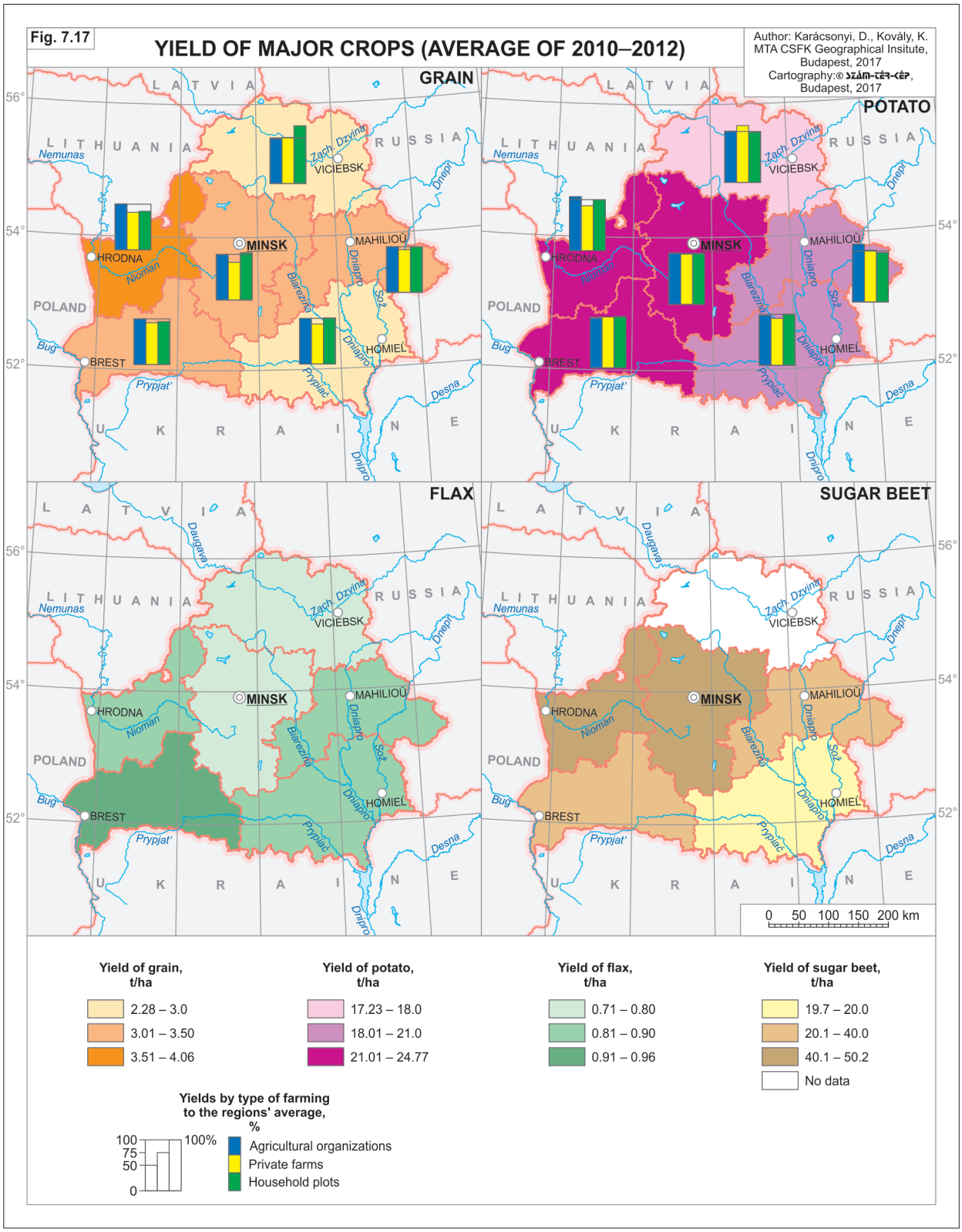
Sown area for flax within the total sown area, %

- 0.5 – 1.0
- 1.1 – 2.0
- 2.0 <

Sown area for sugar beet within the total sown area, %

- 0 – 1.0
- 1.1 – 3.0
- 3.1 – 4.3

- Agricultural organizations
- Private farms
- Household plots
- Private farms and household plots



the production share of the collective farms has registered a steady decline. In terms of per capita consumption of potatoes, Belarus is a world leader (181 kg/year). Most of the potatoes produced in Belarus are exported or used to meet domestic food demand (Kozlovskaya, L.V. 2004), but they

also play a significant role as fodder and in the production of alcohol (vodka).

The most important **cereal crops** are barley, rye and wheat. The geographical location of cereal production is linked with the natural attributes of the various regions (climate, soil quality): cereal production is particularly significant in the Minsk and Hrodna regions. Although there has been an increase in the amount of land used in cereal production, Belarus still needs to import cereals.

The most important **fodder crops** are triticale and maize for silage, which are grown above all in the Minsk and Homieĺ regions (*Figure 7.18*). The amount of land used for triticale production has increased significantly in recent years. The major **industrial crops** are sugar beet (the importance of which has grown), rapeseed and flax, the production of which is concentrated in the central and western areas that have the most favourable natural attributes and a suitable processing industrial capacity. The sugar industry developed in the south-western and central areas of Belarus in the 1950s and 1960s. Owing to a sugar shortage in the aftermath of the Second World War, major sugar factories were established, and sugar beet plantations then arose in proximity to these factories. With a view to meeting the demand for sugar and to providing employment and income to rural populations, the so-called "State Sugar Program" was introduced with the goal of increasing the sugar beet crop as well as production levels at the sugar beet processing plants.

Flax production is concentrated in the central, northern and north-eastern parts of Belarus, where rainfall is sufficient and summer temperatures are moderate.

Vegetable production is usually carried out in the private sector (67.2% of production), with the largest horticultural farms being situated

Fig. 7.18

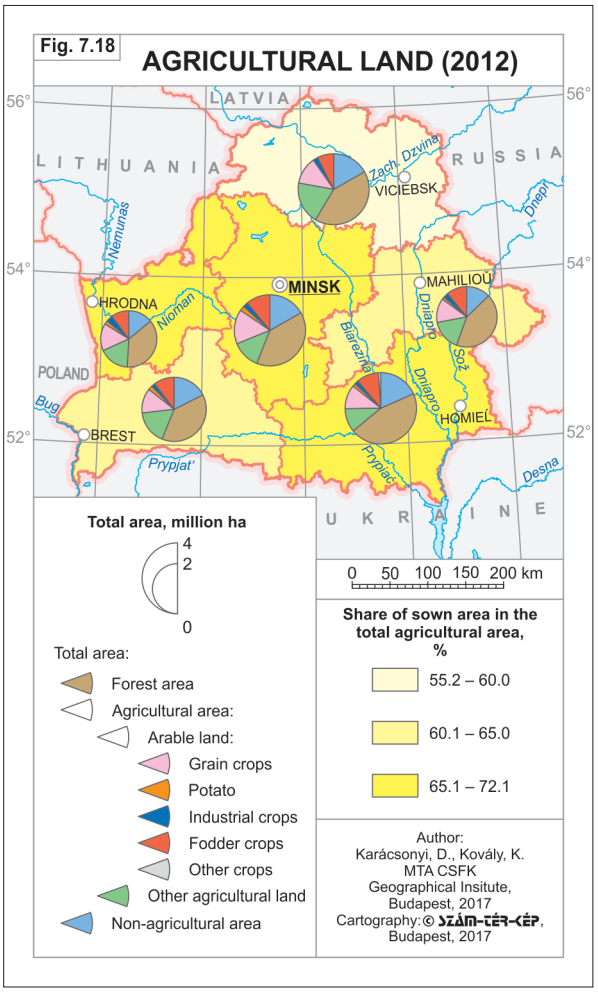
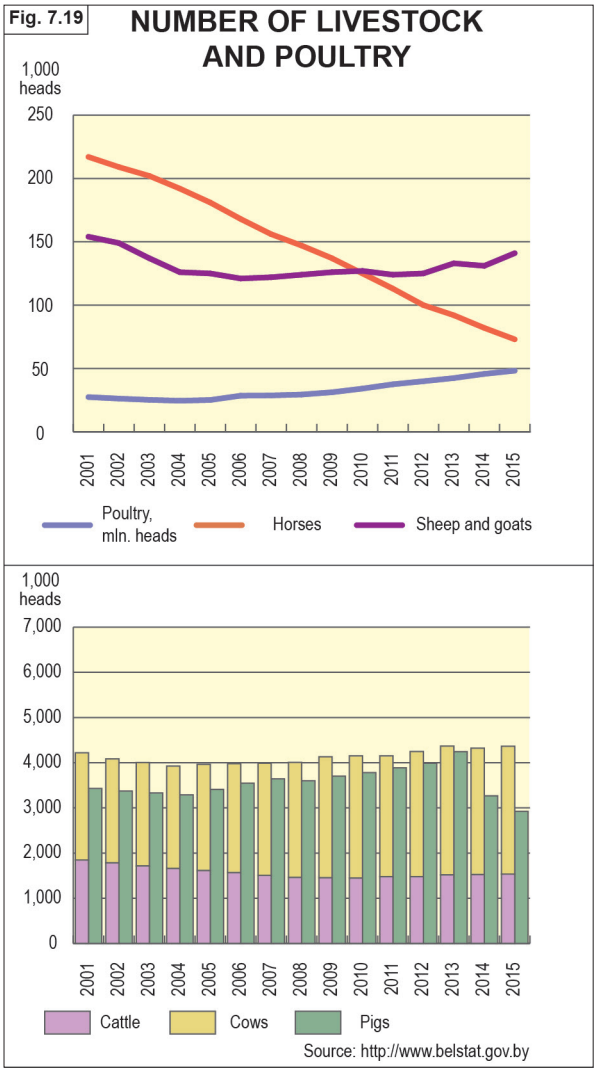


Fig. 7.19



near major towns and/or in the vicinity of one of the processing plants. The most important types of vegetable produced in Belarus are cabbages, carrots, onions and beetroot. **Fruit production,** which is limited to apples and berries, is rather insignificant in view of Belarus's cool and wet climate. Private farms account for 83.9% of production (http://www.belstat.gov.by).

Animal farming became loss-making after independence and the transition, and so most farms specialized in crop production, which requires less labour and is more profitable. Even so, owing to the state subsidies, animal farming has retained some of its former significance: indeed, it still accounts for more than half (51.6%) of agricultural production and a major share of exports. The export of dairy products is particularly significant. The main sectors of production are milk and meat cattle breeding on large farms, pig breeding, and poultry *(Figure 7.19).* Almost a half of all poultry production and around 80% of poultry processing is undertaken by the agricultural company "Belptakhoprom" (Aleksiyevec, V.; Valion, O. 2013).

Until the 1990s, dairy farming was one of the most developed sectors of agriculture in Belarus. In the Soviet Union, per capita milk production was very high in Belarus and exceeded

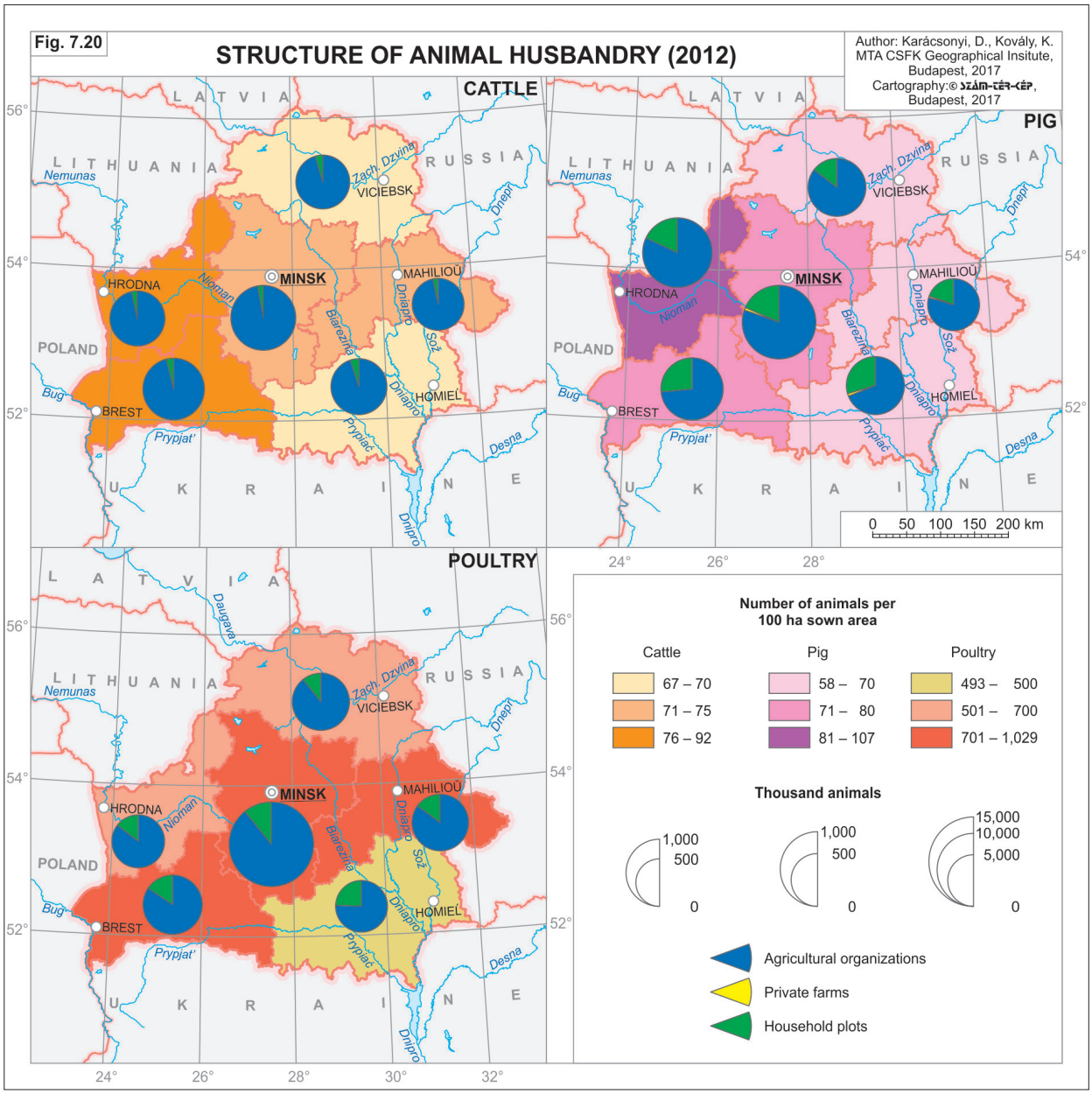


Fig. 7.21

AGRICULTURAL REGIONS

Author: Smaljakou, G., Belakhvost, P.
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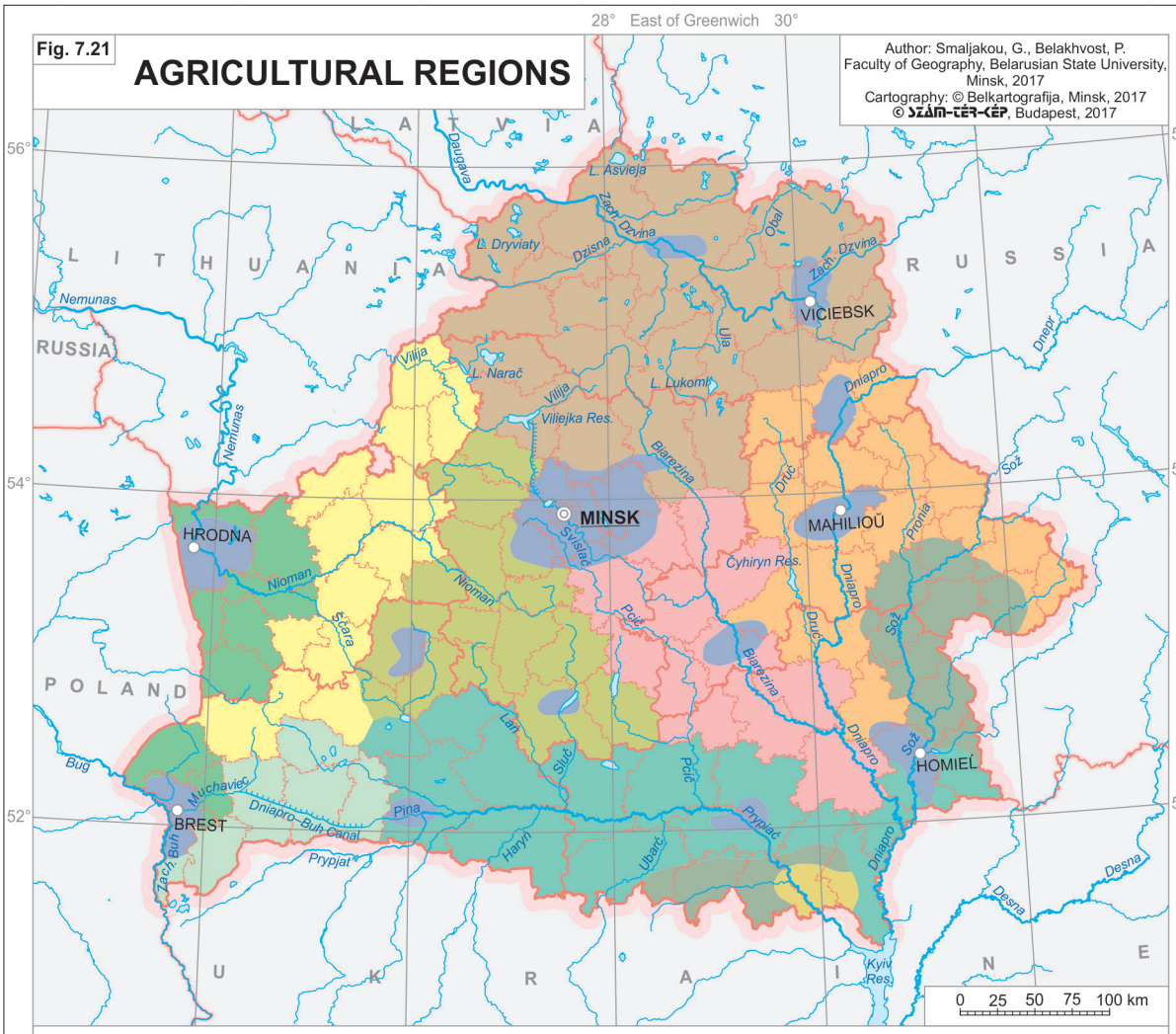
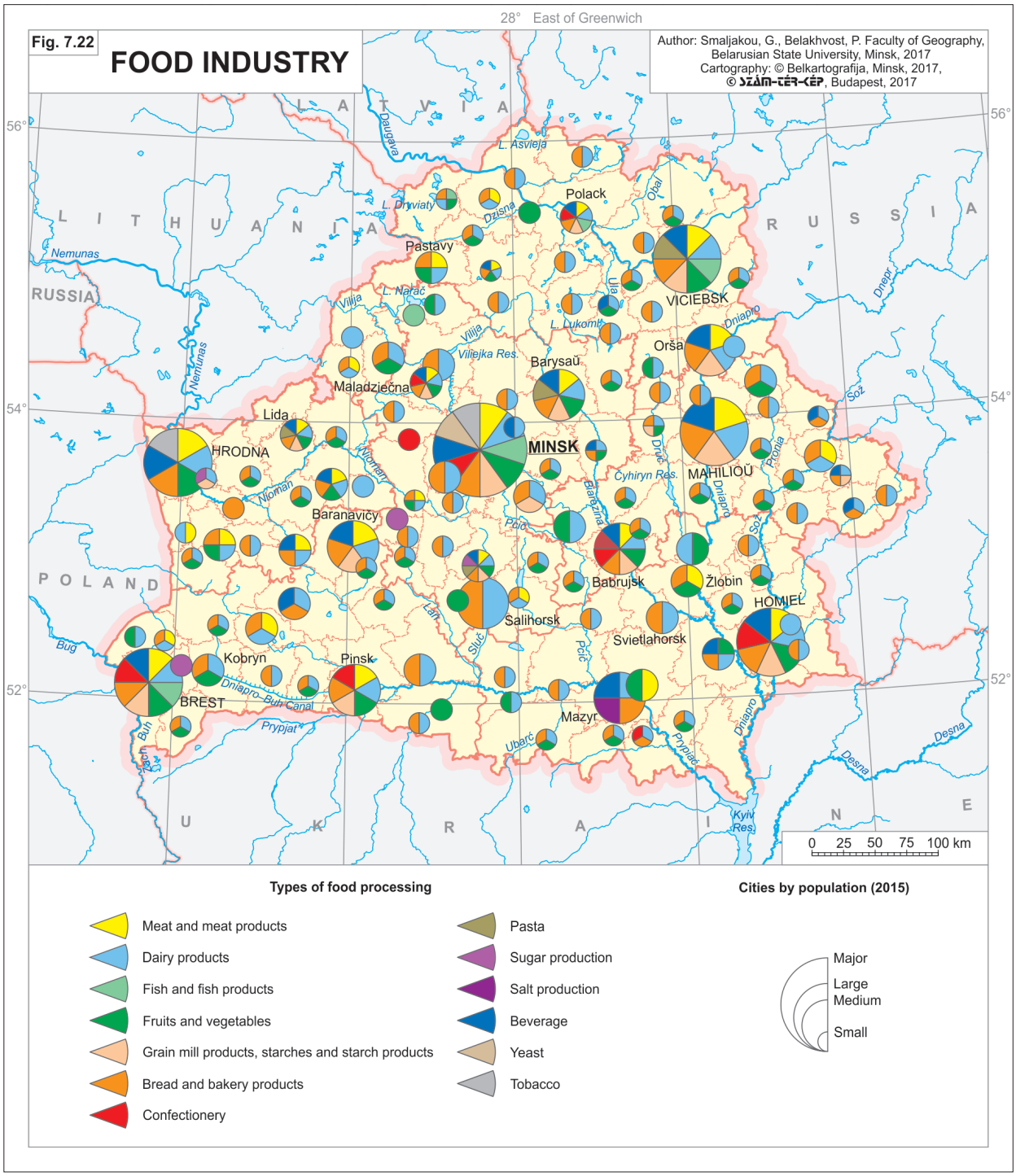


Types of farming

- High intensity use of cultivated lands, dairy and beef cattle breeding, cultivation of flax, dominance of field forage production, gardening. Drained lands occupy less than 30% of agricultural lands.
- High intensity use of cultivated and meliorated lands, dairy and beef cattle breeding, pig breeding, cultivation of beet and flax. Vegetable cultivation in open ground. Widespread natural forage lands. Drained lands occupy from 20 to 60% of agricultural lands.
- High intensity use of cultivated lands, dairy and beef cattle breeding, widespread cultivation of sugar beet, natural forage lands. Drained lands occupy less than 30% of agricultural lands.
- Intensive use of cultivated lands, dairy and beef cattle breeding, developed cultivation of flax, field forage production. Drained lands occupy less than 30% of agricultural lands, but in some areas the proportion rises to 40–50%.
- The medium-intensive use of cultivated lands, dairy and beef cattle breeding, developed pig breeding, cultivation of flax, forage crops occupy about half of the cultivated area. Drained lands occupy from 20 to 45% of agricultural lands.
- Intensive use of meliorated lands, dairy and beef cattle breeding, developed pig breeding, cultivation of potato, vegetables in open ground and greenhouse, berry crops. There are areas with the density of radioactive contamination above 185 kBq/m^2. Drained lands occupy for more than 60% of agricultural lands.
- The intensive use of cultivated and meliorated land, dairy and beef cattle breeding, cultivation of flax, potato, forage crops occupy more than 40% of agricultural land. Drained lands occupy generally more than 60% of agricultural lands.
- The intensive use of cultivated and meliorated lands, beef and dairy cattle breeding, cultivation of vegetables on open ground. Large areas of land with radioactive contamination density over 5 curie/km^2.
- Additional actions are needed for the safe conduction of agricultural production in connection with the accident at the Chernobyl Nuclear Power Plant. Drained lands occupy from 15 to 60% of agricultural lands.
- High intensity use of cultivated lands, suburban dairy cattle breeding, poultry breeding, beef cattle and pig breeding, cultivation of potato, vegetables in open ground and greenhouse. Drained lands generally occupy less than 15% of agricultural lands.
- Lands of high density radioactive contamination, including long half-life radionuclide, almost entirely are not used in agriculture. Intensive self-healing of natural systems.

only by the Baltic republics. After independence, cattle stocks declined, and so both **meat and milk production** decreased significantly. However, from the mid-2000s production increased once again. Milk and meat cattle breeding and pig keeping are typical of the central, western and south-western regions of Belarus (*Figure 7.20).* Milk and meat production has tended to be organized around the major cities and industrial centres, principally in the Minsk, Brest and Hrodna regions. Nowadays, in terms of the per capita production of cow's milk (708 kg) and the per capita production of livestock and poultry for slaughter (113 kg), Belarus is the leader among the CIS countries. **Egg production** has increased in recent years, owing to the modernization of



the egg production plants and a broadening of the product range. The most important area of egg production is the Minsk region (33%), where large-scale production is typical.

In Belarus, several agricultural regions can be distinguished based on their agricultural-ecological attributes and the typical forms of production *(Figure 7.21)*. Milk and dairy cattle production as well as flax production are typically seen in the northern and north-eastern parts of the country. Meanwhile, the central part of Belarus specializes in cattle and pig keeping, as well as potato and flax production. Pig breeding is a dominant feature of the south-western part of the country, but cattle farming is also advanced in that region.

The Paliessie region specializes above all in cattle farming and potato production, while poultry production and vegetable cultivation have tended to develop near the major cities. These regions and such factors as the source of raw materials and the location of markets are reflected in the regional specialization of the food industry (*Figure 7.22*). Thus, for instance, the sugar factories are located almost without exception in the western half of the country.

Banking and commercial services

The country's **banking system** consisted of 26 banks in November 2015. Belarus's largest bank is JSC "Savings Bank Belarusbank". Six banks have 100% foreign authorized capital. The share of foreign investors exceeds 50% of the authorized capital of 20 banks. A characteristic feature of the evolution of Belarus's banking system has been a reduction in the share of banks controlled by the state. The state controls about three-quarters of aggregate authorized capital in the banking sector (Report of the National Bank for 2014), because state banks are large compared to private banks.

In 2014, the average interest rate on new bank deposits in the national currency was 35.3% for individuals and 25.3% for legal entities. The average interest rate on new bank deposits in freely convertible currency [Belarusian ruble, denominated in 2016, is not freely convertible (Karácsonyi, D., editor)] was 4.8–4.9% for individuals and 5.0% for legal entities. Bank deposits account for more than half of individuals' liquid assets and approximately one-third of the private sector's liquid assets. The share of the liquid assets of government business enterprises held as bank deposits is small and on the decline.

At the beginning of 2015, the deposits of individuals amounted to the equivalent of USD 1,190 per person (*Table 7.5*). This index is below average (18–53% of the average) in all regions other than Minsk, where it is more than twice the average. Most of the deposits of individuals are in foreign currency. This trend applies to all regions. The share of savings in foreign currency is highest in Minsk (76%). In the Hrodna region it is close to the highest rate (74%), while in the other regions it varies between 63% and 67%.

In 2014, the average interest rate on new bank credits in the national currency was 31.5% for individuals and 36.2% for legal entities. In the same year, the average interest rate on new bank credits in freely convertible currency was 9.0%, but such credits are only available to legal

Table 7.5 ***Savings of the population (2002–2014)***

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total savings per capita (USD)	162	305	564	601	410	767	712	1,211	1,355	1,391	1,140	2,037	2,063
Savings in Belarusian rubles (percentage of total)	73.4	79.7	82.3	81.0	71.9	72.4	48.9	35.4	31.8	26.6	31.5	56.0	48.0
Savings in foreign currencies (percentage of total)	26.6	20.3	17.7	19.0	28.1	27.6	51.1	64.6	68.2	73.4	68.5	44.0	52.0

Source: http://www.nbrb.by/bv/arch/498.pdf
http://www.nbrb.by/engl/publications/bulletinYearBook/Bulletin_Yearbook2014e.pdf
http://www.nbrb.by/statistics/Rates/AvgRate/?yr=2014
http://www.belstat.gov.by/ofitsialnaya-statistika/solialnaya-sfera/demografiya_2/g/chislennost-naseleniya-po-oblastyam-i-g-minsku/

entities. The main demand for bank loans stems from manufacturing companies, the commercial sector, the car repair sector, consumer spending on household goods and personal items, and agriculture, hunting and forestry.

Current development priorities in the banking sector are achieving an increase in demand for banking services and the expansion of the geographical reach of such services; developing new market segments through the enhancement of remote account management and payments; increasing the availability of credits to individuals and legal entities through a reduction in interest rates; ensuring the stability of the banking sector through the development of risk management and the self-regulation of banks (including such aspects as market discipline, professionalism and the independent auditing of banks); and developing financial intermediation in banking services (including the enhancement of corporate financial and advisory services).

An important trend in the commercial sector in Belarus is enhancing standards of customer service. This can be accomplished by replacing old markets with large modern shopping centres and multi-functional complexes and through the introduction of high-tech and multi-purpose storage methods. A salient factor is the high concentration of trading services in metropolitan areas, particularly in Minsk. There is a need to accelerate the development of trading networks and e-commerce.

The **retail sector** in Belarus has seen a rapid increase in the share of foreign capital, which has led, in consequence, to a reduction in the share of domestically produced consumer goods. Between 2010 and 2014, the share of foreign capital in terms of total retail turnover increased from 6.7% to 18.4%.

A growth in concentration has been a remarkable trend in the retail sector. In 2014, the largest retail organizations accounted for 64.7% of total retail turnover. Almost a third of retail trade organizations (29.1%) are concentrated in the city of Minsk. In 2014, retail trade turnover per capita exceeded USD 4,700 in Minsk. In three other regions, the corresponding figure was less than USD 3,000.

Similar trends may be observed in the **wholesale sector** (*Table 7.6*). More than half of wholesale trade is concentrated in Minsk, and for the entire metropolitan area the figure is almost 70%. Both in the city of Minsk and in the Minsk region, wholesale trade turnover per capita and the share of foreign capital are at high levels. Consequently, in 2014, the share of foreign-made consumer goods as a percentage of wholesale trade turnover was 42.9%.

E-commerce in Belarus is still in the early stages but has made promising advances in recent years. The number of online stores (3,072 units in 2014) has increased almost threefold over a five-year period. Almost 60% of online shops are registered in the city of Minsk. The owners of online stores are mostly individual entrepreneurs or small businesses: 47.5% of them are owned by individual entrepreneurs, 41.5% by micro business entities, and 7.1% by small businesses.

Table 7.6 ***Wholesale turnover (2000–2014)***

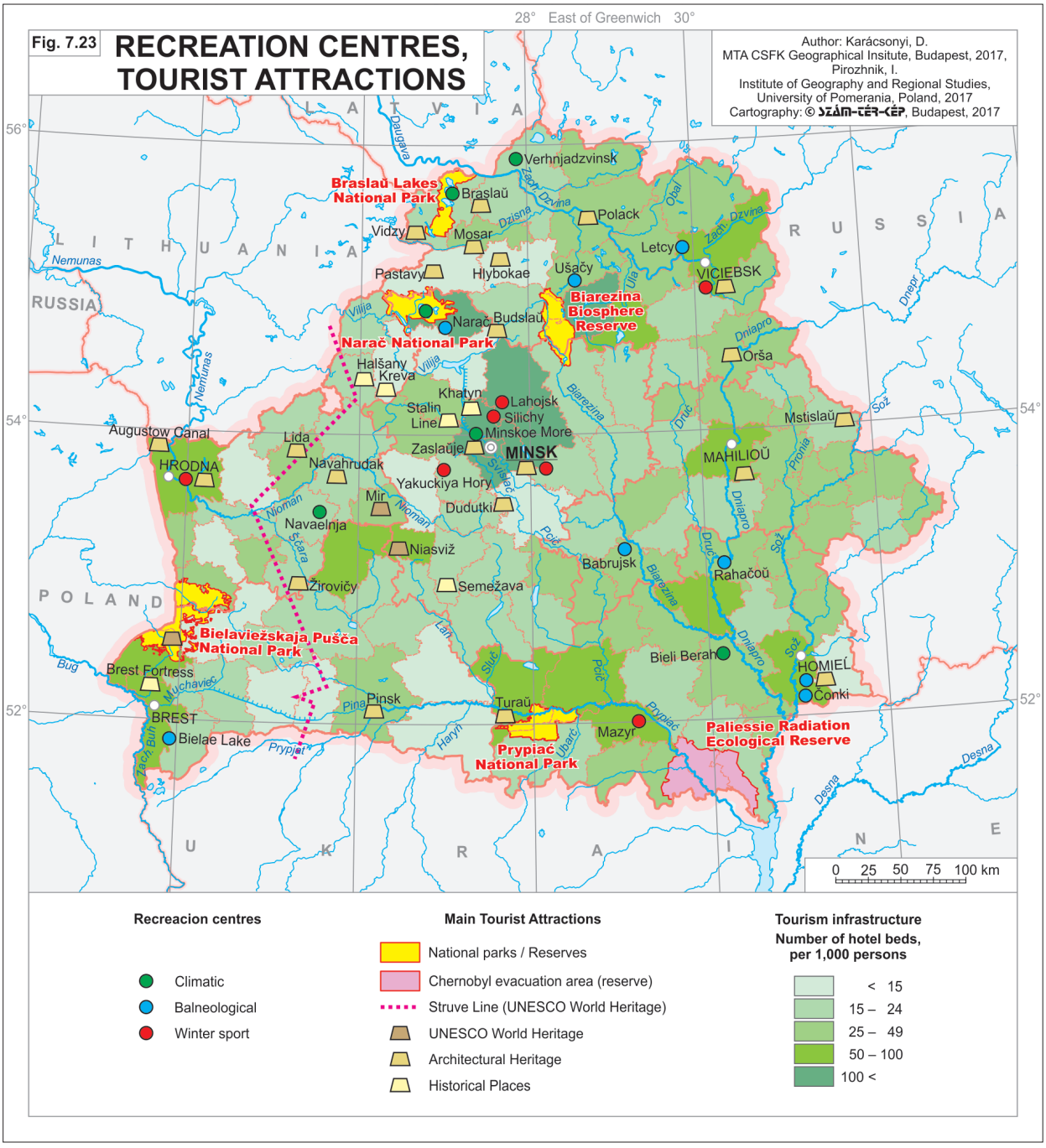
	2000	2005	2008	2009	2010	2011	2012	2013	2014
Ownership	Billion rubles								
State	1.3	3.4	5.8	5.1	6.6	10.5	31.1	23.7	31.4
Private	2.9	19.6	51.5	55.3	72.6	190.1	264.7	261.5	307.8
Foreign	0.1	3.4	8.6	6.7	6.6	9.3	56.0	47.7	54.5
	in %								
State	30.7	12.7	8.8	7.5	7.6	5.0	8.8	7.1	8.0
Private	66.8	74.3	78.2	82.5	84.7	90.5	75.3	78.5	78.2
Foreign	2.5	13.0	13.0	10.0	7.7	4.5	15.9	14.4	13.8

Source: http://www.belstat.gov.by/ofitsialnaya-statistika/realny-sector-ekonomiki/vnytrennia-torgovlya/optovaya-torgovlya/godovye-dannye-1995-2011-gody-_5/optovyi-tovarooborot-organizatsii-optovoi-torgovli-po-formam-sobstvennosti/ http://bseu.by:8080/bitstream/edoc/19003/1/Rozina_T_M_S_241_246.pdf

Recreation and tourism

Belarus stands out from other European countries for the high level of preservation of its natural environment. In the northern part of the country there is the Belarusian Lakeland, an area of rugged terrain interspersed with lakes (there are more than 2,500 lakes). In the central part of the country lies the Belarusian Ridge (a line of hills of glacial origin), which forms the watershed between the Baltic Sea and Black Sea basins. In the southern part of Belarus there is Belarusian Paliessie, an area of significant biodiversity with marshland and bogs. This latter region is uniquely valuable in terms of the preservation of many bird and amphibian species.

The current state of Belarusian tourism and its future potential are linked with the country's **natural resources** and the existence of extensive nature conservation areas (comprising



around 8% of Belarus's territory) (*Figure 7.23*). Such conservation areas include two sanctuaries (Biarezina Biosphere Reserve and Paliessian Radiation Ecological Reserve) and four national parks (Bielaviežskaja Pušča, Braslaŭ Lakes, Narač and Prypiać). The presence of mammals and birds for hunting (22 mammal species and 31 bird species) facilitates the development of hunting tourism in Belarus. More than 250 hunting farms offer hunting tourism services in Belarus. The high number of rivers and lakes constitute a considerable potential for tourism and recreation development. The development of therapeutic and health tourism is based on the country's extensive forests (covering more than third of its territory) and on the availability of various mineral waters (there are over 100 wells of mineral water), sapropel and peat mud.

The **cultural heritage** of the country has a long history dating back to the 9th century. This is reflected in the large number of historical and cultural monuments (more than 17,500 objects). Around 5,400 of these monuments feature on the State List of Historical and Cultural Values. Included on the list are the Bielaviežskaja Pušča National Park (a transnational park shared with Poland), the Mir Castle Complex, the Architectural, Residential and Cultural Complex of the Radziwill Family at Niasviž, and the Struve Geodetic Arc (a chain of survey triangulations stretching from Hammerfest in Norway to the Black Sea). All these sites have been inscribed on the UNESCO World Heritage List. Tourism in the country also relies on a rich folklore and ethnographic tradition and more than 100 centres of crafts (embroidery, pottery, weaving, etc.) as well as the expositions of more than 160 museums.

More than 1,376 organizations are involved in tourism. In addition, there are about 2,279 registered entities operating in rural tourism. The tourist infrastructure includes 1,050 accommodation facilities with a total capacity of about 30,000 guests, including more than 570 hotels and hotel complexes. Belarus has more than 480 spa and health facilities, with 49,000 beds in total. Seventy-four of these facilities are spa-resorts. The country has a dense network of railways and highways. There are more than 400 roadside service stations located along the latter. Belarus has over 180 gambling establishments, of which more than 30 are casinos.

Belarus has every year more than 4,200,000 foreign visitors and more than 6.9 million Belarusian citizens travel abroad. According to hotel and accommodation registration the annual tourist flow exceeds 2,750 thousand tourists (62% in hotel, 28% in sanatorium and health resorts, and 10% in agro-tourist facilities). Among them, about 1,030,000 are foreign tourists (75% of them are citizens of the CIS and 25% are citizens of other countries) who use the services of hotels (79%), sanatoria and health facilities (18%) and agro-tourism (3%).

Four main recreational and tourist regions can be identified in Belarus based on spatial factors, resource potential, and the level of development of the recreational functions: Northern (the Viciebsk region), Central (the Minsk region and the Ašmiany, Astravec, Smarhoń raions of the Hrodna region), South-Eastern (the Homieĺ and Mahilioŭ regions), and Western (Brest and the main part of the Hrodna region).

Transport

Belarus has an advantageous geographical location, being situated at the crossroads of several major Pan-European transport corridors (West-East and North-South), namely Pan-European Corridors II, IX, and IXb (with a total length of 1,520 km in Belarus). All this grants the country a significant potential for transport and logistical functions within today's globalized markets (*Figure 7.24*). The geographical location at the centre of Europe determines Belarus's transport policy. Being a landlocked country without direct access to the sea, the country has no option but to play the role of transit corridor (UENCE 2013).

Belarus's **road infrastructure** consists of 86,500 km of public roads, ensuring continuous year-round access to almost all populated areas. More than 80% of cargo and passenger traffic is transported along the 15,636 kilometres of national roads. Local roads extend for 70,855 kilometres, while there are around 200 kilometres of departmental roads (agricultural, industrial and forest roads) (*Table 7.7*). There are 74,650 kilometres (86.4%) of surfaced roads, including 100% of national and 83.5% of local roads. Surfaced roads provide transport links between cities, townships and the central farms of agri-

cultural cooperatives and other rural settlements (UENCE 2013). Road freight traffic is growing and is generated primarily in the major cities. There are distinct flows of freight traffic along the Pan-European transport corridors and between Minsk and the regional centres, with a relatively low proportion of transit and international traffic (5.5% in 2013). The significance of mass transport has declined slightly, owing to the increased rate of motorization, which has been a trend since the early 2000s. Passenger car ownership stands at 282 cars per 1,000 inhabitants (2013), which is one of the highest rates among the CIS states. New forms of passenger

Table 7.7 ***Network length by transport type (2005, 2014)***

Road type/Year	2005	2014
Total public railways (km)	5,518	5,490
Electrified railways (km)	897	1,013
Total public roads thousand (km)	83	101
Total paved roads (thousand km)	72	75
Pipelines (km)	12,237	11,571

Source: Transport and Comminications in the Republic of Belarus Statistical book National Statistical Committee of the Republic of Belarus Minsk. 2014.

mobility – online ticket purchases, park-and-ride facilities, Uber taxis (in Minsk only), Bla-Bla Car and other ride-share services – have gained popularity since 2011. Since 2013, an electronic toll collection system (Bel-toll) has been in operation on 1,500 kilometres of toll roads.

Railway transport is divided into public and private sectors. Belarusian Railways manage the public rail transport system in accordance with national laws. The public railway network extends over 5,000 kilometres, with 1,013 kilometres of electrified line (2013). It has Russian track gauge (1520 mm), which means that railway connection to Poland should implement transhipment or changing the gauge. The network provides access to more than 2,100 settlements. The major railway hubs are at Minsk, Brest, Homieĺ, Orša, Baranavičy, Žlobin, Kalinkavičy, Mahilioŭ, Viciebsk and Polack. Over the last decade, Belarus has become important in terms of a range of rail freight transit functions, primarily for the transport of Russian and Kazakh foreign trade goods to ports on the Baltic Sea, such as Kaliningrad (Russia), Ventspils (Latvia) and Klaipeda (Lithuania). In view of the worldwide trend for cargo containerization, Belarusian Railways is instituting the transport of containerized cargo in container trains. Ten container trains run regularly on the railway network, including the "East Wind", "Kazakhstan Vector", "Mongolian Vector", "Zubr", "Viking", "Volkswagen Russ" and "Peugeot-Citroen" trains (UENCE 2013). A slight increase in the volume of rail freight was recorded in the period 2005–2013, alongside a decline in passenger traffic (*Table 7.8*). The year 2010 saw the introduction of a new concept of passenger railway mobility, including new forms of daily commuter services. An example of this is City Lines, operating in the Minsk agglomeration (running from Minsk to Zaslaŭje, Dziaržynsk, Rudziensk and Smaliavičy). A further example is the inter-regional train service, Business Lines. In 2014, a connecting train service to Minsk National Airport was launched, running from the capital's main railway station and using the existing modernized infrastructure. The service utilizes modern low-floor air-conditioned trains. However, the connecting train service is still rather infrequent, with just five trains daily. An extra bus transfer is required at the airport and the whole journey takes approx. 70 minutes (http://www.railwaygazette.com/news/passenger/single-view/view/minsk-national-airport-rail-link-launched.html).

Inland waterway transportation and transshipment involves 10 ports, located in the cities of Brest, Pinsk, Mikaševičy, Mazyr, Rečyca, Homieĺ, Mahilioŭ, Babrujsk, Viciebsk, and Hrodna. The ports at Mazyr, Homieĺ and Babrujsk have railway sidings. The principal forms of cargo carried by the Belarusian river fleet are sand and sand-gravel, crushed stone and gravel, timber, potash, granulated slag, as well as oversized and heavy freight. The total volume turnover of the ports is 15 million tonnes. Belarus's inland waterways, including the Dniapro-Buh Canal (Muchaviec), are part of the E-40 international waterway (which runs from Gdańsk via Pinsk to Kherson). However, the Dniapro-Buh Canal is only navigable to the port of Brest. Between the port and the River Buh the only connection is the narrow moat of Brest Fortress, which is too small and shallow for vessels. Accordingly, there is no any cargo waterway between Poland and Belarus (between the Buh and Dniapro basins). Since the collapse of the Soviet Union, water based transport in Belarus has stagnated (UENCE 2013).

The civil passenger **aviation sector** is dominated by the state-owned "Belavia" airline, which has an average fleet age of 15.2 years (2015). Minsk National Airport (MSQ), with one 3,641 m (CAT II) operative runway, accounts for 80–90% of cargo and passenger traffic. In 2013, Minsk National Airport (jointly with Airport Minsk-1) served 2.182 million passengers (18% growth in comparison with 2012), handled 16,585 flights (18% growth in comparison with 2012), and offered flights to more than 42 international destinations (in Western

Table 7.8 ***Modal split in freight and passenger traffic by transport type (2005, 2014)***

Type of transport	By weight of transported goods mln. tonnes		By freight turnover bln tone-kms		By passengers carried mln passengers		By passenger turnover mln passenger-kms	
	2005	2014	2005	2014	2005	2014	2005	2014
Railway	125	140	44	44	105	99	10,351	8,998
Road	101	192	9	22	1,509	1,416	9,231	10,546
Waterway	3	4	0	0	0.2	0.3	2	3
Air	0	0	0	0	0 5	1 6	684	2,490
Pipeline	165	134	74	61	–	–	–	–
Total	393	471	127	131	2,540	2,451	24,354	26,618

Source: Transport and Comminications in the Republic of Belarus Statistical book National Statistical Committee of the Republic of Belarus Minsk. 2014.

Europe, the Middle East and elsewhere). The liberalization of the air transport sector in the EU and the expansion of low-cost airlines (Ryanair and WizzAir) have added to the attractiveness of the airports in adjacent countries. Accordingly, a greater number of Belarusians now travel to airports in Poland (Lublin and Warsaw), Lithuania (Vilnius – where the share of Belarusians in total passenger traffic was 20% in 2012 – and Kaunas), and Ukraine (Kyiv and Zhuliany).

In UNECE's view, Belarus's transport infrastructure is good but the logistics industry is still underdeveloped (UENCE 2013). The history of contemporary logistics in Belarus began in 2008 with the adoption of the "State program for development of a logistical system in the Republic of Belarus until 2015". Under the terms of the program, thirty-nine sites in various regions and cities (Brest, Viciebsk, Homieĺ, Hrodna, Mahilioŭ, Baranavičy, Babrujsk, Barysaŭ, Žlobin, Mazyr, Orša, and Pinsk, but mostly in the Minsk region – around 45%) were earmarked for the construction of logistical centres (LCs). Thirty-seven LCs are already operating in 2015 and 89.2% of them are in the Minsk region. The major logistical companies in Belarus are "Beltamozhservice", "BLT-Logistic", "Ozertso-Logistic" and "BelVingesLogistic". Logistical companies provide such services as transportation, customs declaration services, warehousing, communication with foreign suppliers, and the preparation of export and import documentation (Kurochkin, D.V. 2015).

The Logistics Performance Index (for 2014), which is based on data from a survey of logistics professionals (who are asked about performance in the countries in which they operate), ranked Belarus 99th among 160 countries in terms of effectiveness in the field of logistics. The most positive dimension was timeliness (3.1), while the least positive was customs, tracking and logistics competence (2.5). Evidently, Belarus is still in the initial stages of establishing and consolidating a transport and logistics industry. This also means that there is significant potential for improvement. In terms of logistics effectiveness, Belarus lags somewhat behind Western countries, owing to a limited understanding of modern international practices and a failure to meet the expectations of the global market actors. Further integration into the global market, coupled with investment in innovation and education, will significantly improve the quality of services in the national transport and logistics sectors.

Foreign trade

The economy of Belarus was formed as a single economic region within the Soviet Union's national economic structure. Its areas of specialization were mechanical engineering, chemicals and petrochemicals, and the processing of agricultural raw materials. Industrial production far exceeded the needs of Belarus, and so many manufactured products were sent to the other Soviet republics or to the COMECON (Council for Mutual Economic Assistance, the economic organization of the Eastern Block between 1949–1991) member states. In 1990, such exports accounted for 80% of industrial production.

Extensive cooperation ties and the export orientation reflects the close ties with other post-Soviet countries. Belarus's trade-to-GDP ratio (also known as the trade openness ratio)

has always been higher than 100%, and in 2011 the index reached 150%. Consequently, the main performance indicators of the Belarusian economy are closely connected with the development of foreign trade.

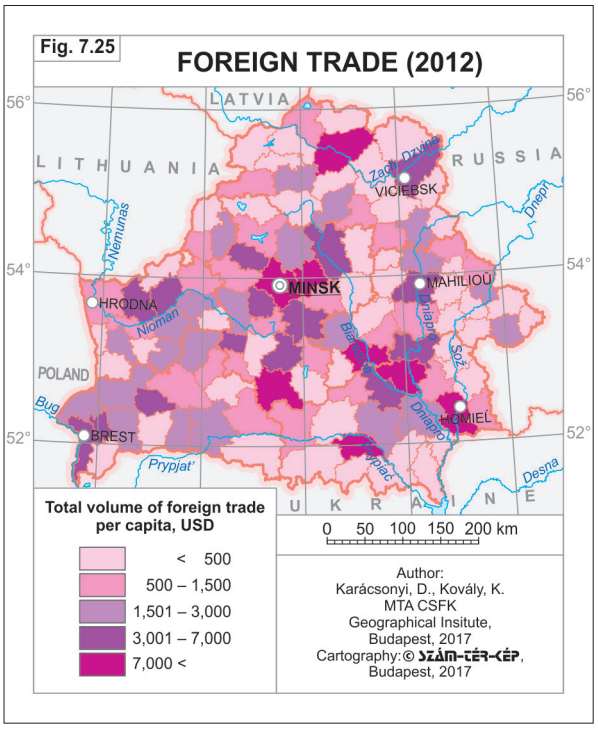
The volume of foreign trade increased steadily between 1995 and 2008, rising from USD 10.4 billion to 72.0 billion. After the global financial crisis, Belarus experienced fluctuations in foreign trade, which initially fell to USD 49.9 billion in 2009 before rising again to USD 92.5 billion in 2012. It is worth noting that 2012 was Belarus's most successful year in terms of foreign trade: exports reached USD 46.1 billion, and the trade deficit decreased to USD 344 million.

In 2014, however, there was a decline in foreign trade, as exports fell to USD 36.1 billion. This decline was due to falls in the price of oil and oil products as well as a recession in Russia, Belarus's main trade partner. The decline in exports was not accompanied by a corresponding reduction in imports. Consequently, the trade deficit grew larger.

Attaining WTO membership would amount to a key step forward in foreign trade. Belarus's WTO membership has been the subject of negotiations since 1997. At present, however, Belarus is unable to conclude the negotiations, in view of contradictions in its domestic law, significant subsidies in agriculture, and restrictions on access to its internal market for goods and services.

Belarus is an active participant in regional economic integration. Belarus cooperated with the Russia and Kazakhstan to form a Customs Union (in 2010) and a Common Economic Space (in 2012). This led, in 2015, to the establishment of the Eurasian Economic Union, with the three countries being joined by Armenia and Kyrgyzstan. Within Belarus, urban regions and the major industrial centres are the main actors in foreign trade, but in the western raions agriculture contributes significantly to a higher index of foreign trade per capita *(Figure 7.25).*

The **geographical orientation of foreign trade** is characterized by a high degree of concentration (*Figure 7.26, Table 7.9*). Since the collapse of the Soviet Union, Belarus has maintained close economic ties with other former Soviet republics. In 2014 eleven CIS countries accounted for 58.5% of exports and 59.7% of imports. Overall, the former Soviet republics – including Georgia, Estonia, Latvia and Lithuania – account for 63.1%



of exports and 61.2% of imports. The EU countries account for 29.6% of Belarus's exports and 23.3% of its imports. Trade with the neighbouring countries of Lithuania, Latvia, Poland, Russia and Ukraine together account for 60.0% of exports and 64.0% of imports.

A major trading partner is the Russia, which accounts for 42.1% of Belarus's exports and 54.8% of its imports. These percentages reflect the traditional ties of cooperation between the two countries and Belarus's specialization in the international division of labour. Trade with Russia is rather unbalanced: Belarus mainly exports to Russia high value added products, machine tools, tractors, lorries, textiles and chemical products, while it imports raw materials – principally hydrocarbons – from Russia. Televisions and refrigerators are manufactured almost exclusively for the Russian market. Exporting to Russia allows production to benefit from economies of scale, given the large size of the Russian market. It also facilitates advances into Western markets, the best example being the case of BelAZ, with its large mining dump trucks. In recent years, cooperation between Russia and Belarus has been further enhanced through the creation of the Customs Union and the Common Economic Space. Aside from Russia, Belarus's key partners in the post-Soviet space are Ukraine and Kazakhstan.

Table 7.9 ***Foreign trade by main partners (2005, 2014)***

Country	Export		Import	
	2005	2014	2005	2014
	% of total			
Russia	35.7	42.1	60.5	54.8
Ukraine	5.6	11.3	5.3	4.2
Germany	4.4	4.6	6.7	6.1
United Kingdom	7.0	8.1	0.8	0.8
China	2.7	1.8	1.7	5.9
Poland	5.3	2.3	3.5	3.8
Netherlands	15.0	4.7	1.0	1.2
Italy	1.0	2.8	2.3	2.9
Lithuania	2.2	2.9	0.8	0.9
Kazakhstan	1.1	2.4	0.2	0.2
Brazil	1.0	2.0	0.9	0.4
Latvia	2.0	1.4	0.5	0.4
USA	1.6	0.3	1.4	1.3
Czechia	0.3	0.4	0.6	1.0
France	1.7	0.3	1.1	1.0
Switzerland	–	0.0	–	1.2
Turkey	–	0.5	–	1.1

Source: www.belstat.gov.by; ru.novabelarus.com/ekonomika-belarusi/glavnyje-torgovyje-partniory-belarusi/

In recent years, benefitting from the relatively low price of energy resources within the Customs Union, Belarus has specialized in refining Russian crude oil, subsequently exporting oil and oil products to the EU countries. This explains the high proportion of exports to the United Kingdom, the Netherlands, Germany, Lithuania and Italy. Belarus's principal exports to Germany are machinery, textiles, wood and paper products. Additional significant export markets are Brazil and China, which are the main consumers of Belarusian potassium.

The key import partners are the EU countries (Germany, Poland, Italy and the Netherlands), but also distant countries (China and the United States), and Ukraine and Switzerland. In terms of the imported products, the major sectors are high-tech mechanical engineering, automotive industry, chemicals and pharmaceuticals. Consumer goods tend to be imported from Poland (where Belarusians have traditionally gone for shopping with tax refunds) or from China.

In 2014, the **foreign trade deficit** amounted to USD 4.4 billion, whereas in 2010 it reached USD 9.6 billion (17.4% of GDP). There is a foreign trade surplus with the EU countries and the CIS countries (excluding Russia). In 2014, Belarus's trade surpluses with individual countries were as follows: the United Kingdom (2.6 billion dollars), Ukraine (2.4 billion dollars), the Netherlands (1.2 billion dollars), Kazakhstan (0.8 billion dollars), Lithuania (0.7 billion dollars) and Brazil (0.8 billion dollars). In the same year, Belarus had trade deficits with the following countries: Russia (7.0 billion dollars), China (1.7 billion dollars), Germany (0.8 billion dollars), Poland (0.7 billion dollars) and Switzerland (0.5 billion dollars).

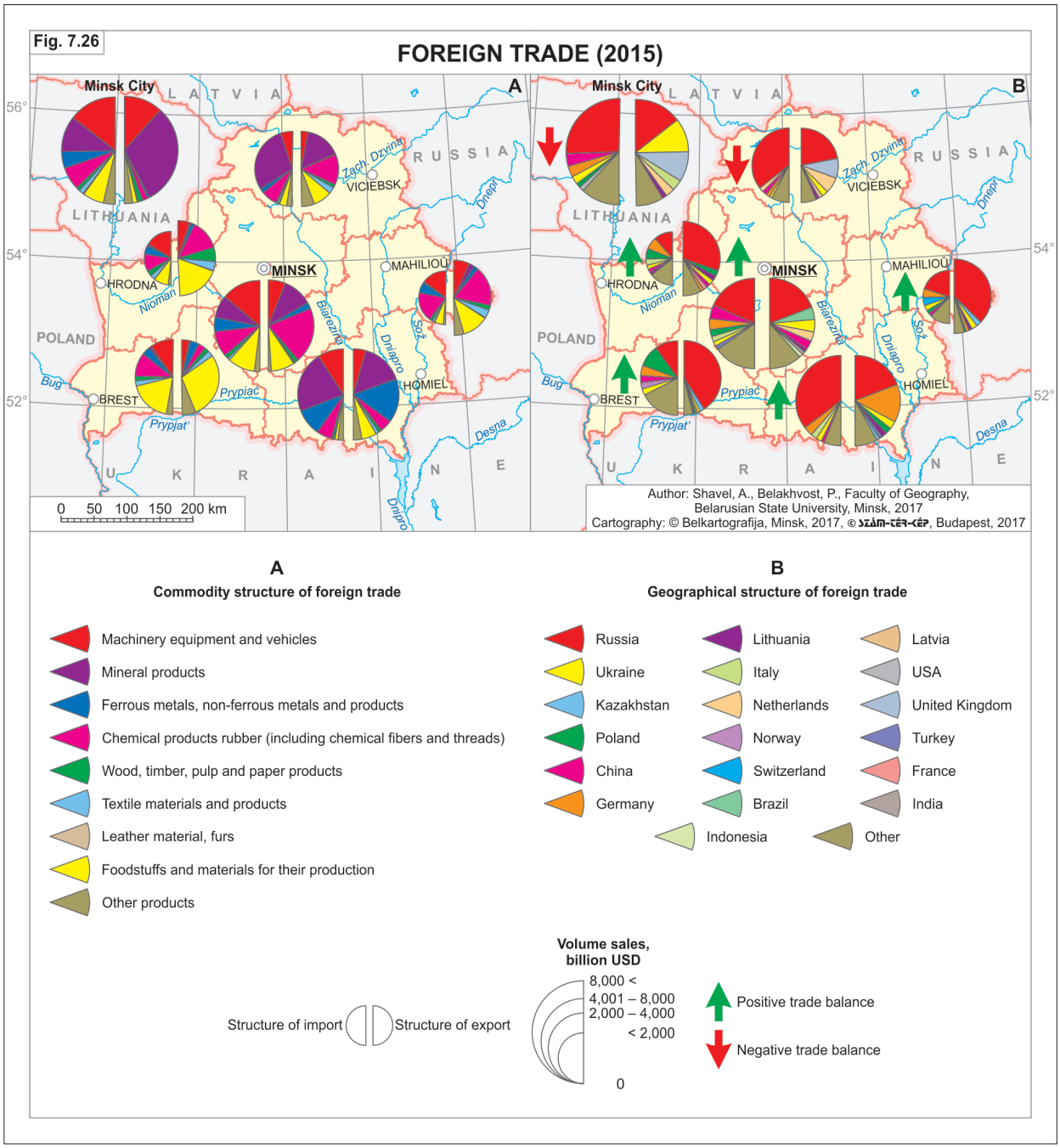
While there has been little change in the geographical structure of foreign trade, the **commodity structure** has undergone significant shifts (*Figure 7.26*). Until the 2000s, Belarus's most important export sectors were machinery, equipment and vehicles. However, as the price of mineral raw materials increased, so their importance (and that of derivative products) grew in terms of their share of exports and imports.

In 2014, mineral products accounted for 34.2% of exports and 30.0% of imports. Oil and oil products dominate this category. Other major export categories include chemical products (17.3%), foodstuffs (15.3%), and machinery, equipment and vehicles (15.2%). Within these categories, major export are potash fertilizers, chemical fibres and threads, vehicle tyres, dairy and meat products, dump trucks, tractors, refrigerators, freezers and automated machines. Turning to imports, we find that there has been a slight decline in the share of mineral products, whereas imports of machinery, equipment and vehicles (up to 25.3%) have increased their share.

The past decade has seen strong growth of the **foreign trade in services**. From 2005 to 2014, the volume of trade in services increased from USD 3.5 billion to 13.6 billion. Services to the CIS countries accounted for only one-third of Belarus's total foreign trade in services. Belarus has a surplus in foreign trade in services, which partially covers the negative balance of trade in goods.

The structure of trade is dominated by transport services, which make up almost half of exports and a quarter of imports. Advances in this sector are largely due to Belarus's favourable economic-geographical position: the country is located between a sizeable raw material source (Russia) and a large market for finished products (the EU), which results in significant traffic flows.

Turning to imports, the largest shares are held by construction services (26.6%), travel



(20.3%) and financial services (5.9%). Belarus continues to increase the volume of exports in services. Computer and information services are regarded as some of the most promising areas.

Foreign direct investment

Belarus has the lowest rate of foreign direct investment (FDI) per capita in the region. Even so, the country achieved spectacular economic growth from the mid-1990s onwards (Urban, M. 2008). In view of the dominance of state ownership, Belarusian industry is rather weakly integrated into global cooperation (Kruk, D. 2013).

The **total stock of FDI** in Belarus is about USD 10 billion. Per capita indicators for Belarus are below the levels seen in Russia or Kazakhstan. Nevertheless, the United Nations Conference on Trade and Development (UNCTAD) indicated,

in its annual report on global investment, that Belarus has a high potential attractiveness for FDI inflows.

In recent years, the volume of foreign direct investment in Belarus has significantly fallen short of its potential. An UNCTAD report revealed that Belarus has been very ineffective at attracting FDI. Indeed, it has one of the lowest ratings in terms of FDI compared with the size of the economy (Mucha, D. 2014).

The World Investment Report of 2011 ranked Belarus forty-fourth in the world, based on potential attractiveness – owing largely to the presence of a highly skilled workforce, advanced industry and infrastructure, and a favourable geographical position. In terms of actual investment, however, Belarus ranks fifty-third.

To promote FDI inflows and to enhance investment attractiveness, Belarus elaborated and adopted a "Strategy of attracting foreign direct investment for the period up to 2015". Seeking to attract FDI, Belarus offers competitive advantages in relation to the other countries in the Eurasian Economic Union (lower labour costs, lower taxes on profits, tax exemptions in the case of innovative products and services, and the carrying forward of accumulated losses).

The enhanced investment attractiveness of the country's **free economic zones** (FEZs) facilitates the inflow of FDI to the economy. The first FEZ was founded in 1997 with the aim of increasing Belarus's export and investment potential.

The role of the FEZs in the Belarusian economy has been increasing steadily, but there is still much potential. The zones account for a tenth of industrial production, attract 8–9% of capital investments, and supply 12.7% of exports (2015). They tend to attract processing industrial companies, with German investor backing (Kiss, S. 2011). Most of what is produced in the zones (more than 90%) is exported to Russia. The reason for this is the customs union and the proximity of the EU as the principal investor.

Belarus had six FEZs in 2016, each of which has its own priorities (development of infrastructure and industry, promotion of investment, etc.). The "Minsk" FEZ (1998) was established for a thirty-year timespan with a view to increasing airport traffic at "Minsk-2", developing air transport, founding an international traffic net-

Table 7.10 ***Foreign direct investment in Belarus by countries (2006–2014)***

	2006	2007	2008	2009	2010	2011	2012	2013	2014
	in million current USD								
Total (flow)	1,489	1,314	2,280	4,821	5,569	13,248	10,358	11,083	10,169
Total (stock)	2,734	4,483	6,683	8,537	9,904	12,997	14,570	16,659	17,730
By countries	% of total (stock)								
Russia	6.1	16.7	14.4	83.5	90.8	54.3	48.6	52.4	50.2
Great Britain	3.1	1.6	1.9	1.0	1.0	30.3	32.0	25.3	23.8
Cyprus	3.8	16.3	11.5	2.1	1.1	2.6	4.6	6.8	6.9
Germany	2.3	2.1	4.1	1.0	1.1	1.1	1.4	1.4	3.5
Austria	2.4	1.5	1.7	0.1	0.1	0.3	1.0	2.2	1.9
Lithuania	2.2	2.5	1.6	–	–	–	1.2	1.0	1.7
China	–	–	–	–	0.5	–	–	–	1.6
Netherlands	2.3	2.0	1.2	0.8	0.1	0.6	1.0	0.6	1.5
Poland	–	–	–	–	–	–	–	1.6	1.3
Latvia	–	–	–	0.6	0.6	–	0.7	0.9	0.8
USA	3.2	2.9	1.6	0.7	0.7	–	0.9	1.2	–
Switzerland	66.4	44.2	53.3	7.3	0.7	0.3	–	–	–
Other countries	8.2	10.2	8.7	2.9	3.6	10.5	8.6	6.6	6.8

Source: http://www.belstat.gov.by/ofitsialnaya-statistika/makroekonomika-i-okruzhayushchaya-sreda/finansy/godovye-dannye_14/inostrannye-investitsii-v-respubliku-belarus/
Kayukova O.S. Drozd S.S.: Pryamiye inostrannie investichiyi kak indikator investichionnoy privlekathelnosty Respubliky Belarus. Vestnik HHTU im. Suchoho P.O. 3 2010.
http://www.belstat.gov.by/ofitsialnaya-statistika/makroekonomika-i-okruzhayushchaya-sreda/finansy/ofitsialnye-publikatsii_13/index_709/ (pp. 226–228)

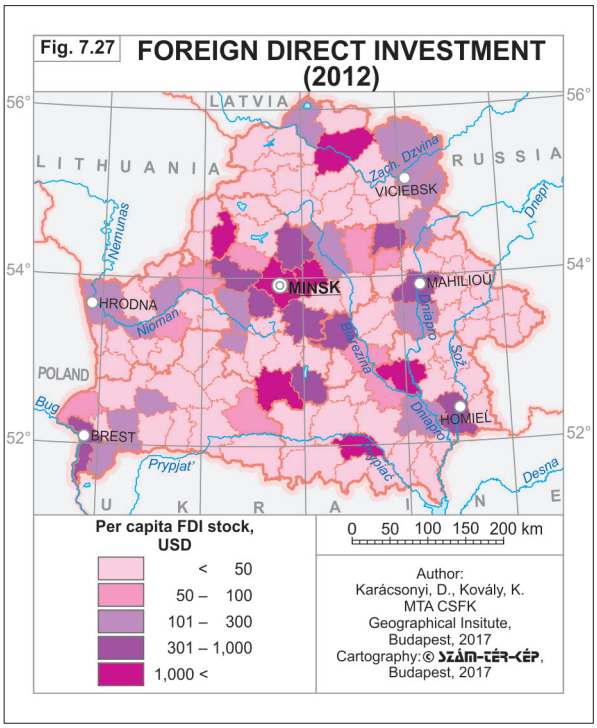
work. The "Homieĺ-Raton" FEZ (1998) aims to develop transport infrastructure; this zone has created the greatest number of jobs. The "Brest" FEZ (1996) aims – in addition to fulfilling its general tasks – to trial-run new methods of economic management. This was the first FEZ to be established in Belarus, and it was founded for a period of fifty years. The other FEZs – each of which was established for general purposes – are as follows: "Viciebsk" (1999), "Hrodna" (2002) and "Mahilioŭ" (2002).

In 2010, the whole economy received USD 9.1 billion of foreign investment, 61.3% of which was FDI. The increase as compared to 2009 was close to the world average (15.5%). The largest inflows of foreign investment targeted the transport sector (53.2% of all investment), industry (22.8%), trade and catering (14.6%), and general business operations (3.6%). In terms of the inflow of foreign investment by country, Russia is in first place (72.1%, of all foreign investment and 90.8% of FDI), and it is followed by Austria, the Netherlands, Cyprus and the UK (*Table 7.10*).

In 2013, the inflow of foreign investment into the Belarusian economy amounted to around USD 11 billion. The main form of direct investment was debt instruments (80.8% of total direct investment).

In recent years, Russia has taken the lead when it comes to the major investment projects in Belarus (e.g. "Beltransgaz"). Moreover, the construction of the Belarusian nuclear power plant is being undertaken with a Russian loan (worth around USD 10 billion).

In order to improve the rather poor investment climate, the government proposes the creation of regional agencies and business advisory centres, offering them personnel, logistical and infrastructure support. Currently, FDI inflows into Belarus reflect the dominance of Minsk and of the major cities and districts in the central and eastern parts of the country (*Figure 7.27*).



Belarusian foreign investments

Belarus has been actively developing its export potential by, among other things, promoting investment projects in the CIS countries. A clear trend in the past decade has been an increase in the total number of enterprises formed with Belarusian capital and carried out by state exporting companies. Thus, the aim is not to establish manufacturing plants abroad but rather to promote the products of Belarusian industry in the neighbouring countries. Among the various state corporations and agencies (including government ministries as well as regional and municipal executive committees), the Ministry of Industry plays the leading role in terms of the number of distribution network firms. Turning to individual companies, we find that "BelAZ", the Minsk Tractor Factory "Pinskdrev" (wood products), "Mogotex" (textiles), "Belshina" (tyres) and the Minsk Automobile Plant (MAZ) have established the greatest number of distribution network firms in the CIS countries (Monitoring ..., 2013, pp. 16–17.). The global economic crisis, which began in 2008, has accelerated (rather than blocked) the expansion of the distribution networks of Belarusian companies. Still, the geography of the distribution network has changed. The decline in trade with Russia forced Belarusian exporters to pay attention to other markets. Accordingly, in the period 2009–2012, Belarusian distribution companies tended to be established in other CIS countries rather than in Russia (Kvashnin, Y.D. 2013).

Belarusian investments are not limited to investment in retail distribution networks (albe-

it this trend has been dominant since the mid-2000s). As well as promoting their own distribution networks, some Belarusian companies (e.g. BelAZ and MTZ) have also established assembly plants, generally at existing plants. For instance, in 2010, BelAZ established a joint venture at the Korkino excavator-carriage repair plant (Chelyabinsk region, Russia), where a production line was launched. The Agricultural Machinery Plant "Gomselmash" in a joint venture with "Bryanskselmash" began assembling kits in Belarus in the mid-2000s. Until 2013, 31 assembly factories were created in Russia, but most of them are small businesses with a total revenue of about USD 100 million (Kvashnin, Y.D. 2013).

The International Monetary Fund (IMF) has stated that Belarus's total accumulated direct investment abroad at the end of 2011 amounted to USD 290 million. That sum is much less than the Belarusian direct investment figures for several CIS countries. The discrepancy in the amounts stems from the fact that significant funds are debt instruments, that is, the debt of foreign companies to direct investors – to Belarusian residents (71.3% of FDI in 2012), and most of this arose in 2011 amid the economic crisis and the devaluation of the Belarusian ruble.

People from a local village selling potatoes and vegetables on a roadside market near Niasviž. (Photo: Karácsonyi, D. 2011)