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Belarus: Comparative Research on Industrial Parks and Special Economic Zones

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Executive summary

Belarus has accumulated experience in the design and implementation of economic incentives to promote business development, exports and foreign direct investment (FDI) inflows in the country. The creation of free economic zones (FEZs) and the High-Tech Park (HTP) were effective policy instruments in the late 1990s and 2000s.

The Great Stone Industrial Park (GSIP) is the latest example of the state's economic policy to boost investments and exports, based on previous Belarusian experience and Chinese development experience on the Suzhou Industrial Park (SIP). It is also a new form of cooperation between the Belarusian and Chinese governments. The project is of high importance for both countries since it is part of the Belt and Road Initiative (BRI).

The study focuses on three issues. First, the paper analyses the Belarusian experience in the creation of special economic zones. Second, we look at how the GSIP has been developing so far and what lessons have been learned from the past experience. Lastly, this paper makes policy recommendations on how to increase the efficiency of the Belarus-China cooperation under the GSIP project.

Compared with the performance of the national economy, the FEZs and the HTP show a better record of economic development. They contributed significantly to the country's net FDI inflows and played a crucial role in exports formation.

However, the FEZs and HTP are relatively poor in terms of some social indicators. The average salary in the FEZs is almost equal to that of the rest of the economy, although the residents generally have higher competitiveness than their peers outside the zones. Contrary to expectations, the HTP also has a lower value of per employee revenue in comparison to the FEZs and the rest of the economy.

Special economic zones in Belarus are also limited by the sectoral development. The HTP, for instance, has a clear focus on the development of the ICT industry. This policy, on the one hand, sets boundaries for its residents to be in the ICT-related business. On the other hand, it limits other high technological companies from residing in the park. However, the latest changes in local legislation will allow more freedom in this area for HTP. The FEZ residents, however, were not limited by particular sectors, but it did not lead to the creation of new economic sectors.

Lastly, special economic zones have different levels of integration with the domestic economy. The FEZ residents increase their sales in the local market. This suggests that these zones play a substantial role locally. However, the HTP has a low level of integration with the local economy.

Both FEZs and the HTP have disadvantages due to the extraterritoriality approach. For example, in FEZs, inorganic growth allowed for the inclusion of big state-owned enterprises as residents no matter where they physically resided. Moreover, the rules of the Eurasian Economic Union (EEU) require that the benefits for residents allowed in the free economic zones are almost identical across the Union. This made them less attractive in comparison with the HTP or the GSIP.

The Belarusian government has been refining its policy approaches for the GSIP to develop the Park based on our assessment of the performance of the FEZs and HTP, the revealed advantages and disadvantages policy-wise, and what we have learned from the Chinese SIP. Clear evidence can be found from the evolution of the legislation governing the GSIP. A few examples from the recent Decree number 166, which was the first Presidential decree that has been the result of consultations with experts including private sector participants from a foreign country, are highlighted below:

1. There are a number of special policy experiments that have been granted to the GSIP for the first time.

a. The government introduced an option that permits foreigners to own land within the territory of the GSIP. Both foreign and local residents are eligible to purchase land plots for business purposes.

b. The government also offers additional visa-free entry to the country for staff and their families working in the GSIP.

c. The GSIP is managed by the Park's administration and the development company, which can help to avoid a conflict of interest. The former deals with common matters of the Park's management and rendering of relevant services to the Park residents in terms of projects review and approval, registration, employment, issue of certificates of origin, examination and sanitary inspection of export and import production, customs-passing procedures, investment consulting, and other services according to the "one-stop-shop" model;[1] while the latter mainly involves activities related to development, planning, construction, building, facilities operations and management, marketing and investor attraction.

d. In addition, the Park residents enjoy the most favourable fiscal and economic conditions in the country, in line with the EEU legislation. As a "territorial special economic zone", the Park enjoys more customs and tax benefits than "regular" special economic (free) zones; that is, its residents benefit from duty-free imports of equipment and raw materials; in fact, duty-free imports are a significant competitive advantage of the GSIP given that EEU legislation has limited quotas for member countries on such zones.

2. A number of challenges were identified in the course of the development of the Park.

a. Access to finance is viewed as a constraint for the GSIP residents due to the combination of a lack of long-term funding, high interest rates and stringent collateral requirements demanded by local legislation. To solve this, the Belarusian and Chinese governments set up two financial instruments to support business projects in the park. However, there is still no experience accumulated to be confident of their effectiveness.

b. There are risks associated with Belarus being part of the Customs Union. In particular, we refer to unstable and inconsistent relationships with Russia, a major market for Belarusian companies. Non-trade barriers under the EEU can potentially discourage Belarusian products and services being sold in the Russian market. There is a level of uncertainty on how to protect goods and services being produced by the GSIP residents in case of possible tensions between the two countries.

c. The nine priority sectors[2] in the GSIP that are proposed by the Belarusian government are directly linked to the National Strategy of Industrial Development of Belarus until 2020 and the National Strategy for the Sustainable Social

[1] This is a business model that has become commonplace. The theory is that, by providing many services in one place, institutions can offer clients the convenience of obtaining their needs in one stop.

[2] According to the Decree number 166, there are nine priority sectors chosen as the entry requirement for becoming residents in the GSIP: (i) mechanical engineering, (ii) electronics and telecommunication, (iii) fine chemistry, (iv) pharmaceuticals, (v) biotechnology, (vi) new materials, (vii) integrated logistics, (viii) electronic commerce and big data, (ix) research and development.

and Economic Development of Belarus for the period until 2030. However, it is not clear how the government of Belarus decided on the list of priority sectors and whether such a process can achieve the best performance of the Park.

3. There are also several areas where the GSIP learned from the SIP experience, including:

a. **Location.** The park was placed not far from the capital of Belarus and in close proximity to various transportation routes, including Minsk International Airport. This will not only allow for goods, equipment and services to be delivered on time, but also for the local population to travel conveniently to/from work in the Park.

b. **Planning.** The work on the Park creation adopted a "planning comes first" philosophy stemming from the experience of China-Singapore cooperation. Once the planning was finalised and agreed the master plan remains unchanged for the whole period of the project.

c. **Management structure.** The model of cooperation being used by Belarus and China in this project mostly resembles the one used while creating the SIP. In particular, it was agreed to establish a privately driven entity with direct access to national government support. The Industrial Park Development Company in Belarus (with majority shares belonging to the Chinese) is analogous to The China-Singapore Suzhou Development Company, except for the fact that in the case of Belarus there is a minority shareholder from Germany. The administration of the GSIP is analogous to the Suzhou Industrial Park Administrative Committee (SIPAC). The next upper level is represented by the Joint Interagency Working Group on the Chinese-Belarusian Industrial Park, equivalent to the China-Singapore Joint Working Committee. Lastly, the top level of the Belarusian-Chinese cooperation is represented by the Belarusian-Chinese Intergovernmental Committee on Cooperation, which is equivalent to the Chinese-Singapore Joint Steering Committee.

d. **Standards.** High standards must be applied from day one and not only for businesses, but also for infrastructure and communication. Industrial production produces a lot of waste and causes most air pollution. That is why it is necessary to make sure that the local natural environment will be safe once the park is fully operational. As a result, in 2017, the GSIP was the first in Belarus to receive Eco-Management and Audit Scheme (EMAS) certification from the European Union (EU) for its pattern of ecological protection.

e. **"One-stop-shop" service provision.** One of the key successes in the Suzhou Industrial Park is the implementation of the "one-stop-shop" administration services for businesses. Evidence shows that clear and simple administrative rules and procedures required for registering a business and obtaining licences do affect investors' decisions. The presence of an efficient single window and one-stop-shop service can facilitate local and foreign investment and ensure a fast-tracked resolution of issues arising in connection with investments. Stronger incentives for governmental officials to run the park efficiently are also needed.

f. **Soft skills transfer programme.** Knowledge and technology transfer was agreed to become a part of the cooperation of the GSIP project. It should allow recipient country to learn relevant skills to quickly catch up with developed countries. That is, such a transfer would provide the much-needed impetus and opportunity for the park's residents and employees to acquire modern management skills.

4. A few areas in developing the GSIP could be improved.

a. **The link between education/training and an industry-adequate workforce for the industries in the Park are key for sustainability.** The skills gap should be taken into account, for example by designing curriculums in professional schools by industry members to match their needs and then hiring students immediately. The key success of the HTP in Minsk is partly because the HTP administration plays an important role in promoting close collaboration between the IT industry and the education and training systems in Belarus.

b. **The role between the government and the private sector at different stages of the development of the Park needs to be clarified.** Although support from the government is crucial at the beginning of the project, governments are not efficient in attracting investors. And usually the aspirations of policy-makers and actual demand from markets conflict. That is why the private sector should take the lead when the necessary regulatory environment is set up.

In summary, this paper analyses how the special economic zones instrument was embedded into the development policy of the Belarusian government. The instrument has not been utilised to its full potential due to several internal and external limitations. Based on the experience of SIP in China, developing the FEZs and the HTP in Belarus, the government of Belarus negotiated with Chinese counterparts to jointly create and develop the GSIP. The available information suggests the project has been developing successfully so far and some lessons from past experience have been applied. Once construction is completed by 2030, the full economic production of the park is estimated to be equal to the current level of Belarus's GDP. If the implementation of the GSIP is successful, this experience could be replicated across the country. This will help to upgrade Belarus' national economic model and improve significantly the business climate of the country.

Chapter 1: Introduction

Belarus's economy is expected to return to growth of 1.7 per cent in 2018, but the International Monetary Fund predicts the growth will remain around 2.0 per cent annually over the next few years if state-run heavy industries do not modernise (Reuters, 2017b). While it is politically difficult for the Belarusian government to drastically reform the state sector, the government has been designing and implementing incentives to promote business and economic development, export and foreign direct investment (FDI) inflow so that the economy will not be stuck in transition.

One of the methods includes the development of special economic zones (SEZs).[3] It is important to note, that in accordance with recent changes in local legislation: "The High Tech Park is not considered as a free (special) economic zone" (Decree number 8 "On Development of Digital Economy," 2017). Presumably, this was to exempt this institution from the regulation framework of the Eurasian Economic Union (EEU)[4], in particular the Agreement on Free (Special, Exclusive) Economic Zones in the Customs Territory of the Customs Union and Customs Procedure of the Free Customs Zone, 2010 ("Agreement on free economic zones in EEU," 2010). Nevertheless, for the purposes of this report we will consider the High Tech Park (HTP) to be an emerging stage of special economic zones in Belarus and will assess its performance based on the same set of indicators we use for free economic zones (FEZs) .

The creation of FEZs and the HTP are considered to be one of the country's most ambitious economic policies of the late 1990s and 2000s. For simplicity, in this study, the SEZs abbreviation includes FEZs, the HTP and the GSIP.

In this paper, the main focus is on the evolution of Belarusian experience in the development of SEZs from economic, geopolitical and legislative perspectives. The analysis of GSIP is of a particular interest as it is the recent form of the state's economic policy to boost investments and exports. It also absorbs previous experience of FEZs and the HTP. For Belarus, this is also a new form of cooperation with a foreign government.

[3] In this paper, SEZs are "demarcated geographic areas contained within a country's national boundaries where the rules of business are different from those that prevail in the national territory. These differential rules principally deal with investment conditions, international trade and customs, taxation, and the regulatory environment; whereby the zone is given a business environment that is intended to be more liberal from a policy perspective and more effective from an administrative perspective than that of the national territory" (Farole and Akinci, 2011).

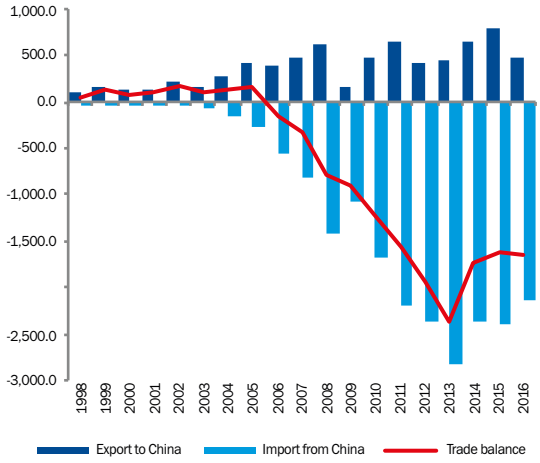
[4] The Eurasian Customs Union (EACU) is a customs union that consists of the member states of the Eurasian Economic Union (EEU). It came into existence on 1 January 2010. Its founding states were Belarus, Kazakhstan and Russia. On 2 January 2015 it was enlarged to include Armenia. The Kyrgyz Republic acceded to the EEU on 6 August 2015. The original treaty establishing the Customs Union was terminated by the agreement establishing the Eurasian Economic Union, signed in 2014, which incorporated the Customs Union into the EEU's legal framework.

China and Belarus

The Belt and Road Initiative (BRI) was launched in 2013 with the aim to support trade flows along the "Silk Road Economic Belt" and the "21st Century Maritime Silk Road". Other regions along the way are also involved. In the long run, the project will enable China to take a larger role in global affairs and expand its trading network.

Given the fact that a large part of the "belt" stretches along the territory of the Eurasian Economic Union, it requires China to deepen its economic relationships with at least four EEU countries: Russia, Belarus, Kazakhstan and the Kyrgyz Republic. These countries are therefore pivotal to extending the Silk Road Economic Belt westward and northward. That is why some experts consider developing close cooperation with the EEU as "key to the success of BRI" (Hu, Liu and Yan, 2017). At the same time, the EEU countries have also been seeking cooperation with China in economic and political spheres. Since the early 2000s, Belarus has relied heavily on China in terms of trade and investment (Bohdan, 2017).

Chart 1. Merchandise trade between Belarus and China, US dollar millions



Source: the IMF DOTS Database

The structure of collaboration between Belarus and China has evolved significantly and represents sophisticated and well-structured architecture (see Appendix 1).

The share of Chinese imports increased from 0.6 per cent in 2003 to almost 8.0 per cent in 2016. It made China the second most important trading partner of Belarus (see Chart 1).

Belarus sees China as a strategic partner. Recently, the Chinese Minister of Commerce Fu Ziying described the relationship between the two countries as a "transformation of the Belarusian-Chinese cooperation from credit to investment partnership". (CTV, 2017).

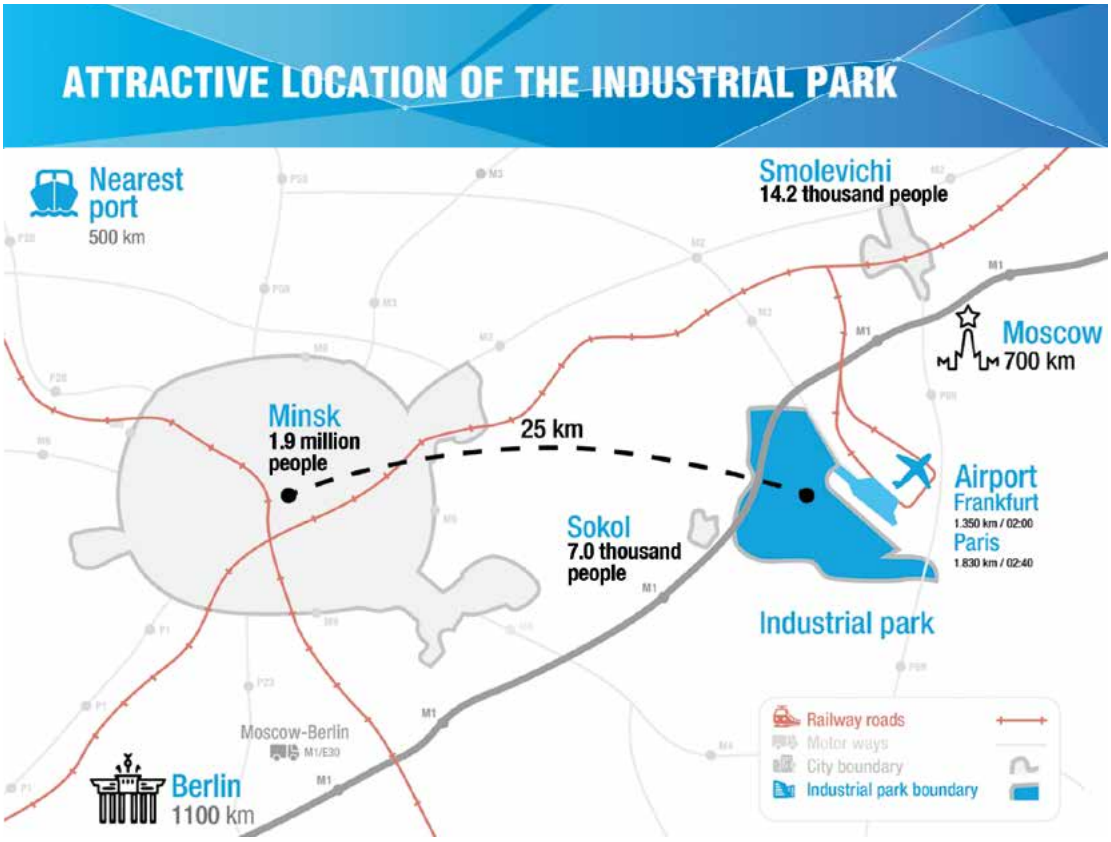
Chinese experience in developing overseas SEZs and the GSIP

The Great Stone Industrial Park project is the most important joint project signed by the two governments, with strong political support. The Park started development after the announcement of the Presidential Decree number 253[5] on the creation of the GSIP, which was enacted in 2012. The GSIP in the Minsk region is not only the largest overseas industrial park in which China has invested, but also the largest foreign investment project in Belarus (See Picture 1).

Together with the construction of the Moscow–Kazan High-Speed Railway, the GSIP, the China–Kazakhstan Border Cooperation Zone and other key infrastructure projects, economic and trade relations between China and EEU countries will be further strengthened.

Industrial parks are by no means a Chinese invention, which began decades earlier in developed countries. However, China has been efficient in adopting the model: to such an extent that other developing countries are turning to China to help them follow the same development path.

Picture 1. Location of the Great Stone Industrial Park



Source: The Industrial Park Development Company

[5] The Decree number 253 defines specific characteristics of doing business in the park as well as incentives and benefits offered for residents and investors.

The policy on developing overseas special economic zones officially established in 2006 built on earlier overseas experiments and was announced in the 11th five-year plan of the Chinese government. For more than a decade, Chinese companies had already ventured into establishing a variety of overseas industrial and trade zones. For example, in 1999, the Chinese government signed an agreement with Egypt to assist in the establishment of an industrial zone in the Suez economic area. Also in 1999, the Chinese appliance firm Haier built its first industrial complex outside of China: a 46-hectare industrial park in South Carolina, United States of America. Fujian Huaqiao Company built an industrial and trade zone in Cuba in 2000. In 2001, Haier and a Pakistani company, Panapak Electronics, constructed a joint industrial park near the Pakistani city of Lahore. A Chinese company began to build an industrial zone in the Chambishi area of Zambia in 2003. In 2004, China Middle East Investment and Trade Promotion Center and Jebel Ali Free Trade Zone constructed a US$ 300 million trade centre, designed to host 4,000 Chinese companies in Dubai. Similarly, also in 2004, Tianjin Port Free Trade Zone Investment Company and the United States Pacific Development Company set up a Chinese trade and industrial park in the South Carolina city of Greenville. Thus, the decision to establish overseas zones as a part of the "going global" policies was made after Chinese companies already had set up industrial and trade zones overseas.

Under the rigorous promotion of the Belt and Road Initiative, China is also establishing more overseas development zones and industrial parks in collaboration with relevant countries to promote trade and investment, including in many of the economies in which the EBRD invests, such as the China-Russia Silk Road High-tech Industrial Park (development stage); the China-Uzbek industrial park "Panshan" near Tashkent (ongoing); the Chinese-Serbian industrial park near Pupin Bridge in Belgrade (development stage); industrial parks in the Suez Canal Economic Zones in Egypt (ongoing); the free economic zone in the Kyrgyz Republic (development stage); and the Khorgos free economic zone in Kazakhstan (ongoing).

Recent studies related to the SEZs in Belarus

Until now, there have been few attempts to study the Belarusian government's implementation of the special economic zones mechanism in a national economic model. Only very few papers in Russian or English have been written on the HTP or GSIP. The Ministry of Economy of Belarus usually issues analytical papers discussing the performance of economic regimes and SEZs. Local consulting companies always include SEZs as part of traditional business guides. A recent study of local FEZs and policy advice on improving efficiency deserves more attention (Tochitskaya, Kirchner, & Wogler, 2016) because its analysis was based on the assessment of FEZs' contribution to the national economy in export/import operations, job creation and attracting FDI.

However, most of the other existing studies are descriptive rather than analytical. They offer an overview of the current situation of individual special economic zones rather than a comparative study. For instance, in 2017 Ernst & Young released a report titled "The IT industry in Belarus: 2017 and Beyond" (Voroshilov & Domnitch, 2017). It uses statistical analysis of the Belarusian IT industry based on interviews with the people leading many IT companies and a survey conducted among the top Belarusian IT companies. In 2014 and 2016, Revera Consulting Group published short reports related to the HTP regulations that are very useful as a source of information for businesses (Mourashko, 2014, 2016). Most analytical papers written by Belarusian scholars covered the history of formation and development of FEZs based on a descriptive approach.

Despite 20 years of operation of the FEZs, 10 years of the HTP and almost five years of development of the GSIP, many important challenges remain. For instance, there is a lack of systematic data driven-analysis of the performance of SEZs in Belarus. Second, there is an absence of policy papers assessing the Belarusian government's policy from the perspective of international experience. Third, there is no clear understanding how and whether the Chinese model of business and management practices could be effectively adopted in the GSIP without contradicting established principles governing the country's political system and society.

Objectives of the paper

This study aims to address some of these gaps and to deliver both data-driven and policy-focused analysis. It is important to look at the evolution of the SEZs in Belarus considering all three types as elements of the one chain. This approach will help to identify similar aspects and differences in formation of their business models. We also compare the performance of SEZs with the regular economic policies of Belarus. In general, the report focuses on the evolution of the Belarusian government's experience and approaches in utilising different policy instruments for FDI attraction and export promotion. At the same time, we do not focus on the assessment of the SEZs' impact on the national economy.

The GSIP is of a particular focus, since it is the most recent mechanism of international cooperation of the two governments. Successful implementation of the Chinese experience in Belarus means the government could replicate it regionally. This can assist the upgrade of its national economic model and move the country closer to a market-based economy. The GSIP project also includes knowledge and "soft" skills transfer (from China) to overcome poor governance in the country. Since the government promoted a "pro-stable" management policy with a lack of initiative and entrepreneurial approach in civil service, this looks a rather challenging task for local bureaucracy. We look at this too in order to identify weaknesses and opportunities. Lastly, the paper suggests certain areas of policy recommendations to implement in the GSIP as the flagship project of the BRI.

Chapter 2: Regulatory framework and performance of FEZs in Belarus

The creation of FEZs in Belarus is an attempt by the Belarusian government to introduce economic policy targeting the generation of FDI, export promotion, to some extent, supporting private sector development and enhancing the implementation of spatial industrial policy. The ultimate aim should be structural change in the local economy.

In the 1990s, Belarus started to establish FEZs after a two-year comprehensive study of relevant international experience. In particular, the Republic of Ireland's Shannon Free Zone model was used as an example at the initial development stage of the FEZ "Brest", the first economic zone established in Belarus. With the Shannon experience in mind, the Belarusian government ensured that the FEZ "Brest" was close to a transport hub, and necessary incentives including special tax rates were given to investors in order to attract inward investments. However, not enough attention was paid to nurturing domestic businesses, and there is no dedicated local team that has autonomy in decision-making related to the development of the FEZ "Brest" away from the central government supervision.

Overview of the development of FEZs

In 1996, the Free Economic Zone "Brest" was created in the western part of the country according to a Presidential Decree number 114 (Decree 114 "On Free Economic Zones on the Territory of the Republic of Belarus," 1996). Two years later, another two FEZs were created. General legislation related to FEZs in Belarus was also adopted. By 2002, all regions of Belarus could offer an attractive business environment of FEZs to both foreign and local investors.

In accordance with legislation, every FEZ is considered to be part of the territory of the Republic of Belarus with strictly defined boundaries and a special legal regime for more favourable conditions of doing business compared with the rest of the country.[6] In fact, the government of Belarus did not change its general approaches towards the formulation of economic policy and promoted two policy instruments that are sometimes considered mutually exclusive: export promotion and import substitution. Nevertheless, the country has declared FDI to be a central component of investment and industrial policies across FEZs.

The fact that general legislation was only created after the local FEZs became mature has positive effects on their operation for two major reasons: (i) it provided an opportunity to understand the viability of this instrument and if it is worth implementing in Belarus, and (ii) it granted the government extra time for legislation preparation in order to avoid politically motivated decisions so that the local business environment and culture can also be taken into account. According to Farole & Akinci (2011), for those FEZs that are run successfully, policy-makers often work closely with the private sector to evolve zone policy in light of changing needs. Besides, putting in place a clear and transparent legal and regulatory framework can establish the "rules of the game" for all stakeholders involved in the process.

[6] "Free economic zones are created with a view of facilitating the social and economic development of the Republic of Belarus and individual administrative and territorial units, attracting investments in the creation and development of export-oriented and import-substituting industries based on new and high technologies and/or for other purposes determined at creation of the free economic zone" (Law On Free Economic Zones, 1998a)

There are six FEZs in Belarus, one per region. They cover as little as 0.12 per cent of the total area of Belarus. This is 0.05 percentage point more than in 2002 due to the inclusion of additional companies as residents of FEZs before 2011 and enlargement in 2011 in accordance with the Presidential Decrees number 481 (2012) and number 508 (2016). From an economic policy application point of view, Decree number 481 is considered to be a more mature piece of legislation and is worth analysing in detail, but unfortunately the full text is not available publicly.

The idea behind the Presidential Decree number 481 was directly related to the requirements of international documents the government of Belarus signed with Russia and the Republic of Kazakhstan when the Customs Union was established. Agreement on FEZs in the Customs Union[7] sets up the procedure for their establishment, their operation and termination on the customs territory of the Customs Union. According to the Agreement, 2016 was set as the final year of granting exemptions to the FEZs' residents from payment of customs duties. Members agreed that starting from 2017, this exemption will be discontinued. Meanwhile, FEZs' residents were granted a transitional period until 2017, during which the customs privileges outlined in the national laws of countries of the Customs Union remained in effect. However, this only applies to the resident companies registered before 2012. Those registered after are not granted such a benefit. To provide these companies with equal conditions, governments offered adequate compensational measures (such as, exemption from obligation to pay for land lease). Those measures were supposed to be as good as initial benefits for the FEZs' residents (BelTA, 2011). In fact, Decree number 481 not only triggers the expansion of boundaries of all FEZs in Belarus, but also results in the inclusion of approximately 70 new residents located in the expanded areas.

Starting from 2017, FEZs in Belarus reduced some incentives previously provided to residents due to the introduction of the Customs Code of the Eurasian Economic Union. For example, they abolished the exemption of paying customs and tax duties on import of raw materials and components/parts to produce goods. Starting in January 2017, all imported materials by the FEZs' residents are considered to be of foreign origin and subject to taxation. As a result, the Belarusian government issued Decree number 508 to balance out the financial losses of residents and maintain their competitiveness in the international market.

Location

Based on the Shannon experience, policy-makers in Belarus considered good location to be an important condition for the successful operation of FEZs, and thus located each either on the territory of big cities or close by in the initial phase (Picture 2).

Picture 2. Location of Free Economic Zones in Belarus

Source: https://www.mapsofworld.com

[7] For more information visit: http://www.tsouz.ru/Docs/IntAgrmnts/Pages/soglsez.aspx

However, later the government applied an extraterritoriality approach to the zones which changed the rules of the game. It became possible for other companies, be they a new business or a traditional, large state-owned enterprise (SOE), to be registered as a FEZ resident. In this case, a company located in the distance from the initially assigned territory of FEZ was granted an opportunity to be included as a zone resident. The residents are thus subject to a regulation applicable to FEZs which enables them to be exempted from the jurisdiction of national law which somehow creates an uneven playing field for small and medium-sized enterprises (SMEs) and their peers in the same industry.

But even in this modified form, utilising the FEZ mechanisms in Belarus is viewed as a positive factor for development taking into account the local resources available and the proximity of the Russian market.

Preferences/incentives overview

Typically, fiscal and in-kind incentives are the most popular part of the policy package to attract investors in SEZs. Fiscal incentives often take the form of investment and doing business tax incentives, and evolved in a "standardized" package of fiscal incentives among zones across the world: corporate tax exemptions, VAT exemptions, customs duties exemptions, duty free imports, and exemptions from foreign exchange controls.

At present, FEZs' residents in Belarus enjoy the following main tax benefits (More information can be found in Appendix 2.):

- exemption from income tax for the sale of own-produced goods (works, services) within 10 years from the date of income declared (for FEZ residents registered after 31 December 2011; five years – for those registered not later than 31 December 2011); further this tax is paid at a general rate reduced to 50 per cent, but not more than 12 per cent
- exemption from income tax on objects located on the territory of respective FEZs within three years as from the quarter of registration as a FEZ resident
- option to apply the customs procedure of the free customs zone, which provides the right to: import goods (raw materials), without payment of customs duties and VAT with their further processing and (or) export outside the country members of the Customs Union without paying customs duties. A major modification for FEZ residents is that as from 1 January 2017 customs privileges on goods produced by FEZ residents and supplied to a customer located within the customs territory of the EEU (Customs Union) were removed. As from this date, there have been no customs privileges for FEZ residents registered before 1 January 2012 in the course of their delivery of goods to a customer located within the customs territory of the EEU (Customs Union). The customs privileges do not apply to those residents registered on or after 1 January 2012.

In addition to fiscal benefits there are a number of in-kind incentives governments tend to provide to residents. For instance:

- the pro-business approach of administrations of FEZs
- favourable geographic location: short distance to the EU cities as well as proximity of the Russian market
- a minimum required infrastructure, in particular, roads and engineering facilities (electricity, heating, gas pipeline and sewerage) has been provided at the expense of Belarus
- visa-free entry to Belarus for citizens of 80 countries.

Land relations in free economic zones, however, are not exempt from general regulation and there is no private ownership option for residents, unlike in the case of the GSIP.

Institutions and management of FEZs

According to the national legislation, institutional and management structure of each of the six FEZs in Belarus does not differ and represents a four-level system that reflects a traditional approach towards state regulation (see the details in Appendix 3). Each level has its own responsibilities and rights, but important changes could only be implemented with approval from the President of Belarus. For instance, rights to create, liquidate or change boundaries are exercised by or with permission of the President. General control over the functioning and efficiency of activities of free economic zones is exercised by the Council of Ministers of the Republic of Belarus, the Committee of State Control of the Republic of Belarus, and respective regional (Minsk City) executive committees. There has been a lot of criticism of the fact that administrations of FEZs have double subordination in the country that causes a conflict of interest and inefficiencies. For instance, the administration of a free economic zone is led by the head appointed by the Council of Ministers of the Republic of Belarus. The candidates are normally proposed by the respective regional (Minsk City) executive committee. However, deputy heads of the administration are appointed by the head of the administration on agreement with the respective regional (Minsk City) executive committee.

Objectives and performance assessment

The objectives were included in the presidential decrees on creating FEZs in Belarus and later summarised in Article 3 of the Law On Free Economic Zones. Generally speaking, they were created to strengthen the economic development of regions by attracting FDI and promoting exports. According to the Law On Free Economic Zones (1998b), the objective of any FEZ in Belarus is to "facilitate the social and economic development of the Republic of Belarus and individual administrative and territorial units, attracting investments in creation and development of export-oriented and import-substituting industries based on new and high technologies". Accordingly, we will use the following indicators to evaluate the performance of FEZs in Belarus:

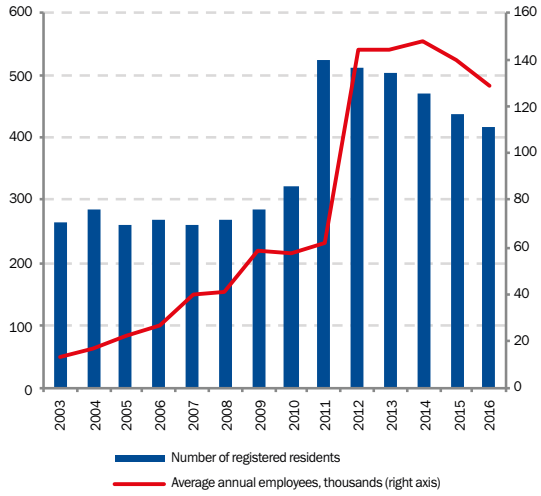
- number of residents
- average employment rate
- average monthly salary
- volume of industrial output
- FDI inflow
- export/import operations
- revenue
- net profit
- taxes paid
- fixed capital investments
- government's expenditures on infrastructure of FEZs.

The performance assessment consists of three complementary elements: (i) each indicator and its growth rate will be examined in order to understand the longer term impact; (ii) the FEZs' contribution to the national economy and performance against it will be assessed; and (iii) per capita comparison of selected indicators will be analysed in order to evaluate preferential regimes.

Classification of residents

Statistical data suggests that the FEZ economic policy tends to be successful in attracting new businesses; however this trend reversed after inorganically accelerated growth in 2011. From 2003 until 2011 the number of residents increased at an annual average rate of 2.5 per cent as opposed to a 4.0 per cent annual decline starting from 2011. At the end of 2016, all six Belarusian FEZs accommodated about 400 residents (see Chart 2). However, there is no limit on the number of residents allowed in the FEZs, and none of them have reached their capacity yet, especially with the application of the extraterritoriality approach.

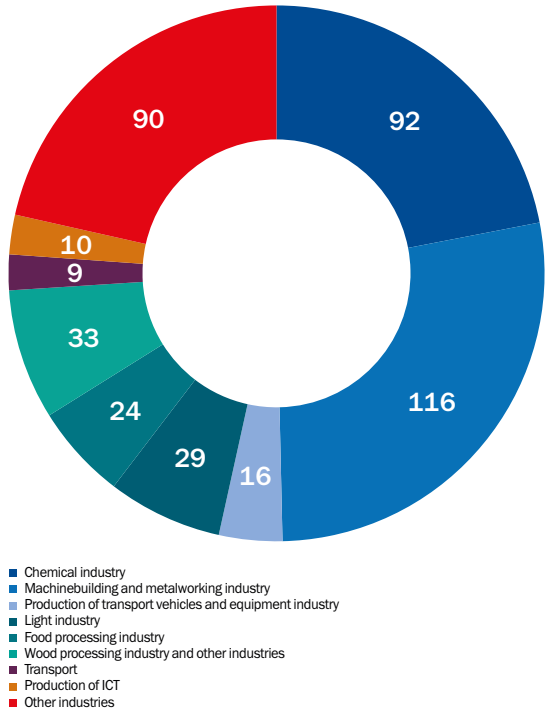
Chart 2. The FEZs residents' statistics



Source: Belstat

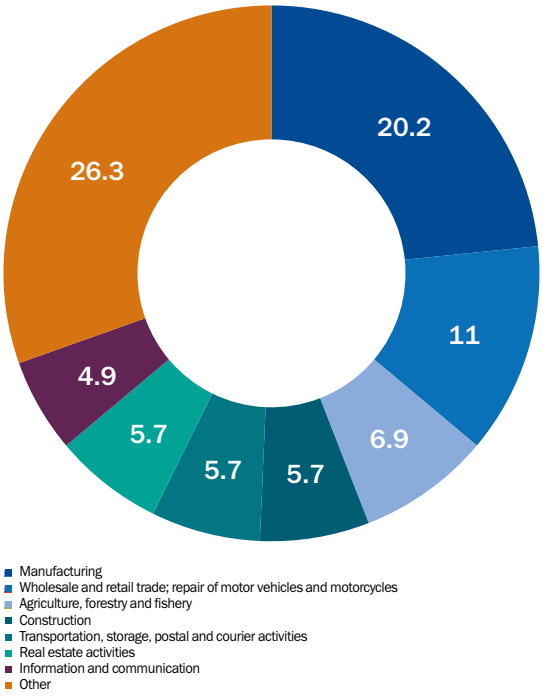
The composition of the FEZs residents by category of economic activity has not significantly changed since 2003 with industrial production being a major business activity. The majority of residents were concentrated in the machine building, metalworking and chemical industries. These sectors, along with food processing and light industry are the traditional sectors that contribute to the majority of GDP in Belarus. FEZs are not considered to be an effective tool to generate significant shifts to the development of new sectors in the economy (see Charts 3.1 to 3.3).

Chart 3.1. Distribution of the FEZs residents across industries in 2016



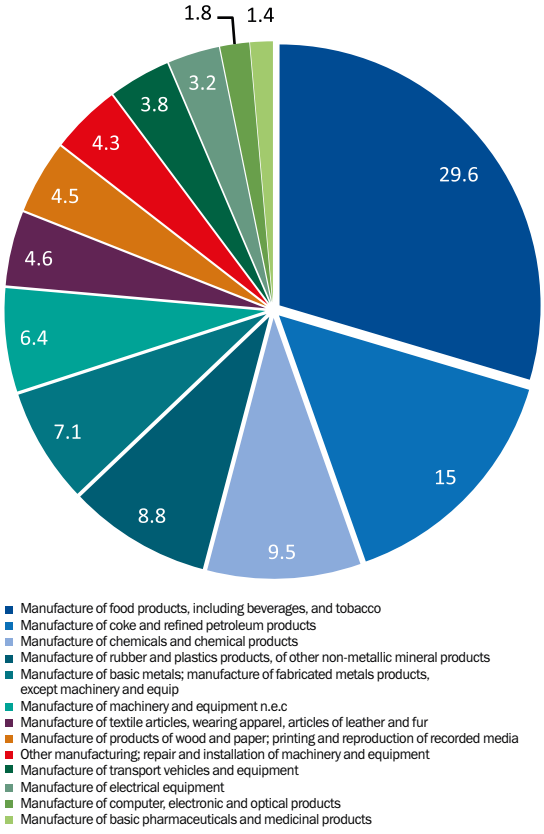
Source: Belstat

Chart 3.2. Structure of gross value added in Belarus in 2016, %.



Source: Belstat

Chart 3.3. The structure of manufacturing in Belarus in 2016, %

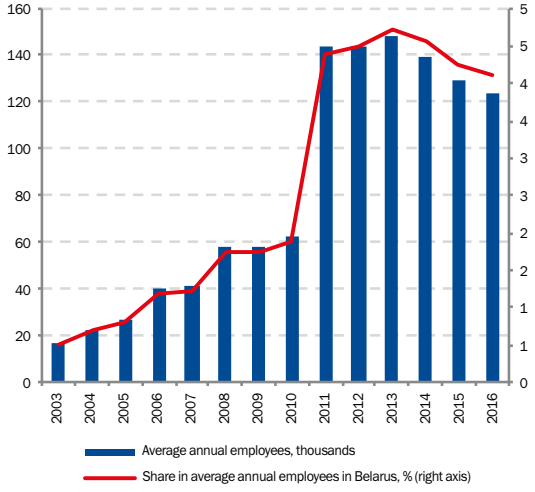


Source: Belstat

Employment and salary

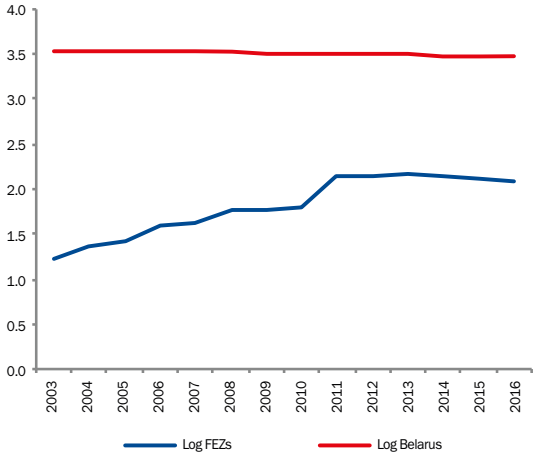
As part of the national economy, Belarusian FEZs have not generated a significant amount of job opportunities and their contribution to the national economy has never exceeded 5 per cent, of which more than a half was generated by the inclusion of new residents in 2011. At the same time, annual average employees growth rate was as high as 17.7 per cent before 2011 (or 15.7 per cent from 2003 to 2016). This is a significant level of change against a 1.8 per cent backdrop of the average level of employment in the country before 2011 (or around 1.0 per cent from 2003 to 2016) (see Charts 4 and 5). It is not obvious whether residents grow much in scale. According to the data from 2012-16, the number of residents has the primary influence over the level of employment in FEZs.

Chart 4. Employment at FEZs



Source: Belstat

Chart 5. Changes in average number of annual employees

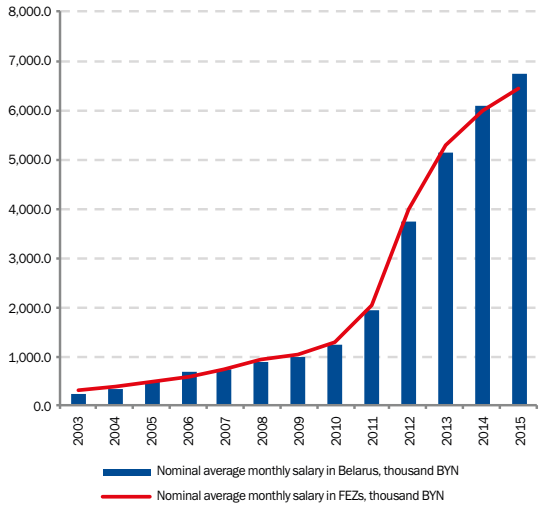


Source: author's calculation based on the Belstat data

Note: we use Log function to produce a smooth average to compare changes of 2 average employment numbers: the FEZs' versus the country's.

It is also worth mentioning that even though residents were granted economic privileges directly related to the costs of production, employees in FEZs have not received a higher salary than the rest of the Belarusian workforce (see Chart 6).

Chart 6. Nominal average monthly salary



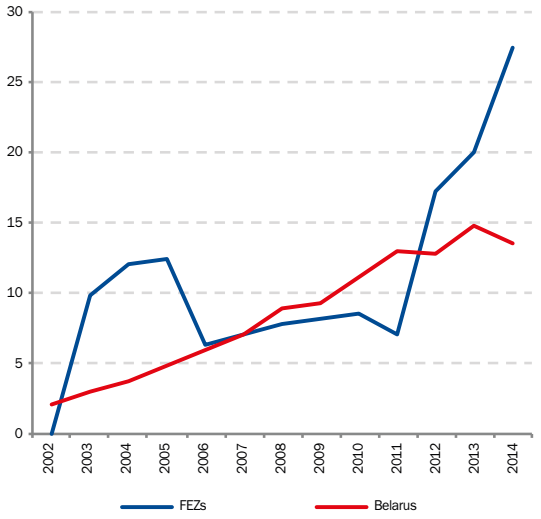
Source: author's calculation based on the Belstat data

Note: values for 2016 were not plotted because of the devaluation of local currency. These values would be relatively small and changed the trend. Once adjusted for devaluation effect both indicators are rising and the FEZs' value is higher by 1%.

However, the productivity level in FEZs in 2002-16 was on average 2.5 times higher compared with the rest of the economy (see Chart 17). Ability to deliver a "living wage" is probably the most important aspect for the social impact of the FEZs. However, FEZs have been criticized for not being capable of producing higher outcomes for the population given the privileges they were granted.

At the same time, one possible explanation of the low salary level could be the fact that residents reinvested the majority of their profit in comparison to other companies outside the zones (see Chart 7a to 7b).

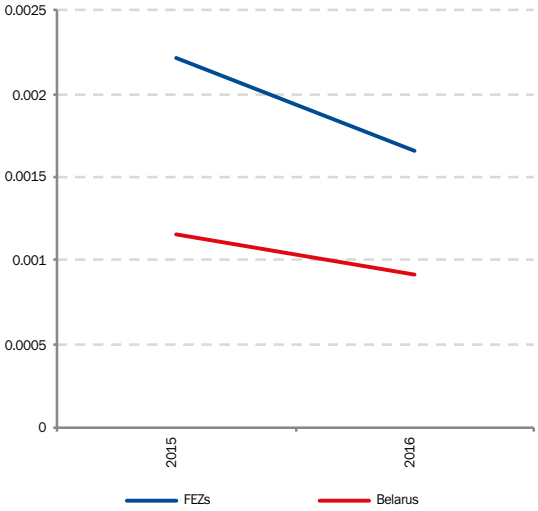
Chart 7a. Fixed capital investments, million 2006BYN[8]



Source: author's calculation based on the Belstat data

[8] In this paper, BYN stands for Belarusian rouble, and 2006BYN is the notation for constant prices of 2006, which makes data comparable across different periods.

Chart 7b. Fixed capital investments



Source: author's calculation based on the Belstat data

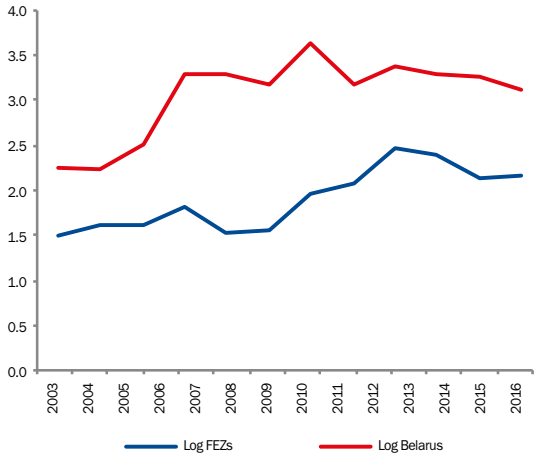
Nevertheless, due to the unavailability of statistical data it is impossible to evaluate either gender-specific information or the quality of jobs created in FEZs.

Foreign investments

The success of the FEZs is closely linked to the competitiveness of the national economy. There is a strong correlation between the FEZs' outcome and the level of national competitiveness and the national investment environment (Farole & Akinci 2011). In fact, GDP per capita (proxy for domestic market potential), rate of secondary school enrolment (proxy for quality of human capital), inflation rate (proxy for macroeconomic stability), and private property rights protection (proxy for quality of institutions) are the most important factors that influence FDI inflow (Knuth & Volokhnovich, 2016).

Statistical data demonstrates virtually the same trends in net FDI inflow in the FEZs and the national economy: growing from 2003 until 2013 with spikes in 2007 and 2011, and a decline starting from 2013. The contribution of the FEZ in total flow of FDI in the country varied from as low as 1.7 per cent to the highest value of 24 per cent, reached in 2004. Comparing per capita values of this indicator the FEZs seems to perform better than the rest of the economy. It also positively contributes to the country's competitiveness, although there is plenty of room for improvement (see Charts 8 and 9).

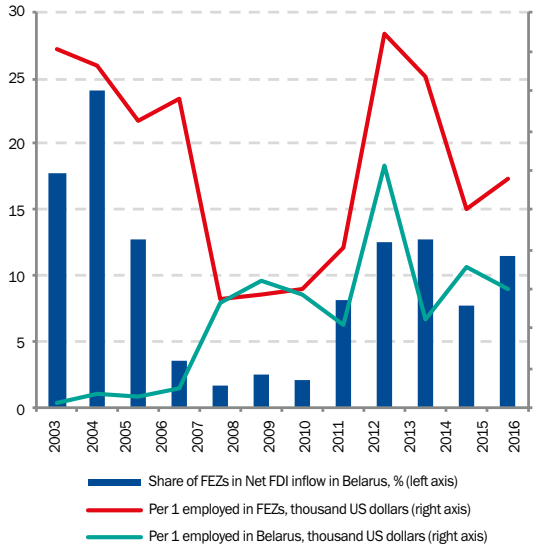
Chart 8. Net FDIs inflow



Source: author's calculation based on the Belstat data

Note: we use Log function to produce a smooth average to compare changes in the indicator for the FEZs' and the country's values.

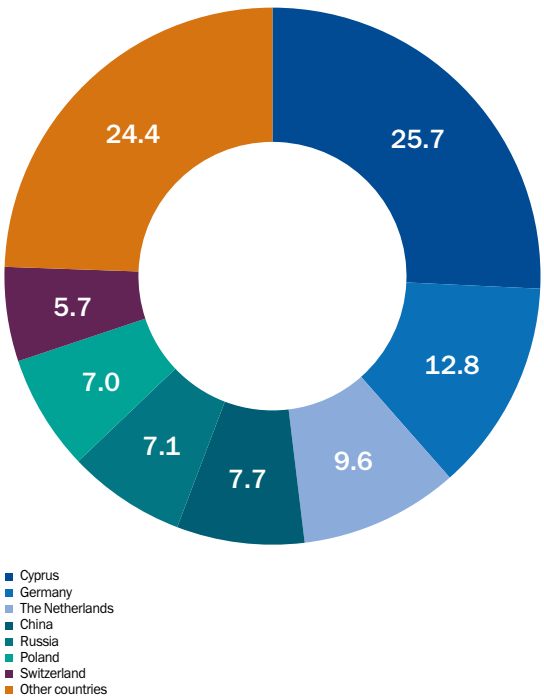
Chart 9. Performance of the FEZ regime in net FDI inflow



Source: author's calculation based on the Belstat and UN COMTRADE data

For the entire history of operation of FEZs in Belarus investors from Cyprus, Germany and the Netherlands were most active in contributing as much as half of the direct investments stock. Businesses from China, Russia and Poland also found the FEZs instrument attractive for expansion (see Chart 10).

Chart 10. Country decomposition of FDIs stock in 2016, %



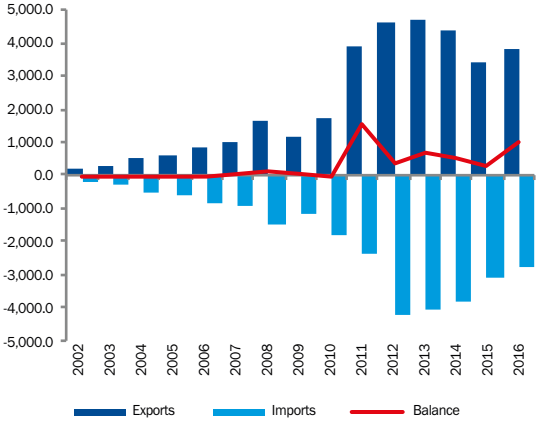
Source: Belstat

Foreign trade

Belarus is a country with an open economy that is highly involved in export-import operations. Foreign trade reached its peak in 2012, exceeding GDP by almost 50 per cent. Belarus trades with more than 120 countries, but remains in a very close economic relationship with Russia: around 60 per cent of both export and import operations have been historically related to Russia.

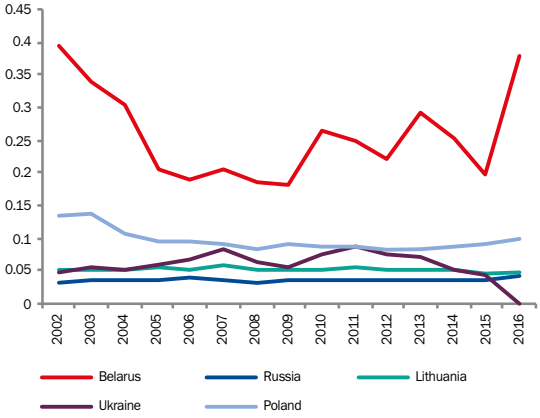
When it comes to evaluation of the foreign trade potential of FEZs, critics of the government's economic policy argue that the incentives offered to zones may lead to an increased demand for imports without an equivalent increase in exports, thereby threatening the trade balance of the country. While this might be the case for some zones, the trade balance of Belarusian FEZs tends to stay positive with a few negative occurrences during the reported period (see Chart 11). This trend does not correlate with the country's foreign trade that fluctuates in the range of negatives 0.5 per cent to 17 per cent of GDP. Equally important, the structure of the real sector of Belarus has been developed in such a way that the increase in exports of industrial products leads to the rise of imports of raw materials. Another essential point is that the market concentration index for Belarus is considered to be high (see Chart 12). The concentration of Belarusian merchandise exports began to fluctuate which renders an economy vulnerable to external shocks (The World Bank, 2012).

Chart 11. FEZs merchandise trade, by value in thousand US dollars



Source: the UN Comtrade Database

Chart 12. Market Concentration Index for Belarus



Source: The World Integrated Trade Solutions

Note: Hirschman Herfindahl index is a measure of the dispersion of trade value across an exporter's partners. A country with trade (export or import) that is concentrated in a very few markets will have an index value close to 1. Similarly, a country with a perfectly diversified trade portfolio will have an index close to zero.

The top five partners for merchandise imports in the FEZs were Russia, China, Poland, Germany and the USA, accounting for almost 65 per cent of total imports. The shares of the CIS and non-CIS markets increased practically at the same rate. However, imports from Russia, China, the USA, Norway and Switzerland grew significantly. Businesses from these countries have been active since the beginning of FEZs and contributed a significant part of imports and investments (see Table 1).

Table 1. Imports by FEZs (Value in thousand US dollars, growth and shares in percentage)

Country	2016	Average growth rates		Share
		2003-16	2015-16	
Total	**2,757,830**	**16.9**	**-6.1**	**100.0**
from the CIS countries	**1,030,410**	**21.6**	**7.7**	**37.4**
Russia*	896,995	19.3	7.6	87.1
from the non-CIS countries	**1,727,420**	**15.0**	**-12.1**	**62.6**
Germany*	226,009	4.5	0.7	13.1
Italy*	132,041	9.6	29.2	7.6
China*	330,422.1	30.3	-35.4	19.1
Norway*	96,249.9	24.0	6.4	5.6
Poland*	165,741.5	3.2	-6.0	9.6
USA*	136,238.7	28.4	25.6	7.9
Switzerland*	80,385.9	28.0	-19.5	4.7

Source: Author's calculation on the Belstat data

Note: * - data for 2005-16

The top three destinations for merchandise exports in 2016 were Russia, Ukraine and Poland, accounting for 82 per cent of total exports. Besides, exports to the CIS countries dominated during the whole period and formed about 80 per cent of the total exports at the end of 2016 (see Table 2). Most importantly, despite the inorganic enlargement at the end of 2011, the country structure of both imports and exports operations has not changed, with domination of the CIS countries in the FEZs export and non-CIS countries in imports.

Table 2. Exports by FEZs (Value in thousand US dollars, growth and shares in percentage)

Country	2016	Average growth rates		Share
		2003-16	2015-16	
Total	**3,783,200**	**19.7**	**4.9**	**100**
to the CIS countries	**3,090,086**	**18.7**	**4.8**	**81.7**
Russia*	2,551,547	15.6	5.1	82.6
Ukraine*	359,853	24.8	-10.1	11.6
Kazakhstan*	89,909	26.1	-5.1	2.9
to the non-CIS countries	**693,114**	**26.4**	**5.5**	**18.3**
Poland*	197,964.4	35.6	4.5	28.6
Lithuania*	129,888	19.7	2.0	18.7
Germany*	65,091	13.6	3.2	9.4
The Netherlands**	31,064.5	12.4	-0.7	4.5
Georgia*	26,482.9	47.2	160.8	3.8
Latvia*	26,358.4	25.6	1.2	3.8
USA*	24,230.2	34.1	11.6	3.5

Source: Author's calculation on the Belstat data

Note: * - data for 2005-16, ** - data for 2008-16

However, data for the distribution of imported and exported commodities before and after the inorganic FEZs enlargement show that the commodity structure changed because of large export-oriented companies being included as residents of FEZs in 2011. As a result, export of tires by BELSHINA JSC, which was set up in 1963 in Bobruisk (approximately 100 km away from the FEZ "Mogilev") and is now not only the largest tire-producing company among the former Soviet Union countries, but also one of the world's largest tire-makers, became the number 1 exporter in the FEZs (see Tables 3 and 4).

Table 3. Top 10 export commodities by FEZs in 2006-11 (Value in US dollar thousands)

HS code	4-digit heading of Harmonized System 2017*	2006	2007	2008	2009	2010	2011
	All commodities	**828,033.00**	**998,671.80**	**1,608,941.40**	**1,161,373.00**	**1,745,755.60**	**2,265,011.70**
3923	Plastic articles for the conveyance or packing of goods; stoppers, lids, caps and other closures of plastics	31,273.20	55,613.30	106,509.90	115,059.20	159,038.50	193,860.40
8544	Insulated wire, cable and other insulated electric conductors	23,426.80	40,778.40	50,210.00	34,423.40	130,288.90	171,161.70
9403	Furniture and parts thereof	114,659.20	153,077.90	172,326.90	71,348.40	85,645.00	115,821.10
1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs.	74,843.60	94,242.30	119,890.80	79,242.30	87,173.40	108,666.40
5503	Synthetic staple fibers			78,245.00	67,385.00	90,292.80	88,441.20
6115	Hosiery; panty hose, tights, stockings, socks and other hosiery			46,060.20	50,765.80	74,743.60	88,190.40
7604	Aluminum bars, rods and profiles.	4.2	45,354.70	57,758.50	37,805.30	58,582.20	76,006.90
3907	Polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polyallylesters and other polyesters, in primary forms.			78,414.90	55,797.10	71,555.70	72,830.00
7308	Structures of iron or steel and parts thereof	18,753.60	31,435.30	41,675.50	30,516.00	41,740.00	67,409.90
1601	Sausages and similar products, of meat, meat offal or blood	51,110.30	40,443.60	47,089.50	37,588.40	41,229.90	58,961.80

Source: Author's calculation on the Belstat data

Note: * - headings are adjusted to fit the table

Table 4. Top 10 export commodities by FEZs in 2012-16 (Value in US dollar thousands)

HS code	4-digit heading of Harmonized System 2017*	2012	2013	2014	2015	2016
	All commodities	**4,682,649.70**	**4,732,932.50**	**4,337,171.40**	**3,438,206.60**	**3,783,199.70**
4011	New pneumatic tyres, of rubber.	696,671.20	602,971.80	379,101.40	246,465.30	224,432.50
4410	Particle board, oriented strand board (OSB) and similar board of wood or other ligneous materials, whether or not agglomerated with resins or other organic binding substances.			21,293.00	110,244.80	184,506.30
3923	Plastic articles for the conveyance or packing of goods	217,191.60	242,638.90	222,575.90	154,247.60	168,840.00
3105	Fertilizers; mineral or chemical	142,424.90	136,987.70	146,091.10	156,533.60	159,649.10
8544	Insulated wire, cable and other electric conductors, connector fitted or not	223,909.00	203,509.90	199,312.10	157,418.60	156,869.60
9403	Furniture and parts thereof	147,971.90	194,561.70	217,521.60	169,333.40	150,531.10
1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs.	123,182.90	143,598.90	152,260.30	104,186.30	115,262.30
3907	Polyacetals, other polyethers and epoxide resins, in primary forms	120,064.60	116,895.20	88,206.20	81,498.70	87,917.80
6115	Hosiery; panty hose, tights, stockings, socks and other hosiery	103,483.40	112,708.20	99,641.50	76,766.00	83,993.80
3920	Plastics; plates, sheets, film, foil and strip (not self-adhesive)	73,199.70	82,581.00	75,776.40	76,741.20	74,463.10

Source: Author's calculation on the Belstat data

Note: * - headings are adjusted to fit the table

Tables 5 and 6 suggest that the structure of the FEZs imports also changed in 2012 compared with the one observed in previous years. A good example that illustrates how the structure of import operations evolved over time is BELGEE JCSC. While being located more than 60 km away from the original territory, the company was registered in the FEZ Minsk in 2012 and stimulated a flow of direct investments and imports from China. As a result, imports of motor vehicles bodies increased substantially, reaching its highest point in 2016 and becoming the number one imports commodity of FEZs.

Table 5. Top 10 imports commodities by FEZs in 2005-11 (Value in US dollar thousands)

HS code	4-digit heading of Harmonized System 2017*	2005	2006	2007	2008	2009	2010	2011
	All commodities	**618,618.7**	**869,837.3**	**947,542.6**	**1,515,294.9**	**1,138,224.5**	**1,585,667.1**	**3,611,468.3**
0203	Meat of swine, fresh, chilled or frozen.	21,238.9	22,709.4	7,094.7	43,202.6	29,803.0	30,723.9	126,874.7
2905	Acyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives.				78,235.9	40,771.5	72,513.2	111,110.0
2917	Polycarboxylic acids, their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives.				24,929.9	31,573.1	59,919.1	87,352.0
8607	Parts of railway or tramway locomotives or rolling-stock.		8,577.7	10,431.2	18,787.4	15,145.5	41,022.6	83,484.7
7408	Copper wire.	15,733.4	25,885.3	35,093.2	39,271.1	23,091.5	77,397.1	82,492.0
3904	Polymers of vinyl chloride or of other halogenated olefins, in primary forms.	8,390.9	13,289.1	14,814.0	21,209.5	22,833.6	47,487.3	53,191.9
7601	Unwrought aluminium.	5,117.6	12,022.6	28,101.5	37,684.4	22,347.1	39,568.7	50,950.4
8529	Parts suitable for use solely or principally with the apparatus of headings 85.25 to 85.28.		5,573.0	5,488.1			9,740.7	50,442.2
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 03.04.	16,335.9	31,109.7	32,013.9	42,201.8	49,843.2	23,235.1	50,027.1
3902	Polymers of propylene or of other olefins, in primary forms.	6,002.2	13,008.0	16,603.8	29,623.0	22,151.9	37,653.1	48,178.7

Source: Author's calculation on the Belstat data

Table 6. Top 10 imports commodities by FEZs in 2012-16 (Value in US dollar thousands)

HS code	4-digit heading of Harmonized System 2017*	2012	2013	2014	2015	2016
	All commodities	**4,216,989.6**	**4,056,024.2**	**3,813,458.9**	**3,126,707.8**	**2,757,830.2**
8707	Bodies (including cabs), for the motor vehicles of headings 87.01 to 87.05.	670.6	19,929.6	59,056.7	70,113.6	128,892.2
8477	Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this Chapter.	58,247.8	63,604.7	96,689.5	15,733.2	83,432.2
2510	Natural calcium phosphates, natural aluminium calcium phosphates and phosphatic chalk.	161,602.3	124,526.9	78,201.3	78,462.9	78,901.7
3902	Polymers of propylene or of other olefins, in primary forms.	99,606.2	96,411.4	106,160.6	67,995.9	77,146.6
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04.	34,701.7	79,242.8	90,739.4	0.0	72,930.8
2905	Acyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives.	72,861.6	76,246.9	61,123.9	58,019.3	56,527.6
6307	Other made up articles, including dress patterns.				977.7	52,480.6
7210	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, clad, plated or coated.	52,270.4	55,671.6	36,340.1	25,373.7	50,974.0
3909	Amino-resins, phenolic resins and polyurethanes, in primary forms.	19,927.4	20,554.4	26,158.5	65,863.4	47,559.6
7408	Copper wire.	115,919.9	94,619.3	63,816.9	50,215.1	47,471.5

Source: Author's calculation on the Belstat data

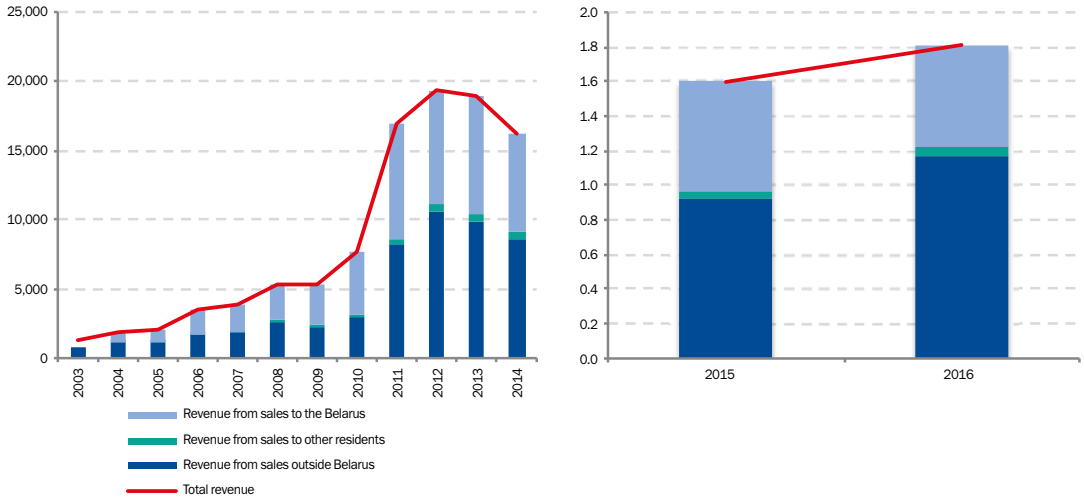
In summary, foreign trade generated by the FEZs' residents has grown since early 2000s and provided a positive contribution to the country's trade balance: in 2016, this contribution reached a peak of approximately 16 per cent in exports and 10 per cent in imports. However, reliance of exports on the single market of Russia exposes producers to external shocks and makes businesses relatively dependent on relationships between the countries.

Integration with domestic economy

One of the key factors that affect the level of success and sustainability of the FEZs is the degree to which they have been integrated in the local economy. According to Farole & Akinci (2011), often zone programs are put in place and then left on their own, with little effort to support domestic investment into the zones, to promote linkages, training and upgrading

However, we observe a continuous increase in the sales in the local market by the FEZ residents. This suggests FEZs played a substantial role locally. They contributed significantly to the development of the local economy by expanding their sales domestically. In 2004-16, on average about 45 per cent of annual revenue came from sales in Belarus; and in 2010, this value even exceeded sales on exports by almost 50 per cent. However, the data does not suggest FEZs residents have much trade interaction with each other, because the share of revenue coming from trade between them is insignificant and fluctuates near an average of 2 per cent (see Chart 13).[9]

Chart 13. Sources of revenue of the FEZs residents in 2003-14, billion 2006BYN



Source: Belstat

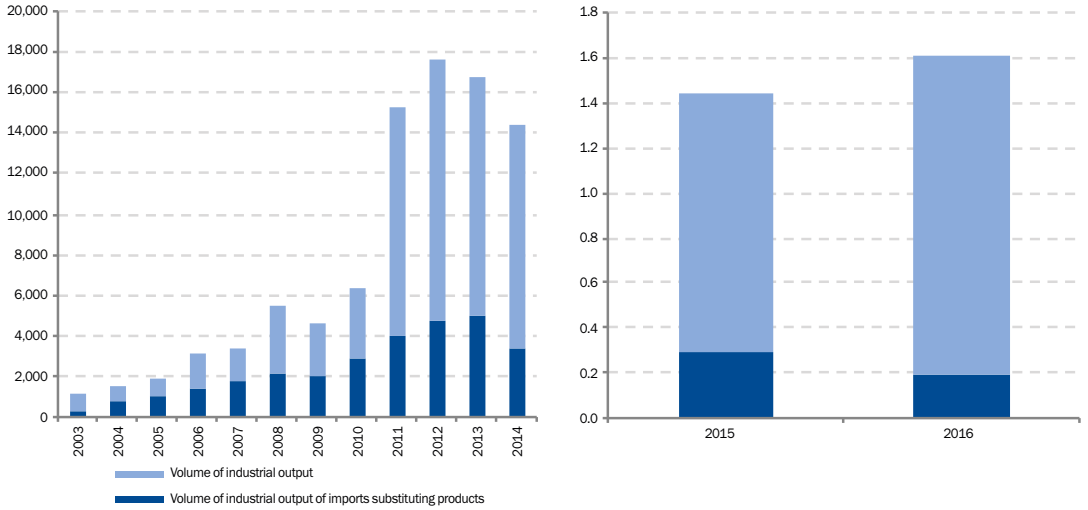
[9] The data is adjusted for inflation to be comparable along the period and 2006 is a base year.

Production of import substituting products

One of the most controversial topics not only among scholars but also Belarusian policy-makers is the role of import substitution in the industrial development of the country. On the one hand, such policy could be inefficient and does not support industrial growth and would reduce imports. There are exceptionally high implementation costs across the country and for consumers. On the other hand, Governments could utilise it as a tool to drive FDI growth, because foreign investors not only bring investments, but also provide technologies, their brand name and quality of finished products, along with lower prices for consumers.

The Belarusian government has relied on the import substituting policy since the 1990s and systematically issued resolutions containing the list and volumes of import-substituting goods (primarily consumer goods) that are expected to be produced by local companies. Residents of FEZs in Belarus were also encouraged to produce import-substituting products (see Chart 14).[10] In 2008, the government introduced some amendments to presidential decrees related to the activities of FEZs. This established a simplified procedure of getting approval from the central government of the list of import substitution goods produced and sold domestically by the FEZs residents. The data suggest that the production of import-substituting products within FEZs became common starting from an annual share of 47 per cent in total volume of industrial production in 2004 with a noticeable decline later on. It finally became as low as 12 per cent at the end of 2016. Some industry experts and policy-makers consider that this negative trend was due to quantitative results of undertaken obligations of Customs Union-participating countries to abandon the list of import-substituting products for FEZs by the end of 2016.

Chart 14. Industrial output 2003-14, in billion 2006BYN



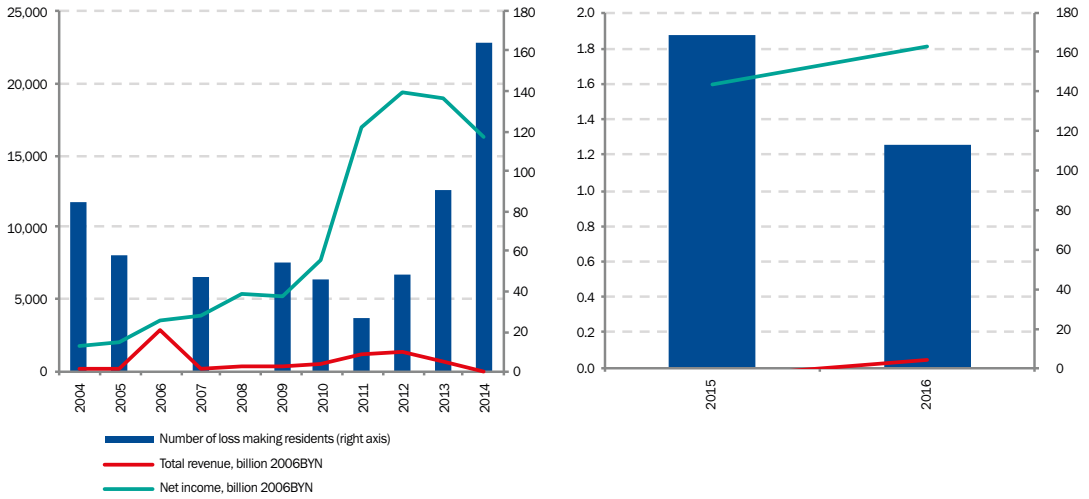
Source: Belstat

[10] The data is adjusted for inflation to be comparable along the period and 2006 is a base year.

Financial results

Although the FEZs residents benefited from economic incentives provided by the government and even demonstrated confident growth in foreign trade, the financial results indicate that performance was far from a success (see Chart 15).[11]

Chart 15. FEZs' financial results



Source: Belstat

Note: At the end of 2014, Belarus implemented 10,000 to 1 denomination of the local currency.

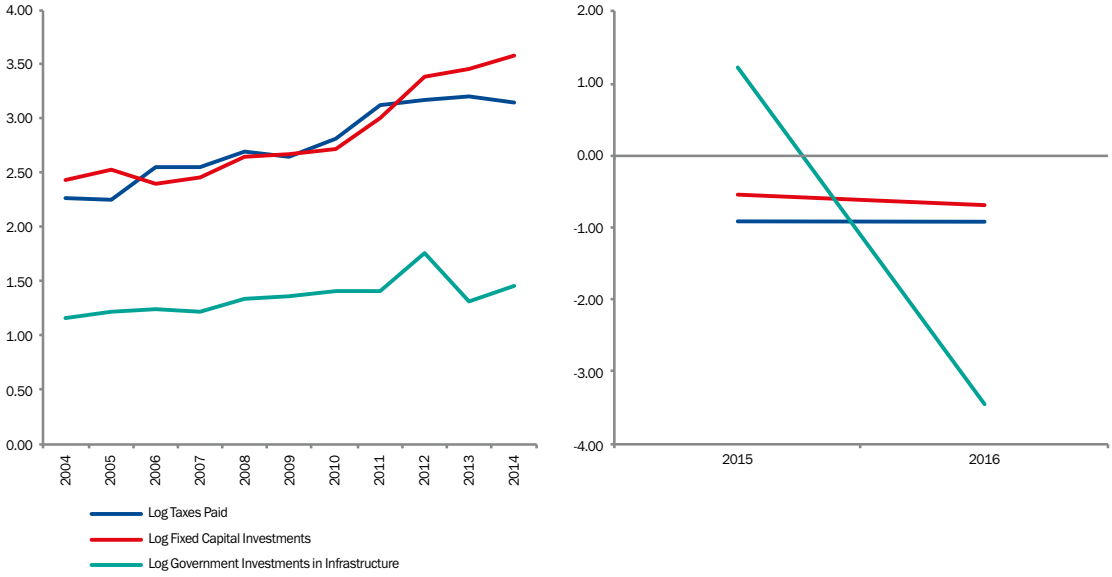
Accompanied by growing revenue from business until 2012, the trend changed its direction to negative until 2015, with a small uptick in 2016. The sharp decline in 2015 and 2016 represents denominated values of revenue and net income; however, both indicators demonstrated a positive growth in 2016. At the same time, there are a significant number of loss-making companies, whose share went up as high as 40 per cent of the total number of residents in 2015, reducing to 27 per cent in 2016.

These negative trends were in line with a stagnation period in the national and partner economies. Starting from 2014, due to the financial crisis, the external environment deteriorated considerably, which led to a sharp reduction in total exports of goods and services by almost 24 per cent, while imports contracted by almost 25 per cent. In particular, exports of goods to the Russian market dropped by 25 per cent due to the slow-down in Russia, contributing to a decline in Belarusian industrial output, which fell by almost 7 per cent. Given faltering exports and sizeable debt repayments in foreign currency, macro policies were tightened to narrow external and fiscal imbalances. During 2015, the Belarusian rouble depreciated by 36 per cent against the US dollar and by 19 per cent in relation to the Russian rouble. The recession in Russia and low commodity prices had a major impact on Belarus's economy, which contracted by almost 4 and 3 per cent in 2015 and 2016, respectively. As a result, net income of residents of FEZs reached zero for the first time in the past 10 years. It entered a negative zone in 2015 but returned to positive by the end of 2016, indicating a moderate recovery.

[11] The data is adjusted for inflation to be comparable along the period and 2006 is a base year.

In the observed period, both the government and the FEZs' residents invested in businesses and territory development, although the private investments were almost twice as high as the ones from the state. In accordance with the Article 18 of The Law on Free Economic Zones in Belarus, the government was responsible for investing in the FEZs infrastructure based on the principle of availability and readiness of investment projects. In addition to that, in order to stimulate FDI inflow into FEZs, it was decided to treat investment projects with declared investments of more than €100 million as a priority and make the government's financing in development of the FEZs' infrastructure for such investors available on a priority basis (On some issues of function of FEZs in Belarus, 2005). Starting from 2004, all three indicators shown in Chart 16 had a growing trend with some spikes and drops until 2015 when conditions worsen.

Chart 16. Investments versus taxes



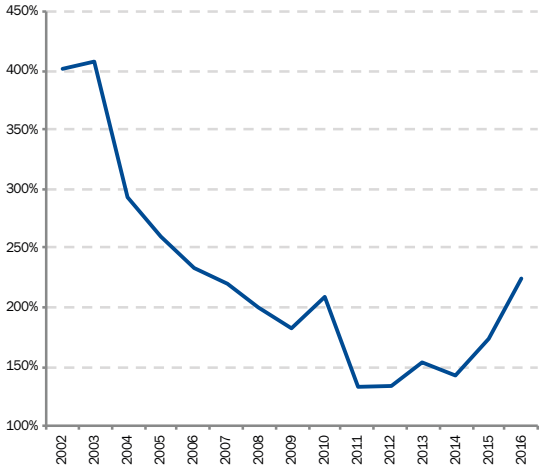
Source: author's calculation based on the Belstat data

Note: we use Log function to produce a smooth average to compare scale and changes of these indicators.

Several factors caused a significant decline in 2015-16. These include the denomination effect; the five-time drop in the government's finance of the FEZs' infrastructure in 2016 and the complete phase out in 2017; and 25.4 per cent decline in taxes revenue and 46.7 per cent in fixed capital investments in 2016 as opposed to the peak year of 2013. It is most likely that this policy change is related to the participation of Belarus in the treaty on the EEU, which came into effect on 1 January 2015.

On average the FEZs residents showed better results of some performance indicators taken per person employed. A comparison table in Appendix 3 reveals that the FEZs tend to outperform the regular economy in five out of the seven indicators in 2003-16. Average productivity level was 2.2 times higher in this period (see Chart 17).

Chart 17. Productivity in FEZs, Belarus = 100.



Source: author's calculation based on the Belstat data

Policy conclusions

The analysis of the development of FEZs in Belarus reveals several structural and institutional factors in its efficiency although in general these zones operate better than the rest of the economy. This study shows that all economic indicators per employee except for average salary demonstrate that FEZs are to a greater extent more effective than the traditional economy and in some cases, even the HTP. However, the state economic policy towards FEZs remained unchanged for a long period of time. Based on our aforementioned analysis, a few remaining challenges for the development of the FEZs and key lessons learned are highlighted below.

1. In developing FEZs, the Belarusian government did not outline a list of restricted sectors/ industries that are required for companies to be qualified as residents to the zones. The flexible approach allows for more FDI accumulation and the establishment of various businesses with foreign partners. That is, less focus made on sector-specific investments created more opportunities. When these businesses developed and evolved, the government could apply certain entry conditions according to the long-term growth strategy of the country. It would be beneficial for the government to further utilise this approach, especially when it comes to attracting investments in the GSIP. It helps to design attractive economic development policies for a larger number of businesses.

2. Although all FEZs were located in industrially developed areas with existing infrastructure and the availability of human resources, the extraterritoriality approach was widely applied and new residents were registered in FEZs while not being physically located on its territory at the start. The application of such an approach caused serious problems on the development of

FEZs. The FEZ regime was applied to support their competitiveness in the Russian market. Such inorganic growth changed the image of FEZs as an instrument of economic development for local, small businesses because the new approach enables big SOEs to have more access to state benefits which they were already entitled to one way or the other.

3. Given the prestigious advantages the FEZ regime granted to residents, the average salary paid has been low in comparison to the rest of the country. It means that citizens have not directly benefited from the favourable taxation that is given to the FEZ residents. At the same time, there is evidence that FEZs in Belarus did not stimulate the creation of new sectors of the economy. In addition, according to Kennard & Provost (2016), local businesses and the local economy might not benefit that much from having a SEZ in the area. It would be important for the zone administration and the Belarusian government to play an active role to ensure that the development of FEZs can benefit the local economy. Shannon's Smithstown, an industrial estate next to the free zone, can provide a good example for the Belarusian government to consider developing: it was developed as a satellite location for mainly Irish businesses who became sub-suppliers to the larger businesses in the zone.

4. The FEZs residents highly depend on the Russian market thus putting their businesses at risk of external shocks since the local market is small to absorb the impact. In this case, the FEZs model looks more like a small scale of the Belarusian model: merchandise exports are concentrated on the one market which renders an economy vulnerable to external shocks. As an example, imports of swine meat (HS code 0203) dropped dramatically in 2015. According to the official report from the eastern European countries at the end of 2014,[12] the decline in imports primarily resulted from the African swine fever disease. However, most imports of swine meat in FEZs came from the non-CIS countries (approximately 80 per cent in 2014). Montenegro and Canada contributed the majority, accounting for, respectively, 52.8 and 29.3 per cent. In accordance with data from the World Animal Health Information Database[13] there were no exceptional epidemiological events that affected swine reported by Montenegro and Canada in 2014 or 2015. As explained by industry experts this sudden slump was probably related to occasional so-called "meat and milk wars" between Russia and Belarus.[14] In particular, in this case experts tend to believe the drop is directly related to the Russian embargo on imports of crude swine and sub-products from the territory of the EU, although not all countries of the Customs Union officially reported swine fever. This decision had a serious impact on the Belarusian producers as well. No products produced from swine originated in the EU were allowed to be sold in Russia (Legina, 2014). In this situation all meat-producing companies in Belarus had no other option but to decrease the imports of swine meat from the EU to the level sufficient for processing and selling within the local market.

5. In addition, the creation of the EEU had a significant impact on the development of FEZs in Belarus. The EEU regulations impose some restrictions on the functions and policies governing FEZs across EEU countries. In particular, the regulation eliminated benefits related to customs duties which resulted in higher production costs for residents in FEZs, which makes the FEZs model less attractive to some investors who consider costs as a primary precondition in deciding where to reside. Governments should consider cost-benefit analysis before applying any policy changes. An

[12] For more information on the topic visit https://ec.europa.eu/food/animals/animal-diseases/not-system_en

[13] World Animal Health Information Database: http://www.oie.int/wahis2/public/wahid.php/Countryinformation/Countryreports

[14] The term "milk and meat wars" here means the occasional ban imposed by Russia on Belarusian exports of milk, dairy products and meat. While Russian officials said such bans have no political overtones, Belarusian politicians believe they were being punished for defying Russian orders (Barry, 2009).

equal compensation mechanism could also be introduced. This could become a solid basis for negotiations to mitigate a negative impact at the micro level, and to diversify the economy to mitigate the risks of heavy reliance on exports to Russia and other EEU countries.

6. As FEZs grew and evolved in a substantial new environment for entrepreneurial activities, regardless of the nature and extent of private sector involvement, FEZs' operation and development should have been separated from the regulation and monitoring from the central government. For instance, elimination of the excessive authorisation of Council of Ministers of Belarus of some actions by local authorities could increase the efficiency and responsibility of the FEZs administrations. By transferring the power of FEZs regulation, monitoring and development to local authorities, the government of Belarus would create a streamlined mechanism of local development.

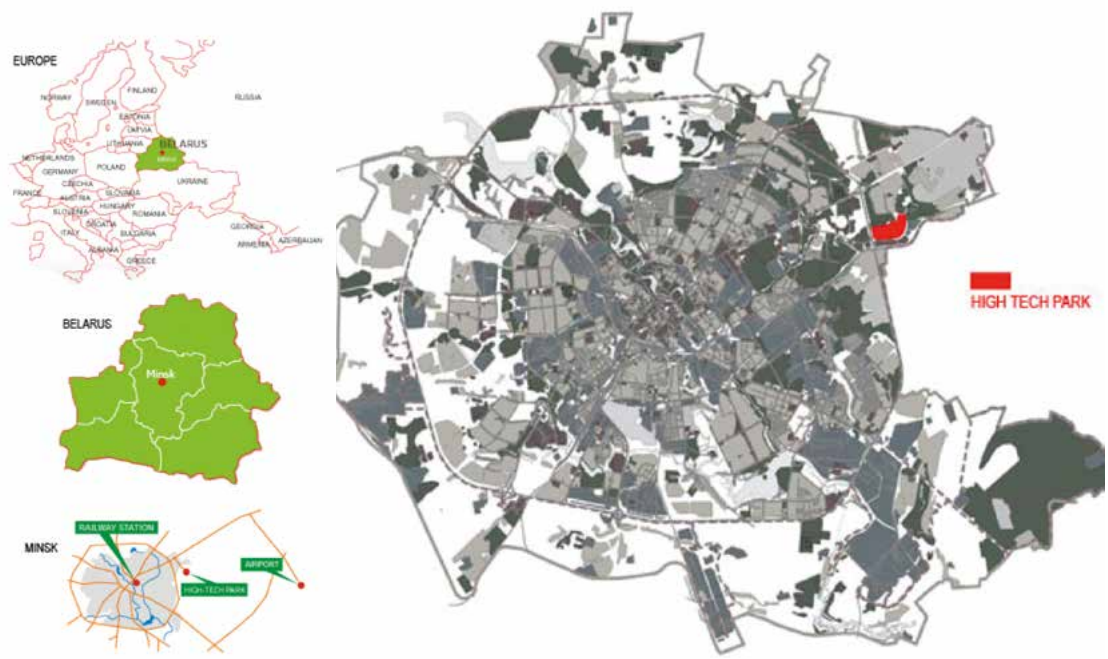
7. Taking into account the similarity of benefits granted to all FEZs, there are two factors that the administrations of FEZs could use to attract new investors. These include the pro-business approach of management and provision of attractive infrastructure. At the same time, one should think of implementing different development strategies in the FEZs. It will reduce the vicious competition among FEZs within one country that results from their having almost the same preferential tax policies.

Chapter 3: Regulatory framework and performance of the High-Tech Park

The High Technologies Park (HTP) was established in 2005 in accordance with Presidential Decree number 12 “On the High-Tech Park” (Decree 12 “On the High Technology park,” 2005).

The HTP is located in close proximity to Minsk, the capital of Belarus, and occupies the territory of 0.558 km^2 (Picture 3). However, unlike other science and technology parks, the HTP applies the extraterritoriality principle of registration of its residents, further adopting and developing the experience of FEZs in Belarus. Traditionally, there is no obligation for residents to be physically located on the premises of the HTP in Minsk. Technically, any IT company registered within the jurisdiction of Belarus could become a resident of the park provided that it is engaged in the ICT business indicated in the national legislation.

Picture 3. Location of the High Technology Park.



Source: http://www.globalbusinessparks.com

According to the general development plan, the High Technologies Park should become the embodiment of the idea of a high-tech city whose inhabitants live, work and rest in comfortable conditions. The residential area already consists of several multi-floor buildings, as well as a kindergarten and primary school. In the business and educational zones, there is a business centre, offices of IT companies, a hostel for students of the IT Academy and a hotel. The public sports zone includes multi-purpose sports halls, a swimming pool, a sauna, a fitness centre, a trail for outdoor activities, a restaurant, a café and a health centre.

Legislation of the HTP

According to the Presidential Decree number 12 "On the High-Tech Park", the purpose of establishing the HTP is to increase the competitiveness of the national economy by developing the information and communication technology sector. Belarus software outsourcing has been further supported by the state. At the end of 2017, the President of Belarus signed Decree number 8 "On the Development of a Digital Economy" (Decree 8 "On Development of Digital Economy," 2017) that expands existing legislation and introduced an action framework to liberalise the business environment for the innovative and high-tech sectors. A distinctive feature of this piece of legislation was the approach the government used to address the private sector needs and maintain the course of the IT sector development as part of the state economic policy. A team consisting of industry experts, private sector participants including the HTP residents, as well as state representatives was formed to make an assessment of the industry locally and internationally in order to identify areas that would impact on the development of the park. With the substantial consultation process, Decree number 8 was considered to be the "most liberal" legislation at that time with the aim of making the country an "IT Hong Kong" of Eastern Europe.[15]

In fact, this legislation creates a legitimate window of opportunity to move the HTP to the next level of development: from the software outsourcing model to the product development model (through its entire lifecycle, from generating idea to research, validation, development and positioning in the Belarusian market). Before December 2017, the HTP model was oriented on offshore programming. None of the world's leading IT companies were interested in establishing their headquarters in the park. Even many of the most successful Belarusian IT projects were created outside the HTP. These include Viber, World of Tanks, Masqurade, Maps.me and PandaDoc who have their headquarters located in other countries. One of the main ideas of Decree number 8 is to stimulate companies to locate their headquarters in the park and to create conditions that make IT product sales from Belarus attractive. Besides, there are other changes introduced by this legislation to further expand IT business opportunities.

- The effective period of the HTP special treatment initially set until 25 December 2020 was prolonged until 1 January 2049, making the duration of HTP last for the same period as the FEZs.
- The list of legally allowed activities became longer. The supervisory board of the HTP is allowed to make adjustments.
- The list of economic incentives was expanded. For example, now foreign companies who provide marketing, advertising, consulting and other services are exempt from VAT.
- The HTP residents are allowed to use e-payment without any restrictions, to open and use accounts in foreign banks and other credit and finance institutions without the need of any permission from the National Bank of Belarus.
- The HTP residents are exempt from the requirement to obtain special permission to hire a foreign workforce. In addition, employees and shareholders of the HTP residents can travel visa-free to Belarus with a maximum period of 180 days stay.
- Some elements of English law can be used in commercial matters. The HTP residents working with digital currencies are tax-exempt.

Detailed information on incentives the Belarusian government provided to the HTP residents in comparison to other economic regimes can be found in Appendix 2.

Decree number 8 is "experimental" in many of the areas granted to the HTP residents and provided this experience is testified as a success, they will be implemented in Belarus's general legislation. However, as in the case of the FEZ, land relations in the HTP are not exempt from general regulation and there is no private ownership option.

[15] "Opinion: Belarus may become 'IT Hong Kong' of Eastern Europe," 2017

Institutions and management of HTP

The HTP administration was established in accordance with Decree number 12. The following are major responsibilities of the administration:

- directly manage the HTP operations
- create favourable work and social conditions for HTP residents
- promote domestic and foreign investments in information technologies (annual road shows, and so on)
- protect the interests of the HTP residents and represent their interests in relation to national government agencies
- develop modern infrastructure and facilities to support the development of the HTP.

According to Decree number 12, the head of the administration is appointed and can be dismissed by the President of Belarus. The HTP administration is supervised by the President and reports to the Council of Ministers. In contrast to the case of the FEZs' management, the HTP administration has more flexibility in decision making and is less exposed to duality in subordination. Such architecture tends to enable effective management of the park.

The HTP administration plays an important role in promoting close collaboration between the IT industry and the system of higher education, taking measures to increase the number and quality of specialists for the IT industry. It also conducts a large-scale career guidance programme to promote technical education in schools and to encourage students in general secondary schools to pursue higher education in engineering, IT and other technology-related disciplines.

In addition, there is a supervisory board of the HTP which consists of members approved by the President of Belarus, including its chair. The following are the main responsibilities of the Board:

- to approve the expansion of the list of activities allowed in the HTP
- to take decisions on registration and cancellation of membership in the HTP as well as registration and cancellation of business projects in information and high-tech fields offered by non-residents of the HTP who claim to utilise benefits of the regime
- to approve benefits that are granted to non-residents of the HTP based on their project proposals on a case-by-case basis.

The administration's budget comes from the following resources:

- 1 per cent of revenue of the HTP residents collected quarterly
- 1 per cent of revenue of non-residents of the HTP who implement business-projects in information and high-tech fields in the park.[16] The administration also gains from using all benefits granted to the HTP residents, such as tax exemption and so on.

The HTP administration plays an important role in developing not only the park itself but also the IT industry in the country. Such a role generates benefits for the economy at large. The Belarusian IT sector has flourished despite the country's wider economic slump, attracting foreign workers, expatriate Belarusians and locals to jobs that pay about five times the average wage (Reuters, 2017a). Some experts project, that by 2021, exports of the HTP residents will exceed US$ 2 billion and the number of employees will be as high as 60,000 (Yaroshevich, 2017). This is twice as much as today. Other countries such as Kazakhstan and the Kyrgyz Republic are also trying to replicate such practice in their special economic zones.

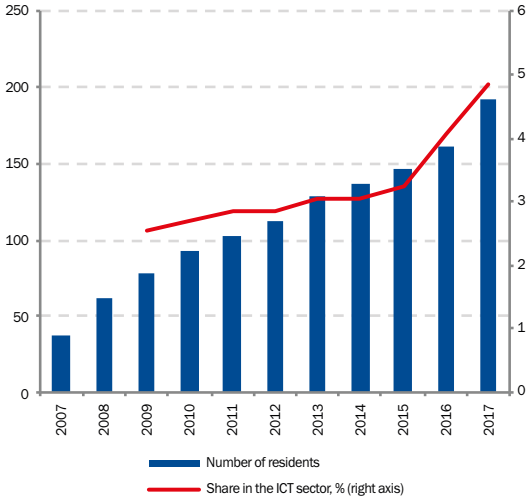
[16] In accordance with the legislation there are two options to become eligible for tax and other benefits of the HTP regime. One could register a company as a resident or a business project being developed in the HTP.

Residents, employment and salary

Almost 90 per cent of the IT industry employment is concentrated in Minsk. This indicator has remained unchanged for the past eight years.[17] The average age of employees is about 29 years, and the share of women grew 2.7 times since 2010 reaching almost 19 per cent in 2016. It is believed that the HTP has contributed to the significant improvement in women's participation in the IT industry.

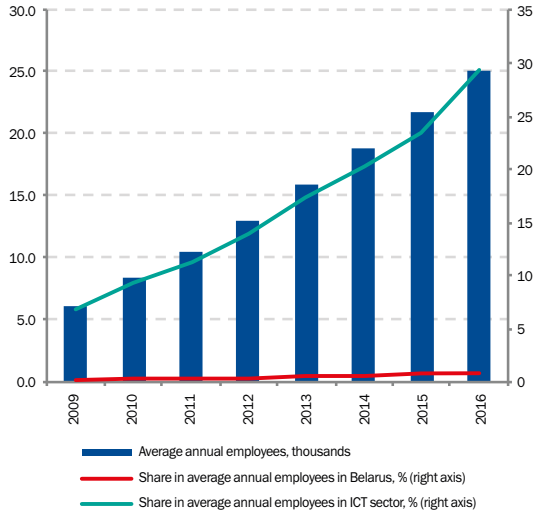
Since the creation of the HTP in 2005, around 190 residents (as of the end of 2017) benefited from this regime. About 93 per cent of residents are located in Minsk.

Chart 18. Number of HTP residents



Source: Belstat

Chart 19. Average annual number of employees



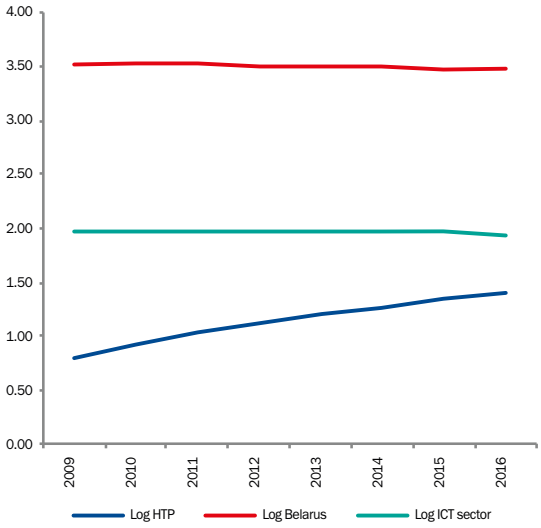
Source: author's calculations based on the Belstat data

The average annual resident's growth rate was about 15 per cent per year on average. In 2016, the share of the number of companies in the HTP accounted for 4 per cent of the whole ICT sector in Belarus. By origin of investments, the HTP residents consist of Belarusian investors (41 per cent); joint ventures (24 per cent); and enterprises (35 per cent) with 100 per cent foreign investment.

Charts 18, 19 and 20 suggest that the HTP residents created new jobs even when the rest of the ICT sector and the national economy were shrinking in size. The annual jobs level in the HTP increased from around 6,000 in 2009 to more than 25,000 in 2016, with an average annual growth rate of around 20 per cent. The number of employees in HTP increased from 7 per cent of the ICT sector in 2009 to 30 per cent at the end of 2016. This is mainly because the growing number of residents in the HTP creates more jobs and also due to relatively higher salaries in the HTP than elsewhere in the ICT sector (see Chart 21 and below). In addition, there may have been some shifts of employment from companies outside the park.

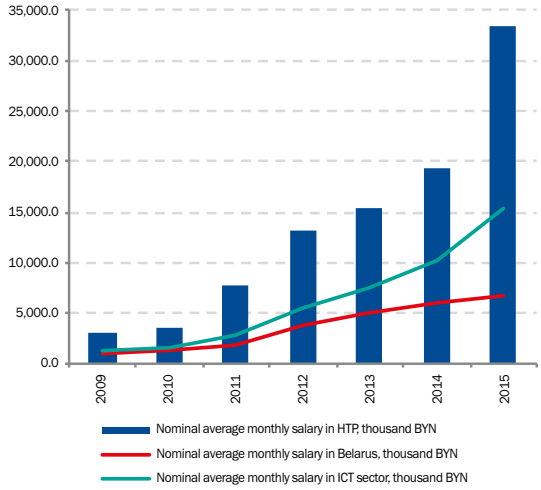
[17] For more information visit https://dev.by/lenta/main/it-v-belarusi-2016

Chart 20. Changes in average number of annual employees



Source: author's calculations based on the Belstat data

Chart 21. Nominal average monthly salary 2009-15



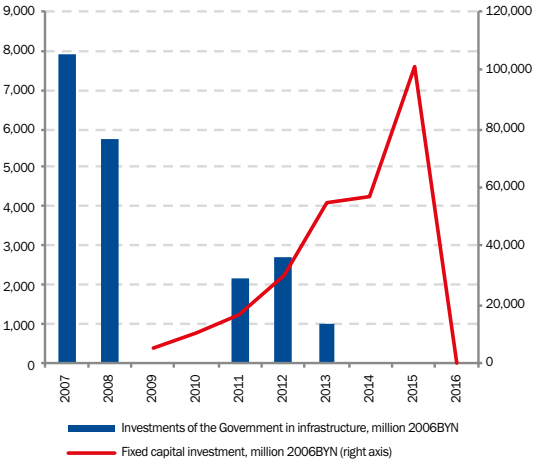
Source: Belstat

Besides employment generation, the HTP has been leading in Belarus considering the growing nominal average monthly salary. In 2016 (this year is not depicted on the chart because of the devaluation of local currency and, as a result, the effect it would cause to the graph), the level of this indicator was the highest, reaching almost US $ 1,700 versus US $ 1,000 and US$ 360 in the ICT sector and average salary in the country, respectively. In addition, the level of salary growth in the HTP was 10 per cent higher than in the rest of the economy. However, it is almost equal to the growth level in the ICT sector (see Chart 21).

Investments

The private investments in the HTP were almost 16 times as high as those from the state. Nevertheless, the growing trend of private investments shows the confidence in the HTP model and the attractiveness of the HTP for the private capital (see Chart 22).[18] The chart also suggests that the majority of the investment from the government of Belarus focuses on the development of infrastructure and office premises, especially at the beginning of the project. Starting from 2009, fixed capital investment tends to substitute the government's funding.

Chart 22. Investments in the HTP development



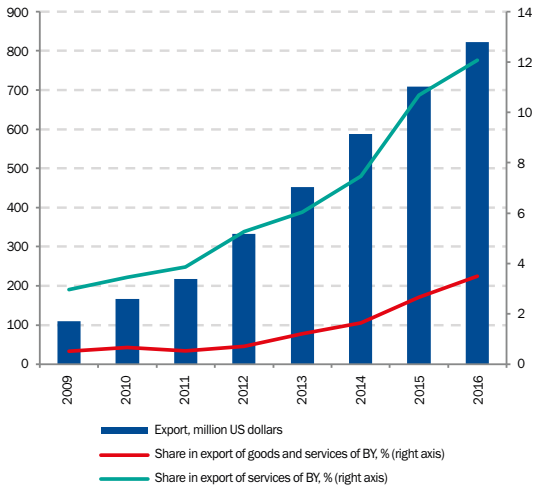
Source: Belstat

[18] Drop in the fixed capital investments in 2016 is a result of the denomination of local currency; the actual decline in capital investments was two times compared with the peak year of 2015.

Foreign trade

Exports of HTP residents have been steadily growing since its creation and exceeded the level of US$ 800 million in 2016, contributing to about 12 per cent of the country's export of services and almost 85 per cent of export of the ICT sector. The average annual growth rate for the HTP residents was approximately 28 per cent of exports starting from 2009, which is four times higher than the same indicator for the whole country (see Chart 23).

Chart 23. Export of services of the HTP residents



Source: Belstat

The geography of exports operations of the HTP residents is diverse and the export share in the total production volume exceeds 90 per cent. Residents are successful in the North American and European markets. Starting from 2009, exports increased tremendously to the EU and American markets with an average annual growth rate of 36.3 per cent and 29.3 per cent, respectively. The structure of the HTP residents exports suggests that about 90 per cent of services are sold in these markets.

In 2018, the HTP residents have customers in 67 countries around the globe. World-leading corporations such as Peugeot, Mitsubishi, British Petroleum, Gazprom, Reuters, British Telecom, London Stock Exchange, World Bank, Google, Microsoft, The Coca-Cola Company, Bank of America, Oracle, Bosch, IBM, Deutsche Bank, Airbus and so on are among major consumers of Belarusian software developed in the park. World of Tanks, Viber and MAPS.ME are well-known products produced in Belarus.

The pattern of foreign trade from the park has not changed over the past seven years. The exports to the United States of America dominate with a share of 43 per cent in total exports of the HTP residents, followed by exports to Cyprus and the UK with 20 per cent and 8 per cent, respectively. Growth rates of exports to Cyprus, Ireland and Israel were the highest in 2009-16 with average annual pace of 73.67 and 80 per cent, respectively (see Table 7).

Table 7. Exports geography by HTP
(Value in thousand US dollars, growth and shares in percentage)

Country	2016	Average accumulative growth rates		Share
		2009-16	2015-16	
Total	**823,019.5**	**28.6**	**7.7**	**100.0**
EU countries	**386,466.0**	**36.3**	**8.5**	**47.0**
Cyprus	166,973.1	73.4	6.5	43.2
United Kingdom	63,862.9	35.0	-2.1	16.5
Germany	40,498.2	14.3	9.8	10.5
Ireland	25,375.4	67.3	45.1	6.6
The Americas	**356,058.9**	**29.3**	**13.0**	**43.3**
United States of America	354,937.7	23.8	13.2	99.7
EEU countries	**39,339.3**	**5.7**	**-25.5**	**4.8**
Russia	38,598.1	6.4	-25.6	98.1
Others	**16,051.4**	**64.3**	**-3.6**	**2.0**
Israel	7,760.8	79.9	0.7	48.3
Korea, Republic of	6,550.3	26.0	-1.5	40.8
Azerbaijan	945.8	19.2	-7.9	5.9

Source: author's calculation on the Belstat data

The above analysis shows two important advantages of the HTP model: (i) the HTP residents are less exposed to external shocks versus the rest of the economy and less vulnerable to fluctuations in the oil and gas markets, and (ii) the model of the HTP business does not rely on opportunities of the joint EEU market. They rely mostly on local resources and are in demand globally. These two elements together with Decree number 8 rule HTP out of a free (special) economic zone, making the HTP model more successful than the FEZs.

Promotion of education and training

Besides software production, one of the priority objectives of the HTP is to promote technical education among students and make them interested in engineering, computer science and other STEM disciplines.

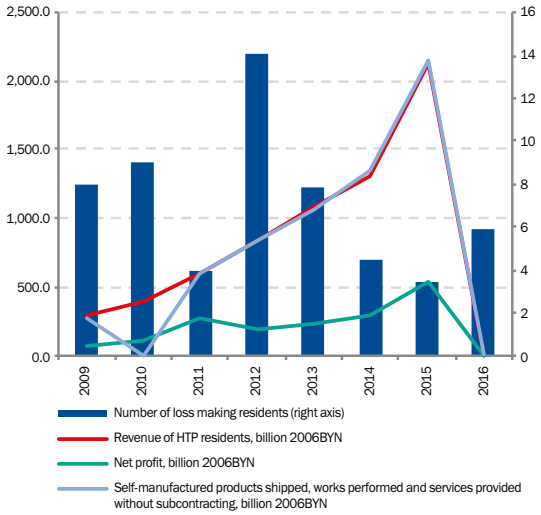
In this regard, the HTP administration plays an important role in promoting close collaboration between the IT industry and the higher education system. It also conducts a large-scale career guidance programme to promote technical education in schools and to encourage students in general secondary schools to pursue higher education in engineering, IT and other technology-related disciplines. More information on such cooperation is in Appendix 3.

There are three main universities in Belarus that supply the HTP residents with human resources: Belarusian State University of Informatics and Radio Electronics (approximately 30 per cent of total supplied labour force); Belarusian State University (27 per cent); and Belarusian National Technological University (13 per cent) ("IT in Belarus 2016," 2017) .

Financial results

Despite the fact that the HTP represents only a relatively small portion of the national ICT sector and the national economy in terms of its scale, the HTP's financial results are promising (see Chart 24). Along with growth in revenue and net profit, there is an insignificant number of loss-making companies. However, if we make a comparison per employee values of these indicators with those of the FEZs and the rest of the country, it shows that the HTP residents systematically underperformed in revenue compared with the residents of the FEZs and the rest of the country (except for 2015 and 2016 values), although the rest of the indicators show better results for the HTP residents (see Appendix 5 for further illustrations). Despite the fact that the achievements of the HTP are remarkable and stimulate employment in the ICT industry with more young Belarusians joining the sector, some argue that the bright outlook for the IT industry is not matched with the development of other sectors of the Belarusian economy, which remains hamstrung by loss-making state-owned companies that have seen little or no reform since the collapse of the Soviet Union (Reuters, 2017b).

Chart 24. Financial results of the HTP residents



Source: Belstat

Note: Data for products shipped in 2010 was not reported by Belstat.

Policy conclusions

Overall, the HTP should be considered to be a success story of the Belarusian IT industry that shows how favourable conditions and talent were brought together at the right time to launch a new high-demand sector in the country. A few lessons learned from the analysis could be considered while developing the GSIP.

1. Unlike the FEZs, the HTP has a clear focus on the development of the ICT industry in the country. On the one hand, this approach frames specialisation of this institution, on the other, it sets boundaries for its residents to be only in the ICT-related business and no other high technological companies could reside in the park. However, considering that the ICT sector is becoming an essential part of other industries (for example, medical services, bio engineering) that are also regarded as highly technological, the Decree number 8 suggests the complementary nature of the GSIP to the HTP in developing other high-technological sectors besides ICT.

2. In contrast to other science and technology parks in Belarus, the HTP applies the extraterritoriality principle of registration of its residents, which is the adoption of the previous FEZs' experience. As in the case of the FEZs, this principle is considered to distort the market. It allows certain companies not physically located on the territory of the park, to benefit from what is outlined in the presidential decrees and be exempt from the jurisdiction of general law. It also creates imbalances within the ICT sector itself by putting a few companies in more favourable conditions while the majority continue functioning under general regulation.

3. Similar to the regulations on the FEZs, the legislation governing the HTP does not permit private ownership of land. Although leasing is open to foreigners for a term of up to 99 years, it still creates lots of inconvenience for investors and may stop them from allocating their resources to Belarus.

4. The HTP administration is supervised by the President of the Republic of Belarus and reports to the Council of Ministers. In contrast with the case of the FEZs' management, the HTP administration is more flexible in decision making and less exposed to duality in subordination. Such architecture enables effective management for the development of the HTP. However, the HTP administration was given the responsibilities of both developing and managing the HTP, as well as handling the day-to-day administration of residents and project promotion. This dual set of goals and responsibilities causes lots of inefficiency.

5. The management structure of the HTP creates lots of bureaucracy. The HTP administration does not make the final decision of residents' registration. There is a supervisory board that is in charge of the expansion of the list of activities allowed in the park, as well as registration of new residents and business projects. This process is non-transparent with no clear set of rules and criteria which can cause a huge

amount of inefficiency. It is important to simplify the registration process and empower the HTP administration with more authority on decision making. At the same time, functions of developing and managing of the HTP should be transferred to another institution. Only in this way, can a more enabling business environment be nurtured.

6. The HTP model does not offer financial instruments to stimulate the development of small and medium-sized enterprises (SMEs). In general, financial sources are limited and usually expensive. SMEs find it especially difficult to have access to these resources. With its focus on attracting large companies, the HTP model has a gap in providing opportunities for small-scale outsourcing companies to grow and switch to a product development model. However, considering the positive contribution of the outsourcing companies to the development of the ICT sector (because they have trained a significant number of employees and have built up a large number of skilled labour forces) and their importance in developing the product-oriented model of the HTP, it would be important for the park administration and the Belarusian government to consider developing favourable financial support to the development of these companies.

7. Despite the fact that the HTP's economic achievements are remarkable and stimulate employment in the ICT industry with more young Belarusians joining the sector, the integration of the HTP and the ICT sector in general to the other sectors of the Belarusian economy is limited. In Belarus, the share of the ICT sector in GDP is around 5 per cent. The ICT sector has a low level of integration with the local economy. In addition, the relatively high value of export per capita by the HTP residents has not been necessarily translated into a significant development of the local ICT sector in comparison with other countries and within the country. Some of the successful countries are able to produce for both export and for domestic consumption. Due to the absence of available resources, there are not enough incentives among industry leaders to fully exploit opportunities stemming from the ICT sector to further develop the real sector, supporting the country moving towards Industry 4.0. Given the fact that a significant part of the economy of Belarus remained unreformed with limitation of privatisation and exposure to international competition, the ICT sector in general and the HTP in particular could play a catalyst role of making changes while integrating with the rest of local economy by providing services and moving up the global value chain.

8. Based on the production and sales data, the HTP residents are less exposed to external shocks versus the rest of the economy and less vulnerable to fluctuations in the oil and gas markets. The HTP residents utilise local human resources with Western standards of running business. What is more important, they do not rely on the vulnerable EEU market. Generally speaking, this is the model that differs from the one utilised by FEZs. It does not rely on imported raw materials and technology with local production and sales in the Belarusian and Russian markets.

9. The special benefits set for HTP residents are not fit for the purpose of economic development of the country. Some argue that there is no need to further expand tax and economic benefits because the IT sector is considered developed in comparison to the rest of the economy. Some experts believe that the criteria of qualifying to be a resident of the park are too high, favouring large enterprises. Others also suggest that the Supervisory board is an unnecessary element that creates opacity in the way benefits are granted. The HTP creates an uneven playing field: it helps those who are residents of the HTP to become more competitive as opposed to those who operate under general regulation outside the park.

Chapter 4: Regulatory framework and development of the Great Stone Industrial Park

Based on the agreement signed between the governments in 2011 and the Presidential Decree number 253 signed in 2012, (Decree 253 "On creation of Chinese-Belarus industrial park "Great Stone," 2012) the Belarusian government started its cooperation with its Chinese counterparts in setting up an industrial park in the Minsk region, which was subsequently named the Great Stone Industrial Park (GSIP) later, signaling the solid relationship between the two governments.

The GSIP is expected to become a modern international eco-city with an emphasis on producing high-tech and innovative products with high export potential within the duty-free EEU market as well as neighbouring European countries. For the Belarusian government, the creation of an industrial park will not only attract foreign investors and integrate Belarus in international value chains as part of the Belt and Road Initiative (BRI), but also trigger the upgrade of its national economic model. These changes are expected to stem from necessary administrative reforms in the park. Some government bureaucrats estimated that the project has the potential to double the country's GDP. The project plays an important role as part of the BRI, and it also offers a great opportunity to showcase Chinese experience in establishing overseas industrial parks. The Chinese President Xi Jinping even considers the GSIP to be the "pearl along the BRI", providing his personal support for the development of the Park.

Model of the GSIP collaboration

In October 2010, at the time of the official visit of the President of Belarus, Alexander Lukashenka, to the People's Republic of China, the Ministry of Economy of Belarus (headed by then Minister Nikolai Snopkov) and China CAMC Engineering Co., Ltd (CAMCE) signed an agreement on the creation of the industrial park. An intergovernmental agreement on the China-Belarus Industrial Park was signed in 2011, which set up a solid foundation for the cooperation between the governments in the implementation of the project. In 2015, the President of Belarus issued a Directive number 5 that officially sets a long-term goal of cooperation between Belarus and China. Presidential Decree number 166, (Decree 166 "On the improvement of the special legal regime of the China-Belarus industrial park "Great Stone," 2017), the most recent and most comprehensive piece of legislation shaping the operations of the park, was issued in 2017. The document was jointly drafted by experts from Belarus and China. For the first time in the history of Belarus a substantial consultation of experts including private sector participants from a foreign country was involved.

The model of cooperation being used by Belarus and China in this project mostly resembles the one used while creating the Suzhou Industrial Park. In particular, it was agreed to establish a privately driven entity with direct access to national government support. The Industrial Park Development Company in Belarus (with majority shares belonging to the Chinese) is analogous to The China-Singapore Suzhou Development Company, except for the fact that in the case of Belarus there is a minority shareholder from Germany. The administration of the GSIP is analogous to the Suzhou Industrial Park Administrative Committee (SIPAC). The next upper level is represented by the Joint Interagency Working Group on the Chinese-Belarusian Industrial Park, equivalent to the China-Singapore Joint Working Committee. Lastly, the top level of the Belarusian-Chinese cooperation is represented by the Belarusian-Chinese Intergovernmental Committee on Cooperation, which is equivalent to the Chinese-Singapore Joint Steering Committee.

The leading principles directing the development of the GSIP include: the supervisory role of government, the leading operational role of enterprises, market-based operations, scientific-based planning and step-by-step implementation.

In accordance with Decree number 166, the industrial park is considered to be a special economic zone with a special legal regime for the period of 50 years, or until 2062. The special economic regime established is in compliance with the international agreement on free economic zones in the Customs Union. From 2018, the Belarus government classified the GSIP as a "territorial special economic zone" according to the new Customs Code of the Customs Union, to allow the GSIP to enjoy more customs and tax benefits than "regular" special economic (free) zones indicated in the agreement on free economic zones in the Customs Union discussed in Chapter 2. Apart from the GSIP, there is another zone in the Bolbasovo, Vitebsk region that was also chosen to become another "territorial SEZ" in Belarus. However, this project is at the very early stage of development with no operations so far.

It is clear that one of the important areas of cooperation between the Chinese and Belarusian governments is science and technology. Relevant agreements were signed among Belarus Academy of Sciences, State Committee on Science and Innovation, Belarusian National Technological University and a consortium of Chinese organisations aimed at establishing an efficient and transparent system to support innovation projects and create a centre for innovation in the park. Joint venture funds are to be created to provide financial support for that purpose. The Great Stone Development Company, for instance, created a US$ 20 million investment fund in the park in 2017 to finance start- ups, and China Merchant Group created a US$ 0.6 billion fund on the Cayman Islands to support business development.

The management structure of the park

Based on the Chinese SIP experience, the two governments agreed on the establishment of the park management mechanism consisting of three levels:

- the Intergovernmental Council on Chinese-Belarusian Industrial Park
- the Industrial Park administration
- the Industrial Park development company (Appendix 6).

Besides the three levels above, the governments also created the Belarusian-Chinese Intergovernmental Committee on Cooperation headed by top-level ministerial representatives. It was a deliberate decision to include high-level officials in order to demonstrate the importance both governments place on the project. This also aims to convince investors of the viability of GSIP. The committee comprises five commissions: two commissions on trade and economic cooperation and scientific and technical cooperation which existed before the creation of the committee, as well as three newly created ones in the field of education, culture and security; and one Council on the Great Stone Industrial Park that in fact operates as part of the trade and economic commission since meetings of the two are always held simultaneously and the main agenda of both the commission and the council is related to the GSIP project (see Appendix 1). The main priority of the committee is to serve as a new tool for the coordination of high-level bilateral contacts based on agreements between heads of states and governments of the Republic of Belarus and the People's Republic of China signed in 2013-14. Furthermore, the committee also serves as the main political and economic instrument to facilitate macro-level state policies and facilitate the implementation of the GSIP project.

The Intergovernmental Coordination Council of the Chinese-Belarusian Industrial Park is the supreme governing body of the industrial park and consists of joint chairmen (they are chairmen of the Belarusian and Chinese parties of the Belarusian-Chinese Intergovernmental Commission on trade and economic cooperation) and members (who are representatives of the relevant ministries). Meetings of the Intergovernmental Coordination Council of the Park are held by necessity and not periodically. The Council is formed with government officials of the two countries who are engaged in addressing the direct challenges and issues of the park's development. The council takes decisions concerning the activities of the park, strategic issues of park development and other park-related issues regarding the cooperation between the Republic of Belarus and the People's Republic of China.

The Park administration consists of state employees and specialists of the Republic of Belarus, as well as of a group of Chinese advisers. As in the case of the HTP, the Park administration head is appointed to this position and can be dismissed by the President of the Republic of Belarus according to Decree 166. However, unlike in the HTP case, the Park administration is accountable to the Council of Ministers, which makes the government more involved in the project than in case of the HTP.

The Park administration was set up based on the experience of the Chinese SIP. In general, it operates based on the "one-stop-shop" model which means this institution offers investors and residents of the Park the convenience of obtaining their needs in one place. The administration deals with common matters of the Park management, procedures and rendering of relevant services to Park residents in projects review and approval, registration, employment, issue of certificates of origin, examination and sanitary inspection of export and import production, procedures of customs passing, investment consulting, and other services according to Decree 166. Besides, it also has a function to attract investments to the park. The Park administration is also the main agency to liaise with the Chinese counterparts and implement the Chinese government's soft skills transfer programme. Important distinction from the past experience of Belarus is that the administration is no longer responsible for construction, development and operations as it was in the cases of FEZs and the HTP.

The Industrial Park Development Company is an incorporated company created as a joint venture with 68 per cent of shares belonging to the Chinese side, 31.33 per cent - to the Belarusian side, and 0.67 per cent - to a German partner. The German company Duisburger Hafen became a shareholder of the "Great Stone" Development Company in May 2018 after purchasing two stakes belonging to the Belarusian side: one from the Minsk City Executive Committee and another from the HORIZONT Holding and Management Company. The shareholder structure of the GSIP development company differs from the one that was used while developing the SIP. Shareholders of The China-Singapore Suzhou Industrial Park Development Corporation Ltd were exclusively Chinese and Singaporean companies, although share ratios changed. There is a clear rationale behind the deal of selling a minority share to Duisburger however. For the company it makes sense, since it has been investing along the corridors of the BRI. Its projects are being implemented in the entire Eurasian region. Some of them are in partnership with China Merchants Group. In this context, Duisburger is expanding its commitment as part of the BRI by involving itself in the development of the GSIP. For the Belarusian side this deal also favours its long term plans. The port of Duisburg is the world's number one inland port and a final point of the BRI route running through Belarus and the GSIP. It is important to engage all key players along the route in order to secure cargo flow. This will also positively impact the development of the goods processing businesses in the park as one of its major functions. The structure of shareholders is depicted in Table 8.

Table 8. Shareholders' structure of the "Great Stone" Development Company

Shareholders	Share, %	Country
China National Machinery Industry Corporation (SIMOMACH)	32	China
China Merchants Group	20	China
China CAMC Engineering Co., Ltd	13.71	China
Harbin Investment Group	2.29	China
"Great Stone" Industrial Park Administration	31.33	Belarus
Duisburger Hafen AG	0.67	Germany

Source: the "Great Stone" Development Company

Note: data is as of 1 July 2018.

Besides its main activities related to development, planning, construction, building, facilities operations and management, the "Great Stone" Development Company is also deeply involved in marketing and attracting investors. Five of the seven top level managers in the development company are Chinese nationals.

Both of the Industrial Park Development Company and the Administration have some functions in marketing and attracting investors to the park. There is a strategy and action plan of FDI promotion that consists of list of instruments, parties involved and priority markets targeting GSIP potential investors. The action plan to attract foreign investments via the GSIP project is formed on annual basis by the Ministry of Economy and approved by the Intergovernmental Coordination Council of the Chinese-Belarusian Industrial Park. In accordance with the ongoing plan, the Industrial Park Development Company is leading the efforts of FDIs attraction. However, the Administration of the industrial park also takes some responsibility of promoting the park and improves the business environment through the implementation of the 'one-stop-shop' services. Together they play an important role in attracting foreign residents to the park.

The development of the GSIP: The area of the China-Belarus industrial park is about 91.5 km^2 with a special legal status conducive to doing business according to Decree 166. The Park is located 25 km from Minsk in a unique natural complex and close to the M1/E30 highway, Minsk-2 International Airport, and the Berlin-Moscow transnational highway. There is an advantage for the residents to ship goods through the Port of Klaipeda (See Picture 1).

The strategy of development of the industrial park presumes that a new territorial entity will be created that consists of industrial, administrative and urban housing infrastructure to accommodate export-oriented and import-substituting innovative businesses, to create new jobs and attract FDI, investments, in particular from China, as well as investors from Belarus.

In accordance with Decree number 166, the park's territory is expanded and lands of the Minsk 2 International Airport were also included. This was triggered by the new Customs Code of the Customs Union that became effective starting in 2018. Considering the requirements of qualifying as a "territorial SEZ"[20] in the EEU, including the one related to a mandatory location of a port or airport on the territory of the zone (or to be adjunct to the same), the government of Belarus decided to include the territory of the Minsk 2 International Airport into the GSIP and a "bond zone"[21] was also created.

[20] It is worth noting that the EEU legislation sets quotas for member countries on a number of such zones in each country: three for Russia, two for Belarus, and one for Kazakhstan, Armenia and the Kyrgyz Republic each.

[21] A bonded warehouse, or bond, is a building or other secured area in which dutiable goods may be stored, manipulated, or undergo manufacturing operations without payment of duty. It may be managed by the state or by private enterprise. In the latter case a customs bond must be posted with the government. This system exists in all developed countries of the world.

The construction period of the GSIP is agreed to last until 2030. It consists of six phases: each of them lasting for a certain number of years and set by the general master plan of the development of the Great Stone Industrial Park (see Table 9). In this context, the development of the GSIP took lessons from the SIP experience. In particular, from the very beginning of cooperation it was an agreement between the parties that the "planning come first" philosophy would be considered to be important and necessary. Once the planning was finalised and agreed the master plan should primarily remain unchanged for the whole period of the project.

Furthermore, the Chinese side required that high standards must be applied from day one and not only for businesses, but also for infrastructure and communication. The rationale behind this is pretty straightforward. Industrial production produces a lot of waste and causes pollution. That is why it is necessary to make sure that the local environment will be safe once the park has been made fully operational. As a result, in 2017, the GSIP was the first in Belarus to receive Eco-Management and Audit Scheme (EMAS) certification from the European Union for its pattern of ecological protection.

At present, the first phase of development is being implemented and, in particular, its initial stage of about 3.54 m^2 is about to be completed in 2018.

Table 9. Phases of development of the "Great Stone" Industrial Park

Phase	Land developed, km^2	Time frame
1	8.51	2016-20
2	2.6	2018-20
3	14.4	2019-25
4	4.95	2020-25
5	2.29	2025-30
6	1.27	2025-30

Source: the "Great Stone" Development Company

Therefore, the development of the industrial park territory is carried out according to the master plan. The joint company develops and, if necessary, makes amendments to the master plan. However, it is the park administration who reviews the amendments and submits them for the approval by the Council of Ministers of the Republic of Belarus. This complicated procedure was set in order to protect the initial master plan from frequent changes.

The land plots within the boundaries of the industrial park are provided to the joint company progressively, based on the actual rate of the land development, for permanent or temporary use, leased for a period up to 99 years or private ownership. Dealing with the land plots in the industrial park differs from the one in the FEZs and HTP cases because it is possible to sell the plots in private ownership. As per the end of 2016, about 10 per cent of land provided for use and operations within the park was sold in private ownership. The residents of the industrial park are obliged to proceed with the use of the land plot provided for the construction of the industrial park facility within two years from the date of the park administration's decision to permit design and survey work. Proceeds from the provision of land plots in the industrial park for private ownership is transferred to the account of the park administration, remains at its disposal, and is allocated for the purpose of the industrial park development and the park administration operation.

It is also worth noting that the urban housing and infrastructure plan[22], which was part of the initial master plan, was recently revised due to a decline in the housing market in Belarus and the shortage of industrial infrastructure for the first stage. This results in a 75 per cent cut in building of urban housing at the first stage.

As of today, the first stage of development of the park is being implemented, which is related mostly to the construction of infrastructure, office and industrial buildings, as well as attracting investors.

[22] Development of urban housing infrastructure was agreed to be financed using technical assistance/aid provided to Belarus and the park by China.

Entry requirements for residents

According to the Decree number 166, there are nine priority sectors chosen as the entry requirement for becoming residents in the GSIP:

(i) mechanical engineering
(ii) electronics and telecommunications
(iii) fine chemistry
(iv) pharmaceuticals
(v) biotechnology
(vi) new materials
(vii) integrated logistics
(viii) electronic commerce and big data
(ix) research and development.

It is not that clear how the government of Belarus decided on the list of sectors since there have not been any analytical papers that are available to the public in justifying the decision. However, it is likely that they are directly linked to the National Program of Development of Industry of Belarus until 2020 and the National Strategy for the Sustainable Social and Economic Development of Belarus for the period until 2030 (the Strategy) ("Nacionalnaya Strategiya Ustoichivogo Socialno-Economicheskogo Razvotiya Respubliki Belarus do 2030 goda," 2015). In particular, the strategy is divided into two phases. The first phase is taking place now and will last until 2020. It will see the transition to a balanced economy growth via structural transformation of the economy on the basis of environmental friendliness, with the prioritisation of high-tech manufacturing. The second phase will take place in 2021-30. Its key purpose is to maintain steady development to raise the quality of human potential, accelerating the development of science-intensive production and services and further development of the green economy. The government's role is to create conditions for development of sectors that are expected to grow in the near future while at present it might be a lack of human and other resources to support this type of growth. This should be regarded as an attempt to spark a structural shift from traditional drivers of economic growth to new ones that are more productive and rely on more advanced occupations. While a lot of developed countries rely on automation to succeed in an economic boost, Belarus chose to concentrate on the creation of opportunities and incentives for new industries that are more productive with competitive output, at least within the EEU. Higher productivity implies faster economic growth, more consumer spending, increased labour demand, and thus greater creation of jobs. As a result, this will equip workers with the right skills.

Based on the Chinese SIP experience and in contrary to the FEZs and HTP, the GSIP does not employ the extraterritoriality approach. To be registered as a resident of the park, any legal entity established in the Republic of Belarus must be located within the territory of this park or established directly in the industrial park by its residents, with or without the participation of a foreign investor, and implementing (planning to implement) an investment project in the industrial park that meets all the following conditions simultaneously:

- according to the investment project the legal entity needs to carry out economic activities in the priority sectors discussed earlier;
- the declared amount of investments in the implementation of the investment project is not less than 5 million US dollars (or not less than 500 thousand US dollars for the R&D project). The declared amount of investments in the implementation of the investment project (except for R&D projects) may amount to 500 thousand US dollars or its equivalent, under the condition that the investments in this amount will be made within 3 years from the date of conclusion of a contract between the stated legal entity and the park administration, defining the conditions of its operation in the industrial park.

Attraction of FDI is an important objective of the "Great Stone" development. The Belarusian government has declared that FDI is considered to be a core of economic policy of the country in attracting new technologies and integrating Belarus into the global value chains. Referring to the park's development, there is a strategy of FDI promotion that consists of a list of instruments, parties involved and priority markets. Action plans are formed annually by the Ministry of Economy and approved by the Intergovernmental Coordination

Council of the Chinese-Belarusian Industrial Park. In accordance with the ongoing plan, the Industrial Park Development Company is in charge of FDI attraction. However, the administration of the industrial park deals with the implementation of the one-stop-shop operations. Together they play an important role in making foreign companies reside in the park.

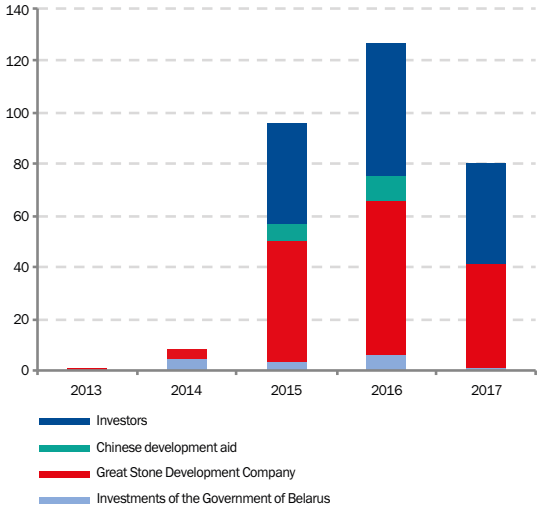
Investments, residents and incentives

Residents of the GSIP are provided with the most favourable economic regulations and terms in comparison with the FEZs or the HTP regulations and terms of business activities in the Republic of Belarus.

Residents of the Industrial Park can enjoy unprecedented economic incentives in taxation. For instance, there is no income tax for 10 years from the moment gross profit has been declared, and then (until 2062) there is 50 per cent discount rate applied. Also, there is no property tax, no land tax, no VAT and customs duties on goods for the implementation of the project. Individual income tax is lowest in the country, only 9 per cent. In case the legislation of the Republic of Belarus establishes more preferential regulations related to other free (special) economic zones in the Republic of Belarus, the relevant provisions would be applied to the industrial park. More information on tax and other benefits can be found in Appendix 2.

As of the end of 2016, apart from four Chinese companies, who invest in the development of the industrial park's infrastructure (who are also shareholders of the Great Stone Development Company), 36 other companies were registered as residents. To compare, there were just eight residents at the beginning of 2016. It is expected the number of residents will grow, reaching 60-70 by the end of 2020. ("Interview with Hu Chzen," 2018) Investors come from different parts of the world: , and as of July 1, 2018 there were 20 from China, 9 – from Belarus, 1 – from Lithuania, 1 – from the US, 1 – from Russia, 1 – from Austria, 1 – from Israel, 2 – from Germany. The total amount of declared investments is about US$ 1 billion. More information on the investors and projects can be found in Appendix 7.

Chart 25. Total investments in the Great Stone, million US dollars



Source: the "Great Stone" Development Company

The territory of the Great Stone Industrial Park has been developed by the joint Great Stone Development Company using two sources of financing: equity and debt instruments. Besides, private companies have also invested in the park. In particular, in 2017 about US$ 80 million were injected privately by the Chinese shareholders of the development company. The government of Belarus has been involved in developing the park's infrastructure, but around its territory. Chinese development aid to the industrial park also plays an important role in its development, primarily financing urban infrastructure. In total, about US$ 300 million has been invested in the industrial park in the past five years (see Chart 25).

Soft skills transfer

The successful delivery of the GSIP relies on a highly capable park administration, a highly efficient development company and the development of quality local workforce that can provide good quality services to investors.

One of the most important factors and pressing issues to address is the training and development of a workforce that is capable of matching the international management standards that China has already been exposed to. China stopped being a low-cost labour country and has become known for its highly skilled workforce. And this is not related just to the STEM professions. Public policy operations and state governance are also of a higher quality. China moved away from the wholly centralised government to a system that gave greater authority and responsibility to local governments, enterprises and production units to set and achieve performance targets. Realising that new and more sophisticated management skills and technologically skilled labour and human capital were critical for the sustainability and advancement of an economy, the central government gave priority to management training. Based on the Chinese SIP experience, as part of the joint project in the creation of the GSIP the two parties also agreed that knowledge and technology transfer would be part of the cooperation. For Belarus, the main idea behind this decision was to learn relevant skills to quickly catch up with developed countries. That is, such a transfer would provide the much-needed impetus and opportunity for the park's residents and employees to acquire modern management skills and practices to move Belarus closer competitively over other countries in terms of attracting foreign investors and raising its profile internationally. The expectations are very high since the government of Belarus plans to replicate the park's experience in other parts of the country.

Starting from 2014 and under the administration of the Ministry of Economy of Belarus and Ministry of Commerce of China, the two countries have developed and held a number of relevant workshops for employees of the Great Stone Development Company and the Great Stone administration.

Other civil servants involved in the project have also been trained. Areas of study in upcoming years are usually defined at meetings of the Joint Interagency Working Group on Chinese-Belarusian Industrial Park and approved by both sides. In Belarus, Ministry of Economy is responsible for arranging them, while financing comes from China in the form of technical aid to Belarus or directly to the Great Stone Industrial Park. For example, in 2017 there were three big workshops arranged and related to the park's operations: two in China and one in Belarus. About 150 experts from Belarus participated in the events. Their content was related to various subjects of economic and social development of the country. There was no in-depth and intense training related to the GSIP. For Belarus, cooperation with China plays a crucial role in getting knowledge and learning from the Chinese experience to increase the country's competitiveness. Having realised that local state managerial staff in both the public and private sectors do not meet the vigorous management standards of foreign companies and governments, the Belarusian government strived for fast and efficient education opportunities provided by cooperation with China in the Great Stone project. In brief, the government aims to embrace management training programmes for employees of the park as well as other institutions involved in the project in order to get new and sophisticated management skills as well as technologically skilled human capital to successfully implement the soft skills transfer programme.

This seems a rather reasonable goal in facilitating economic development and increasing international competitiveness. Some governments in Asian countries have already achieved these two goals. Singapore is a remarkable example. However, in the case of Belarus no clear framework has been set so far. The Intergovernmental Coordination Council of the Chinese-Belarusian Industrial Park sets a general goal to implement a large-scale knowledge transfer programme, although there are no instructions given on how to acquire and adapt skills and knowledge. The management of change requires more human and time resources assigned to this task since the "vague" approach that relied heavily on local personnel will not lead to success.

Therefore, there are a number of concerns that should be discussed and addressed by the parties provided the "soft" skills transfer programme is considered:

1. Ensure that qualification of personnel hired and their experience are up to standard. This is directly related to their ability to absorb new knowledge and information and make them applicable in Belarus.

2. The format, frequency and intensity of education. As a rule of thumb, closer and more frequent communications cause faster and wider dissemination of knowledge across borders.

3. Availability of experts from China for in-residence advisory services to the park administration. The SIP experience shows that setting up the Singapore Software Project Office in Suzhou that was run and administrated by the Singaporean Development Board helped to introduce, absorb and adapt tacit foreign knowledge to a local environment. In the case of Belarus, this approach has not been considered yet and the parties are discussing an option of having Chinese experts from the SIP available for their Belarusian peers on request. This approach might seem effective and convenient. In fact this could be so, provided that the Park administration is proactive, with a clear vision, tasks and strong leadership.

Policy conclusions

The GSIP started as a joint project between the governments of Belarus and China. It combined the domestic experience of Belarus on developing special economic zones, and the international experience of China in implementing the Singaporean model. Although all relevant official institutions have been set in place and necessary policies designed, there is still room for efficiency improvement. Some lessons from past experience were applied too. Below we summarise key policy challenges that relate to the project.

1. The Great Stone project in its nature and with reference to the local development policy of special economic zones is aimed at closing the gap the HTP has in attracting high-tech businesses. The government addressed this disadvantage in Decrees number 166 and 8. That is, both parks should now be treated as complementary elements of economic policy. They both were set up to promote high-technology businesses, but have a different set of preferred industries for residents.

2. The government changed its approach in registration of residents in the GSIP. Lessons from the FEZs and HTP cases were learned. There is no extraterritorial approach being utilised by the GSIP. So, each resident must be located within the physical boundaries of the park. This makes the park model in Belarus closer to successful international practices.

3. The government also took into account negative aspects of the FEZs and HTP experience in management of the GSIP. There were two institutions created: the development company and the administration of the GSIP. With different goals, approaches and structure, these two organisations complement each other in developing the GSIP model. As a result, the management is clear, more effective and

dedicated to the GSIP development goals. Important to mention, the Administration of the GSIP is solely responsible for registration of residents as well as providing all necessary business services on the "one-stop-shop" basis. This approach tends to eliminate unnecessary bureaucracy and to lower transaction costs. Such structure also helps to adopt the experience of China and bring new instruments in the economic model of Belarus.

4. A focus of the Great Stone on attracting FDI with clearly defined characteristics aligned with the factor endowments on offer, would make decision-making, investment and supporting initiatives considerably easier. However, it may be too early to introduce a policy that is focused on a narrow area for FDI attraction. The country has not accumulated enough FDI and established itself as a territory attractive enough for foreign investors. On the other hand, if this is regarded as a deliberate policy tool of the government to spark a structural shift from traditional drivers of economic growth to more productive ones with an advanced skillset, then it makes a lot of sense. It is especially in line with recommendations of the IMF and the World Bank on structural reform of the economy.

5. There are risks associated with Belarus being a part of the Customs Union. They should be taken into account based on lessons stemming from the FEZs' experience. In particular, unstable and inconsistent relationships with Russia, a major market for Belarusian companies, represented in non-trade barriers that were set up against Belarusian products and services being sold in the Russian market. Although there is a clear legislation of the EEU with reference to special economic zones, customs procedures, incentives and trade, there is still a level of uncertainty on how to protect goods and services being produced by the GSIP residents in case of possible tensions between the two countries.

6. The government introduced an option that permits foreigners to own land within the territory of the GSIP. This is important point based on lessons learned from the experience of FEZs and the HTP. So, the GSIP residents (foreign and local companies) are eligible to purchase land plots for business purposes. As of the end of 2016 about 10 per cent of land provided for use and operations within the park was sold in private ownership. The residents of the industrial park are obliged to proceed with the use of the land plot provided for the construction of the industrial park facility within two years from the date of the park administration's decision to permit design and survey work.

7. Access to finance remains constrained for the park residents due to a combination of lack of long-term funding, high interest rates and stringent collateral requirements demanded by local legislation. The two governments set up two financial instruments to support business projects in the park. The Great Stone Development Company created a US$ 20 million investment fund in the park to finance start-ups. China Merchant Group created a US$ 0.6 billion investment fund on the Cayman Islands to support business development. However, these instruments are of limited availability for investors at the moment. There is also no experience accumulated to be confident in their effectiveness. In this case, there is a need for trusted and already-implemented mechanisms. It creates room for the EBRD to step in and support. In particular, the Bank could create a new or customise an existing financial instrument(s) to provide long-term debt and equity financing to local and foreign investors. For instance, the ability of residents to own land offers more opportunities for collateralisation.

8. An important lesson from the past is related to development of local business environment and soft skills transfer programme. More human and time resources should be devoted to the implementation of the "one stop-shop" procedures based on international experience. In Belarus, Ministry of Economy is responsible for arranging them, while financing comes from China in the form of technical aid to Belarus or directly to the Great Stone Industrial Park. For instance, in 2017 there were three big workshops arranged and related to the park's operations: two in China and one in Belarus. About 150 experts from Belarus participated in the events. They had content that was related to various subjects of economic and social development of the country. There was no in-depth training related to the GSIP. To make cooperation successful, it is necessary to set up a special department within the Park administration that would be focused only on adaptation and implementation of experience of the SIP in Belarus. In addition, on-site advisers from SIP should be invited, as well as advisers from other countries. In order to make the process more clear, there is a need to elaborate on a broad agreement between the parties on learning and knowledge transfer in order to define topics and sub-topics of focus for a particular time period and avoid weak leadership. Frequent face-to-face interaction between the parties at all levels is important too.

9. Another lesson from the HTP experience that should be applied to the GSIP project is cooperation with local academia. It may be useful in promoting education in STEM disciplines together with employment opportunities for Belarusian students. Unfortunately, not much attention has been paid to this element so far. There are loose linkages between universities and businesses together with an increasing gap between market demand supply of talent offered by local universities. With no measures taken this could result in a low-skilled labour supply for the GSIP. In turn, this will be a major constraint for international high-tech companies to come and produce competitive products let alone conduct basic research or set up R&D departments in the park.

10. The importance of private sector participation: according to Farole & Akinci (2011), for those FEZs that are run successfully, policy makers often work closely with the private sector to evolve zone policy in light of changing needs. Presidential Decree number 166 was an invention that involves substantial consultation of stakeholders from the state and private sectors of China and Belarus for the first time in Belarusian history. The outcome was significant. A number of policy innovations were created to build an enabling environment as mentioned above and a few issues encountered by the private investors were resolved.

Appendix 1: Architecture of official collaboration between Belarus and China

The Belarusian-Chinese Intergovernmental Committee on Cooperation

Co-chairs:

Deputy Head of the Presidential Administration of Belarus ,
Mr N. Snopkov

The Member of the Politburo of the CPC Central Committee, Secretary of the Central Politics and Law Commission of the CPC Central Committee,
Mr Meng Jianzhu

The Belarusian-Chinese Commission on Trade and Economic Cooperation

- Joint Interagency Working Group on the Great Stone Industrial Park
- Joint Working Group on Interregional Cooperation
- The Belarusian-Chinese Commission on Scientific and Technological Cooperation
- Commission on Security Cooperation
- Commission on Educational Cooperation
- Commission on Cultural Cooperation

Note: Bodies involved in the park's development are in blue.

Appendix 2: Comparison of incentives of economic regimes

Benefits	Belarus	Great Stone Industrial Park	High Technology Park	Free Economic Zones
1. Tax benefits				
Duration of the regime	-	**until 1 January 2062**	**until 1 January 2049**	**until 1 January 2049**
Income tax	18%	Exemption for 10 years from the moment of appearance of gross profit, then (until 2062)- 50% from existing rate.[1]	Exemption. Income received by foreign companies from the HTP resident is exempted from taxation.	Residents registered before 1 January 2012 are exempt for 5 years (1 January 2017 until 31 December 2021) Residents registered after 1 January 2012 are exempt for 10 years starting from the moment of appearance of gross profit. After either period is over – income tax is paid at 50% discount until the end of FEZs operation (2049).
Property tax	1%	Exemption until 2062.	1%	1%
			Exemption, except for property leased by residents.	Exemption on property acquired within the three year period from the date of registration as a resident, except for property being leased. Exemption for the whole period of FEZs operation provided that goods produced are either exported or sold to other FEZs residents.
Land tax	Depending on the cadastral value of the land plot	Exemption until 2062.	Exemption up to 3 years.	Exemption for construction period and up to 5 years from the date of registration as a resident.

Benefits	Belarus	Great Stone Industrial Park	High Technology Park	Free Economic Zones
Value added tax	20%	20%	20%	20%
	(0% when exporting the goods, including EEU countries).	(0% when exporting the goods, including the EEU countries).	Exemption on sales of goods and services by residents on the territory of the Republic of Belarus. Exemption on marketing, consulting and other services provided by non-residents.	Exemption from the VAT collected by the customs provided that imported raw-materials, equipment and parts were used under the free trade zone regime, and goods produced using them are sold within the EEU market (which means obligation to pay all customs duties on imported raw materials, equipment and parts).
	Deduction within the VAT for the sale of goods (work, services), property rights.	Deduction within the VAT for the sale of goods (work, services), property rights.		
		Return from the budget in full amount of taxes paid on the acquisition (import) of goods (works, services), property rights for the design, construction, equipping of the park facilities.[2]		
VAT on purchase/ sale/lease, financial lease (leasing) of real estate, including land	20%	Exemption[3]	20%	20%
VAT in the case of the provision of work (services), property rights	20%	Exemption from VAT in case of providing residents of the industrial park with works (services), property rights.[4]	20%	20%
Tax on dividends	15%	0% within 5 years starting from the first calendar year in which dividends are accrued.	0%	15%
2. Customs benefits				
VAT and customs duties on goods for the implementation of the project	VAT-20%- the amount of tax depends on the type of the product (from 5% to 20%).	0% for: - **equipment** (spare parts to it); - **raw materials and materials**, provided that such are not produced in the EEU countries (produced in insufficient quantities or do not meet the technical specifications of the project) when agreed with the Park administration.		

Benefits	Belarus	Great Stone Industrial Park	High Technology Park	Free Economic Zones
VAT and customs duties on raw materials, materials, components for production	VAT-20%- the amount of tax depends on the type of the product (from 5% to 20%).	0% for export outside the boundaries of the EEU (customs procedure for a free customs zone).	Exempted	Exemption from the VAT collected by the customs provided that imported raw materials, equipment and parts were used under the free trade zone regime, and goods produced using them are sold within the EEU market (which means obligation to pay all customs duties on imported raw materials, equipment and parts).
VAT on raw materials, other materials, components for production	VAT – 20%	0% for the goods produced from imported raw materials and materials from the territory of the EEU.		
3. Benefits in relation to labour				
Income tax from individuals (employees)	13%	9%	9%	13%
Deductions to the social protection fund	35% of the employee's salary	0% for foreign citizens.	35% of the employee's salary	35% of the employee's salary
		For citizens of the Republic of Belarus 35% of the average wage in the country	For citizens of the Republic of Belarus 35% of the average wage in the country	
The state fee for issuing a special permit for the right to work in the Republic of Belarus, for attracting foreign labour	Around US$ 70 for one foreign citizen;	Exempted	Exempted	Exempted
	Around US$ 750			Around US$ 750
4. Other benefits				
Mandatory sale of foreign currency earnings	30%	No	No	No
Opening accounts in a foreign bank	With permission from the National Bank.	Allowed.	Allowed.	With permission from the National Bank.
Term of completion of foreign trade operation	Export-180 days	Not limited.	Export-180 days	Export-180 days
	Import-90 days		Import-90 days	Import-90 days

Benefits	Belarus	Great Stone Industrial Park	High Technology Park	Free Economic Zones
Visa-free regime	5 days	180 days at the request of the Park administration.	Applied for foreign workforce including shareholders of the HTP residents	5 days
Guarantee of safety regime	No special rules.	Stabilisation clause (10 years).	No special rules.	No special rules.
		Consideration of administrative cases only by the court.		
		Moratorium on conducting inspections (only in exceptional cases with the permission of the Park administration).		

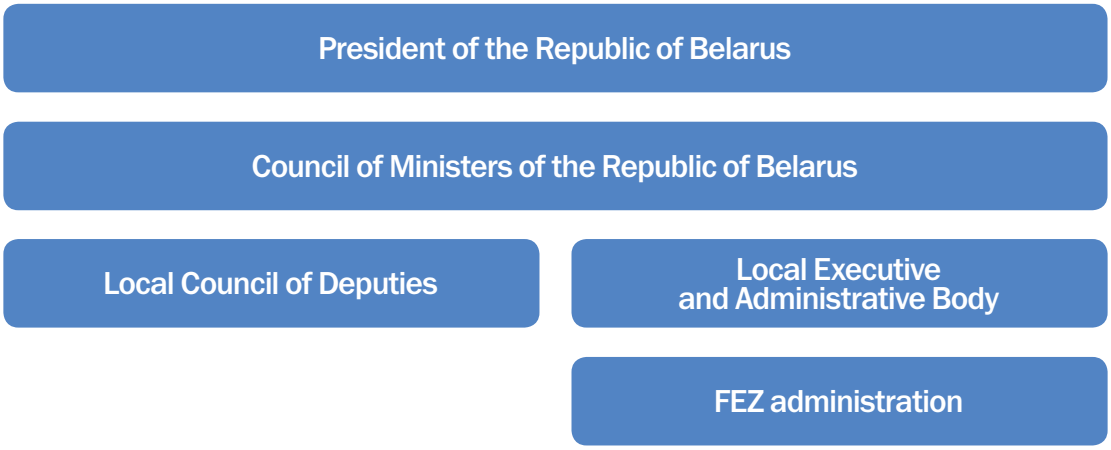
[1] In order to get this benefit it is necessary to have the certificate of goods (works, services) of own manufacture, issued by the Belarusian Chamber of Commerce and Industry.

[2] In practice, the company pays VAT, but paid amount shall be returned to the Industrial Park resident based on the list of goods purchased (imported) for the investment project implementation that was approved by the Park administration (clause 46 of the Regulations).

[3] In the agreements between the joint company and residents/investors or other participants in relation to land plots located on the territory of the Industrial Park VAT is not applied.

[4] Including services (works) rendered by foreign companies, acting without a permanent office.

Appendix 3: Structure of management of FEZs



Appendix 4: Brief information on integration of the HTP in the local economy

In 2016, the Hi-Tech Park initiated an educational project on programming in Scratch for schoolchildren. The project was supported by the Ministry of Education and successfully launched. In April the IT Academy for Kids opened in Orsha. The academy is intended to help kids and school students learn programming as well as train school teachers how to program in Scratch. With the support of the Hi-Tech Park, the IT Academy for Kids "Compass" was opened at the Orsha District Creativity Center for Children and Youth on 22 April. "Compass" has become the fourth regional IT academy opened with the support of the HTP after "NOTA" and "RITM" in Novopolotsk (in 2010 and 2013, respectively), and "Steps" in Lida (in 2014). In addition, the Department for Regional Development in the Grodno region was created as an independent structural unit of the HTP administration. In summary, there are four IT clusters in Belarus – Minsk, Grodno, Gomel and Brest - which provide the HTP residents with human resources from local universities.

Today, the HTP residents support over 50 joint research laboratories. Such labs serve as channels for applied knowledge transfer between the industry and the education system. Many IT companies developed special education courses and were implemented in the education process of universities. Free training courses for faculty and students are available year round.

Over 20 branches of computer science university departments are operating in IT companies bringing together educational process and production to improve the quality of training of local IT specialists. Representatives of IT companies conduct special courses, supervise coursework and theses. In 2010 the Education Center of the HTP was established to provide re-education for adults who want to start a career in the IT industry. iTeen Academy for kids aged 6-15 also operated within the centre.

During open days at the HTP over 4,000 high school students visited offices of the HTP companies in 2016. They met with software engineers and other IT specialists, learned about IT professions, and received advice on how to build a successful career in the IT industry ("High-Tech Park Belarus Reveals 2016 Revenue Results," 2017).

Besides being a host for big IT companies the HTP also provides support for IT startups. HTP Business Incubator is intended to provide assistance to startup companies which develop their own products, and build a special innovative environment in its co-working space designed for communication, learning, exchange of ideas and joint creativity.

In 2016, the HTP Business Incubator in Minsk hosted 55 events (conferences, workshops, contests, hackathons, and so on) that attracted more than 9,000 participants (in 2015, there were 12 events and 2,000 participants).

In addition a free basic course in innovation and entrepreneurship was launched by the HTP Business Incubator that is designed to provide practical assistance to the startup community.

Appendix 5: Comparison of some economic indicators taken per employee of respective regime

Chart A5.1. Comparison of Productivity. Belarus = 100.

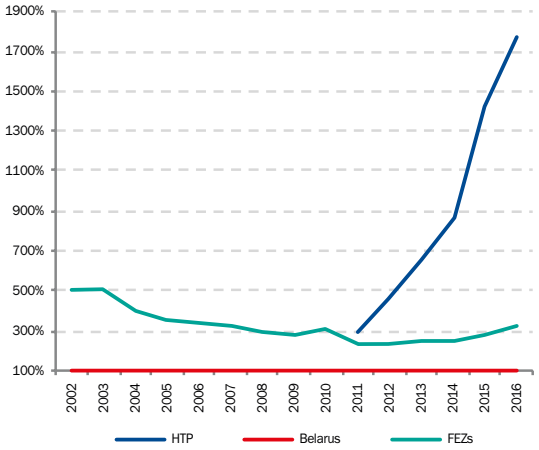


Chart A5.2. Comparison of Revenue. Belarus = 100.

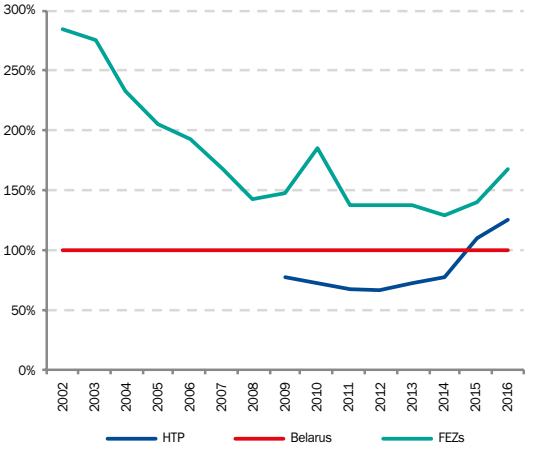


Chart A5.3. Comparison of Net profit. Belarus = 100.

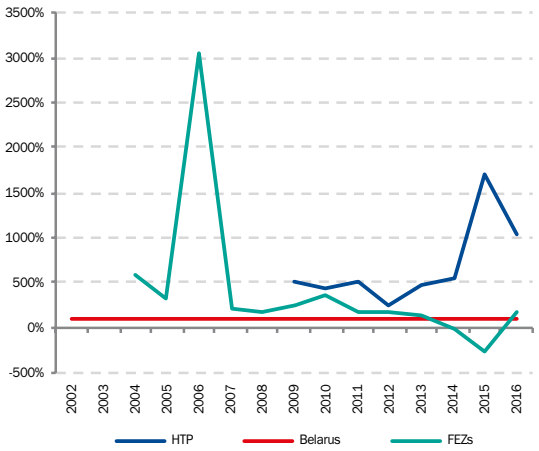


Chart A5.4. Comparison of Exports. Belarus = 100.

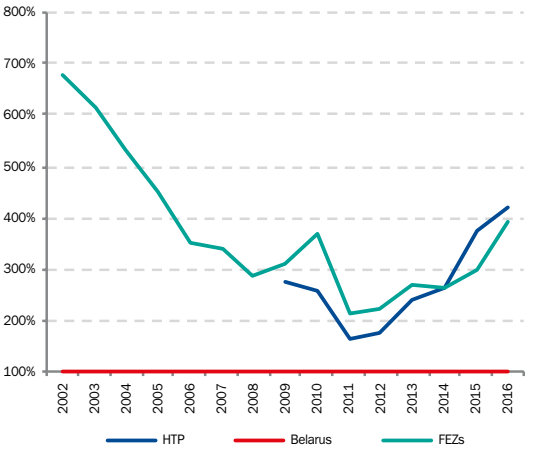
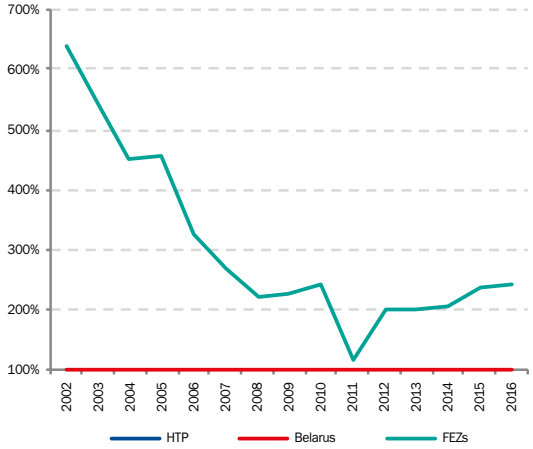


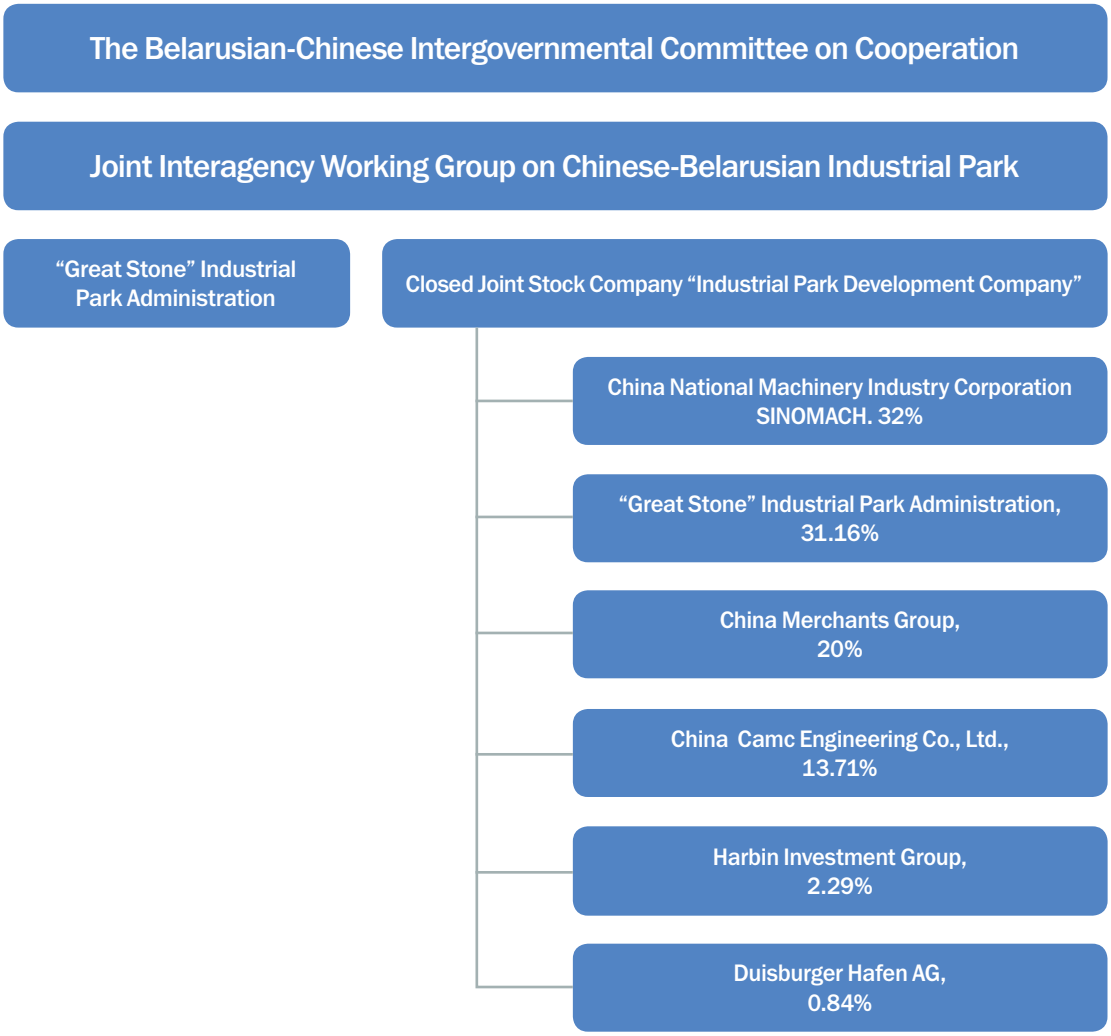
Chart A5.5. Comparison of Imports. Belarus = 100.



Source: author's calculation based on the Belstat data

Notes: there is no official data on imports by the HTP residents

Appendix 6: The Great Stone Industrial Park collaboration structure



Appendix 7: List of residents of the Great Stone Industrial Park[22]

№	Name of company	Country	Project description	Declared amount of investments
1.	OOO BelaHuawei Technologies	China	Establishment of R&D centre	US$ 5 million
2.	OOO Zavod Telecommunikacionnogo Oborudovaniya	China	Production of telecommunication equipment	US$ 5.9 million
3.	PUP Zoomlion Bel-Rus	China	Machine building	US$ 27 million
4.	OOO Chendu Sindzu Shelkovyi Put Razvitie	China	Production of super capacitors	US$ 5 million
5.	UP YTO Technology BLR	China	Establishment of R&D centre in electronics and agricultural machines	US$ 5 million
6.	OOO NanoPektin	Belarus	Pectin processing	US$ 12.8 million
7.	OOO SAS Industrial	China	Production of radiators	US$ 10 million
8.	OOO Bel Lotosland	China	Production of geothermal heat pumps	US$ 5 million
9.	OOO Kompaniya po proizvodstvu osvetitelnyh priborov Fan Chan	China	Production of liquid metal based lighting devices	US$ 5 million
10.	OOO Greatdekor	Austria	Production of wooden surfaces	US$ 25 million
11.	ZAO China Merchants CHN-BLR Kommercheskaya i Logisticheskaya Kompaniya	China	Logistics	US$ 500 million
12.	OOO AE International Investment	China	Production of lighting equipment	US$ 5 million
13.	OOO Fluence International Technologies	China	Production of LED based lighting devices	US$ 6 million
14.	OOO Hashhaid	Belarus	Big data processing. Blockchain	US$ 2 million
15.	OOO Ruhtech	USA	Production of opt mechanical and laser equipment	US$ 30 million
16.	OOO CETC China Electronics	China	Big data and AI R&D	US$ 1.5-3.0 million
17.	OOO New Kraft Technologies	Lithuania	Production of cellulose polymer based goods	US$ 7 million
18.	OOO Assomedica	Belarus	Production of medical equipment	US$ 2 million

[23] As of 1 July 2018.

№	Name of company	Country	Project description	Declared amount of investments
19.	OOO Opticheskie sapfiry	Russia	Production of sapphires	US$ 10 million
20.	OOO MAZ-Veichai	Belarus-China	Production of internal combustion engines	US$ 12 million
21.	OOO Lanz Manufactur	Germany	Production of LED lighting	US$ 3 million
22.	OOO Las-International (MCK) informacionnye technologii	China	Big data processing	US$ 2 million
23.	OOO Levanta Grupp	Belarus	Production of industrial air conditioners and equipment	US$ 8 million
24.	NP OOO Kompozitnye konstrukcii	Germany	Production of composite material based goods	€200 million
25.	OOO Technologii avtomobilnyh plenochnyh pokrytii	China	Production of automotive lighting equipment	US$ 12 million
26.	OOO RESIF Technologiya Bel	Belarus	Project in additive technology	US$ 0.5 million
27.	OOO Mejdunarodnaya tehnologicheskaya kompaniya Intellectualnoe oborudovanie	China	Creation of R&D centre for testing self-driving cars on new source of energy supply	US$ 5 million
28.	UChPP Kuvo	Belarus	Production of glass for all kinds of automotive transport	US$ 6 million
29.	OOO ACCIS	Belarus	Production of electronic parts. Creation of e-trade logistics centre for radio electronic and electronic parts	US$ 0.6 million
30.	OOO Standard Nuvo	Belarus	Production of environment friendly, multibarrier, biodegradable, aseptic packaging and products	€12.8 million
31.	OOO Duomedika	Belarus	Production of multipurpose mechanical equipment for support of functioning of left and right ventricles of heart	US$ 0.56 million
32.	OOO RemkomBel	Israel, Switzerland	Production of solar panels	US$ 1 million
33.	SZAO Aviacionnye technologii i kompleksy	China, Belarus	R&D and production of aviation equipment and its sets	US$ 2.4 million
34.	OOO SITAM Intelligence Equipment	China, Belarus	Production of robotics equipment	US$ 1 million

№	Name of company	Country	Project description	Declared amount of investments
35.	OAO Ordena Trudovogo Krasnogo Znameni Institut Belgosproetkt	China, Belarus	Design of projects and objects in the Great Stone Industrial Park by using internet-based platform of storing and processing big-data based on BIM-technologies	US$ 1 million
36	OOO Cifrograd Tziani	China	Creation of a platform of big data management in construction	US$ 0.5 million

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