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Regional Development Policy Notes

The Spatial Dimension of Structural Change

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ABBREVIATIONS AND ACRONYMS

Belstat	National Statistical Committee	GRP	Gross Regional Product
BSSR	Belarusian Soviet Socialist Republic	IFC	International Finance Corporation
BYR	Belarusian Ruble	MSEs	Micro and small enterprises
CIS	Commonwealth of Independent States	MSMEs	Micro, small, and medium enterprises
FEZ	Free Economic Zone	SOEs	State-owned Enterprises
ECA	Europe and Central Asia	WDR	World Development Report
EU	European Union	VAT	Value-added tax
GDP	Gross Domestic Product	UNDP	United Nations Development Program

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Executive Summary

As Belarus's economy expands, economic production will likely become more concentrated spatially, but policies can help sustain living standards more uniformly throughout the country. Belarus can achieve significant productivity gains from allowing firms to aggregate more spatially and by reallocating labor and capital from less productive to more productive sectors and companies. But spatially blind institutions and policies can still ensure a more uniform level of living standards through broadly uniform quality of education, health, municipal services, and access to jobs across the country.

Policy decisions on regional economic development are based on an understanding of the factors that currently shape the economic density and distances in the Belarus economy at the level of *oblasts* and *rayons*. Initial decisions about location and density matter because once firms and workers make decisions about where to locate, they can be difficult to reverse. The 2009 Word Development Report (WDR) of the World Bank formulates a workable method for capturing the intersection of such important aspects of spatial dynamics as density (of economic activities); distance (flows of people and businesses over space); and division (of labor and trade specialization). This report addresses the following aspects of spatial transformation that are important from the policy perspective.

First, what forces shape economic density and how do they work in terms of economic efficiency? The report focuses on two competing forces: the Soviet industrial legacy and emerging economic activities, mostly in the form of micro, small, and medium enterprises (MSMEs). The large, often vertically integrated, state-owned enterprises (SOEs) that are part of the Soviet legacy still have a considerable role in many industries and indeed dominate the economies of certain rayons and even oblasts. These enterprises often function as employer of last resort for local populations, but many of them – especially those not in the commodity sectors – find their challenges increasing and depend on recurrent state support for survival. New, mostly private, enterprises began to emerge in the early 1990s. These new firms tend to cluster around centers of economic activity and, as this report shows, have been a major driver of regional job creation. However, their growth prospects are being strangled by policies that still channel and maintain significant resources – both labor and capital – in large SOEs.

Second, what is the role of market forces, associated with MSMEs, in encouraging the concentration of economic production? This report shows that because MSMEs generate new jobs and output without draining state resources, it is important to encourage their creation and open opportunities for existing companies to expand, particularly micro and small enterprises. To do so, it is crucial to level the playing field, which is currently titled in favor of SOEs. SOEs enjoy access to state support and other preferences at the oblast and rayon levels. MSMEs could catalyze the reengineering of the Belarusian economy if large, vertically integrated SOEs are reorganized into smaller, more flexible, and more competitive units.

Third, is it spatially blind or spatially focused policies that deliver more economic benefits? Although in Belarus economic activity is distributed relatively evenly, the authorities have used tax incentives to attract business to regions other than Minsk. These geographically concentrated tax preferences have been gradually expanding from "free economic zones" to rural areas and then to small urban areas, and are likely to eventually cover most of Belarus's territory. Without a doubt, these policies have helped to increase the number of small private

firms, but policies that were not explicitly designed with spatial considerations in mind, such as gradual liberalization of economic activities, have done even more to encourage private sector growth. However, this growth is geographically uneven, with a tendency of economic activities to gravitate to industrialized centers.

Fourth, do labor markets have the capacity to absorb the 'excess' labor likely to be released in the course of structural reforms? Workers may find new jobs in a dynamic private sector comprised of MSMEs. As obstacles to commuting are reduced, many people are ready to take jobs that are at greater physical distance from their residence. Workers exploit employment opportunities of neighboring rayons and oblasts. Lower-paid and less productive jobs are left to less mobile locals: at a rayon level, employment growth is accompanied by a deterioration in the welfare of the lowest-income households. Since restrictions on internal migration are counterproductive, there is space for policies to improve the quality of the human capital of less fortunate local laborers or to create incentives for local employment. Active labor market policies with a local outlook can be particularly helpful, contributing to a more hospitable environment to firms and investors.

Other serious questions also need answers, but some are beyond the scope of this report, and others are not answerable because there are not enough data. The short time series of key macroeconomic indicators (2009–14) and the absence of data on capital data at least at the oblast level undermine the credibility of regional growth decomposition, which is otherwise a good way to look at the competitiveness of individual oblasts. Social outcomes, such as poverty, are not recorded at the rayon level, making it difficult to assess welfare in lagging areas. While the provision of education and health services is set according to unified social standards, differences in quality create unevenness. Infrastructure is similarly uneven in terms of the quality of roads, availability of public transport, and even Internet access. The report also leaves behind demographic issues, pays little attention to rural-urban transformations, and makes no attempt to analyze sub-national fiscal systems.

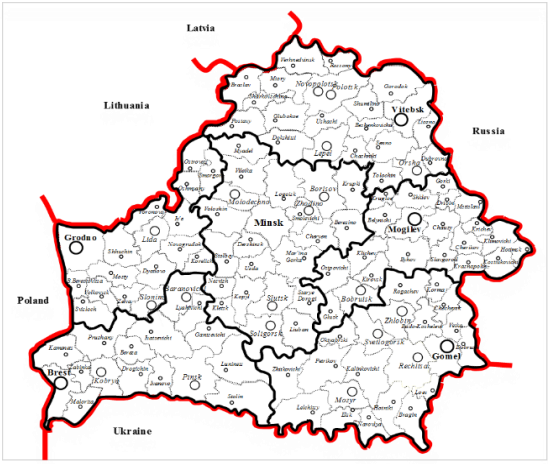
The report revisits the policy debates on how to improve regional economies and their welfare. The central policy message is to improve linkages, eliminate divisions, create opportunities for businesses to cluster to reap the fruits of improved productivity, and most importantly, help people preserve or build market relevant skills. Measures that try to limit agglomeration are unlikely to be productive and as evidenced by countries around the world, end up being costly and unsustainable in the long run. Of course, it is necessary to examine the severity of the challenges, recognizing that the findings can be revised after detailed data become available. Economic development would change the economy's geographic structure and produce temporary losses, especially early in the reform process. The appropriate policy response will be to help the people that experience these losses rather than try to counteract the forces of agglomeration: limiting density and diversity stifles innovation and productivity. Instead, minimizing the economic distance between lagging and leading areas should be addressed mainly with spatially blind or universal policies, such as ensuring the delivery of same-quality public goods across the country.

Box 1: The Territorial and Administrative Structure of Belarus

Belarus has seven regional governments (six *oblasts* and the capital city of Minsk, Map 1), and 130 base jurisdictions (118 *rayons* and 10 municipalities subordinate to oblasts, Map 1.2). There are 109 cities and 104 urban settlements; 12 of the cities have more than 100,000 inhabitants. Of a total population of about 9.5 million, 1.9 million live in Minsk, the capital city and the political, administrative, and economic center. Among the capitals of the six oblasts, the population is distributed relatively evenly: Gomel, the largest, had 1,424,000 inhabitants in 2014, and Mogilev, the smallest, had 1,070,800. Generally, Belarus is an urbanized country, with a large (75 percent) and growing share of the population living in urban areas. Population density is 48 per square kilometer, about world's average.

Map 1. Belarus Oblasts

Map 2. Belarus Rayons



Source: Belstat.

Introduction: Framework and Context

1.1. **Geography influences welfare and economic opportunities.** The 2009 World Development Report (WDR) of the World Bank offers a method for investigating the relationship of economic growth and geographic space. Complicated questions of the geography of countries and regions are reduced to three measurable dimensions: (i) density (concentration of economic activities and labor); (ii) distance (flows of commodities, labor, and capital over the territory); and (iii) division (not only of labor and trade, but also religious and cultural). Three drivers of regional change correspond to these three dimensions: agglomeration, migration, and trade specialization. In many countries, densities intensify due to urbanization and distances become shorter as people and businesses move to cities, borders become more permeable, and peripheral regions enter world markets. These drivers define three corresponding policy domains: urbanization, territorial development, and regional economic integration.

1.2. **Economic change entails spatial transformation**. As the 2009 WDR shows, such transformation is necessarily uneven but can be relieved by evenness in terms of human welfare. For the past two centuries, cities, migration, and trade have been the main catalysts of progress in the developed world. The old stories are now being repeated in the developing world's most dynamic economies. However, the growth delivered by urbanization, migration, and international trade is often unbalanced. Problem areas may need special attention, but wrong-headed government interference can make them worse-off. Historical-geographical experience around the world shows that economic activity initially tends to concentrate geographically, producing inequalities in regional incomes. As an economy matures, these inequalities flatten out, even as the distinction between geographical concentrations of economic activity and more geographically dispersed well-being for the population continues.

1.3. **Because uneven geographic development, in terms of the density of economic activity, seems inevitable, governments had better focus on spatially blind institutional interventions and promote market forces.** Policy makers should not be afraid of increased density and open migration and should let concentration continue until rising congestion costs begin to counteract the benefits that accrue from the economies of scale that accompany agglomeration. Density operates most powerfully at the local level, distance is the critical dimension at the national level, and division is the most vital dimension at the international level. Optimal policy mixes, such as spatial ordering, continue to be context-sensitive, but to contribute to growth they should be combined with spontaneous private entrepreneurial activity.

1.4. **Belarus needs to reorganize its regional economic legacies to make the most of current capacity and foster new and productive activities to enhance competitiveness.** As in many other countries, economic forces in Belarus are concentrated in metropolitan areas, and people and capital flow mainly around highly industrialized areas. These are the nodes of economic activity that are likely to prosper if structural reform improves the business environment. The government should be careful about giving lagging areas too much attention with targeted interventions. Instead, regional development policies should be mindful of

spatially neutral measures and initiatives for connectivity, such as transport and other communication systems. The experience of both developed and developing countries shows that without supporting institutions and infrastructure, incentives have been both expensive and unsuccessful.

1.5. **Detailed data are crucial for studying the intersection of density, distance, and division to draw policy conclusions.** A natural starting point is to trace the relation of the drivers of economic growth and spatial economics. In Belarus, however, regional growth diagnostics are difficult. Gross regional product (GRP) and regional economic growth data exist at an oblast level for 2009–13 on a quarterly basis. Capital stock and aggregate demand data do not exist – only sectoral data are available. And even if capital stock data become available at an oblast level, the sample is likely to be limited to just 35 observations—five years of RGP data for six oblasts plus Minsk. Also, there are two structural breaks in the time series: 2008–2009 (the global crisis) and 2011 (a domestic currency crisis). Moreover, there is a "solvents phenomenon" in Belarus's exports (2012), in that Russia's oil products were re-exported without payment of customs duties to Russia, which boosted total exports in 2012. This phenomenon will make Minsk and Vitebsk oblast artificial regional champions.

1.6. **Many essential questions cannot be answered, but some are not answerable due to data inadequacies.** The pervasive historical-geographical patterns of development, summarized in the 2009 WDR, suggest the importance of a number of areas:

i. **It is crucial to examine the state of connecting infrastructure**. General data on kilometers of asphalt roads hide small glitches that have big implications for cross-regional mobility. Several kilometers of bad road or a bad bridge may affect the locational decisions of firms and deter labor mobility. Transport connections also matter. Irregular bus routes, with schedules unsuitable for commuters, and limited entry of private carriers into remote territories, lengthen economic distances. Using a car may be a good but costly option. Infrastructure quality is even more important for facilitating the flow of labor to more productive jobs than any active labor market policies, even those with a deep regional commitment.

ii. **The most crucial barrier for better understanding of spatial structure is the absence of comprehensive, even anonymized, firm-level data.** The analysis of geotagged firm-level data would make possible a detailed picture of resource allocation and a calculation of the efficiency of factor use. It would also give a better view of production networks among enterprises within the Belarus economy. These networks may change as structural reforms progress. More efficient suppliers can replace less efficient ones. Analysis of firm performance and inter-enterprise production networks is also important for addressing the problem of "factory towns." For instance, the report discusses only one case, "Neman Glassworks", which includes a tiny anecdote: employment at this enterprise began to fall as soon as bus service to neighboring localities was improved). This case does not support convincing generalizations about the poor economic situation in all mono-town areas. It may well be that each factory town represents a unique case due to the different specializations of resident SOEs, that has different implications for survivability.

iii. **Information on social indicators, such as poverty and unemployment, is limited.** Although unemployment data are provided at the rayon level, only registered unemployed are counted. Labor force surveys have not yet been made public, but they provide oblast-level data. Poverty indicators are available from quarterly household budget surveys Concentration of production and wealth in certain rayons suggests that poverty is also localized in certain areas. However, policy discussions should not be framed around the situation of individual settlements. Detailed data are needed to chart the country's hierarchy of cities, towns, villages, each with its own economic profile and network of relationships with others.

1.7. **However, there is enough data available to allow for understanding of the basic forces behind the economic geography of Belarus.** The National Statistical Committee (Belstat) collects data at rayon and oblast levels and in selected large cities. The data cover such areas as certain sectoral output dynamics, investment, demography, the labor market, and basic financial indicators. Quarterly and yearly time series have been available since 2005, and more recently some indicators have been available monthly. Data on major cities are scarce. The report could access data about the structure of employment in 12 major cities only for 2010–13; earlier data are not compatible because the classification of economic activities was changed in 2009. Accordingly, the time series for labor market analysis is short. Still, the administrative structure and the statistics available allow for analysis of the economic profiles of oblasts and inter-oblast differences, including GRP dynamics and composition, concentration of activities within oblasts (at the rayon level), and inter-rayon differences and interlinkages.

Chapter 1. Economic Characteristics of the Belarus Regions

1.8. **Economic activity is concentrated in Minsk and its vicinity, with density beyond the capital broadly uniform**. Minsk has historically been the major industrial hub, although it is now gradually turning into a services cluster. The even distribution across oblasts masks significant within-oblast concentrations of economic activity within a few rayons. Within oblasts, economic activities tend to be concentrated in particular rayons that are typically urban and densely populated.

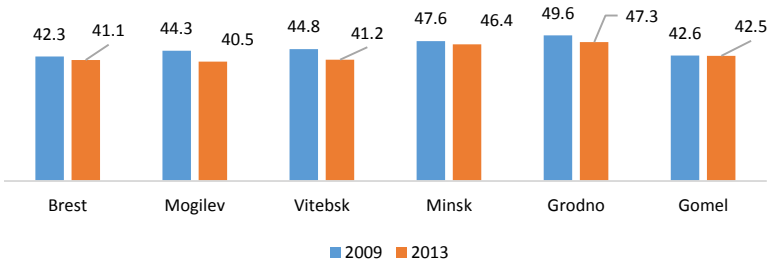
1.9. **Industry continues to be important to all regions of Belarus.** While accounting for 27.2 percent of GDP in 2013, the industry-to-GRP ratio in Minsk city is 25 percent and in the Minsk oblast 44.1 percent. In other locations, oil refining, machine building, and chemicals are highly concentrated. In Brest and Grodno oblasts on the other hand, agriculture, while accounting for only 7.9 percent of national GDP in 2013, contributes over 16 percent to GRP.

1.10. **Spatial industrial structure is inherited, and little has been done to change it. The** policy of limited restructuring helped large, vertically integrated SOEs, formed in the Soviet period, to survive to dominate many industrial sectors as well as individual rayons and even oblasts. Their survival of these SOEs is not only constraining the policy environment, but also creating vulnerabilities by exposing local economies to industry-specific shocks.

A. GRP Dynamics and Structure

1.11. **Belarus has kept economic development relatively even across its six regions, except for the capital city.** Minsk City alone accounted for 24 percent of Belarus GDP[1] in 2013.[2] Per capita GRP in the eastern region of Gomel is about 1.16 times that of the western region of Brest, the region with the lowest per capita GRP (Figure 1.1). Per capita GRP for the six oblasts varies from 60.3 to 70.3 percent of the national average level in 2013. This pattern is also observable for value-added per square kilometer and per employed person (Figure 1.2).

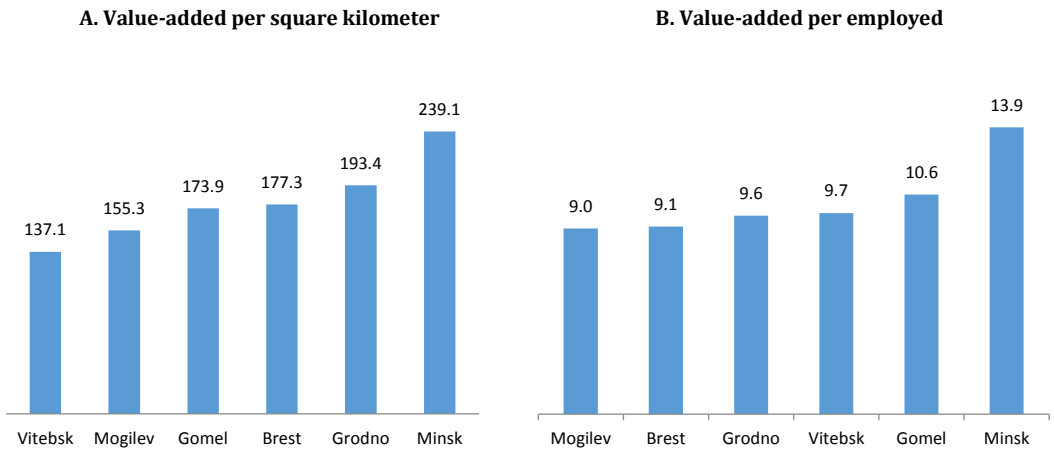
Figure 1.1. Ratio of Oblasts' Per Capita GRP to Minsk per Capita GRP 2009 and 2013 (percent)



Source: World Bank Staff calculations based on Belstat data.
Note: GRP data in BYR are used for calculations.

[1] There is an issue of the undivided part in Belarus's GDP: the sum of oblasts does not constitute Belarus's GDP. If compared to the sum of the regions, the share of Minsk becomes higher.
[2] Although data for 2014 are available, quantitative analysis also uses samples that ended in 2013.

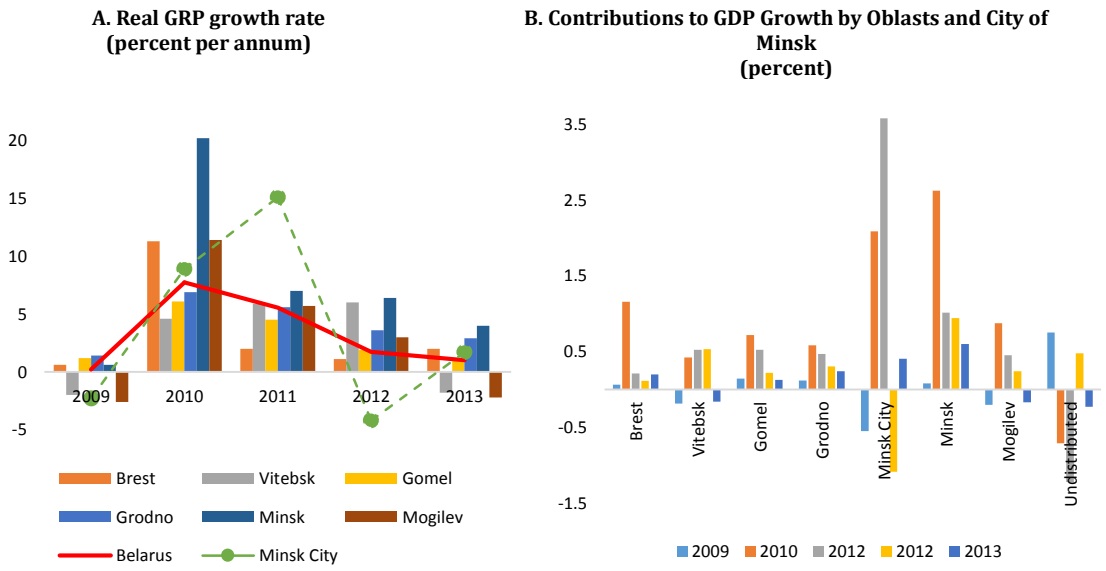
Figure 1.2. Oblast Density Indicators 2013
($ thousand)



Source: World Bank Staff calculations based on Belstat data.

1.12. **GRP growth rates have varied, reflecting differences in the composition of oblast economies**. In three regions, annual average growth rates (2009–13) were below the national average and in four, including Minsk oblast at 7.6 percent growth, were above (Figure 1.3). Industry, construction, and trade are the primary drivers of GRP growth. Industry has a major role in all oblasts: as a ratio to GRP, it accounts for 29.8 percent of output in Brest oblast to 44.1 percent in Minsk oblast, followed by such other sectors as financial and real estate services and social and administrative services (Figure 1.4).

Figure 1.3. GRP Dynamics and Contributions of Oblasts to GDP 2009–13
(percent)

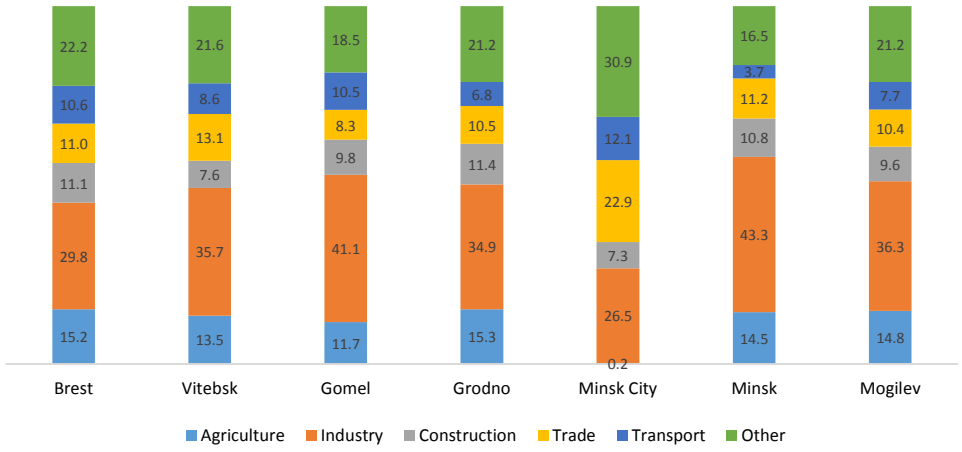


Source: World Bank Staff calculations based on Belstat data.

1.13. **The rise of services is important in all regions, with Minsk City the champion.** Higher shares of trade and construction lead to the dominance of services in GRP and the changing structure of employment. Compared to 1990, industry has lost employment in all regions except the Minsk oblast while employment in trade, catering, and transport has

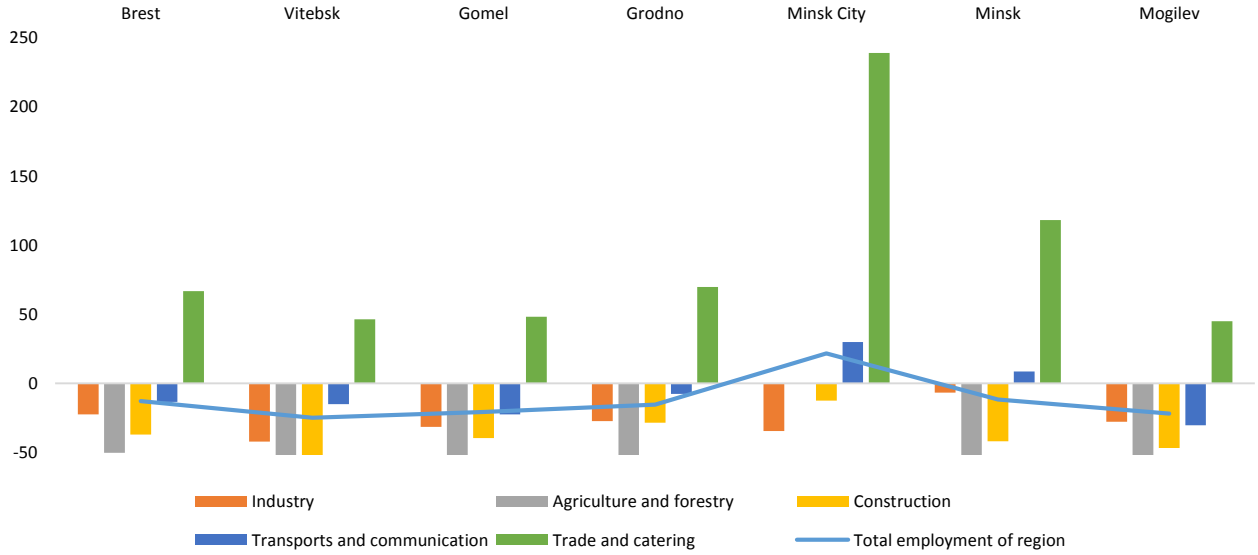
expended (Figure 1.5). More disaggregated, employment in sub-industries saw a further decline in 2010–13.

Figure 1.4. Average Sector Shares in GRP 2009–13 (percent)



Source: World Bank Staff calculations based on Belstat data.

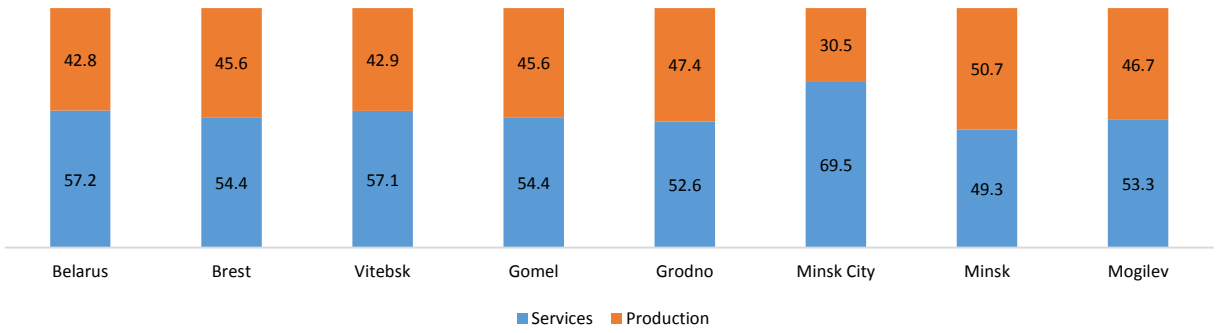
Figure 1.5. Change in Employment Level 1990–2013 (percent)



Source: World Bank Staff calculations based on Belstat data.

1.14. **Services are becoming highly prominent in Minsk City, with industrial activities concentrated in the oblast.** Since 2010, the share of those employed in industry has been decreasing, the share of those employed in trade and some nonmanufacturing sectors has been stable, while the share employed in finance, insurance, and real estate, has been rising far faster than in other oblast centers (Figure 1.6).

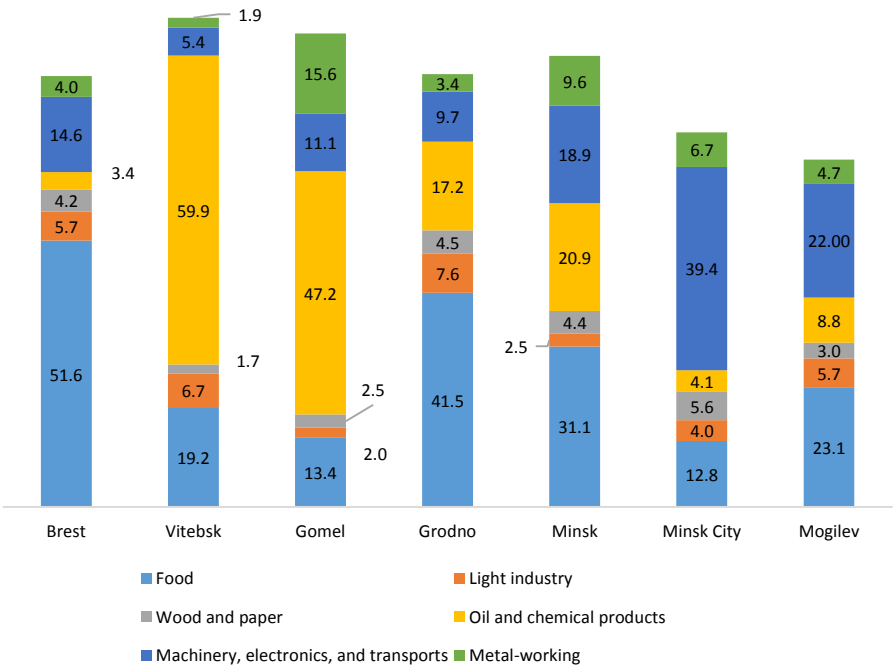
Figure 1.6. Population Employed in Production and Services 2013 (percent)



Source: Belstat.

1.15. **Within the oblasts, industrial structures vary** (Figure 1.7). As of 2013, oil refining [3] accounted for 53 percent of total industrial output in Vitebsk oblast and for 43 percent in Gomel oblast. In the three regions with the largest shares of agriculture in GRP (about 16 percent), food-processing has a share of 52 percent of total output in Brest and 41.5 percent in Grodno, followed by Minsk oblast at 31.1 percent. Minsk City, its oblast, and Mogilev oblast are industrial spaces with developed machine building, electrical, optical, and transport equipment sectors.

Figure 1.7. Shares of Selected Subsectors in Oblast Manufacturing 2013 (percent)

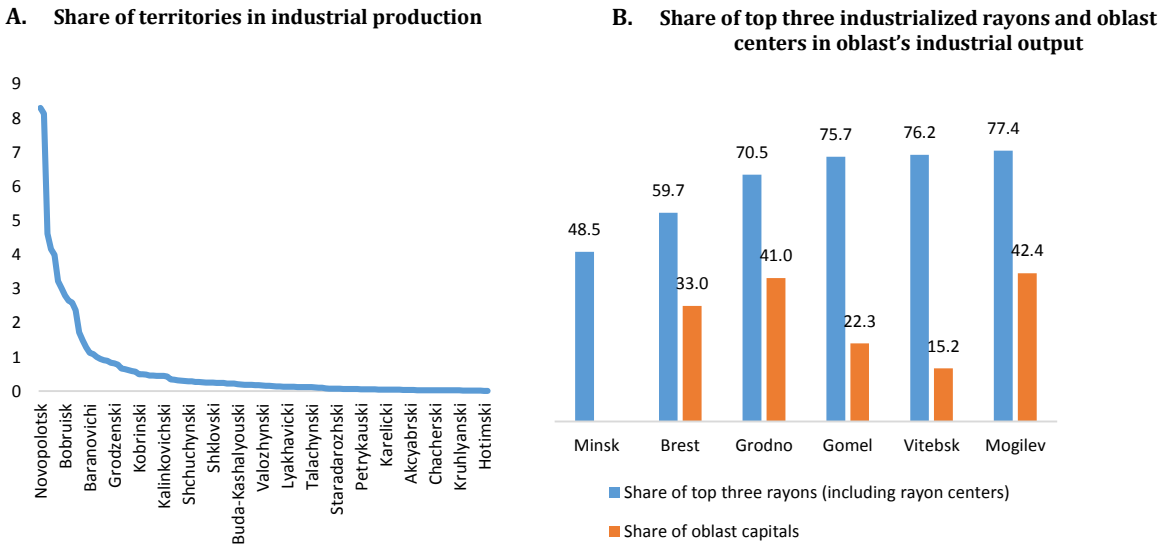


Source: World Bank Staff Calculations based on Belstat data.

[3] How oil is traded affects regional statistics. For example, in 2013, oil exports of Novopolotsk rayon were $560.8 million and of Mozyr rayon $180.4 million, while the total volume of Belarus oil exports at $10,155 billion. This is because a substantial share of oil is sold by the Belarusian Oil Company (http://www.bnk.by/en/), a trader registered and located in Minsk. According to information in the media, in 2013, this company sold about 8.5 million tons of oil products at $ 6.3 billion—the about 43 percent of export revenues of the city of Minsk and 17 percent of the country's export revenues.

1.16. **Within oblasts, industrial production tends to be highly concentrated near their capital cities and other large cities.** About half of Belarus's industrial output is produced in just 14 of the 118 rayons (Minsk is excluded; Figure 1.8). The population of these 14 rayons constitutes about 39 percent of total population. The share of industrial production of oblast capitals in total regional production averages 28 percent, varying from 15.2 percent for Vitebsk to 42.4 percent for Mogilev. Between 48.5 and 76.2 percent of industrial output is produced in the most industrialized rayons, including their urban centers.

Figure 1.8. Concentration of Industrial Production, Rayon Level 2013 (percent)



Source: World Bank Staff Calculations based on Belstat data.

B. Inherited Density and the Associated Economic Vulnerabilities

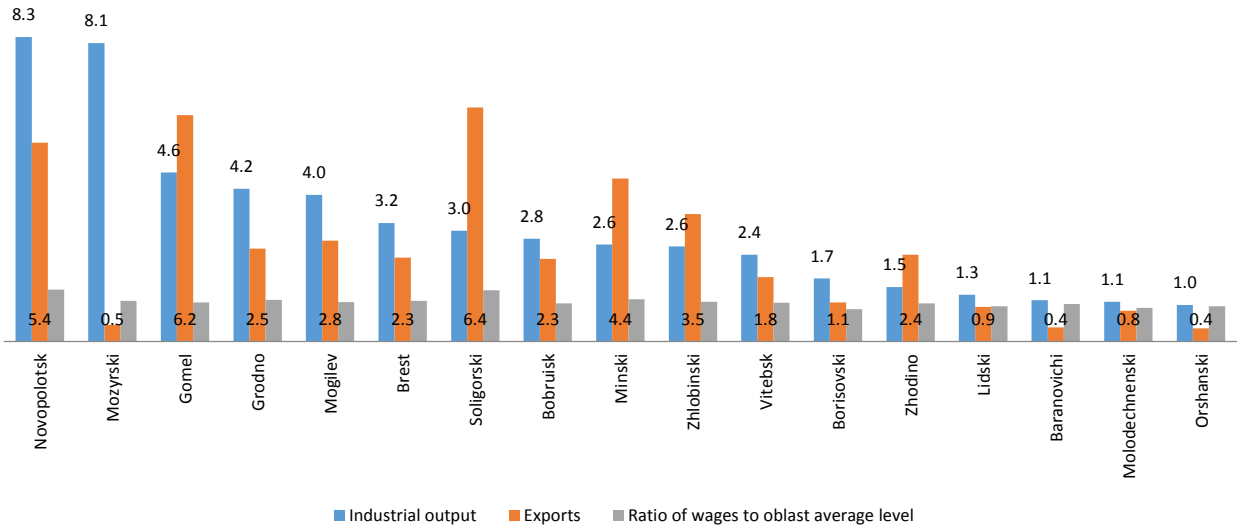
1.17. **A substantial part of the concentration of production is inherited from the Soviet Union.** In the Belarusian Soviet Socialist Republic, the Scientific Institute for Economy of the State Planning Committee developed geographic economic plans (summarized in the 1975[4] classification of socioeconomic regions). In the 1970s, planners selected 19 socioeconomic regions across Belarus (comprising several rayons, excluding Minsk City). These regions each had total populations of 250,000 to 800,000 and a large regional city with at least 50,000 inhabitants and their territory ranged from 7,000 to 15,000 square kilometers. For every region planners selected specific sectors for development, given natural resources and other geographic characteristics. Of the 19 territories, 17 were considered "multi-industrial" and "intensely developing". Still, these territories play an important role in the economy (Figure 1.9). In 2013, the oblast centers and their rayons mentioned in the 1975 classification jointly accounted for 53.5 percent of industrial output and almost 44 percent of Belarus exports[5]. In

[4] The socioeconomic regions were Bobruisk: chemical industry, wood processing, and glass; Baranovichi: light and food industries; Pinsk: wood processing; Molodechno: wood processing, construction materials, food; Lida: glass and porcelain, chemicals; Orsha: light industry and transports; Soligorsk: chemicals; Novopolotsk: fuel, chemicals, and electrical energy; and Zhlobin: chemical; electrical energy, wood and paper, lights, and construction materials.

[5] However, wage variation is not very significant: across these localities, wages on average are about 8 percent higher than the levels in their oblasts (with the exception of Novopolotsk and Soligorsk, where wages are about 40 percent higher.

Minsk, the leading agglomeration, 32 large SOEs employed almost 8 percent of the city's labor force.[6]

Figure 1.9: Shares in Total Output and Exports, Rayons and Large Cities (1975 classification) 2013 (percent)



Source: Belstat data.

1.18. **Concentration of enterprises make certain rayons vulnerable to exogenous external shocks, particularly their "factory towns."** According to Belarusian law, a factory town, or a mono-town, is a place where more than 25 percent of those employed work for a single company. In 2003–04, the UNDP Office in Belarus and the Ministry of Labor and Social Protection estimated that Belarus had at least 44 mono-towns[7]; their population accounted for 12.1 percent of the urban population. In the last decade, the number of factory towns has dropped due to a reduction in employment and depopulation. However, vulnerabilities remain. On the one hand, enterprises may choose to keep their labor force and generate losses, being unable to sell their products. On the other hand, workers may leave these companies and find no alternative jobs. The case of Neman Glassworks offers a number of insights (Box 1.1).

[6] The largest employers are Minsk Automobile Plant, MAZ (21,584), House-building Company, MAPID (7,626), electronics chips producer Integral (5,572), MZKT (4,768), and optics company BelOmo (3,217). Another 20 companies (about half of them in services sectors) employ from 1,200 to 2,700 people each.

[7] http://un.by/pdf/ProjectDocument-20405.pdf.

Box 1.1: A Mono-Towns Problem and Enterprise Restructuring. The Case of "Neman Glassworks"

Neman Glassworks is located in Berezovka in the Lidski rayon of the Grodno oblast. The factory produces glass and crockery. In 2013, about 62 percent of its output was sold within the CIS, mainly to Russia (98.2 percent), with very small batches sent to Ukraine (0.9 percent), Kazakhstan (0.6 percent), and Moldova (0.3 percent). Non-CIS exports amounted to 16.7 percent of output. Thus, Russia and Belarus are the two major markets. Depending on the year, the factory used to provide jobs for about 70 percent of the employed residents of Berezovka. Employment peaked in 1985 with 5,136 workers. It has since been declining, reaching 4,100 in 2006 and 2,077 in 2013. Still, revenues of the factory account for more than 90 percent of the town's economy (other companies include a bakery, service companies, and several small private firms.

Economic difficulties began in 2001, when the enterprise recorded losses. The Ministry of Labor and Social Protection and the UNDP launched a project to support socially responsible enterprise restructuring in 2003 by using Neman Glassworks as a pilot case. Experts estimated that at least 500 workers were redundant, and proposed a restructuring plan with incentives for self-employment and entrepreneurship (e.g., leasing emptied production facilities to fired factory workers who would become artisans and entrepreneurs). However, the government restructured the factory's debts at the end of the 2000s in exchange for acquiring the company's shares. The government made a strategic decision to modernize the enterprise and finance investment for creating a glass wool producer. Although the money was provided, installation was not completed, and a criminal investigation was launched.

Overproduction has been a problem for years. Stocks kept piling up, despite attempts to increase sales. In 2014, the stock of unsold goods hit an alarmingly high level of seven months of output. The response was to cut wages, but mainly for white-collar workers. Some qualified workers left the company to work in neighboring localities or even Russia. The financial situation is difficult. The enterprise has substantial "extraordinary [non-production] expenses" (mostly related to investments). Losses for 2007–14 were much higher than they had been in 2001–06.

For more than 10 years, the company and the government have not been able to resolve the accumulated problems. Remaining workers are counting on the enterprise's mono-town status, believing that the government will continue to bail out the company to preserve jobs in an economically distressed area. However, over the last several years, the company has been losing workers much faster than before. Anecdotal evidence suggests a transport problem was the main reason workers had not left before. As soon as more intense bus connections with the neighboring cities of Lida and Novogrudok greatly improved, the workers began to leave.

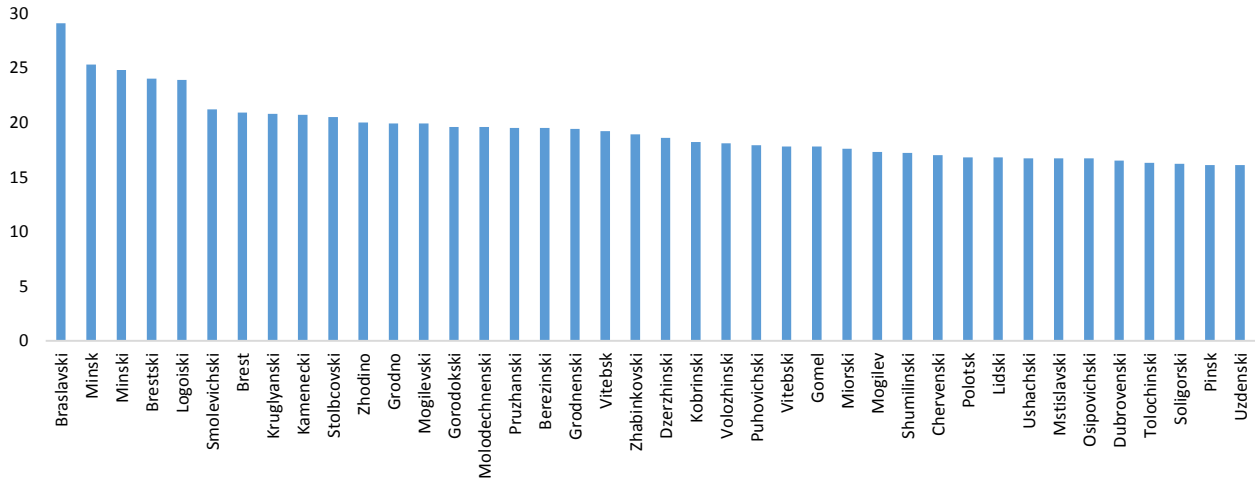
The case of Neman Glassworks may be region-specific, but it does illustrate a basic mono-towns problem. The government may often be reluctant to restructure local employers of last resort and instead chooses to support them. Investments may help to overcome technological lags but they do not open new markets or generate sales.

Despite poor performance, a worker may prefer to stay at the company because of experience with past bailouts. However, as soon as opportunities arise, more active employees tend to find jobs in neighboring areas (see Chapter 3).

1.19. **The problem of mono-towns influences the policy choice between preserving employment and increasing efficiency.** In Belarus, the trade-off is skewed toward employment. Between 2005 and 2013, there were loss-making companies in all 118 rayons and 10 large cities, including oblast capitals. In only eight rayons, the share of loss-makers was below 5 percent; in 30 rayons, it was above 15 percent (Figure 1.10). The prolonged existence

of these loss-makers reflects the preference for employment over efficiency. Increase in employment tends to be correlated positively with higher volumes of stock of unsold goods (Figure 1.11(A)).

Figure 1.10. Average Rayon Share of Loss-making Enterprises 2005–12 (top number of rayons) (percent)



Source: World Bank Staff calculations based on Belstat data.

1.20. **The share of loss-making companies is correlated with higher ratios of employed to working-age population at the rayon level.** In 2013, in some rayons where loss-making enterprises had about an 11–15 percent share—in Brest, Baranovichi, Bereza, Kamenets, and Kobrin—the ratio of employed to working-age population was above the national average (Figure 1.11(B)). Similar trends are observed in Gomel region: in several rayons (Zhlobin, Svetlogorsk, Rechitsa, Mozyr and Rogachev), the ratio of employed to working-age population is above the oblast average and the share of loss-making companies varies from 12 to 15 percent, except in Gomel city, where it is 16.2 percent. In Mostovski rayon, the employed to working-age population ratio is about 90 percent, and at 18.2 percent the share of loss-making enterprises is the highest in the whole Grodno region – and average wages are among the lowest in the oblast. In 2012, the coefficient of correlation between the share of loss-makers and the employment rate was 0.432.

Figure 1.11. Employment, Stockpiling, and Loss-making enterprises 2005–13 (percent)

A. Change in employment and change in the volume of stocks 2005-2013

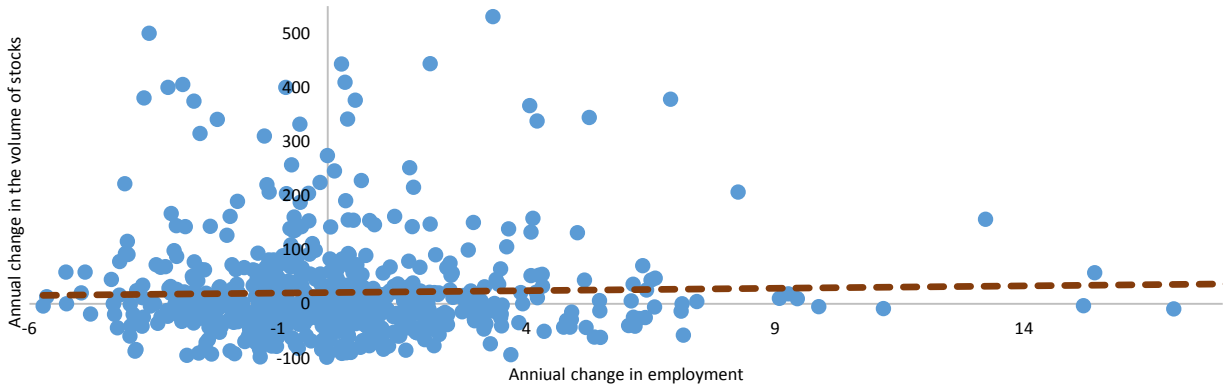
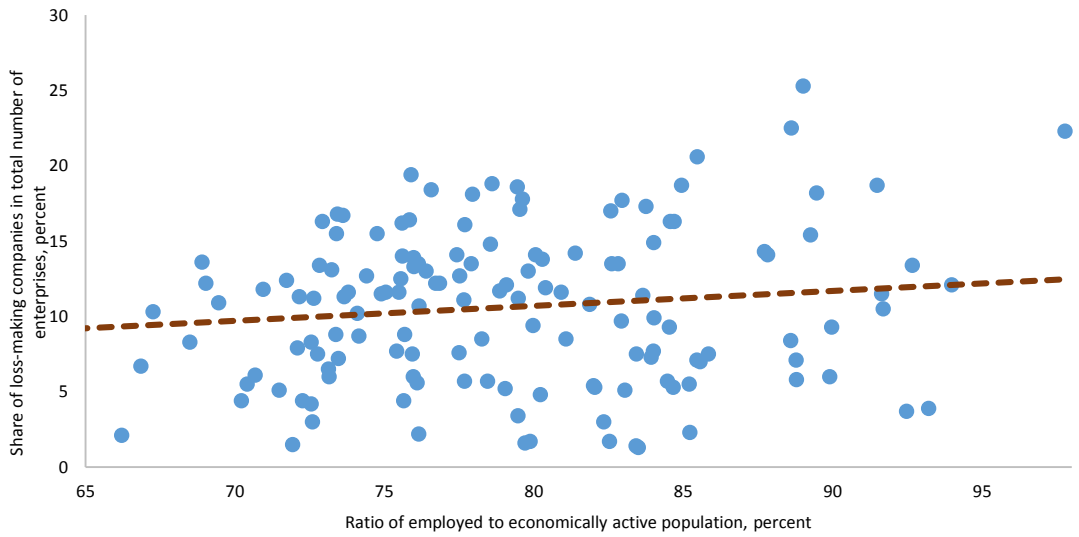


Figure 1.11. Employment, Stockpiling, and Loss-making 2005–13 (percent)

B. Employed-working age population ratio and share of loss-making companies 2005-2013



Source: World Bank Staff calculations based on Belstat data.

1.21. **The Chernobyl disaster disadvantaged some regions both economically and socially**. At the top of that list are Krasnoselsk and Cherikov in Mogilev oblast and Narovlya, Vetka, Dobrush, Chechersk, and Buda-Koshelevo in Gomel oblast. These regions have higher registers of unemployed and lower ratios of employed to working age population; they are therefore more dependent on subsidies and other forms of state support. Vulnerabilities stem from the existence of factory towns, poor economic performance, and Chernobyl effects.

C. Managing Industrial Legacies

1.22. **Belarus pursued a gradual transition path, characterized by more limited structural reforms and modest reorganization of domestic pre-transition production networks.** Despite some initial structural reforms of the 1990s, the economy continues to be characterized by a large state presence at the national and the regional levels. State-owned enterprises account for over half of output and two-thirds of employment. In 2013, over half of working Belarusians are employed by fully stated owned enterprises; 17.3 percent, in enterprises of mixed ownership where the state owns 50 percent or more of the shares; slightly under a third, in firms where the private sector is a majority shareholder; and 1.5 percent, in foreign companies. The share of employment in the private sector is among the lowest in the region. In some rayons of Belarus, SOEs are employers of last resort and main drivers of local economies.

1.23. **Inherited patterns of industrial and economic concentration still shape the economic geography of Belarus.** However, SOE-based industrial concentration has become increasingly costly to not only to rayon and oblast, but also to the national economy in two ways – by heightening vulnerability to shocks and lowering economic efficiency. Inefficiency stems from the fact that loss-making SOEs continue to absorb a large fraction of the labor force, causing substantial rigidity in the labor market. Reliance on unreformed production structure

has made economic growth dependent on domestic demand expansion, driven by credit growth. This composition of growth was associated with the emergence of structural external imbalances and persistent instability.

1.24. **Many jobs in the state-owned sector may not be sustainable and would be vulnerable to restructuring.** In 2013, about 15 percent of SOEs' workers were employed by loss-making enterprises and organizations. The World Bank Country Economic Memorandum (2012) used firm level data to estimate over-employment by comparing the relative labor productivity of state and private firms with similar characteristics. The result suggests that eliminating the excess employment in SOEs (e.g. increasing labor productivity to the level observed in comparable private sector enterprises) could lead to an increase of about 4.2 percentage points in the overall unemployment rates.

1.25. **For Belarus, an important policy aspect of structural reforms is to decide how much of the inherited density should be left untouched and how much restructured.** Examination of multiple country-cases in the 2009 World Development Report suggests that governments can do better by focusing on spatially blind institutional interventions. Instead of implementing sophisticated, place-specific measures, it is more efficient to promote the market forces that deliver both the concentration of economic production and the convergence of living standards, and augment them with policies to ensure affordable basic services everywhere. The task of policy makers is to accept and facilitate this "natural" progression of forces of agglomeration, migration, and specialization at a variety of different scales – local, regional, and global. Whatever scale is involved, the general approach is that governments help people and entrepreneurs to take advantage of opportunities wherever they arise. There is a space for interventions to reduce spatial disparities through three types of instruments: institutions (which should be spatially blind and universal in coverage), infrastructure (to drive spatial connection), and incentives (which are spatially targeted interventions). These policies can improve efficiency, lower transaction costs, and thereby liberate growth. Optimal policy mixes, including spatial ordering, remain context-sensitive, but they should universally be combined with unfettered, spontaneous entrepreneurial activity in the private sector, to contribute to overall growth.

D. Conclusions and Policy Implications

1.26. **Variation in economic densities in the regions of Belarus does not lead to any substantial variations in per capita incomes, with the notable exception of Minsk City**. The capital city area is the major agglomeration node in the economy; other nodes around large cities lag far behind. Moreover, Minsk is ahead of all other territories in terms of services development. Among oblasts other than Minsk City, variation in per capita income is linked to the relative significance of industry in the regional economy. Per capita income is positively correlated with value-added per worker, which is then positively correlated with the share of value-added in industry in regional GDP.

1.27. **The legacy of Soviet geographic economic planning continues to characterize the current economic geography of Belarus**. The combination of relative homogeneity in the incomes of oblasts, on the one hand, and the within-oblast concentration of industrial activities in a few locations on the other, is the legacy of Soviet Union economic development plans. While legacy SOEs continue to occupy a large share in the Belarusian economy, there is emerging dynamics from MSMEs.

1.28. **Relative homogeneity of income levels in other regions than Minsk reflects more the effects of policy measures that directly and indirectly help to minimize inequality among regions**. Within regions, economic activities tend to be concentrated in a small number of locations, such as oblast capitals and rayon industrial centers. Although there are 118 rayons in the country, half of Belarus's industrial output is produced in just 14 of them. On average across regions, the share of industrial production of the centers of the leading rayons is 28 percent.

1.29. **SOE-based industrial concentration has become increasingly costly to the economy at the rayon level in two ways: it raises vulnerability to shocks and lowers economic efficiency**. Policies tolerating inefficiencies in production have helped to keep per capita incomes relatively equal across oblasts. Maintenance of employment and existence of loss-making activities appear to be implicitly subsidizing underperforming regions. Vulnerability comes from the fact that, in many rayons, a single SOE dominates economic activities, making that rayon vulnerable to how the SOE performs (a mono-town problem).

1.30. **Global experience suggests that governments should not be fearful of increasing density, but go with the flow of market forces**. Increasing density is conductive to economic development and rising incomes in particular places in such a way that proximity and accessibility to that density become crucial to the economic development of proximate areas. Concentration increases until rising congestion costs counteract the benefits that accrue from increasing economies of scale through agglomeration. Furthermore, providing fluid land and property markets and other supportive institutions – such as protecting property rights and enforcing contracts – will more likely let economies flourish over time as the needs of market change.

1.31. **It is unwise to think of repeating the arguable successes of Minsk-based agglomeration, with core of on services and IT**. Local infrastructure and labor markets may not be capable of delivering sufficient resources for this. Global experience shows that proximity to similar firms influences company location decisions. Co-location stimulates the growth of specialist services, such as legal, data processing, advertising, and management consulting. Clustered firms benefit from drawing on the larger pool of educated workers. Urban agglomerations other than Minsk require that public infrastructure and services be adapted to assure that new firms and labor are well integrated without causing congestion and shortage of services. At the same time, work on infrastructure and services in declining regions will have to be scaled back to avoid inefficiencies in the use of public resources.

1.32. **An emerging private sector dynamics can be a catalyst for overcoming Belarus's legacies – and opportunity to speed up structural reform.** While SOEs reportedly produce more than half of Belarus's GDP, MSMEs are now driving the growth of the private sector. The number of MSMEs has been growing steadily for the last decade, almost entirely driven by the growth of the number of MSEs. The next chapter analyzes the patterns and factors of the growth of the MSE segment, which mirrors spatial development of the private sector.

Chapter 2. Spatial Drivers of Private Sector Growth

2.1. **Despite limited structural reforms, private sector in Belarus has been expanding.** Belarus has a dualistic economic structure, where SOEs and private firms coexist. The private sector is largely populated by micro- and small-sized companies (and individual entrepreneurs). The development of MSMEs in general and MSEs in particular, their spatial characteristics and factors that explain geographic distribution and specialization, are the best proxy of the private sector development at the regional level.

2.2. **Liberalization of the domestic business environment created new economic opportunities for private sector growth at the regional level.** At the same, spatially focused tax regimes have also had positive effect for MSME creation and expansion. As tax preferences have been extended to cover larger number of localities, geographic focus has become less relevant, and incentives turned to less spatial and more universal in coverage. The results of econometric analysis shows that growth in the number of private micro and small companies are more responsive to broader liberalization measures than specific regional policies.

2.3. **Region-specific factors matter for locational decision of small private firms.** The results of quantities analysis that distribution of MSEs by region can largely be explained by a set of variables characterizing household incomes/market size, industrial potential, human capital, and geographic proximity to Minsk. In rayons with larger populations and faster population growth rates, the numbers of MSEs and of their employees tend to grow faster. Larger markets and better demography are positive factors, which can even beat adverse physical geography, such as Chernobyl legacies.

2.4. **An environment in which small and medium private enterprises thrive will provide options for new employment that will be shed from restructuring SOEs**. Growth in MSME employment appears to be associated with a reduction in non-MSME employment. While small businesses are attracted by the size of the market in regional industrial centers, they face barriers in rayons dominated by large SOEs. These conditions make it difficult for new private firms to expand: the presence in a rayon of large state-owned companies constrains MSE employment growth. While the presence of large firms does provide a basis for clustering, they can install rayon "glass ceilings" that prevent desirable expansion of MSMEs. Enterprise restructuring is a way to break through these ceilings to foster private sector expansion.

A. Basic Characteristics of the MSME Sector

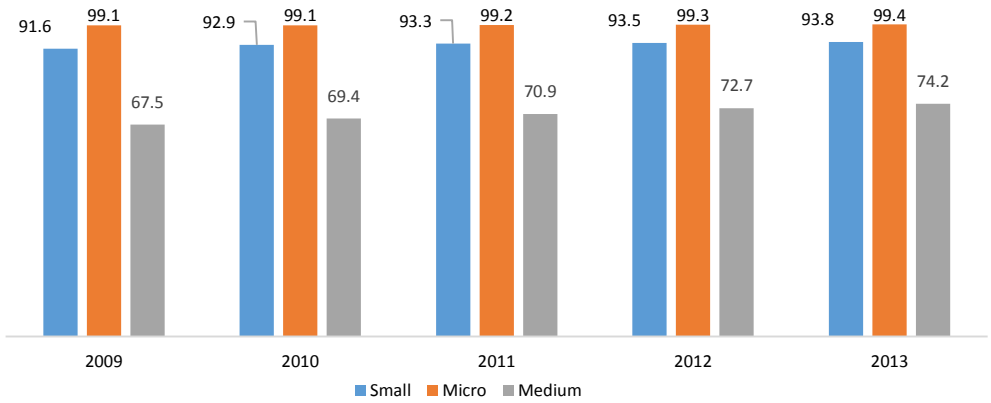
2.5. **Since the beginning of transition, MSMEs have been growing in numbers, sharing characteristics of other companies in the economy.** The coexistence of small private companies and large SOEs is more nuanced than a simple contraposition of small, private, efficient firms versus large, state-managed, inefficient SOEs. All types of companies generate

losses, but the periods within which they do so can differ.[8] In Minsk and Minsk oblast, the share of loss-making companies are the higher than all other regions and the national average.

2.6. **MSMEs in Belarus are diverse in terms of both ownership and company type**. Belstat classifies enterprises (and organizations) as MSME by the size of their workforce: up to 15 employees for micro, up to 100 for small, and up to 250 for medium-sized firms. There are private and state-owned enterprises of various organizational forms—limited liability companies, joint-stock companies (private and state-owned), and SOEs. Among micro companies, private and foreign companies dominate; among medium-sized companies, SOEs are more evident. However, SOEs constitute only a minority of MSMEs. Their share declined from 32.5 percent in 2009 to 25.8 percent in 2013. Labor is relatively evenly distributed among MSME types: micro 29.8 percent in 2013, small 35 percent, and medium-sized 35.3 percent (Figure 2.1).

2.7. **MSMEs exist in all sectors of the economy.** The majority of micro and small companies (MSEs) operate in services (54.3 percent); medium-sized companies (24 percent) are more active in agriculture (33.5 percent, in contrast to just 4.3 percent for micro and small) (Figure 2.2.). This pattern of distribution reflects the presence of SOEs among such medium-sized companies as collective farms.

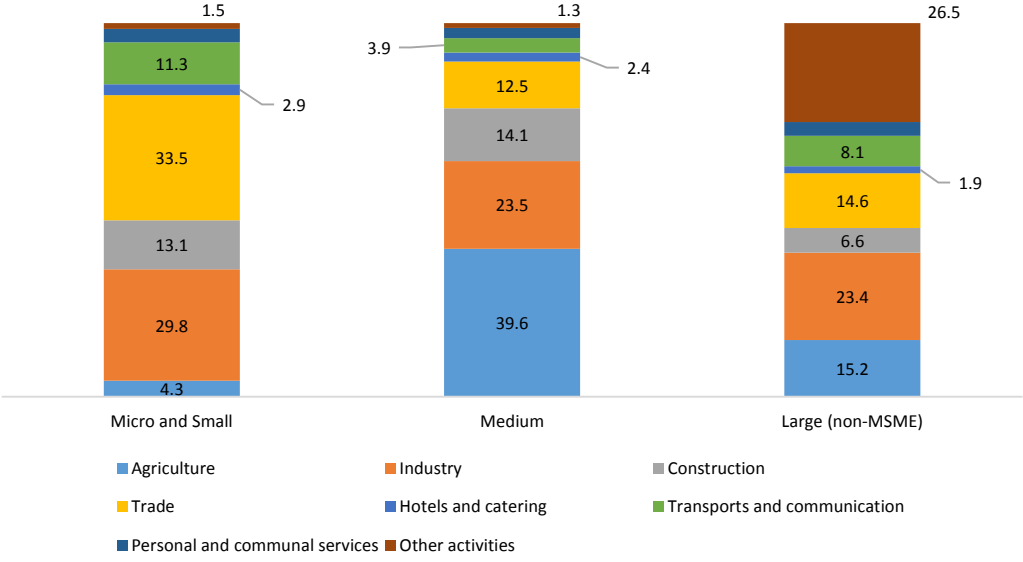
Figure 2.1. Share of Non-state Companies in MSMEs 2009–13 (percent)



Source: Belstat.

[8] The absence of firm-level data prevents from making more substantive judgments. Given the dominance of the state in the economy and the use of instruments to ease budget constraints for SOEs, it is more likely that loss-making SOEs survive for much longer than private firms do.

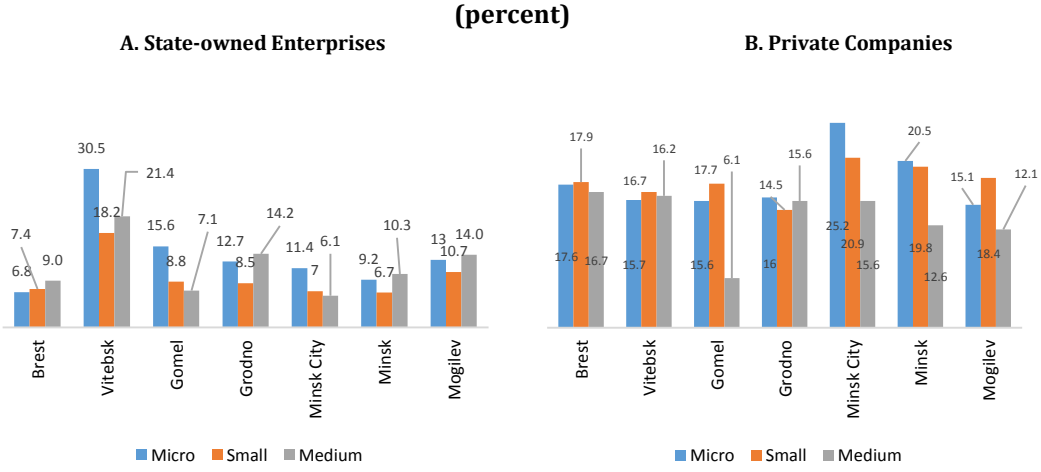
Figure 2.2. Sectoral Distribution of MSMEs 2013 (percent)



Source: Belstat.
Note: Trade includes wholesale and retail trade as well as vehicles maintenance and repairs.

2.8. **Performance of MSMEs is diverse; both private and state firms generate losses.** Loss-makers exist in all regions of Belarus (Figure 2.3). The absence of micro-level data, such as on the "demography" of SMEs (e.g., for how long a company generated losses) prevents detailed investigation on, e.g., whether losses are chronic or temporary, and how they are covered. Nevertheless, all companies, irrespective of size, are exposed to a volatile macroeconomic environment. They similarly suffer from exchange rate fluctuations and related factors.

Figure 2.3. Share of Loss-making MSMEs in Total MSMEs by Property Type 2013 (percent)



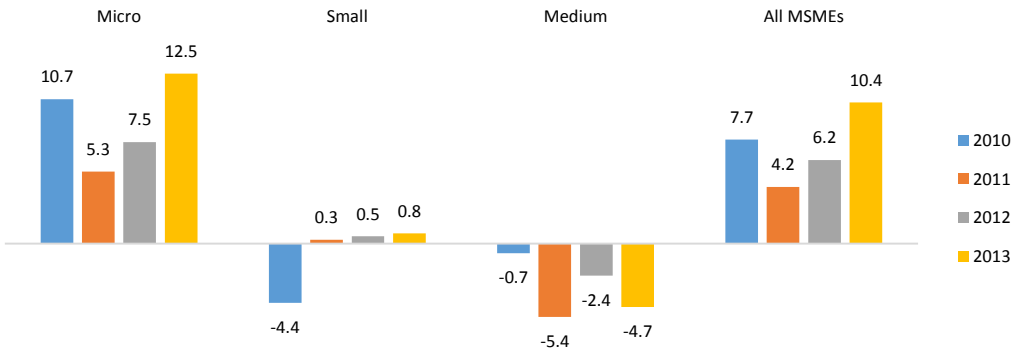
Source: Belstat.

2.9. **The number of MSMEs has been growing steadily for the last decade, almost entirely because of micro companies.** Some definitional nuances limit the length of time series analysis.[9] As for the composition of MSMEs, the vast majority are micro-companies

[9] The definition of MSMEs (particularly micro and small enterprises) was revised in 2006 and 2010. For instance, before 2006, farmers were not considered small entrepreneurs. Before 2009, the number of micro and small enterprises was calculated as defined in the Law "On the state support of small entrepreneurship in the Republic of Belarus" passed on October 16, 1996. In 2009, amendments Law resulted in new definitions, and the number of MSMEs increased. If the old definition is applied

(about 85 percent on average throughout Belarus), followed by small (12 percent), and (very few) medium-sized firms (3 percent) (Figure 2.4). Compared to 2009, the number of micro enterprises increased by 6 percentage points on average across all regions; the number of medium-sized dropped from 4.5 to 3 percent and of small from 16.5 to 12 percent.

Figure 2.4. Annual growth Rates of MSMEs 2010–13 (percent)



Source: World Bank Staff Estimates based on Belstat data.

B. Legislative Background for Regional MSME Growth

2.10. **As SOE restructuring and private sector growth have advanced slowly, the authorities have offered incentives to facilitate business development in the regions of Belarus**. Measures have started from creation of free economic zones (FEZ) (which also attracted SOEs) to expansion of tax benefits to cover the vast majority of Belarus's territory. Nonetheless, private sector companies remain disadvantaged. They may benefit from preferential tax regimes, but suffer from uneven playing filed, which is titled in favor of SOEs with access to state support and other preferences. This environment can block the turning of micro/small companies into a small/medium sized firms, respectively.

2.11. **Over the last two decades, the authorities have adopted a series of policies to encourage regional business development, in three notable policy steps.** Between 1996 and 2002, free economic zones were created inside all oblasts and the city of Minsk. In 2007, special taxation regimes were introduced for MSMEs and sole proprietors registered and operating in rural and some similar territories. These preferences were expanded by the Decree of the President No. 6 of 2012.

2.12. **Free economic zones offered specialized taxation and customs clearance regimes.** Preferences were granted specifically for exporters, producers of import substitutes (the law specified the list of goods), and suppliers to other FEZ residents. Companies were exempted from property tax and from profit tax for five years after profits are declared. Some tax rates were discounted, including VAT for import substitutes. All these measures considerably

retroactively, figures for 2007 are higher by 5.7 percent and for 2008 by 3.4 percent. In this chapter, the revised data from 2009 onward are used.

reduced the tax burden, although payroll and excise tax rates were left intact. Finally, FEZ residents were exempted from customs duties on imported machinery and raw materials.[10] Most FEZ territories are attached to oblast centers rather than smaller urban and rural localities.

2.13. **FEZ facilitated the development of new companies, including some successful private medium-sized and even large firms**. Initially, private actors settled in the FEZ. Some private companies benefited from location (for instance, Santa Bremor at Brest and Conte Spa at Grodno). Later, local authorities expanded the FEZ territories, which helped some regional SOEs to settle in and thus benefit from the preferences.[11] As of 2014, 494 companies resident at a FEZ, of which 140 were registered in FEZ Minsk. FEZ has not triggered rapid growth of MSMEs but certainly helped the sector to develop, especially in the early stages. Some large private companies have used FEZs as a starting ground for business development, and small FEZ companies have been able to integrate into production chains and develop forward linkages.

2.14. **The State Program for Regional Development for 2007–10 was another major step.** This program, approved by President's Edict No. 265, included support for development of 187 small and medium-sized urban areas and called for about 1,000 investment projects. It was one of very few policy measures that welcomed private sector participation. The edict also granted tax breaks for 346 SOEs.[12] Local authorities were empowered to provide additional preferences, some on tax rates (property, ecological, and some smaller taxes), and to issue loan guarantees for SOEs.[13] However, very few enterprises took advantage of these opportunities. For example, in Brest oblast only 49 entities used the opportunities of tax reduction. There have also been specific programs for territorial development. For instance, Decree No. 161 (March 29, 2010) introduced the government program for development of the Prypyat-Palesie region through large-scale investments in landscape development and tourism and provided tax benefits for businesses operating in that region.

2.15. **In 2012, tax preferences were extended to businesses settling in rural areas, further encouraging creation of MSMEs**. President's Decree No. 6 of May 7, 2012, exempted companies and individual entrepreneurs[14] settling in small towns and rural communities from corporate income tax and in the case of entrepreneurs personal income tax, for seven years and also from some other taxes and duties.[15] The result of the decree was growth in the number of micro and small companies, particularly outside Minsk City. In 2013, the number of micro and small enterprises in Minsk grew by 4 percent and by even more in most other regions, for

[10] Only if producing for exports or making import substitutes.

[11] For instance, in 2011, Carpets of Brest (a poorly performing SOE) moved into FEZ Brest, but by 2014 appeared bankrupt despite massive financial support from the government "modernization" program. Other SOEs located at the FEZ are "Salon gazetnoy bumagi" (Newsprint plant, Shklov), FEZ Mahiliou; "Arshanski lnokombinat" (flax processing), FEZ Vitebsk; "Kamvol" (Minsk Worsted Plant), and "Integral" at FEZ Minsk, among others.

[12] Profit tax rate was cut by half, and companies were exempted from payments to two budgetary funds.

[13] To be liable for loan guarantees, SOEs have to implement investment projects related to modernization of production in order to increase the competitiveness of their products and create new jobs in small and medium-sized urban localities.

[14] Financial organizations (e.g., banks), real estate organizations, and gambling businesses are not allowed to use tax preferences.

[15] For example, the Decree No. 6 exempts certain goods that enter statutory funds, from import duties. This opportunity was used to imports cars duty-free. A number of MSMEs were created to import vehicles. The list of goods was later revised to exclude cars (the Decree of the President No 5, September 11, 2013).

instance by 16 percent in Grodno and by 22 percent in Minsk oblast. These numbers are the highest since 2008.[16] Overall, between 2000 and 2013, all oblasts come close with Minsk City in terms of the number of MSEs per 1,000 inhabitants, by increasing this number by about 20 percentage points (with Minsk City indicators taken as 100 percent) and with Minsk oblast – by almost 50 percentage points.

2.16. **A general liberalization of the business environment stimulated MSME creation and expansion.** Improvement in the business environment that is reflected in Belarus's upward movement in Doing Business ratings certainly affected regional businesses (Box 2.1).

Box 2.1. Liberalization of the Business Environment in Belarus: Significant Steps

The Doing Business ratings show decent improvements in the Belarus business environment. The International Finance Corporation (IFC) Report on commercial enterprises and individual entrepreneurs (2013) shows that over the previous three years Belarus made significant moves to simplify its administrative procedures (inspections, tax administration, permits issuance, price controls, and licensing). Far fewer respondents to the IFC business survey of 2013 reported these administrative procedures as impediments for their business than in 2009 (IFC 2013, p. 9). The IFC stressed the positive role of administrative acts issued between 2009 and 2012, especially:

- Presidential Decree No. 450 (September 1, 2010), which considerably reduced the number of activities that require licenses
- Resolution No. 156 of the Council of Ministers (February 17, 2012), which approved the Single List of Administrative Procedures to be applied by public authorities to legal entities and individual entrepreneurs, reduced the number of these procedures, and spelled out related issues (approaches, documents, deadlines, fees, etc.)
- Presidential Decrees No. 510 (October 16, 2009) and No. 332 (July 26, 2012), which introduced transparent principles for inspections, to be conducted on a risk-management basis system by classifying businesses into risk groups for random inspections, reducing the number of planned inspections, etc. (see IFC 2013 for details).

Source: IFC 2013; Word Bank, Doing Business-2014.

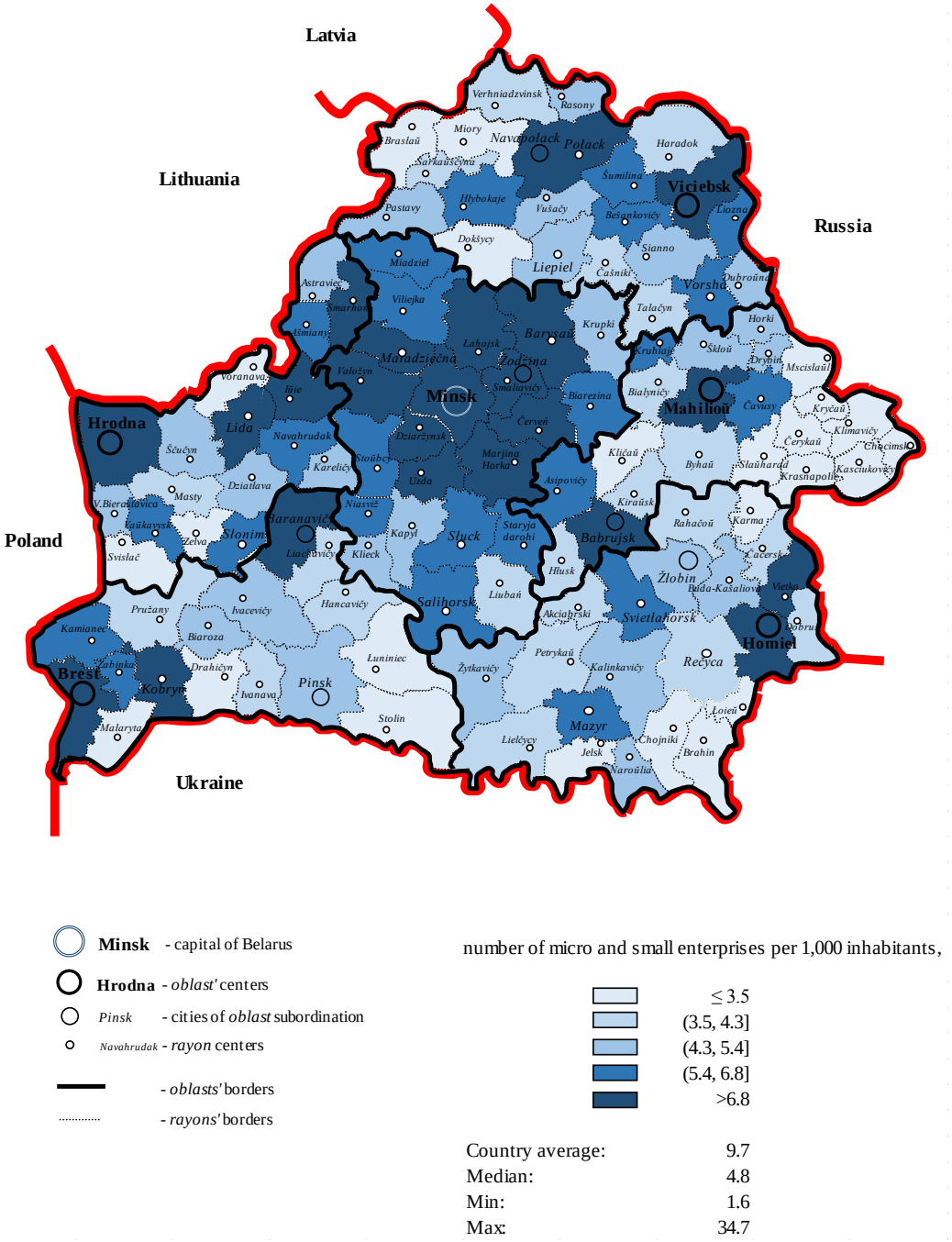
2.17. **MSMEs are concentrated in and around the capital, oblast centers, and major rayon industrial centers**. Rayons from the highest quintile (rayons that represent the highest fifths of the data: MSEs per 1,000 inhabitants) in 2013 have on average 3.9 times more MSEs per 1,000 inhabitants than those of the lowest quintile. There are similar differences between regions in the share of MSEs in total employment (highest to lowest quintile ratio was 3.5), and the differences in output per 1,000 inhabitants are even higher (6.9 times). What is striking is that the pattern of concentration is familiar from the past: MSMEs tend to gravitate to the industrially developed regions set up during the Soviet era (Map 2.1).

2.18. **Although there is a close correlation between the number of MSMEs per 1,000 inhabitants, their share in employment, and their industrial output per capita, the regional distribution of these three indicators differs somewhat**. In rayons with smaller numbers of MSMEs per 1,000 inhabitants, the average size of MSEs in terms of both employment and output tends to be larger. For instance, most of the rayons that suffered from

[16] In 2008, the number of MSMEs increased considerably, but because conversion sole proprietors were converted into legal entities following President's Edict No. 760 (2006), a sole proprietor could not hire more than three persons and they had to be relatives.

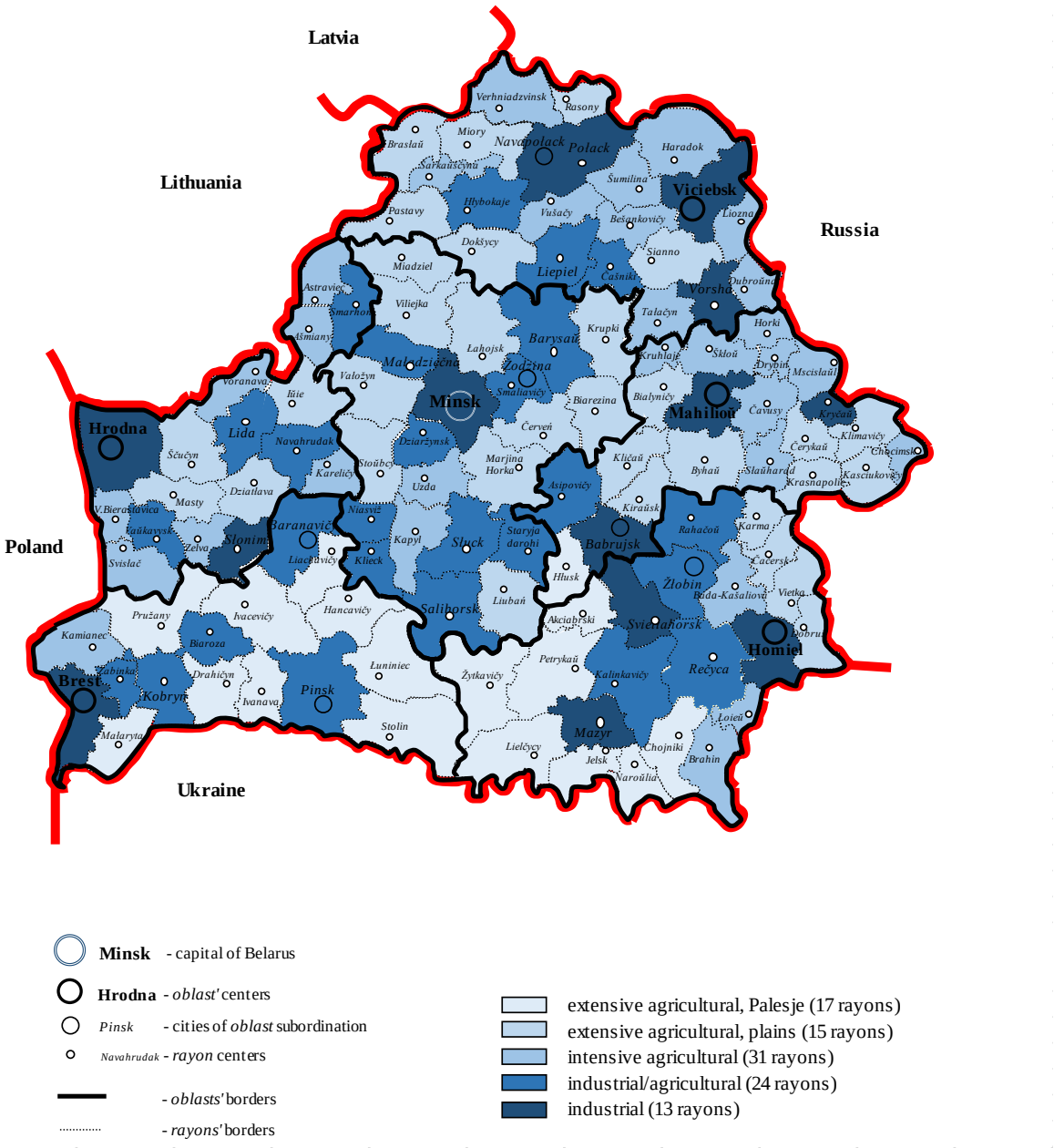
the Chernobyl disaster are in the lowest quintile in terms of the number of MSEs per 1,000 inhabitants but in the highest in terms of the number of employed on average by MSEs.

Map 2.1.Concentration of MSMEs in Belarus 2013



Source: World Bank Staff estimates based on Belstat data.

Map 2.2. Economic Classification of BSSR Rayons



Source: Piroznik 1986.

2.19. **MSEs exemplify new regional economic activities.** The vast majority are private, and the total population of MSMEs has been expanding largely due to micro and small companies. In the panel data econometric analysis below, two dependent variables are chosen: number of MSEs and employment at these companies.

C. Factors Affecting Spatial Development of the Private Sector

2.20. **Liberalization of market environment, coupled with spatially focused, but expanding, tax preferences, supported growth of the private sector.** As authorities have been extending tax preferences to include new localities, geographic focus have become less relevant than overall improvement in the business climate. The results of econometric analysis

shows that growth in the number of private micro and small companies are more responsive to broader liberalization measures than specific regional policies. At the same time, companies benefit from location in the urban, densely populated areas and respectively larger market size.

2.21. **Development of MSEs at the rayon level is shaped by the national business environment and local factors.** Quantitative analysis tested the influence of three interrelated factors:

1. Effects of liberalization of economic activities, such as improvements in business regulation as measured by the World Bank Doing Business indicator "distance to frontier";
2. Size of the local markets as approximated by the real average wage,[17] since its dynamics and levels reflect the purchasing capacity of the region;
3. Employment dynamics, particularly the division between MSMEs and non-MSMEs employment (if the latter falls, the former may increase).

The sample covers 119 localities (118 rayons[18] plus Minsk City) and the indicators are for 2004–13.

2.22. **Liberalization of the business environment raises the number of MSEs in rayons.** Quantitative analysis detects statistically significant and positive relationships between movements along the "distance to frontier" indicator and the number of MSEs and how many they employ. A similar effect is observed for real wages and employment: as they go up, more MSEs emerge.

2.23. **Wages positively affect employment at MSEs**. While higher wages imply a higher price for labor, their impact as a proxy variable for market size is stronger and generally positive for the sector's development. Housing construction also positively affected MSE and employment dynamics, probably through formation of clusters of associated retail trade and construction services.

2.24. **MSMEs are able to absorb labor from non-MSMEs.** Between 2005 and 2013, non-MSME employment fell in 109 out of 119 rayons, including Minsk City (Figure 2.5).[19] Thus, MSMEs as a group demonstrate their capacity for job creation and for absorbing workers released by SOEs. Similarly, an increase in non-MSME employment leads to a sharp reduction of employment at MSMEs. The results of cross-section data analysis, reported below, also show that both the stock and the growth rate of employment at non-MSMEs negatively affect growth in MSME employment, which may indicate the adverse effects of SOE presence and the associated labor hoarding.

2.25. **Rayon-level factors affect the geographic distribution of MSEs**. Among them are (1) Industrial potential (measured by industrial output per capita); (2) construction volumes—the housing market can be a proxy for a region's welfare (measure is construction of housing, or

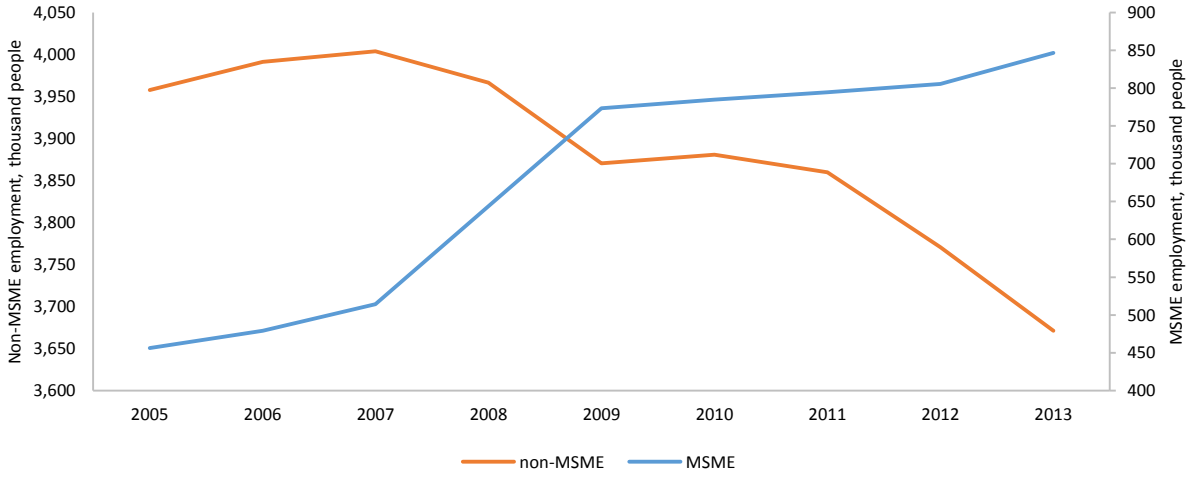
[17] In the short-term equations, change in real average wage is taken as a variable; for a long-term analysis, the real average wage is used (wages in 2009 prices).

[18] If data on a certain locality are published separately, the rayon data do not include figures for the locality (e.g. data on Polotsk rayon does not include figures for Polotsk and Novopolotsk).

[19] The correlation coefficient between MSME and non-MSME employment is –0.835.

square meters per capita); (3) average wages, which approximate purchasing capacity and thus market size; (4) labor market characteristics: employment and unemployment rates; and (5) quality of human capital, measured by levels of education (particularly secondary and higher education, as well as the proportion of working-age population with post-basic education profiles). As for indicators, the analysis uses the number of MSEs, their share in total employment, and output of MSEs per capita. Since many of these factors correlate with each other, in order to tackle multicollinearity, principal component analysis was employed and the results used in the regression analysis.

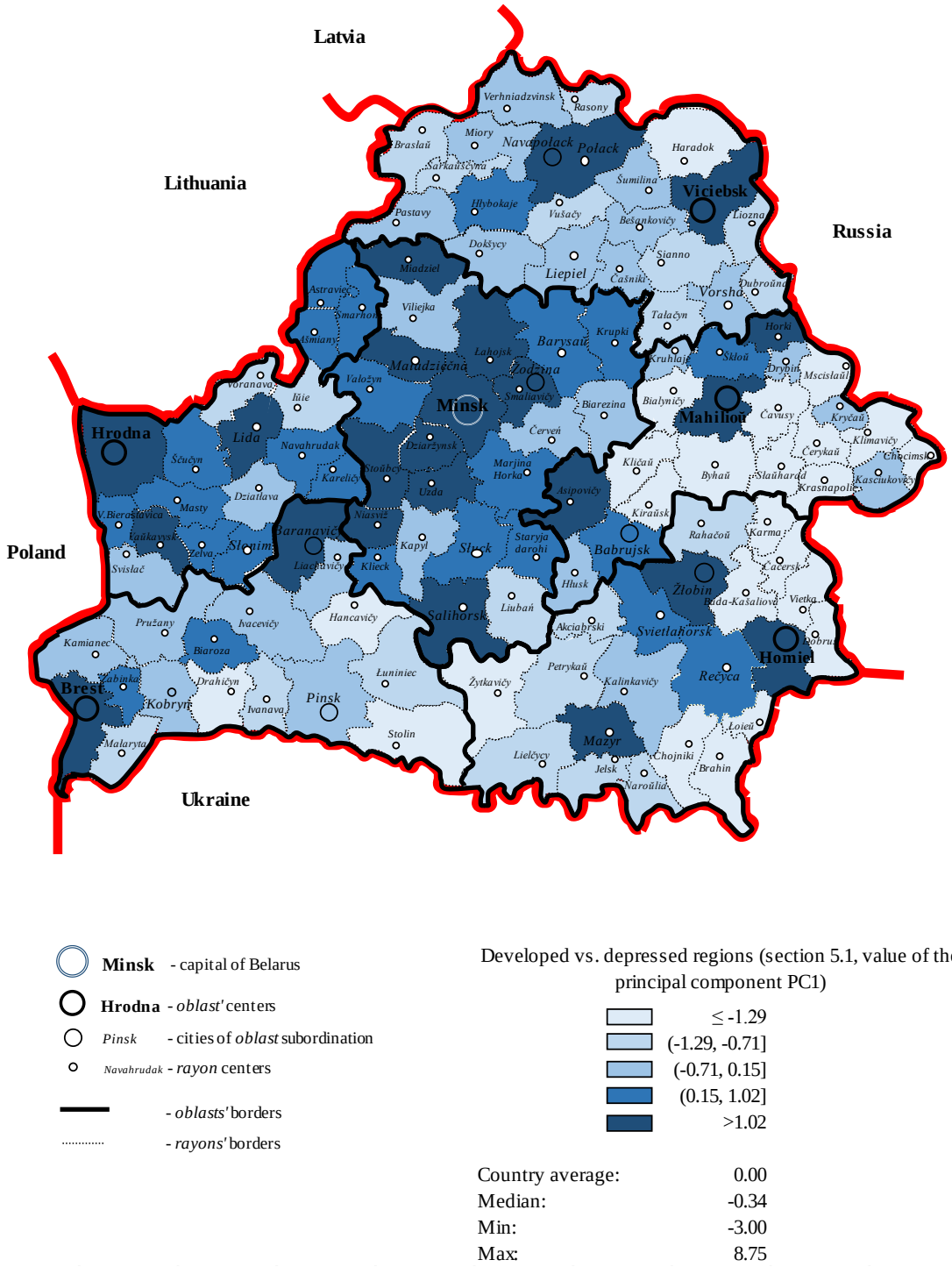
Figure 2.5. Dynamics of Employment at MSMEs and Non-MSMEs 2005–13 (thousand people)



Source: World Bank Staff estimates based on Belstat data.

2.26. **Better quality of human capital and larger market size positively influence MSE development in rayons.** The results of the principal components analysis makes it possible to group rayons as follows (see Map 2.3): more depressed regions versus large industrial centers with high employment/low unemployment, higher wages, higher construction volumes, a large share of the working-age population with higher education, and situated close to Minsk city (main principle component explains 43.1 percent of variance). Cross-section effects from panel regressions capture inter-rayon differences in a different way: the most developed are those with large cities of more than 50,000 people as rayon centers (including Minsk and oblast centers) and those in close proximity to Minsk versus rayons severely affected by Chernobyl disaster and with small urban rayon centers (see Figure 2.6).

Map 2.3. Regional Differences: Developed vs. Depressed Rayons

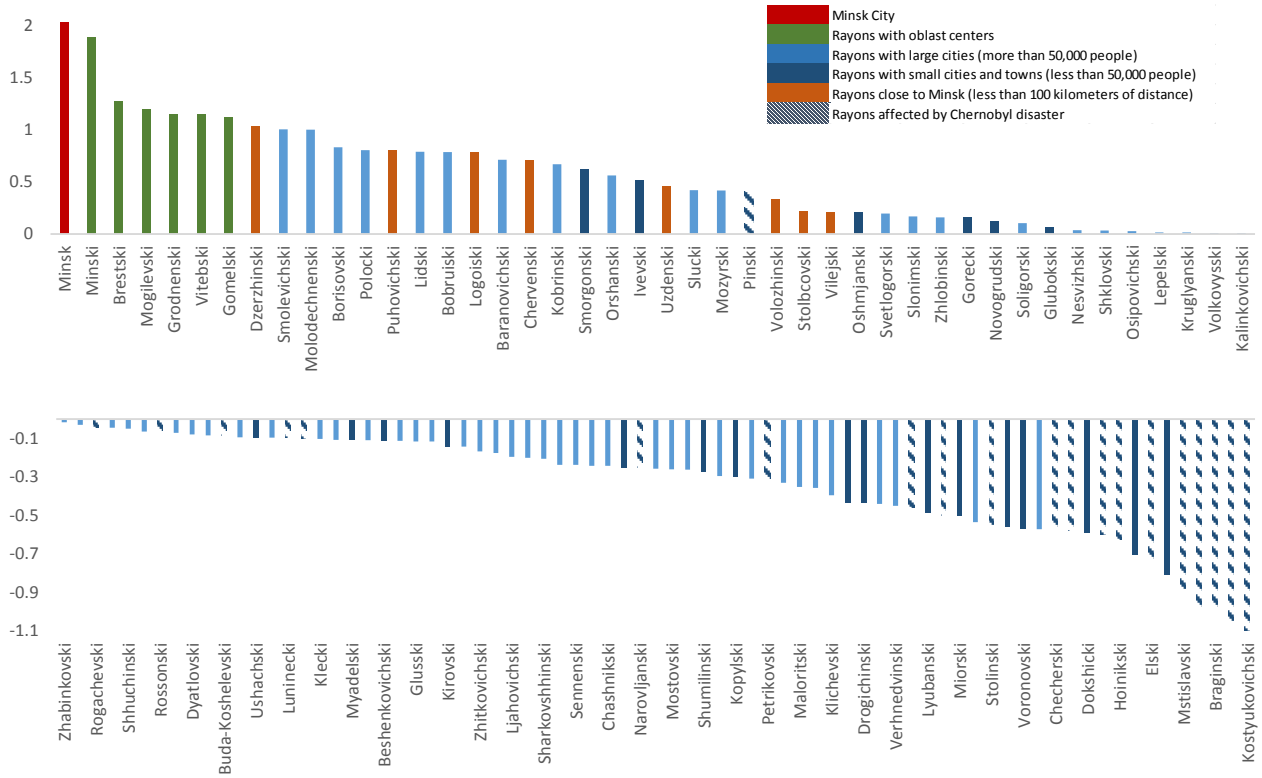


Source: World Bank Staff calculations based on Belstat data.
Note. Results of principal component analysis. Rayon and oblast centers and cities of oblast subordination are included in their rayons (except Minsk City, considered a separate territorial unit).

2.27. **Large urban centers offer more possibilities for MSE development** due to market size, more developed industry, and the availability of human resources. Market size and the developed economy of a region may even counteract the negative effects of the Chernobyl disaster. For instance, Pinsk rayon was severely affected by Chernobyl but the cross-sectional effects are positive in that the number of MSEs is higher than expected from the panel regression. Moreover, the impact of Chernobyl alone cannot explain the situation of all the depressed regions: Hotimsk, Zelva, Dokshitsy, Klimovichi, Voronovo, Loev, and other rayons not affected by Chernobyl have high negative values for fixed effects. The rayon centers of all

these regions are small urban areas with populations of about 6,000, small markets, and limited capacity to accumulate human capital (Figure 2.6).

Figure 2.6. Fixed Effects Distribution by Rayons 2008–13



Source: World Bank Staff calculations based on Belstat data.

2.28. **Some geographic characteristics matter a great deal.**[20] Being located close to the oblast center has usually a positive effect. That can be explained not only by the market size and related characteristics of the rayon but also by the fact that FEZs are mainly located in these rayons. Cross-section effects for Brest and Grodno oblasts are generally higher than the average, reflecting their proximity to the EU border with associated opportunities for cross-border trade. The same is true for Minsk oblast (proximity to Minsk as a largest economic center of Belarus). The Chernobyl disaster also matters for both the number of MSEs and how many they employ. Further analysis of regional differences captured by cross-section effects detects that the number of MSEs are positively correlated with total number of non-MSE enterprises (market size, possibility for cluster development); average nominal wage (a proxy for market size); industrial output per capita (possibility of developing clusters); population (human resources, market size); and employment rate (human resources, market size). There is a negative correlation with share of rural population (market size, human resources) and distance from Minsk.

2.29. **The number of MSE and employment at are converging across the country.** Further analysis based on growth regression[21] shows that all other things being equal, number of MSEs

[20] These were identified by running regressions with fixed effects variations (dependent variables) and a set of dummies, such as oblast, size, and Chernobyl-affected status.

[21] The use of the "growth regressions" approach is justified because the results described above allow use of cross-section effects as the explanatory variables in the regression analysis of determinants of regional differences in growth rates of the number of MSMEs and employment at these enterprises. Accordingly, the dependent variables are the growth rates of MSMEs

are converging across Belarus: growth rates for rayons that initially had more MSEs are slower. Quantitative analysis is used to test for convergence of growth rates between regions, with variables and dummies capturing inter-rayon differences. The results show that in rayons with larger populations and faster population growth, the numbers of MSEs and of their employees tend to grow faster. Larger markets and better demography are positive factors.

D. Conclusions and Policy Implications

2.30. **The emerging private small enterprise sector can be a catalyst for overcoming Belarus's legacies – and opportunity to speed up structural reform.** While SOEs reportedly produce more than half of Belarus's GDP, MSEs are now driving the growth of the private sector. The number of MSMEs has been growing steadily for the last decade, almost entirely driven by the growth of the number of MSEs. The growth of the MSE sector mirrors the regional growth of the private sector. Panel data econometric analysis (2006–13, rayon-level data) shows that liberalization of the business environment and rising incomes positively influence private sector development throughout Belarus in both the short and the long run.

2.31. **Industrial-legacy rayons, especially their urban centers, are attracting private sector activity**. There is a powerful pattern of agglomeration of MSMEs around Minsk, for instance. Empirical analyses suggest that proximity to Minsk helps to explain the concentrations of MSMEs/MSEs in certain rayons. Access to a large market is an important factor in private investment decisions. However, growth in the number of MSEs is positively correlated with growth in the number of larger firms at the rayon level, which hints at possible clustering effects. While it is difficult to observe any explicit clustering effects without firm-level micro data, the fact that services are prominent among MSMEs makes it plausible that they contribute to formation of local backward and forward linkages with large firms.

2.32. **There are signs of a new type of agglomeration in the growth of the MSME sector, with urbanization and market potential possibly replacing the inherited economic geography.** Rayons with larger proportions of rural residents have seen less growth in MSEs than those with large towns. This reflects the higher market potential of urban areas. Agglomeration economies are a product of localization (being near other producers or benefiting from access to common infrastructure) and urbanization (being close to producers of a wide range of commodities and services). The majority of MSMEs, 54 percent, provide services, compared to 24 percent of medium-sized enterprises, where agriculture (40 percent) predominates. Services are critical to making value chains more competitive and heightening the formation of clusters. In short, if major fixed effects are captured, MSME growth rates converge.

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and how many they employ. On the left side of the equations, explanatory variables include both stocks and flows explanatory variables are included; these are stock variables numbers of entities and employment figures at the beginning of the period. This exercise makes it possible to test for convergence between regions, with variables and dummies capturing regional differences. The approach is from general to specific, starting from a larger set of variables and then deleting those that are insignificant one by one. Specific dummies are used to eliminate outliers.

2.33. **For private firms, spatially blind policies are more efficient than region-specific interventions.** Even spatially focused policies, such as tax preferences, have been gradually extended to cover most of Belarus's territory, resulting in increased number of MSEs. But policies that were not explicitly designed with spatial considerations, such as gradual liberalization of economic activities, helped MSEs to grow in the numbers. For Belarus, policies that help to overcome the distance between two segments of the economy – private and state – are more important than spatially targeted interventions. Continued efforts are needed not only in improving the business climate and regulatory quality, but also in ensuring consistent, predictable and efficient enforcement.

2.34. **There is no urgent or apparent need for special fiscal support programs, except for acutely depressed and disadvantaged areas**. MSEs are not attracted to depressed areas with high unemployment rates or areas affected by the Chernobyl accident. The pattern of MSE growth across the country also suggests that depressed and economically lagging areas would not attract MSEs, which could widen the gap between those areas and the rest of the country. Both MSME and MSE concentrations also correlate negatively with unemployment rates and at the rayon level, which suggests that MSMEs will not necessarily fill the supply-demand gap in all local labor markets.

2.35. **Opportunities for Belarusian companies to integrate with the global economy will provide even more impetus for economic restructuring and facilitate employment growth**. Belarusian companies can benefit from integration into production chains of transnational corporations, replicating the experience of selected advanced post-socialist economies, including Poland, Czech Republic, Slovakia, and Hungary, and the Baltic States. While privatization of state assets, especially in the current crisis environment may be challenging, it should be a part of comprehensive long-term strategy to activate foreign investment and know-how. Foreign companies can be attracted by strong underlying capacity of Belarus's economy and create joint venture with local state and private companies. Spatial tax regimes can be an important incentive, but still inferior to the quality of infrastructure that includes all facilities connecting places and providing basic business services, such as utilities, transportation, and information and communication technologies.

Chapter 3. Jobs and Geography

3.1. **The authorities wish to preserve industrial employment, but policies to do so cause inefficiencies.** Excessive industrial employment prevents reallocation of workers and vanquishes competitiveness and restructuring of local economies. Existing concentration of industrial activities does not lead to higher rayon productivity. Productivity indicators in industrially dense territories are not higher than in less concentrated ones. The combination of SOE dominance and wage-setting policies tends to compress wages. In some rayons, one or several big SOEs set higher wage levels, raising the costs of entry for private firms and suppressing their incentives to invest in human capital because of the fear of poaching.

3.2. **Higher employment in a rayon does not always raise the incomes of households with the lowest incomes (the bottom 10 percent).**[22] In Belarus, the unemployed have little social protection, and poverty is kept low by policies to maintain employment. But such policies do not deliver the desired effects: for instance, growth in rayon employment does not reduce the number of recipients of targeted social assistance. Employment is often boosted by commuters, crowding out the 'native' rayon labor force from local labor markets.

3.3. **If the role of SOEs in a rayon is weakened, private sector entry can be enhanced.** Estimates shows that greater wage differentiation, which probably reflects less labor market rigidity of the type caused by large SOEs or administrative wage setting, is attractive for small businesses. Improvement of the quality of human capital, such as by active labor market policies, will enhance the potential of individuals to find jobs and make them more mobile.

A. Regional Labor Markets and Productivity

3.4. **Employment is more evenly distributed than production**. Despite the differences in regional economic concentration, employment patterns are fairly homogeneous across regions (except for Minsk), which partially reflects the continued dominance of industrial SOEs. Across rayons, employment in industry accounts for 21 percent of total employment.[23] A certain continuity is noticeable in the shares of labor-intensive and service sectors, which account for a larger share in employment than in output; industry accounts for about 25 percent of employment with very little variation across oblasts, and agricultural employment varies between 10 and 15 percent (Table 3.1).

[22] Bottom 10 percent consists of households with incomes below the national poverty line.

[23] Across rayons, the coefficient of variation (ratio of standard deviation to the mean) is lower for employment in industry (0.44) than for industrial output (3.1).

Table 3.1. Sectoral Employment 2013
(percent of total)

Sectors/Regions	Brest	Vitebsk	Gomel	Grodno	Minsk	Minsk City	Mogilev	Belarus
Industry	24.5	24.6	27.3	25.1	28.7	22.1	29.1	25.5
Agriculture	14.3	13.2	11.1	14.4	15	0.5	11.2	10.3
Trade and catering	12	11.8	11.2	11.6	12.9	18.9	11.4	13.5
Transports and communication	8.1	8.1	7.6	6.7	6.1	8.1	6.3	7.4
Construction	9.2	7.5	8.8	8.9	8.3	9.1	7.8	8.6
Other services	31.9	34.8	34.0	33.3	29.0	41.3	34.2	34.7

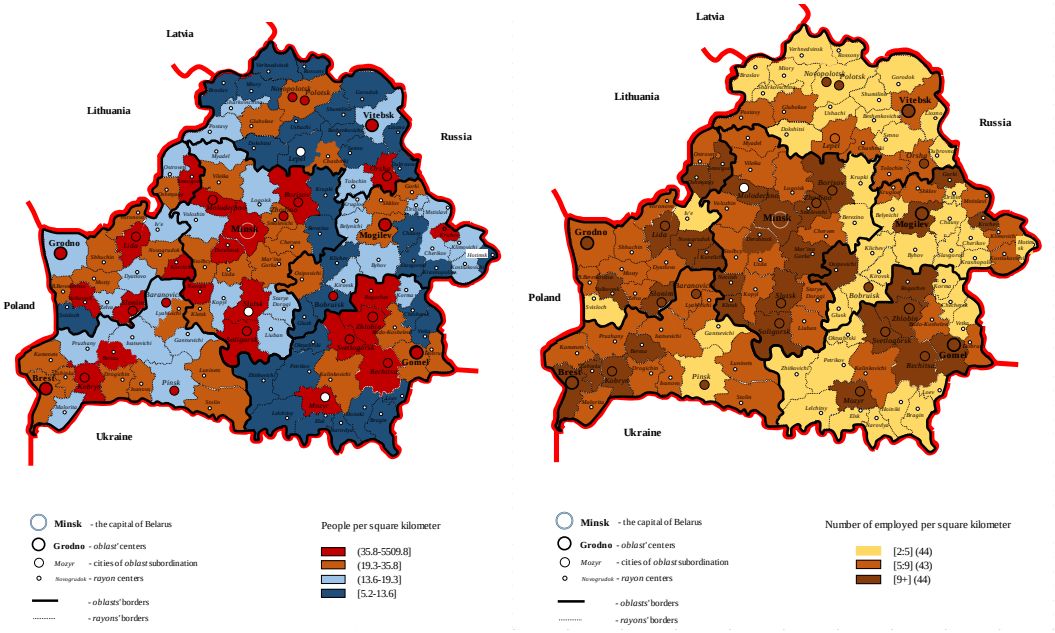
Source: Belstat, Employment Bulletins, various years.

3.5. **Regional labor markets replicate the metropolitan agglomeration effect and a center-periphery divide.** More populated areas have denser employment, especially in the central region of Belarus (mainly around Minsk, but to a much lesser extent around other oblast capitals) (Map 3.1). On one side of the regional poles are Minsk and industrial centers close to Minsk, such as Borisov and Molodechno, and some other urban localities. On the other side are rural areas and sparsely populated rayons with small centers. These areas have lower employment and a widening gap between the working-age and the employed population. Some households resort to self-employment and horticulture, which are captured in household incomes[24] in a number of rayons in Brest oblast, such as Stolin, Gantsevichi, and Pinsk. Some regions, particularly Vitebsk, Mogilev, and Gomel, are characterized by larger gaps between employed and working-age populations, perhaps because workers are migrating to nearby Russia.[25]

[24] Belstat monetizes harvests from household agricultural plots and accounts for them in household income statistics.
[25] The national statistics do not adequately capture these phenomena. Other sources provide only partial evidence, making substantive findings difficult.

Map 3.1. Population and Employment Densities 2013
(per square kilometer)

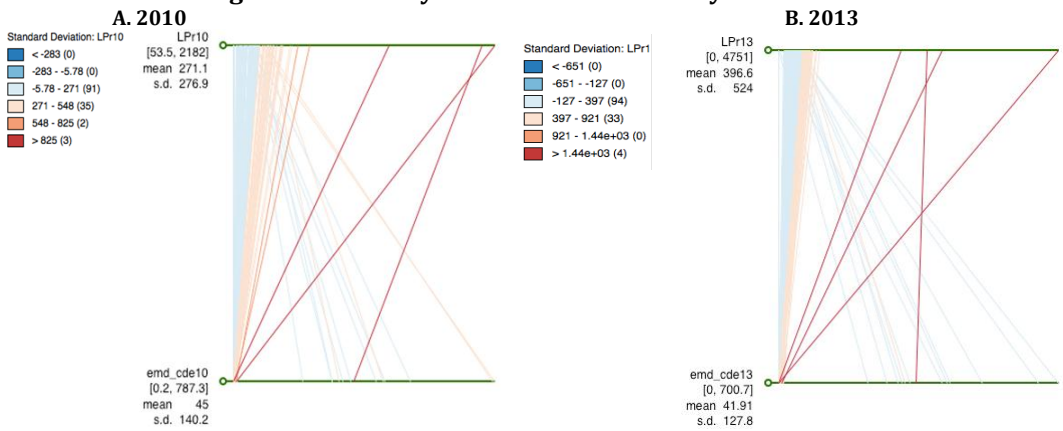
A. Population **B. Employment**



Source: World Bank Staff calculations based on Belstat data.
Note: The sample includes 118 rayons, and centers of oblast and rayons (131 localities in total). Data ranges are in square brackets, number of territories are in parentheses.

3.6. **The efforts of the authorities to increase output and preserve industrial employment have not helped to improve productivity.** Industrial employment per square kilometer tends to decline across rayons of Belarus (at least from 2010 onwards) and labor productivity also falls. Across rayons, reduction of the share of employed in industry is accompanied by lower productivity. Parallel coordinate plots are used to illustrate that point (Figure 3.1). Each line represents an individual rayon. If productivity and density are to match perfectly (i.e., more density leads to higher productivity), the line is vertical, connecting two horizontal axes. The upper axis represents the dynamics of productivity and the lower axes employment in industry. The number of rayons is displayed in brackets. The color of the lines depends on the value of standardized productivity level: moving from red to blue shows how the link is weakened between density and productivity. The more the lines are tilted, the less connected are density and productivity. From 2010 to 2013, in more rayons the links between industrial density and labor productivity in industry loosened. Lower impact of agglomeration on productivity may have a labor market explanation: wage compression makes companies loose influence on whether good or bad performers quit jobs. The cost implications are the same. And the more productive workers may find it more efficient to leave for a better-paid job, while poor performers prefer to stay where they are.

Figure 3.1. Density and Labor Productivity 2010 and 2013

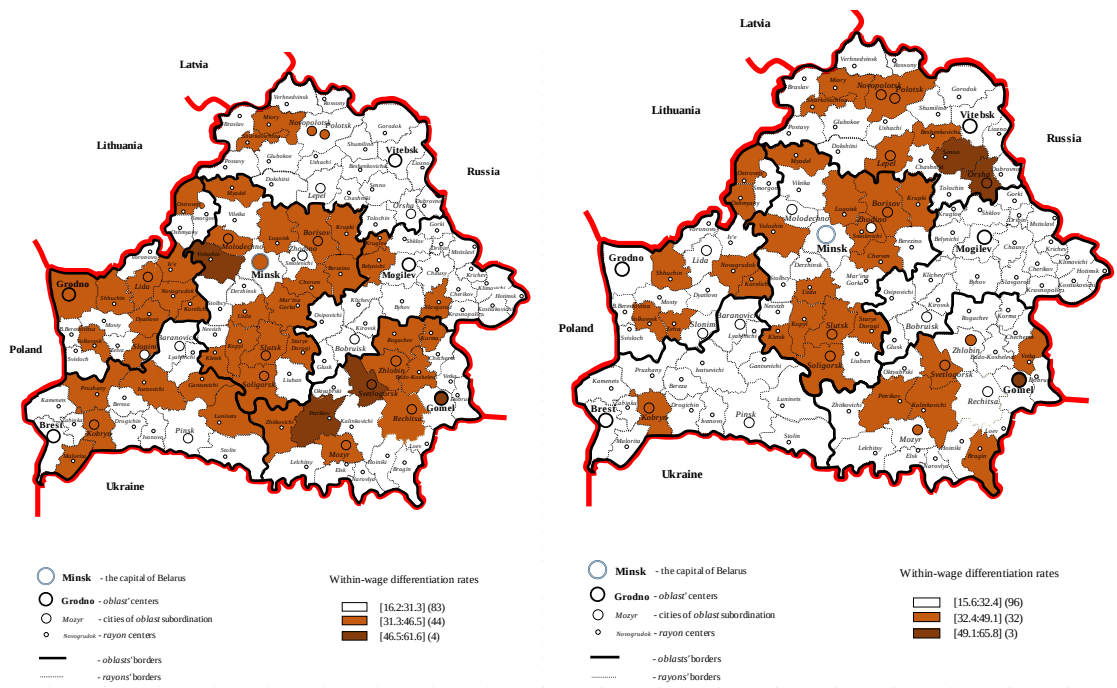


Source: World Bank Staff calculations based on Belstat data.

3.7. **Cross-rayon wage differences are few and relate only partially to labor productivity.** The number of rayons with the highest *within-wage differentiation rate* (i.e. the degree of differentiation of wages by type of economic activities within one rayon; on Map 3.2 spots get darker as the degree increases) went down from 48 in 2010 to 35 in 2013. *Between-wage differentiations* (i.e. the ratio of average rayon wages by types of economic activities to the respective national averages) were also decreasing (Maps 3.2 and 3.3). Compared to the regional patterns of industrial concentration, a higher share of employment in industry tends to produce higher wage levels, but the wages are not necessarily matched to productivity differences. Moreover, cross-rayon wage differences ease over time (Figure 3.2).

Map 3.2. Within-wage Differentiation Rates 2010 and 2013

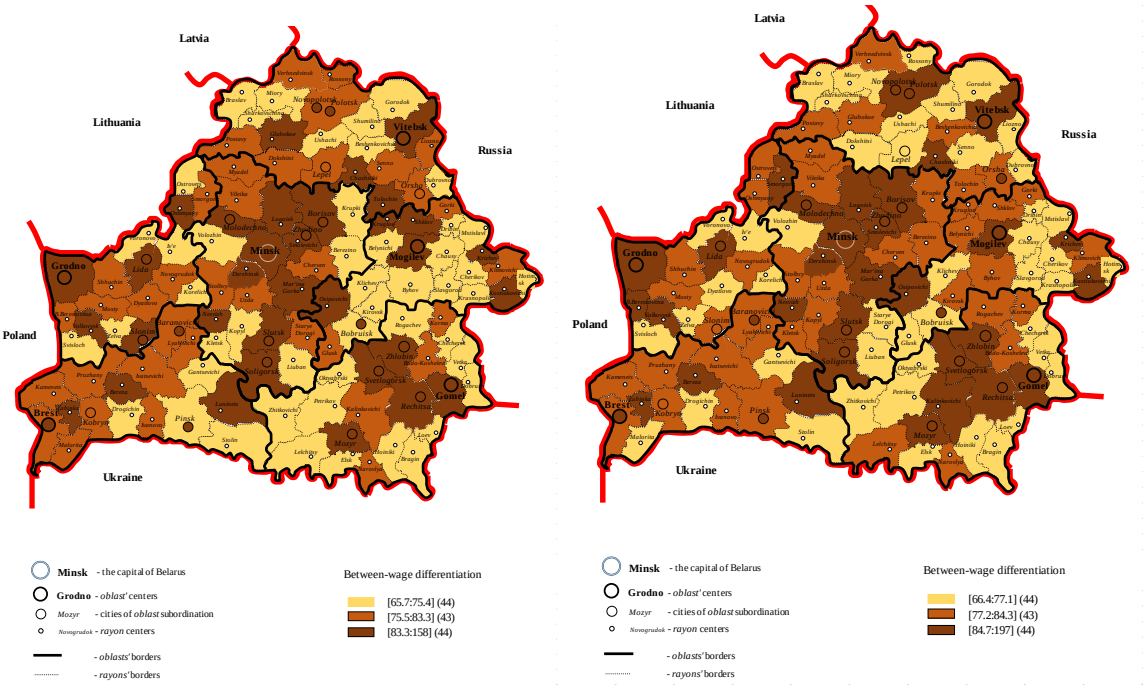
A. 2010 **B. 2013**



Source: World Bank Staff calculations based on Belstat data.
Note: Intervals of coefficient's values are in square brackets, the number of territories are in parentheses.

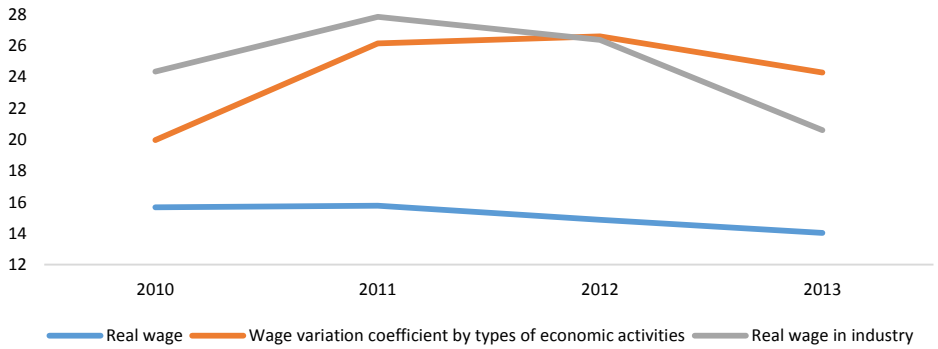
Map 3.3. Between-Wage Differentiation Rates 2010 and 2013

A. 2010 **B. 2013**



Source: World Bank Staff calculations based on Belstat data.
Note: Intervals of coefficient's values are in square brackets, the number of territories are in parentheses.

Figure 3.2. Coefficients of Variation of Wages, Major Types of Economic Activities across Rayons 2010–13 (percent)



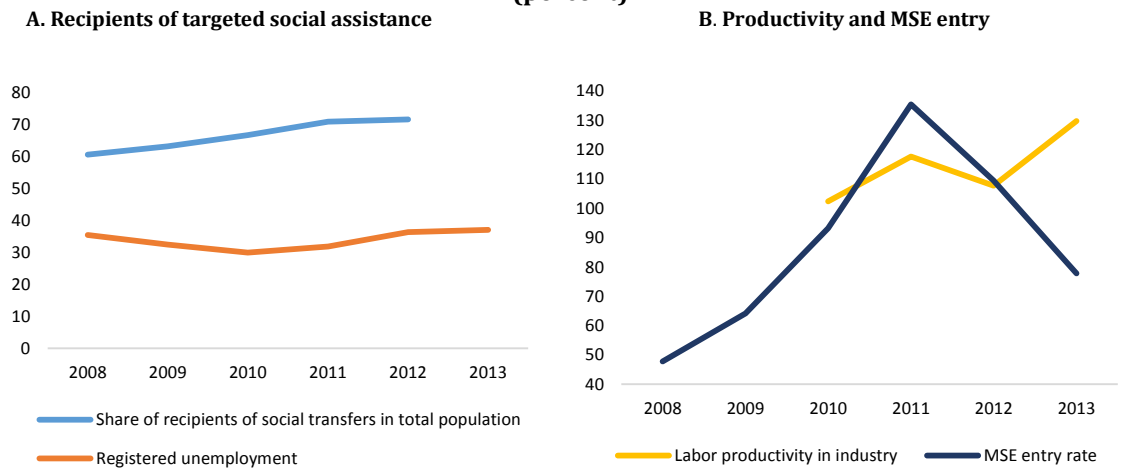
Source: World Bank Staff calculations based on Belstat data.
Note: A wage variation coefficient is constructed on 15 major types of economic activities according to the national classification.

3.8. **Adding more jobs in a rayon does not improve the welfare of the bottom 10 percent of households.** There may be two reasons why low-income households do not benefit from increase in employment. Low-income households are not joining the rayon employment pool, or the jobs that are created are not necessarily better-paid. Quantitative analysis[26] shows that at the rayon level, growth in employment is accompanied by a rise in the number of recipients of targeted social assistance in the total population: for every 1,000 additional workers employed in a given rayon, the number of recipients of targeted social assistance goes

[26] Results of the tests suggest that a fixed-effects model should be preferred to a random effects model. In the fixed-effects model, the dependent variables are number of recipients of targeted social assistance and share of those recipients in mid-year total population.

up 0.13 percent (Figure 3.3). When commuting is taken into account, however, it appears that inter-rayon labor migrants may be attracted by large enterprises. As a result, the "native" rayon labor force who have no access to employment at the dominant company shifts to inferior employment or even unemployment.

Figure 3.3. Coefficient of Variation: Social Outcomes, Productivity, and MSE Entry 2008–13 (percent)



Source: World Bank Staff Calculations based on Belstat data.

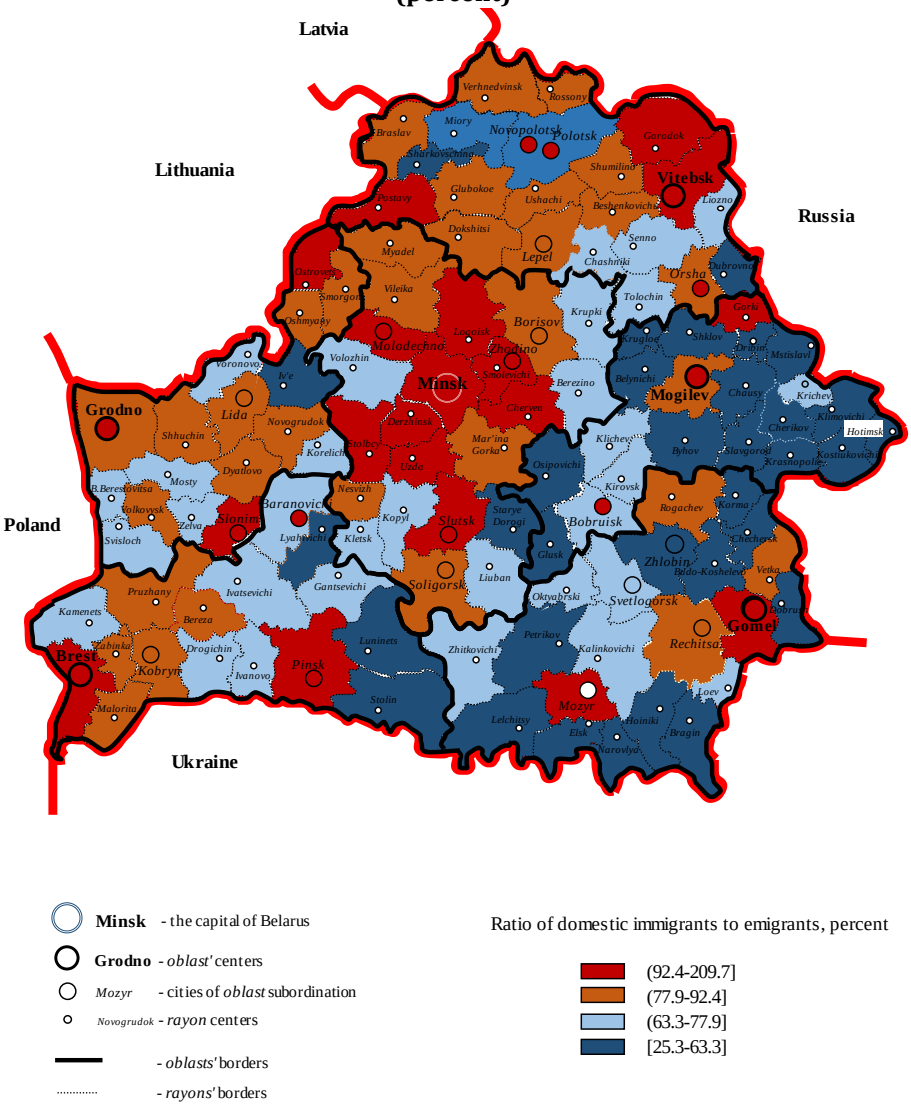
B. "Intrusive Rentiers" versus Private Firms

3.9. **In some rayons, wage differentiation is limited by the presence of a dominant SOE.** Some SOEs, as noted earlier, are large enough to influence the performance of the whole region. Polèse and Shearmur (2006) used the term "intrusive rentier" to capture the situation where a single large employer has a power to set the limits of a region's job and income opportunities. That power may be detrimental to the development of local entrepreneurship. In the case of Canada's Prosperity Mine, the term refers to the effects of a single employer paying very high wages to a relatively few workers, which was enough to skew labor market incentives (Polèse & Shearmur 2006). An example in Belarus is Soligorsk rayon of Minsk oblast, where the potash fertilizer exporter "Belaruskalij" is located. More typical examples, however, include SOEs that benefit from implicit or explicit state subsidies, directed credits, guaranteed markets, and other types of government support that is not available to private companies.

3.10. **Intrusive rentiers have complex effects on regional labor markets and even some social indicators.** They influence local pay scales, setting up wage benchmarks for other companies in the region, even those that outside the dominant company's sector. These large companies may also shape hiring practices: local workers gravitate to jobs there, and a "lunchbox mindset" appears in which a father, his son, and then his grandson all expect to work at that factory for a "good wage." Young workers are discouraged from looking elsewhere or starting up their own businesses. Local labor markets can also become less accessible to outsiders, including local inhabitants who did not manage to get hired by the enterprise.

3.11. **Commuting makes rayon labor markets less accessible for resident labor[27].** Prosperous rayons, with wages above national or oblast averages, may attract workers who live in neighboring regions. However, such labor mobility may not positively affect level of resident incomes. Workers may be drawn by large SOEs or intrusive rentiers that hoard labor. This leads to overemployment and damages enterprise efficiency (see Chapter 1). Industrial legacy rayons are attractive for commuting; in fact, in 2013, of the 28 rayons where the ratio of inflow of people ("immigrants") to outflow ("emigrants") was more than 100 percent, 17 were from the 19 industrial legacy rayons. The average inflow ratio (including external migration) for these rayons was 110.2 percent, and 137.1 for 12 of the rayon centers; the national average was 74 percent. From 2008 through 2013, domestic inter-oblast migration decreased, while commuting – intra-oblast, or inter-rayon migration – increased. The ratio of immigrants to emigrants is high in the central region of Belarus, particularly around the city of Minsk, and around regional capitals (except Mogilev) and some major cities (Map 3.4).

Map 3.4. Ratio of Immigrants to Emigrants 2013 (percent)



Source: World Bank Staff calculations based on Belstat data.

3.12. **Intensified commuting is reflected in the dynamics of employed to working-age population ratios in Belarus rayons**. These ratios have been rising since 2007 (Table 3.2).

[27] 2009 census data and labor market statistics (including Balance of Labor Resources) were used to assess commuting.

With the population aging, the increase in employment can be explained by an inflow of relatively younger workers from other regions. There are some cross-oblast differences in the employed to working-age population ratios: In 2008 and 2013, it was higher in the industrialized areas of Brest, Minsk oblast, and Minsk City than in Vitebsk and Gomel. The ratio is highest in the central region, where the 2009 Census also identified the most significant commuting streams. In general, commuting is more important in the central and western regions of Belarus than in other regions. The highest commuting rate is recorded between Minsk oblast and the Minsk City. It occurs in both directions. People from Minsk are going to work at the rayon-based firms, and vice versa. It is estimated that every working day 120,000 people arrive in Minsk to work (Babicki and Valetka, 2014).

3.13. **Existing institutions support commuting, which suggests that domestic migration occurs largely within oblasts.** Inter-regional migration has gone down, while commuting (domestic everyday movements of labor) has gone up. This suggests a deteriorating mobility structure because of the adverse impact of supporting institutions and infrastructure, such as housing policies and the mortgage system, where state subsidies are provided to households to construct or acquire real estate.

Table 3.2. Employed and Working-age Populations 2000–13

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Labor resources – total	5997.0	6106.1	6107.7	6109.9	6108.1	6081.4	6070.6	6031.4	6030.4	5989.1
Employed population, thousand people	4443.6	4414.1	4470.2	4518.3	4610.5	4643.9	4653.4	4654.5	4577.1	4545.6
Employed below and above working-age, thousand people	293.3	267.9	269.5	284.9	303.6	303.6	336.5	336.5	392.6	402.0
Population in working-age, thousand people	5794.5	5838.2	5943.8	5933.7	5907.9	5777.8	5742.0	5694.9	5637.4	5587.1
Ratio of employed population to population in working-age, percent	76.7	75.6	75.2	76.1	78.0	80.4	81.0	81.7	81.2	81.4

Source: Belstat, Employment Bulletins, Various years.

3.14. **Restructuring of SOEs can create more space for MSE growth at a rayon level**. Set wage levels raise the costs of entry, and heighten the losses of entrepreneurs who entered but whose business did not succeed. And skills are poached: private companies train workers, who may then have incentives to leave for a job at an SOE that may seem more stable, less stressful, and even tolerant of some forms of absenteeism. As a result, labor supply becomes a problem as dominant companies exploit their market power and privileged position: SOEs have advantageous access to subsidized lending and can care less than other companies about

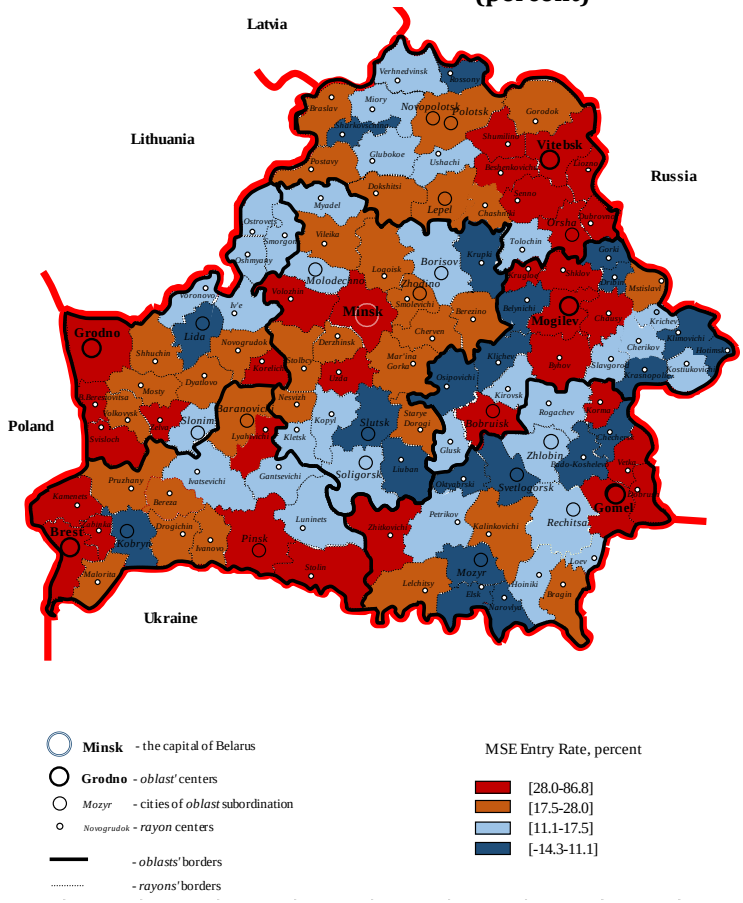
profitability and other performance indicators. To trace the impact of rentiers, MSE employment location quotient[28] and employment density were regressed on a number of variables obtained by explanatory data analysis techniques. The panel data regression did not reject the hypothesis that MSE employment is influenced by the presence of large companies. MSE employment density and location quotient are both negatively correlated with a context where wages exceed oblast and rayon averages.[29] At the same time, the evidence also shows that higher rates of growth for fixed investment lead to lower rates of MSE entry. It is likely that investments flow to support operation of SOEs, including job protection, which creates disincentives for private firms to enter regional markets.

3.15. **The structure of employment affects the entry rates of MSEs:** First, MSEs more actively enter (the entry rate goes up by 4.4 percent) the rayons that have more developed transport and communications sectors (i.e., higher values of employment localization coefficients in a given sector), which may provide better infrastructure and thus enhance mobility. (2) Lower employment in public sector is also conducive for MSE entry because it is likely to increase the local labor supply. (3) MSE are less likely to enter (the entry rate goes down by 3.5 percent) those rayons that have more developed sectors of trade and certain categories of services (e.g., repairs and maintenance)—especially if the employment localization coefficient for trade and services goes up by 10 percent. This is probably the result of a competitive market, because e many MSMEs engage in wholesale and retail trade. Overall, in 2013, the MSE entry rate was higher than in 2012 but there was no corresponding increase in MSE employment. The increased entry largely occurred in the less industrialized rayons of Gomel, Vitebsk, and Mogilev oblasts (Map 3.5). In 2013, MSE employment grew by 7.5 percent, but in 31 of 118 rayons, it was negative.

3.16. **Quantitative analysis found that higher wage variation at the rayon level is associated with higher MSE entry rates:** a 10 percent increase in wage variation is associated with five percent more MSEs entering, and vice versa (Map 3.5). Apparently greater wage differentiation, which reflects less labor market rigidity of the type that stems from intrusive rentiers or administrative wage setting, is attractive for small businesses.

[28] The ratio of employed in MSEs in a rayon (city) to a national average figure, as a percent. If this ratio exceeds 100 percent, small business localization is higher in a region.
[29] The dataset is comprised of Belstat data (2010–13) for all 118 administrative rayons and 11 cities (13 in 2010–12).

Map 3.5. MSE Entry Rate 2013 (percent)



Source: World Bank Staff calculations based on Belstat data.

3.17. **When rayon wages considerably exceed national averages, the MSE entry rate is lower but sector-specific.** When wages in construction are 10 percent above the national average, the MSE entry rate declines by 2.1 percent, a 10 percent wage premium in transport and communications reduces MSE entry growth rate by 2.2 percent. Because construction was booming with the help of state investments and preferential loans for housing construction, labor and financial resources stayed in that sector, which smothered MSE creation. Higher wages increase entry costs for firms. Nevertheless, in rayons where public sector wages are higher, e.g. for civil service, health, and education, the MSE entry rate is positive. It is probable that higher public sector wages reflect greater efficiency and fewer redundant workers, which encourages people to find jobs in the private sector.

C. Conclusions and Policy Implications

3.18. **Spatial data analysis suggests that employment tends to be concentrated within oblasts, around a regional center and some major cities**. Population size positively correlates with employment, and industrial employment tends to be concentrated in certain rayons more than in others. The distribution of labor productivity varies significantly but wages and employment do not. Wages display a tendency toward compression; they are influenced by current wage-setting policies and the presence of "intrusive rentiers", typically large SOEs.

3.19. **Large SOEs tend to make it difficult for MSMEs to expand employment**. The presence of large SOEs, or a large public sector that pays higher-than-market salaries, diverts labor away from private companies in that region. As a result, private pay also rises, or workers prefer a job at an SOE, which may seem more stable, less stressful, and less strict about, say, absenteeism. All in all, then, real wages are bid up. Higher-than-market wages pressure profitability and tend to weaken the private sector – which, unlike SOEs, does not enjoy access to subsidized lending and does not have to worry much about profitability and other performance indicators.

3.20. **"Intrusive rentiers" may create non-inclusive labor markets and affect social outcomes, such as the incomes of the bottom 10 percent of households**. In Belarus, the authorities have sought to maintain employment to prevent increases in poverty: prolonged unemployment leads to a loss of income because the benefits are negligible. However, although in some rayons employment has been growing, low-income households do not benefit from this rise. Across rayons, the working-age population remains the same or even shrinks, so that if the employed-to-working-age population ratio increases, labor may be flowing in from other localities. Typically, large enterprises attract labor, and often hoard it. This leads to excessive employment, which damages efficiency, which becomes evident in higher inventories, lower labor productivity, low profitability, or losses.

3.21. **Still, labor markets display a capacity to absorb the "excess" labor likely to be released in the course of structural reforms.** For laborers, state-owned and private sector firms can operate as communicating vessels. The evidence is that people tend to move to get jobs as commuting in Belarus becomes more intensive and workers see employment opportunities in neighboring rayons. Lower-paid or less-productive jobs are left to less mobile locals: at a rayon level, growth in employment is accompanied by deterioration in the welfare of the lowest-income households. Since restrictions on migration are counterproductive, there is a space for policies to improve the quality of human capital of less fortunate local laborers and to create incentives for local employment. Active labor market policies with a local outlook can be particularly helpful, making the business environment more hospitable to firms and investors.

3.22. **Instead of high-cost targeted interventions to save regional jobs, universal programs are needed to support transition to more productive employment, preferably in the private sector.** Inadequate income support for the unemployed complicates economic restructuring, including of regional enterprises. Given the potential for private sector growth, especially at the regional level, mechanisms to facilitate transition to new jobs are needed. Solid and reasonable, yet affordable, income support will protect those temporarily unemployed from falling into poverty. Local public employment offices should be closely involved in the planning and conduct of restructuring programs at the firm level so that they can offer tailored job search assistance and services to those likely to be unemployed. Enterprises, particularly private firms, can be invited to consult on what skills profiles are desirable.

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