

Small and medium enterprises in Poland

- obstacles and development

Key findings

There is a sizeable potential for development in the small and medium-sized enterprise (SME) sector in Poland. With the smallest number of firms per capita in the EU and a relatively small contribution to GDP from the sector, there is still room for many new entrepreneurs to set up in business before the economy reaches saturation for firms of this type. To support the growth of the SME sector it is necessary, however, to reduce the barriers which hinder the development of entrepreneurship in Poland, especially in the area of tax administration, access to finance and the education of employees. In this report, we discuss the importance of small and medium-sized companies for the Polish economy, and indicate what the obstacles are to making this contribution even greater.

SME sector is smaller in Poland than in other EU coun-

tries. The number of small- and medium-sized enterprises is the lowest per head of population among the EU member states. Furthermore, SMEs account for 36 per cent of revenue, or one-fifth less than in the case of large companies, whereas in most EU countries, it is the SME sector that is larger.

Industrial and trading firms predominate amongst Polish

SMEs. In Poland, the biggest number of SME firms are to be found in the in wholesale trade, retail and food industries, with a significant number of them being butchers and bakers. Firms engaged in land transport, buildings, as well as electrics and plumbing also make up a large part of the sector.

SMEs are more than three-times as likely to use bank loans as large firms. This applies particularly to small companies, which use loans to finance 21 per cent of their investments. As a result, SMEs are more heavily-indebted than large companies, but rarely apply for loans in foreign currencies. Their main sources of investment financing are still their own funds.

Small- and medium-sized enterprises grow, on average, at the same rate as large firms. But they are much more sensitive to economic fluctuations, especially changes in domestic demand, which is why the global financial crisis plunged them into a deep recession. In the case of medium-sized companies, the fall in value-added lasted three years and they failed to reach their pre-crisis volume of production until 2014.

The development of SMEs is based mainly on increasing productivity. Over the years 2006-2013, they accounted for 52 per cent of the growth of value added in the sector. This was thanks to better use of existing capital and labour, as well as a relatively high propensity to invest in research and development. As a result, the contribution of Polish SMEs to innovation is higher than their contribution to added value.

SMEs are investing more into people than machinery. The share of small- and medium-sized firms in investments is falling gradually, while the proportion of people working in the SME sector is growing steadily. What's important is that this group of companies devote one-third more of their income to wages than do large companies, which have to pay dividends and bear the costs of buying and maintaining fixed assets.

The most significant barriers to growth for SMEs are the high tax burden and bureaucracy. Moreover, entrepreneurs point to the difficulty of finding and hiring new employees and securing finance. Only rarely do they complain of corruption, problems with access to adequate infrastructure or crime.

Access to bank loans is currently much easier in Poland than in the EU. Only 4 per cent of micro-, small- and medium-sized enterprises have been refused a loan that they had applied for, whereas the average percentage of refusals for loan application is twice as large in other EU countries. When entrepreneurs do point to problems in obtaining finance, this becomes the most serious barrier to development for them - as many as 19 per cent of medium-sized businesses complain about this.

SME's difficulties in accessing finance inhibit innovation.

Among those companies that have no problems with obtaining external funds, the proportion of entities investing in research and development amounts to 18.4 per cent, compared to 8.6 per cent among the firms for which access to finance is a major hurdle. Moreover, according to the entrepreneurs themselves, it is precisely the difficulty of obtaining funds which is the biggest barrier to the growth of innovation.

Difficulty in finding skilled workers is directly proportional to size of a company. It is medium-sized industrial and building firms which most complain about the lack of adequately trained personnel. The problem of gaps in education also applies to directors and business owners, who often lack management skills and basic knowledge of finance and accounting. Despite this, Polish companies are the least likely of all EU firms to send their employees for vocational training.

The biggest obstacle to the growth of SMEs is the "small--scale trap". This phenomenon entails the relatively slow growth in the scale of operations of micro-enterprises,. It turns out, moreover, that these companies develop more slowly than their competitors, even when they have become SMEs. This phenomenon results from a different development model of micro businesses that relatively often focus only on local-scale operations, as well as from high levels of risk aversion and management skills gaps.

Authors



Adam Czerniak, PhD Chief economist a.czerniak@politykainsight.pl (+48) 22 436 73 15



Maciej Stefański macroeconomic analyst m.stefanski@politykainsight.pl (+48) 22 436 71 82



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Table of contents

SME's importance for the Polish economy

| >>> | Size of sector | 4 |
|-----------------|------------------------|---|
| >>> | Geographical structure | 5 |
| >> | Structure by Industry | 6 |
| >> | Structure by ownership | 6 |
| >> | Structure by finance | 7 |

Contribution to economic development in Poland

| Increase in the value added | 8 |
|---|----|
| Increase in productivity and innovation | 9 |
| >>> Investments | 10 |
| Employment and wages | 11 |

Biggest obstacles to development

| Burdens of bureaucracy | 14 |
|---|----|
| Access to finance | 14 |
| Access to an adequately educated workforce | 16 |
| International trade | 17 |
| The small-scale trap | 18 |

Appendix

SMEs' importance for the Polish economy

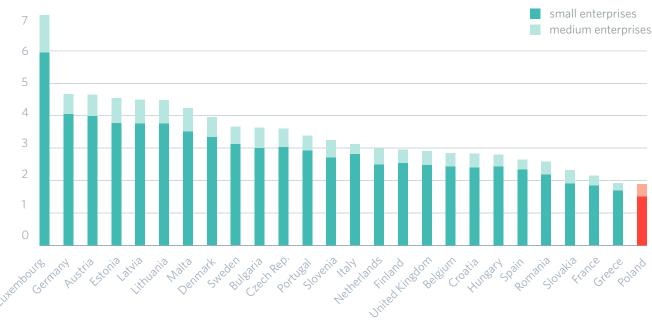
The number of SMEs per head is in Poland the lowest amongst EU member states

Size of sector

Contrary to popular belief, the Polish small and medium-sized enterprise (SME) sector, defined as firms with between 10 and 249 employees, is smaller than in other EU countries. The number of SMEs per head of population is the lowest amongst EU's member states – in Poland there are only 1.9 businesses per 1,000 citizens, while in Hungary the figure is 2.8 and, in Germany, 4.6. As a result, only 4.8 per cent of Polish firms are classified as SMEs – the fifth lowest figure in the EU.

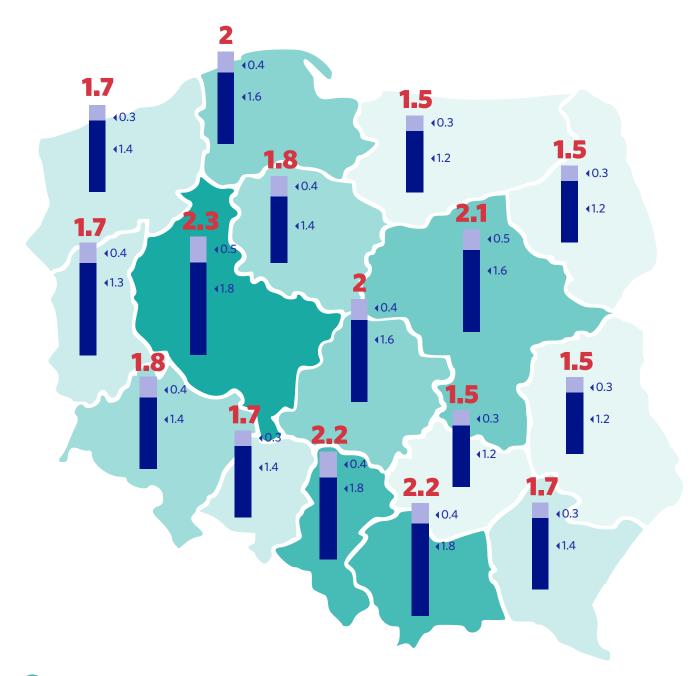
Nor do SMEs come out well in comparison to large firms. They account for 36 per cent of total revenues – this is about one-fifth less than for large companies, whereas, in most EU countries, it is the SME sector that is the larger. The picture does not change significantly if taking into account other measures of the size of the sector – SMEs generate 29 per cent of value added and employ 33 per cent of all workers, which is also one of the lowest percentages in the EU.

The discrepancy between these data and the commonly-held view is attributable to the high total of SMEs in Poland (in absolute numbers the country is in sixth place in the EU) and the typical definition - the SME category usually includes micro-firms and often people who are self-employed. This group of entrepreneurs varies significantly from small and medium enterprises with regard to the scale and nature of their activities. It is often the case that their owners have neither the ambition nor the ability gradually to increase the scale of their operations, because SMEs are established solely for the purpose of tax optimization. This phenomenon is a significant barrier to business development in Poland and we describe this as the "small-scale trap". One of its manifestations is the limited number of small businesses which employ between 10 and 49 people. Medium-sized companies constitute, in fact, 20.2 per cent of all SMEs, which is the highest percentage in the EU.



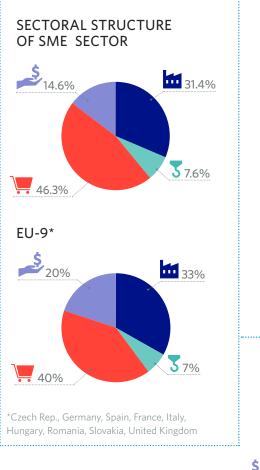
NUMBER OF SME PER 1000 INHABITANTS

NUMBER OF SME PER 1000 INHABITANTS

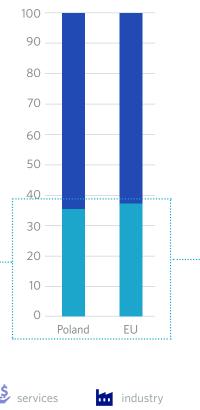


≫ Geographical structure

The biggest numbers of SMEs per head of population are registered in voivodeships with large urban centres - Wielkopolska, Małopolska, Śląsk, Mazowieckie, Łódź, and Pomorskie. The first three voivodeships attract the biggest number of small companies (1.8 firms per 1,000 inhabitants), while Mazowieckie and Wielkopolska have the highest number of medium-sized companies (0.5). Among the large conurbations, Wrocław fares worst - only 1.4 small businesses per 1,000 inhabitants are registered in Dolny Śląsk; the region's capital attracts mainly large firms, of which it has the biggest number after Warsaw. medium enterprisessmall enterprisessmall and medium enterprises



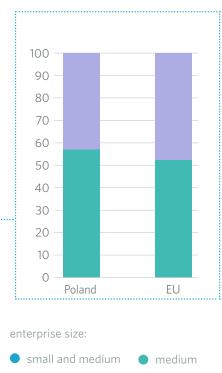
SHARE OF SME IN FIRMS' REVENUES (%)



construction

small

SHARE OF MEDIUM FIRMS IN SME REVENUES (%)



other

Structure by Industry

There are relatively few firms in the the services sector (excluding trade) in Poland, which accounts for 24.3 per cent of companies, as against 39.5 per cent on average in the EU. Among Polish SMEs, there are more industrial firms (33 per cent) and trading companies (29.4 per cent). A similar industrial structure is to be found in other Visegrad countries. Compared with large companies, SMEs include far fewer industrial companies, and more in construction and trade. This is because, in industry, it is important to make use of economies of scale and most of the production takes place in large plants.

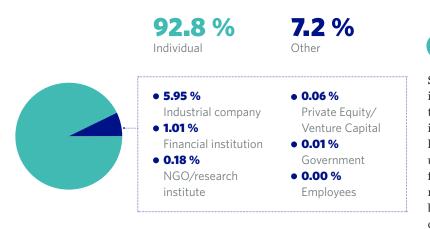
trade

In terms of revenue, trading companies have by far the largest share in the sector (46 per cent), which results from the nature of their business, based on high turnover and low margins. The low share of service companies and construction companies indicates that they are mostly small businesses, in contrast to the large industrial enterprises.

After breaking down each sector by industry, it appears that the most (14 per cent) companies operate in the wholesale trade – they account for as much as 33 per cent of the sector's total revenues. Many of the firms also operate in the retail trade (12 per cent), food industry (6 per cent) - mainly bakeries and butchers - and inland transport (5 per cent). Among the construction companies almost as many firms are involved in the construction of buildings as in finishing works (5 per cent) - especially in electrics and plumbing.

Structure by ownership

The majority of Polish SMEs are in domestic hands - only 9.5 per cent are firms with foreign capital, with more of the latter to be found among medium-sized firms (17 per cent) than small ones (7.5 per cent). The share of income for companies with foreign capital is much higher and amounts to 25.7 per cent. They yield nearly three-times more revenues than Polish-owned companies, mainly because most of them are subsidiaries, which use the resources of their parent companies. The vast majority (92.8 per cent) of Polish SMEs are owned by private individuals but 6 per cent of the firms are subsidiaries of Polish or foreign companies. Only slightly more than 1 per cent of firms are owned by other groups of investors,



SHARE OF FIRMS WITH FEMALE OWNERS



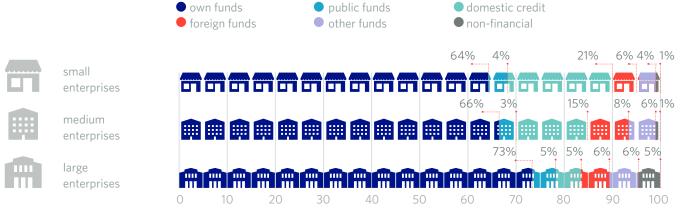
including financial institutions, foundations, and private equity / venture capital. Interestingly, 41 per cent of companies have a woman as one of the owners, and they are more likely to be shareholders of small companies (43 per cent) than medium-sized ones (34 per cent). This is one of the best results among CEE countries, and morethan two-thirds higher than in the other countries of the Visegrad Group.

Structure by finance

SME finance investment mainly from their own internal funds – this was the case for 66 per cent of them. The tendency to use internal funds increases in step with the size of the company. This is because large companies have more market leverage, are usually more profitable and liquid, making it easier for them to set aside funds for investment. Own resources are also one-fifth more likely to be used by businesses with foreign capital - they can be capitalized by their parent companies, which are four-times more likely to do so than Polish owners.

SMEs are more than three-times more likely to use bank loans than large enterprises - particularly with regard to small companies, which use loans to finance 21 per cent of their investments. Other sources of funding play a much smaller role. Polish SMEs are reluctant to use capital market instruments - 0.2 per cent of companies issue bonds (against an EU average of 1.1 per cent), and 1.6 per cent issue shares (1.7 per cent in the EU).

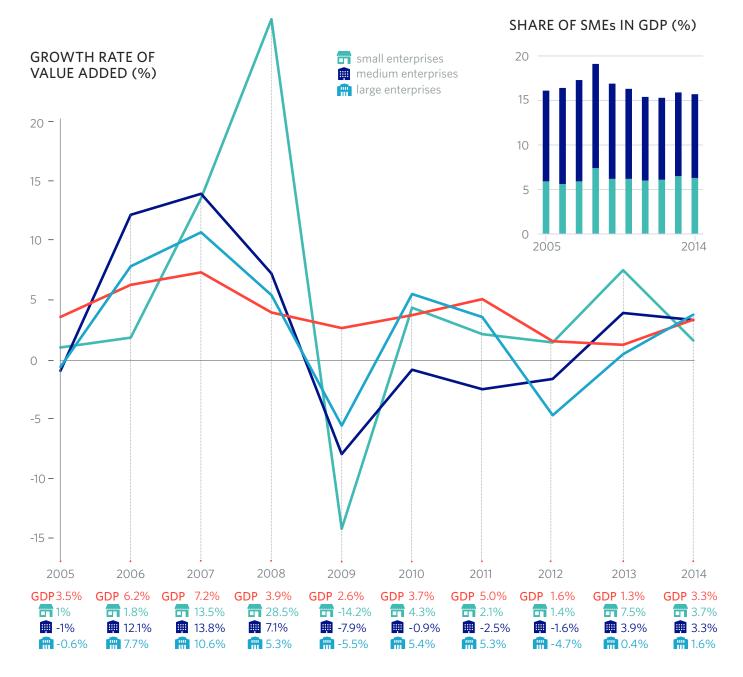
As a result, SMEs are more indebted than large companies - they have PLN 189 billion in loans, a figure almost PLN 40 billion higher than for large firms, but they have fewer loans in foreign currencies. The high debt ratio, at about two-thirds of the value added, combined with lower profitability and liquidity than in larger firms results in problems with the repayment of loans. Some 17.1 per cent of loans made to SMEs are overdue for payment, whereas for large companies the figure is 7.2 per cent.



FUNDING OF INVESTMENT OUTLAYS

Source: PARP.

Contribution to economic development in Poland



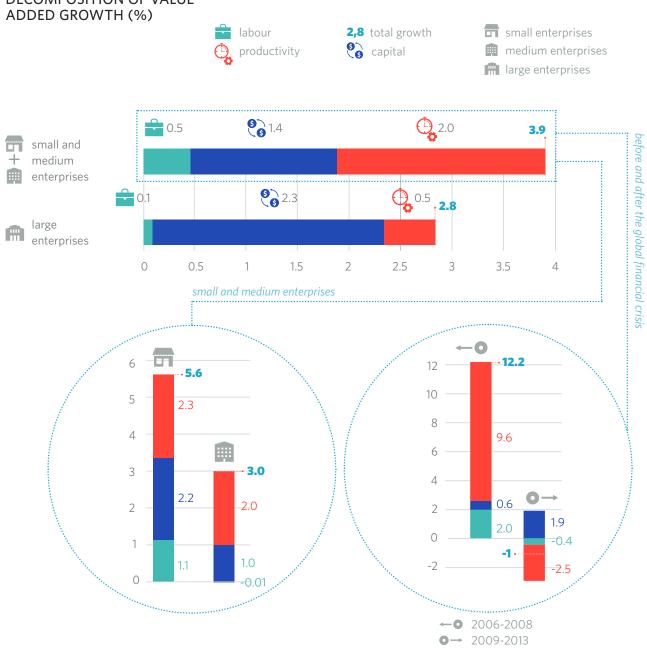
Increase in the value added

Between 2005 and 2014, SMEs grew on average at a rate similar to that of the economy overall and their share of GDP remained at a similar level. Their condition is, however, more sensitive to economic fluctuations than in the case of large firms, and especially to the dynamics of domestic demand. SMEs ,therefore, reacted differently to the economic boom after Poland's accession to the EU, as well as to the global economic crisis. Just before the global recession hit, the SME sector was the most powerful driving force behind the Polish economy, and it was main driver behind Poland's 6 per cent GDP growth. Driven by rapidly growing domestic consumption, SMEs grew faster than all other Polish companies. With the sudden economic downturn, however, including a decline in domestic demand, small and medium-sized enterprises entered a period of stagnation - between 2009 and 2012, value added at constant prices did not increase and, by 2014, was still lower than in 2008. At this time, SMEs fared worse than the economy as a whole, which was fuelled by public investment and exports. As a result, the share of SMEs in GDP declined to 15.3 per cent in 2012 - this is about one-fifth less than in the record vear of 2008.

The effects of the crisis hit medium-sized companies the hardest, added value fell by a total of 12.5 per cent and has not returned to the levels from before the downturn. Although in 2009 small businesses were most affected of all business by the recession, in the following years they grew at a rate similar to GDP growth. As a result, the volume of production for this group of operators exceeded the pre-crisis level in 2014.

≫ Increase in productivity and innovation

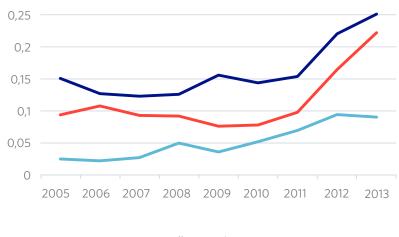
SMEs growth is based mainly on increasing productivity - in 2006-2013, it accounted for 52 per of value added growth. In this respect, there are no significant differences between SMEs - productivity contributed 2.3 and 2 percentage points respectively to growth. These companies quickly increased the total factor productivity before the crisis - then the contribution to growth was 9.6 percentage points and much higher than for other companies. After the crisis, the productivity of SMEs has fallen, due to labour hoarding - despite the fall in demand, firms restrained from mass layoffs in order to maintain their production capacity.



DECOMPOSITION OF VALUE

Small and medium enterprises in Poland - obstacles and development | 9

SHARE OF R&D EXPENDITURE IN FIRMS' TURNOVER (%)



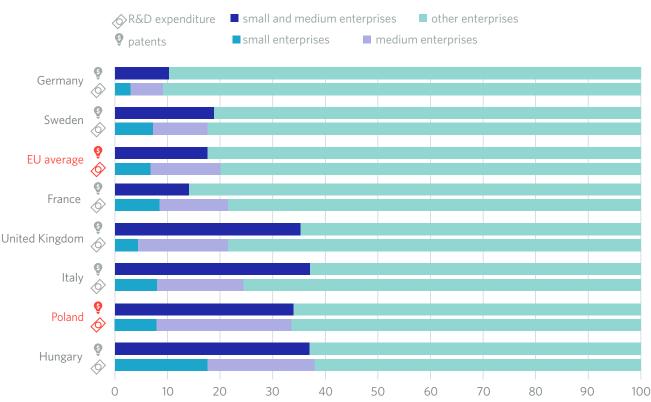
small enterprises
medium enterprises
large enterprises

According to official data, Polish SMEs – just like the other sectors of the economy - are not very innovative. Research and development (R&D) spending in 2013 was a mere 0.17 per cent of revenues, which was the seventh-lowest score in the EU – in Hungary, the corresponding percentage is four-times higher and in Slovenia, eight-times higher. Medium-sized companies do better in this respect, spending 0.22 per cent of their revenues on R&D, though this is still one of the lowest results in the EU. This weakness of Polish companies compared to other countries may be partly a statistical quirk, resulting from the lack of incentives for reporting R&D spending. This is why we compare Polish SMEs with large domestic companies.

As compared to large firms, SMEs do much better – they accounted for 33.6 per cent of total spending on research and development and registered 34 per cent of all patents. This is almost two-times more than the average for the EU as a whole. Thus, the contribution of Polish SMEs to innovation is higher than their contribution to value added. Moreover, spending by Polish SMEs on R&D is growing faster than for large firms - in 2011 it amounted to only 0.09 per cent of revenues, but almost doubled over the next two years. Spending grew especially in medium-sized firms (up from 0.1 to 0.22 per cent), which began to catch up with large companies in terms of innovation (0.25 per cent in 2013).

Investments

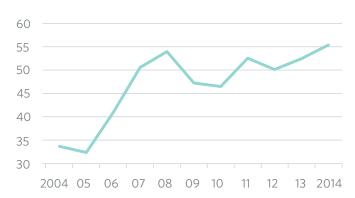
The growth of SMEs is based, to a much lesser extent, on investments than in the case for other businesses - over the years 2006-2013, the contribution of investment to growth was 1.4 percentage points compared to 2.3 percentage points for the entire sector. The low propensity to invest is especially a characteristic of small businesses - a result,



SHARE OF SME IN R&D EXPENDITURE AND PATENTS (%)

The share of SMEs in private companies' investment outlays gradually decreases, which is a result of the financial crisis

VALUE OF SME INVESTMENT (PLN BLN)



STRUCTURE OF FIXED ASSETS (LEVEL, %)

SHARE OF SME IN FIRMS' INVESTMENT

AND TURNOVER (%)

40

35

30

25

20

15

10

5

 \cap

2004

05

06

07

08

of lower investment needs, especially in service companies, frequent difficulties getting access to finance and a low propensity to increase the scale of operations and high risk aversion to long-term investment projects.

The participation of SMEs in investment by firms is gradually falling - in 2004, it stood at 37 per cent of the total, but in 2014 only 30 per cent. The most important contributory factor here was the global financial crisis – expenditures by SMEs on fixed assets fell so heavily that it was only in 2014 that they exceeded the pre-crisis level of PLN 55 billion. Interestingly, investment by SMEs also fell after Poland's accession to the EU in 2005.

Due to the structure of industry, the smaller the company is, the less it tends to invest in machinery – such investment stands at only 28 per cent of the fixed assets for small companies as against 50 per cent in large firms. As a result, buildings Medium-sized enterprises' investment outlays

10

11

12

13 2014

■ Small-sized enterprises' investment outlays

09

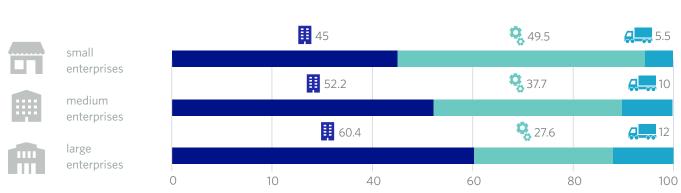
- Medium-sized enterprises' revenues
- Small-sized enterprises' revenues

and transport vehicles comprise the biggest element in the structure of SME's fixed assets. This does not mean, however, that they have more of them - the larger companies are better furnished with capital. For small businesses, the total value of fixed assets is 188 per cent of the value added produced annually, but as much as 246 per cent in the case of large firms.

Employment and wages

SMEs are investing more in people than machines - their share in employment by firms is 32.8 per cent, while for investment it is only

transport eguipment



buildings

Source: PARP.

Small and medium enterprises in Poland - obstacles and development | 11

🧟 machinery

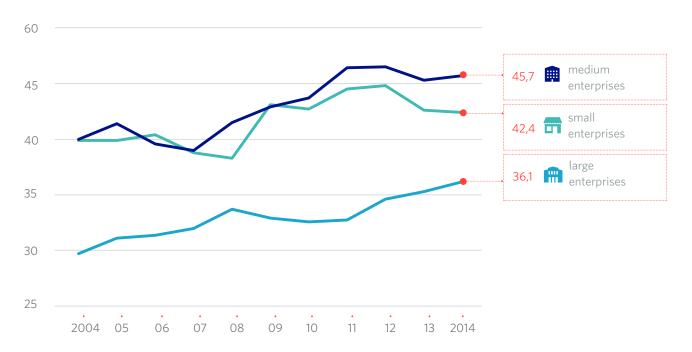
30.2 per cent. What is more, unlike investment, the participation of SMEs in employment is increasing steadily. As a result, the contribution of employment to the growth of SMEs is much higher than for other firms - 0.5 percentage points as against 0.1 for the sector as a whole.

There is significant diversity, however, within the sector - it was small businesses that accounted for the SMEs' entire share in the overall growth in employment. This means that they grew to a greater extent through increasing employment while medium-sized companies grew mainly due to their investments. This points to the diversity of development models, depending on company size - smaller companies grow by giving jobs to additional workers, while medium-sized firms increase their business through investments. This applies especially to businesses struggling to find suitably qualified staff, as manifested by the zero contribution to employment growth in added value for medium-sized companies compared with 1.1 percentage points for small businesses.

A higher propensity to invest translates into higher employee productivity but also, as a result, higher earnings. Thus, those employed in SMEs earn 20 per cent less than employees of large companies and about 2 per cent less than the average wage in the business sector. The connection between wages and the size of the company can also be seen within the SME sector – in medium-sized enterprises wages are about 14 per cent higher than in the small-firms sector. Interestingly, these differences are extremely stable, and have hardly changed since 2004 - wages grow at the same rate in all types of businesses.

A further consequence of the low levels of capital in SMEs is, however, a high share of the wage bill in the value added - 44.4 per cent as compared to 36.1 per cent for large enterprises. This means that small and medium-sized enterprises devote a much larger share of income to wages than do large firms, which have to pay high dividends and bear the cost of buying and maintaining fixed assets. Moreover, the share of wages in the value added of SMEs is growing - since 2004 it has increased by 4.4 percentage points and the increase was higher for medium-sized enterprises.

Salaries in SMEs grew more rapidly than labour productivity, and employers eagerly passed additional income from productivity gains in salaries paid to employees. This is a very positive development, since the share of wages in value added in Poland is one of the lowest levels in the EU. The development of the sector should contribute to increasing the benefits flowing to the Polish people from economic growth and to narrowing income inequalities between the owners of capital and workers. In sum, the structure of value added growth in SMEs is healthier than for large businesses, because it is to a greater extent based on improving productivity than on investment in new fixed assets.



SME TURNOVER AND INVESTMENT BY SECTOR

Biggest obstacles to development

Our analysis shows that small and medium-sized enterprises see high tax burdens and inefficient tax administration as the strongest constraints on sales growth. Further obstacles for SMEs include: • restrictive regulations on hiring and firing workers, along with high non-wage labour costs, • political instability, and • difficulty in obtaining financing. Small and medium entrepreneurs rarely complain about corruption, problems with access to adequate infrastructure or about crime.

OBSTACLE SEVERITY INDEX¹ (0-4 PTS)

WHAT IS THE MOST SERIO-

US OBSTACLE AFFECTING BUSINESS OPERATIONS?

small enterprises medium enterprises 20% tax rates 2.04 2.06 📅 & 1.96 🛄 21% 📅 & 15% 🛄 10% 📅 & 3% 🏢 8% tax administration 1.65 & 1.74 1.35 9% -7% 📅 & 16% 🏢 1.32 & 1.21 labour regulations 1.12 **9%** ·· 7% 📅 & 15% 🏢 political instability 1.15 & 1.25 11% 📅 & 19% 🏢 1.04 **13%** access to finance 1.09 & 1.32 1.03 📅 & 0.98 📖 3% -3% 📅 & 5% 🏢 inadequately educated workforce 1.02 1.00 -1.04 3% ---3% 📅 & 2% 🏢 & 0.86 business licensing and permits 0.91 3% 📅 & 3% 🏢 corruption 0.91 & 0.93 3% --0.87 4% -5% 📅 & 2% 🏢 courts and judical system 0.91 & 1.08 0.91 · 0.90 & 0.95 **5%** · 5% 📅 & 6% 🧱 informal sector competitors transportation of goods, **0.88** · 0.92 & 0.71 **5%** · 6% 📅 & 0% 🏢 supplies, and inputs 2% 📅 & 2% 🏢 customs and trade regulations 0.81 · 0.82 & 0.78 **2%** -1% -1% 📅 & 5% 🏢 0.79 0.74 📅 & 1.00 📖 access to electricity 0.67 . 0.67 📅 & 0.66 🛄 2% -2% 📅 & 3% 🏢 crime, theft and disorder 0% 📻 & 0% 🧱 access to telecommunications 0.58 · 0.58 & 0.61 0% -**4%** · 0.57 🔐 & 0.43 🛄 5% 📅 & 2% 🏢 0.55 · access to land

Small and medium enterprises in Poland - obstacles and development | 13

No obstacles

7% -

8% 📅 & 3% 🏢



According to the European Commission, a Polish business owner has to deal with the tax authorities as many as 18 times a year - that's more than one and a half times the EU average. A further obstacle is the complexity of the tax system, both for income tax and VAT. As a result, Polish companies have to spend an average of 286 hours per year on tax bureaucracy, compared to an average of 189 hours in the EU. They do not get support from the state

NUMBER OF TAX PAYMENTS PER YEAR

Poland



EU average

83.3%

of entrepreneurs does not agree that a wide range of government assistance can be obtained through contact with a single agency

• 0%

of entrepreneurs agrees that new and growing firms have just as much access to new research and technology as large, etablished firms

- more than half of the entrepreneurs are of the opinion that the public institutions with which they interact have incompetent workers and are inefficient. Alongside high tax rates, this has for many years been the most important barrier to the development of SMEs and has already been highlighted in earlier reports about the situation of smaller firms.

The complexity of the tax system and the amounts levied by the state are at their most severe for small businesses - for up to 21 per cent of them, taxes are considered as the main barrier to development, and a further 10 per cent indicate that the biggest constraint on growth is bureaucracy. In the case of medium-sized companies, the two indicators are 15 and 3 per cent. It is worth noting that there is a statistically significant correlation between the identification of the amount of taxes and administrative inefficiency as obstacles to growth among SMEs (0.58). In our opinion, this means that the perception of the severity of the tax burden is due to the complexity of the system, while larger companies, which employ accountants, do not see paying taxes as a major barrier to growth.

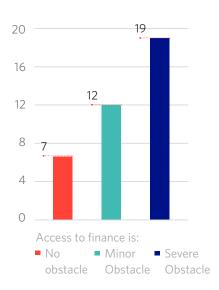
Research by the European Commission shows, however, that from 2008 to 2014, the quality of Polish public administration improved significantly. Further improvement of relations between the state and business could be effected by establishing a public agency involved in the promotion of entrepreneurship and providing support using already-existing new technologies.

Access to finance

Access to external financing, especially to bank loans, is currently much easier in Poland on average than in the EU. According to a study by the European Commission and the European Central Bank only 4 per cent of micro-, small- and medium--sized enterprises obtained no credit, compared an average of 8 per cent in other EU countries. Therefore, in our obstacle severity index, access to finance was only in fifth place. If, however, a small- or medium-sized enterprise indicates trouble obtaining financing, for them it is usually the most serious barrier for furthrer development.

The problem of access to finance is mentioned mostly by firms that have already received loans for development. In the case of those SMEs which consider this factor a significant barrier to sales growth (burden level 3 or higher), their share of bank loans to equity is 19 per cent, compared to 6.6 per cent for companies that do not have a problem with access to financing. Importantly, these companies – having failed to get a bank loan – obtain loans from other institutions of the financial sector. The ratio of the amount of the aforesaid loans to equity is 4.1 per cent for businesses which find access to financing a more acute problem, compared to less than 1 per cent for other SMEs

SHARE OF SME WORKING CAPITAL BORROWED FROM BANKS (%)



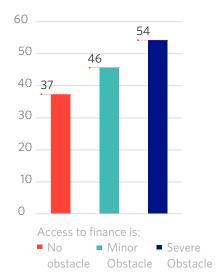
In our view, this particular issue is one of the most important obstacles to the development of SMEs, as reflected in the two key aspects of their business: • the propensity to invest and • liquidity. As is clear from research findings (Motyka, Lukasik 2015) the biggest obstacle to increasing innovation in SMEs is the availability of financing for research and development (R&D), both from own resources as well as external funding. This is also confirmed by our analysis - the percentage of companies investing in R&D decreases as accessing finance becomes more difficult. Among those companies that do

> not have problems with getting external funding, 18.4 per cent invested in research and development; among companies for which access to finance is a major impediment the rate was barely half as high (8.6 per cent).

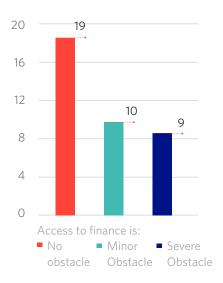
Among Polish SMEs, 21 per cent use bank loans to settle their commitments, while for the EU the average is only 15 per cent. This is the result of a low level of payment morality, that is, the tendency of firms to settle their payments on time, which in turn translates into liquidity problems. In 2007, Polish SMEs received only 5.2 per cent of payments for goods sold before they were sent to the customer - among the countries of the region, a lower percentage is found only for Hungarian firms (2.4 per cent).

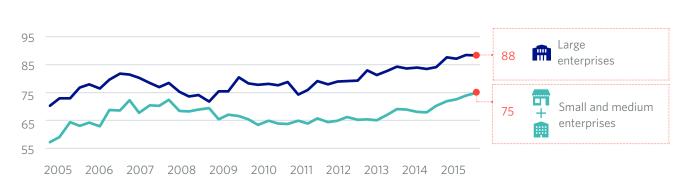
Year by year, however, the liquidity situation of firms improves, and, as was demonstrated by national bank data, at the end of 2015 three-quarters of SMEs declared that they had no liquidity problems - the highest level in history. The improvement is in large part attributable to the introduction of the *de minimis* credit guarantee programme by Bank Guarantee Fund (BGK). The results of the bank's research indicate that the programme increased lending to businesses over the last three years by PLN 12.3 billion – one-third of the total increase in loans to companies at the time.

SHARE OF TOTAL SALES PAID AFTER DELIVERY (%)



SHARE OF COMPANIES SPENDING ON R&D (%)





SHARE OF ENTERPRISES WITHOUT LIQUIDITY PROBLEMS BY SIZE (%)

 Share of total sales paid after delivery

73%

in 2007

| 46 % | |
|-------------|--|
| in 2011 | |

Source: NBP.

HOW MUCH AN OBSTACLE IS THE INADEQUATE LEVEL OF WORKFORCE EDUCATION (BY SECTOR)? Severity index (0-4 pts)



Access to an adequately educated workforce

Although domestic and foreign investors rate the qualifications of Polish workers highly, their availability has for many years been one of the key obstacles to the development of firms. This problem increases with the size of the company, whereas for micro-enterprises it is an insignificant barrier to development, for medium-sized companies it is mentioned in most studies as being in the top-five most serious barriers.

Most of the complaints about the lack of adequately trained personnel come from industrial firms - for them, we calculate the nuisance caused by this barrier at 1.17 points. Just as difficult a problem is the inadequate education of workers for construction firms (1.15 points) and wholesalers (1.11 points). It is much less of a problem for service companies (0.8 points) and shopkeepers (0.65 points), which hardly ever complain about difficulties in recruiting staff with appropriate qualifications.

The problem of the lack of proper education is not confined, however, only to employees. Especially among small businesses, the competencies of the

88.2%

of entrepreneurs agree that primary and secondary education does not provide adequate instruction in market economic principles

91.4%

of entrepreneurs agree that primary and secondary education does not encourage creativity, self-suficiency, and personal initiative

KEY ENTREPRENEURIAL SKILLS:

- accounting
- finance
- technical expertise essential to the enterprise's activities

owners and managers are a barrier to development. As has been indicated by the OECD, they often lack management skills and knowledge of accounting, finance and other key aspects of business. This is primarily the result of inadequate education. 88.2 per cent of entrepreneurs believe that Polish schools do not teach the basic laws of economics and do not help in understanding the economy, while 91.4 per cent indicate that schools do not develop the creativity and independence needed for running a business.

The companies, however, do not want to solve the problems of inadequate worker education by themselves. According to the European Commission, only 22% of micro-, small- and medium-sized enterprises conduct in-house training in order to raise the qualifications of their employees. This is the worst result in the EU: in other countries, this percentage is on average three-times greater. Recruiting appropriately skilled employees is another barrier to the growth of innovation in SMEs. The fact that a company is more willing to invest in R&D means that the difficulties encountered in finding employees who would be able to drive these innovations and implement them are greater. And so, among the companies that invest in R&D 28 percent report major problems with acquiring appropriately qualified personnel, while among other companies only 16 per cent report such problems. For product innovation, the rates are 25 and 12 per cent, respectively.

International trade

The share of export sales in the companies' revenues increases with the size of the enterprise – in 2013 it ranged from 9.6 per cent for small businesses to 21.3 for large ones. Despite the gradual increase in exports in recent years, the internationalization of Polish businesses remains at a much lower level than in the Western countries. As a result, the share of Polish SMEs in the single market is about one-third less than the average level for the EU.

It is difficult to pinpoint the obstacles to the international development of SMEs on the basis of quantitative research. The index of obstacles to international trade in Poland remains very low, even taking into account only companies that already sell some of their products abroad. Also, the costs of exports are close to the EU average, and the scale of bureaucracy associated with foreign sales - although slightly higher than the EU average - is so low that it cannot constitute a barrier to trade.

PERCENTAGE OF ENTERPRISES THAT TRAIN THEIR EMPLOYEES

Poland

22%

EU average

66%

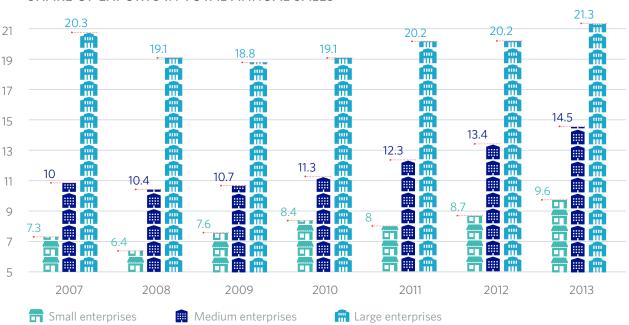
SHARE OF SMEs WITH INTRA-EU EXPORTS OF GOODS

Poland

11.4%

EU average

16%



SHARE OF EXPORTS IN TOTAL ANNUAL SALES

- Average age of a company • at first export
 - 8 years

Small enterprises

AVERAGE ANNUAL GROWTH OF SALES (%)

The small-scale trap

Over the course of our analysis of the factors affecting the development of the SME sector in Poland we encountered a feature which runs contrary to accepted economic theory - namely, that with an increasing size of the company, revenue growth from sales increases as well. It turns out that the average annual growth in turnover

5 years

enterprises

Medium

12 11.6 9.9 10 8 5.6 6 4 3.1 2.5 1.8 2 0 Micro Small Medium total only companies that were

> ranges from 1.8 per cent in the micro enterprises to 9.9 per cent for medium-sized companies. It emerges furthermore that the smallest businesses grow more slowly than the competition, even when they already exceed the threshold for employment of 10 people: they are growing at a rate of 2.5 per cent compared to an average of 5.6 per cent for medium-sized companies.

> Companies that were originally built for a larger scale of operations fare much better. As a result, only 56 per cent of small and 32 per cent of medium

sized companies were established as firms employing fewer than 10 people. Our econometric analysis suggests that the problem is most acute for the retail trade and other services - there the likelihood of being promoted from the micro-businesses group to the small enterprise group exceeds 50 per cent only after 30 years of operation. This phenomenon can be described as being the "small-scale trap". It stems from a different development model for micro businesses which relatively often are aimed at operating on a local scale, especially for those in the retail sector. Another problem are educational barriers, which, as the OECD indicates, include the insufficiency of management skills among managers. In our view, the absence of a tendency to increase the scale of operations is also a reflection of a high level of aversion to risk-taking - as many as 51.1 per cent of Polish entrepreneurs are afraid of failure in business as

Small and medium enterprises that were established as micro--firms grow on average 0.9 p.p. slower

FEAR OF FAILURE RATE

Poland

51.4%

EU average

0_7%

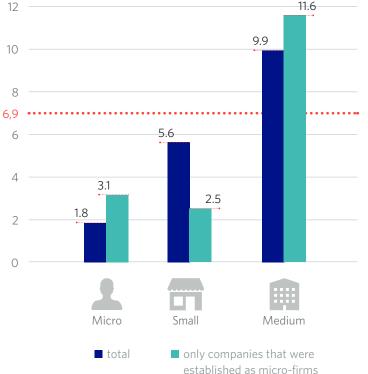
Cost of recovering debt as percentage of the debtor's estate

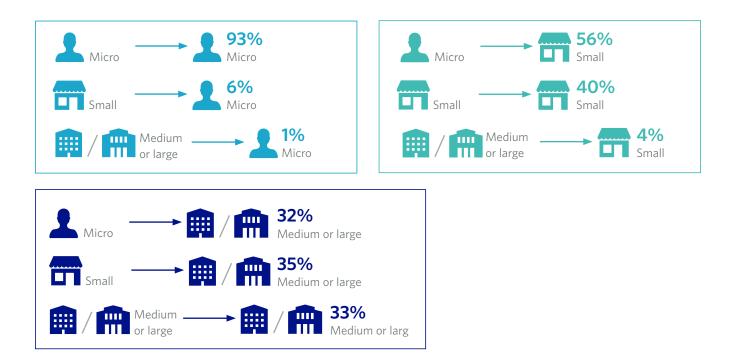
15% Poland 10% EU average

Enterprise survival rate

86.6% After one year 40.9% After five years

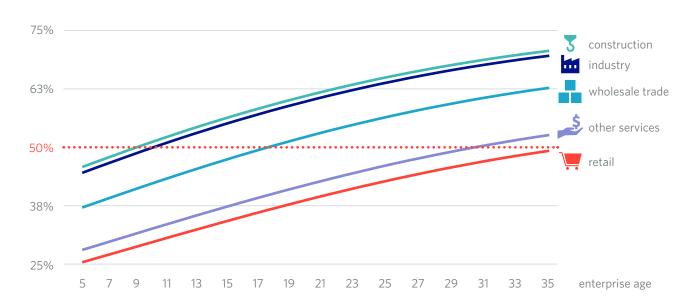
18 | Polityka Insight





compared to an EU average of 40.7 per cent. This is the result of the high cost of bankruptcy and insufficient emphasis on creating mechanisms of assistance for entrepreneurs who have been forced to declare insolvency.

Small-scale trap constitutes the largest obstacle to the development of the SME sector in Poland - some entrepreneurs are afraid or have no skills to develop their operations. This stems from a low level of managers' economic education, recurrent problems with liquidity and business failures as well as high costs of bankruptcy. As a result, most of micro-firms do not employ new workers and do not aim at increasing sales. The effect of a small-scale trap is the lowest number of SMEs per head of population in the EU.



THE PROBABLITY OF A MIRCO-FIRM TO BECOME AN SME BY AGE AND SECTOR

Appendix

| | Revenue | Value added | Investment | Employment | R&D expen- diture | Exports | Share in GDP |
|------|---------|----------------|------------|------------|----------------------|---------|-----------------|
| 2005 | 37.0 | 27.4 | 32.3 | 30.8 | 37.0 | - | 16.1 |
| 2006 | 36.2 | 26.5 | 35.8 | 30.4 | 36.2 | - | 16.4 |
| 2007 | 36.3 | 27.8 | 35.1 | 30.4 | 36.3 | 23.7 | 17.4 |
| 2008 | 37.2 | 29.6 | 33.6 | 31.7 | 37.2 | 23.6 | 19.2 |
| 2009 | 35.1 | 28.6 | 32.8 | 32.2 | 35.1 | 23.0 | 16.8 |
| 2010 | 34.5 | 28.4 | 32.7 | 32.3 | 34.5 | 22.6 | 16.3 |
| 2011 | 35.6 | 28.0 | 32.6 | 32.2 | 35.6 | 23.2 | 15.5 |
| 2012 | 35.4 | 28.9 | 32.4 | 32.5 | 35.4 | 23.8 | 15.1 |
| 2013 | 35.5 | 29.5 | 32.3 | 32.8 | 35.5 | 24.3 | 15.7 |
| 2014 | - | 29.1 | 30.2 | - | - | - | 15.6 |

SHARE OF SMEs IN THE ENTERPRISE SECTOR (%)

END NOTE

¹We have created a Obstacle Severity index on the basis of micro-data from the BEEPS surveys among entrepreneurs from Central and Eastern Europe, conducted regularly by the European Bank for Reconstruction and Development on behalf of the World Bank. It has values from 0 to 4 points, where 0 points mean that none of the companies sees a given factor as being an obstacle and 4 points which means that all SMEs consider a factor to be excessively burdensome.

DATA SOURCES

In the analysis of the small and medium-sized enterprises sector we used data from Eurostat, OECD and Amadeus databases, BEEPS survey conducted by the World Bank and EBRD (panels IV and V), GEM survey conducted in Poland by PARP, NBP data on receivables of the banking sector, GUS publications Small and medium non-financial enterprises in Poland in 2009-2013 and Activity of non-financial enterprises, PARP's Report on the state of the small and medium-sized enterprise sector in Poland in 2013-2014, Eurostat 2014 publication Patent statistics at Eurostat: Mapping the contribution of SMEs in EU patenting, European Commission 2015 publication Survey on the Access to Finance of Enterprises (SAFE) and SBA fact sheet data, as well as data from Thomson Reuters Datastream.



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Krzysztof Bolesta

Director for Research tel. +48 22 436 73 12 k.bolesta@politykainsight.pl