



Finanzgruppe
Deutscher Sparkassen- und Giroverband

SME Diagnosis 2018

Continuing the Upswing:
Ensuring the Sustainability of SMEs



Three out of four enterprises in Germany are customers of the Savings Banks Finance Group. Giving advice to and providing finance for small and medium-sized enterprises is part of the core business of Savings Banks and Landesbanken in Germany. To achieve this goal, the banks use their strengths: a thorough understanding of their customers and their personal circumstances, as well as full coverage of all of Germany's regions.

SME Diagnosis 2018 is the seventeenth annual analysis conducted by Deutscher Sparkassen- und Giroverband and provides representative data on the current status and future prospects of small and medium-sized enterprises in Germany.

1 Key Findings at a Glance

Expanding the infrastructure, simplifying the tax system and addressing the shortage of skilled labour	3
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2 Focus Theme

Continuing the upswing – Ensuring the sustainability of SMEs – An appeal to policymakers	9
2.1 Shortage of skilled labour: the most pressing challenge facing SMEs	10
2.2 Business clients see the complexity of tax law as more burdensome than the level of taxation	12
2.3 Topics discussed include income tax, inheritance tax, business tax and energy taxation	12
2.4 Taxation is an impediment to business succession	13
2.5 Tax reform measures: SMEs call for higher public investments and tax relief for enterprises	17

3 Business Performance

Current financial position and outlook for Germany's SMEs	21
3.1 Current business performance and outlook for 2018: uniquely positive economic climate	21
3.2 Profitability confirmed: SMEs are based on a solid foundation	23
3.3 Solid foundation for SMEs: the equity base	28
3.4 Investment motives and investment barriers	31

4 Fundamentals

Sources and Methods	37
4.1 Sources	37
4.2 Key financials	39
4.3 Calculation methods	40

1 Key Findings at a Glance



Expanding the infrastructure, simplifying the tax system and addressing the shortage of skilled labour

The performance of Germany's SMEs matches the excellent macroeconomic situation and the current state of public finances in Germany. The new edition of the SME Diagnosis supports this impression: there was not a single region in which SMEs reported that their business had deteriorated compared with the previous year. Such a unanimous outcome is unprecedented in the history of the surveys conducted for the diagnosis. More than half of the respondents stated that their situation had improved between summer 2016 and summer 2017, while the remaining respondents – close to one half – reported that their situation had remained “unchanged”.

The vast majority of the respondents also expected that – looking forward to 2018 – the business performance of SMEs would remain at least as good (83 percent) or improve even further (over 14 percent).

With reference to the question of how to deal with public budget surpluses, the SME Diagnosis gives clear indications as to the SMEs' expectations and priorities – which is of great interest, in particular with a view to the new legislative period of Germany's new coalition government at national level. According to the SMEs, priority should be given to the expansion of public infrastructure. Tax relief is only their number two priority. They see the complexity of the tax system – not the level of taxes – as the primary problem. Taxation should therefore be simplified.

However, a comprehensive analysis of the general conditions that are relevant for SMEs reveals that there is one key issue that is of growing concern to SMEs: the availability of skilled labour.

In the survey conducted for this year's diagnosis, this topic was cited as the most urgent issue. Bottlenecks in the recruitment of qualified personnel were always addressed in the first instance – regardless of whether general business management topics for SMEs were involved (where the recruitment of qualified personnel was number one of twelve topics) or whether specific questions were asked about obstacles to higher levels of investment (where the lack of skilled labour was cited by 46 percent of the respondents).

The balance sheets of Germany's SMEs currently make a well-organised and solid impression. An analysis of the balance sheet data collected by the Savings Banks Finance Group is a regular part of the SME Diagnosis. With up to 300,000 financial statements per year, it is the largest data base of its kind in Germany that can be systematically analysed.

Although the year-end financial statements currently available for fiscal year 2016 suggest a slight decline in the provisional mean value of the return on sales (to a median of 7.4 percent), the experience of the past few years has shown that, once all the balance sheets have been received, the final result will prove to be somewhat better. And even at the current stage, the return on sales – when compared over several years – is evidence of a healthy earnings position. A similar picture emerges from the trends of the other key earnings figures used in the diagnosis (return on assets, personnel expenses ratio).

The equity base of SMEs is even more robust. Once again, the SMEs' equity ratio has increased significantly. Based on the 2016 SME balance sheets available to date, the median equity ratio amounts to 28.3 percent (compared with the final equity ratio of 24.2 percent in 2015).

On this basis, SMEs have sufficient financial strength to increase their investments during the upswing. And this is another clearly encouraging finding of the diagnosis: at present, there are virtually no barriers facing Germany's SMEs in raising finance. Access to investment funds is readily available nationwide – also owing to Savings Banks and Landesbanken.

Findings



57.2

percent of conversations with
business clients on the topic of taxes
focus on the complexity of taxation

80

percent of the SMEs see
the shortage of skilled labour as the
most pressing challenge for the future

Equity ratio has improved
(as a percentage)

24.2 → 28.3

2015

2016

2 Focus Theme

	Continuing the upswing – Ensuring the sustainability of SMEs – An appeal to policymakers	9
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2.2	Business clients see the complexity of tax law as more burdensome than the level of taxation	12
2.3	Topics discussed include income tax, inheritance tax, business tax and energy taxation	12
2.4	Taxation is an impediment to business succession	13
2.5	Tax reform measures: SMEs call for higher public investments and tax relief for enterprises	17



Continuing the upswing – Ensuring the sustainability of SMEs – An appeal to policymakers

The beginning of a new legislative period in Germany, following the parliamentary election in September 2017, provides the opportunity to pursue policies that meet the requirements of SMEs. The economic momentum of the past few years has prepared the ground for such new policies.

With 1.9 percent growth of the gross domestic product in 2016 and growth projections of 1.9 percent and 2.0 percent for 2017 and 2018, respectively (autumn report of Germany's leading economic research institutes), the current boom is one of the longest upswing periods in Germany's post-war history.

On average, 2.5 million persons were registered as unemployed in 2017. This means that unemployment has nearly been halved over the past decade, starting from a level of approx. five million unemployed persons. More importantly, a record level of employment has been reached, with a working population of 44 million. Up to and including

2007, the working population in Germany was still below the 40 million mark. Moreover, according to the forecast of the economic research institutes in Germany, the annual average number of unemployed persons will fall below 2.5 million in 2018, while the level of employment will increase simultaneously to a working population of over 45 million by 2019.

Public budgets will achieve significant surpluses which, in principle, will create scope for lowering levies and charges (i.e. taxes and/or social security contributions), for further reducing debt, and for making public investments, for example in public infrastructure. However, this scope should also be used in such a way that the economic environment will improve because, despite dynamic growth, there are tremendous challenges facing small and medium-sized enterprises, in particular.

2.1 Shortage of skilled labour: the most pressing challenge facing SMEs

In the survey conducted for the diagnosis, the respondents were asked to name the most pressing issues currently facing SME business clients. The answers given were unequivocal: the availability of qualified personnel and apprentices poses the biggest challenge for small and medium-sized enterprises.

Nearly 80 percent of the respondents described this topic at least as one of the three biggest challenges for SMEs. Only five percent of the respondents rated the availability of qualified personnel and apprentices as the number six priority or considered this issue to be even less important. This also demonstrates the need for measures to ensure that qualified personnel is available to safeguard the sustainability of SMEs. The tight labour market has long been part of everyday life for SMEs: more and more vacancies are waiting to be filled, and the staffing processes take much longer.

From the perspective of Savings Banks, the digitalisation of SMEs – also referred to as “Industry 4.0” or “Smart Industry” – is the second most important topic for SMEs. It is no coincidence that Germany’s Savings

Banks Association chose this topic as the focus theme for the last SME Diagnosis. A total of 44 Savings Banks experts stated that digitalisation was the most important topic for them; 66 Savings Banks experts considered it to be the second most important issue; and for 45 respondents, digitalisation was the third most important issue.

According to the Savings Banks’ experts, the number three challenge for SMEs is competitive pressure – which is not really surprising for a competitive market economy. For 41 percent of the respondents, the competitive environment is among the top three challenges facing SMEs. More than any other factor, intense competitive pressure requires continuous investment in the renewal, replacement and expansion of plant and machinery.

Regular market activities such as opening up new markets and attracting new customer groups (number four priority) as well as developing new products (number six priority) rank above average in terms of the priority issues. Both types of activity affect the sustainability of SMEs. Without opening up new markets, without developing new products, and without attracting new customer groups, SMEs will have no future!

Business issues, by relevance for the Savings Banks' business clients

1	Availability of qualified personnel / apprentices
2	Digitalisation
3	Competitive pressure
4	Development of new markets / new customer groups
5	Bureaucratic burdens
6	Development of new products
7	Labour costs / minimum wage
8	Energy costs
9	Tax burden
10	Environmental requirements
11	Financing issues
12	Formalities when recruiting foreign employees

Roughly 30 percent of the respondents stated that opening up new markets and attracting new customer groups was one of the three biggest challenges for SMEs. Developing new products was rated by all the experts as the number six challenge for SMEs.

Bureaucratic burdens were rated as the fifth most important challenge for SMEs. In this context, an appeal is made to policymakers: small and medium-sized enterprises would benefit most from a reduction of bureaucratic burdens. As a rule, SMEs do not have large HR and tax departments that can handle the bureaucratic requirements. Avoiding excessive bureaucracy is the best policy for SMEs.

Other (cost) burdens cited include labour costs / minimum wage as well as the tax burden. In absolute terms, most of the

respondents ranked the tax burden eighth to eleventh in their list of priorities. This clearly indicates that the tax burden tends to be less important for SMEs; the same applies to environmental requirements.

Financing issues rank eleventh in terms of their general importance for SMEs – i.e. financing is the second least important topic. In view of the fact that the SMEs' investments are predominantly credit-financed, this is an outstanding result: it means that access to financing does not constitute an obstacle for small and medium-sized enterprises. SMEs can continue to rely on the advice and the financing services provided by the companies of the Savings Banks Finance Group.

Formalities when recruiting foreign employees are not a major issue for SMEs. Overall, however, the importance of the

topic is likely to increase in future efforts to secure qualified personnel. Furthermore, the integration of refugees into the labour market – a challenge where small and medium-sized enterprises are assuming particular responsibility – is also likely to lend more weight to this issue.

2.2 Business clients see the complexity of tax law as more burdensome than the level of taxation

When tax issues are discussed in conversations with business clients, the focus is on the complexity of tax law in the vast majority of cases. This was stated by over 57 percent of the experts nationwide. Nearly one third of the respondents stated that the level of taxation had been a topic of discussion. Specific taxes played only a minor role in conversations with business clients (just above five percent of the responses). However, a comparison of Germany's federal states shows that there are some discrepancies. According to the Savings Banks' experts in Berlin/ Brandenburg, Mecklenburg-Vorpommern and Saxony-Anhalt, for instance, the level of taxation was more frequently discussed than the complexity of tax law. In Saxony, both topics were discussed with equal frequency (each with half of the responses). And in Saarland, the "level of taxation" and the "complexity of tax law" were mentioned in

40 percent of the responses; the remaining 20 percent of the responses cited specific taxes that had been discussed with business clients.

Cooperation with tax authorities was mentioned as a topic discussed by only close to five percent of the respondents. While the ratings vary slightly from one region to another, truly high response rates were not reached in any of the regions. This is a good sign: obviously, the practical cooperation with the authorities is working very well across the country.

2.3 Topics discussed include income tax, inheritance tax, business tax and energy taxation

Specific taxes were addressed in only five percent of the discussions between the Savings Banks' customer relationship managers and their SME clients. The interesting follow-up question is: in those cases where tax questions were discussed, what specific taxes were mentioned?

The type of tax discussed most frequently was income tax, which accounted for nearly 39 percent of the responses by experts. This is not surprising: most of the small and medium-sized enterprises are partnerships, and the profit shares of the partners are subject

to income tax. Aside from income tax and the solidarity surcharge, the income of domestic legal entities is also subject to corporate income tax. In terms of volume, this tax category is also the most important among the types of tax relevant for SMEs.

Other types of tax discussed with business clients included inheritance tax and local business tax, each accounting for roughly one fifth of the responses. Energy taxation was mentioned in nearly ten percent of the responses. Other taxes such as turnover tax, excise taxes on specific commodities (mineral oils and tobacco) and property tax are relatively unimportant nationwide in discussions with business clients – with certain exceptions:

Excise taxes on specific commodities are only a major issue in a few federal states.

2.4 Taxation is an impediment to business succession

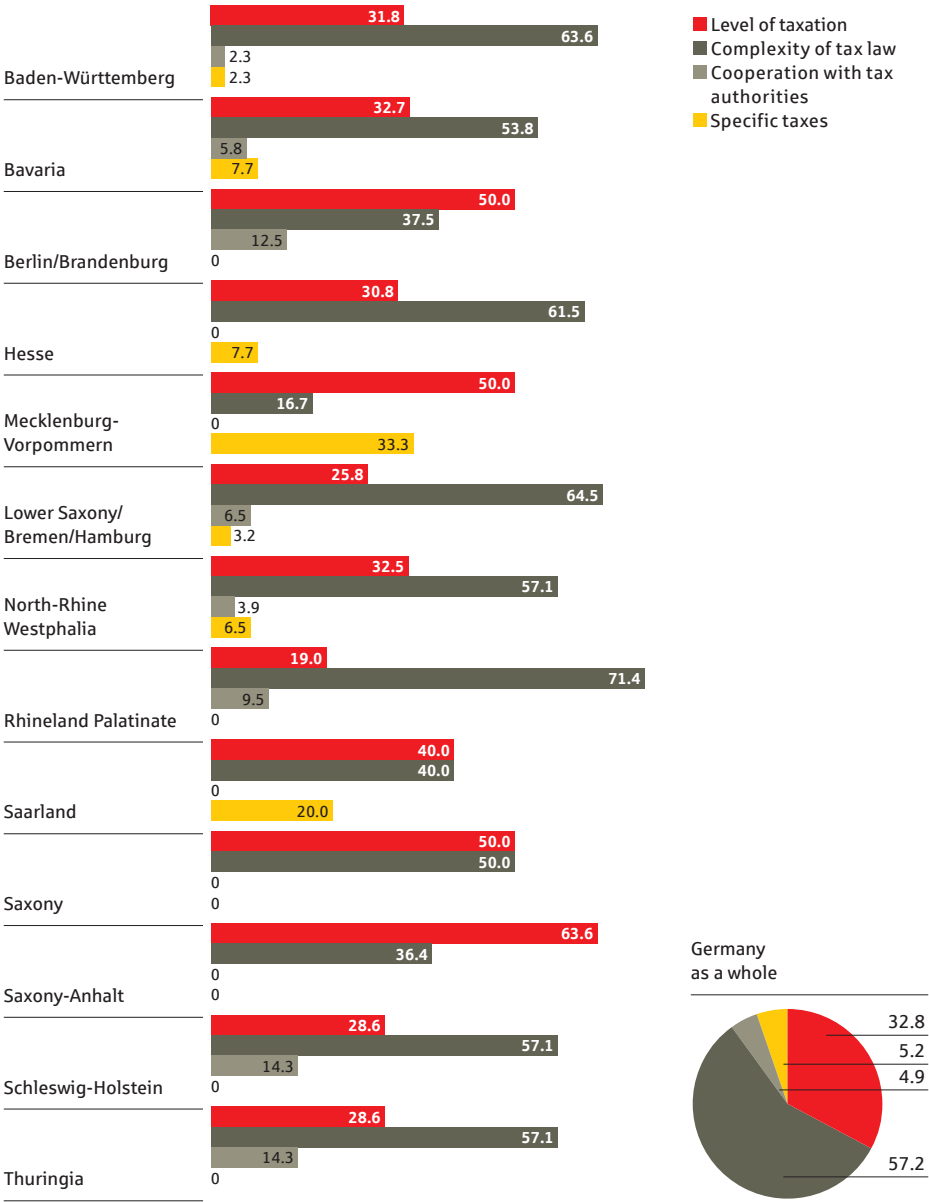
Irrespective of the fact that there is a need for government taxation of businesses, taxes restrict the room for manoeuvre of small and medium-sized enterprises. The experts were asked about the business consequences that taxation had on their business clients.

Their responses clearly indicate that taxation or the lack of tax incentives for research does not constitute a general obstacle for research and development projects. Nationwide, only 1.5 percent of the experts stated that taxation was an obstacle.

What the responses also clearly indicate (with a share of 43.7 percent of the responses) is that taxes have the strongest impact on transfers of business ownership or on business succession. In this context, taxation is perceived as an obstacle. As much as 53.8 percent of the experts in the State of Hesse and more than half of the experts in Bavaria (50.6 percent) reported that taxes were perceived to be an obstacle.

Upon retirement, business owners and their successors may be confronted with substantial tax charges when business ownership is transferred to the successor. The types of tax that can be involved in this context are inheritance and gift tax, as well as income and land transfer tax which may be due, depending on the type of transfer of ownership involved. Such tax charges, on the one hand, reduce the pension of the owner, and on the other hand, may jeopardise the enterprise's existence.

When tax issues are discussed with business clients, the conversation is centred on ...
Percentage share of responses



Due to rounding of figures, percentages do not add up to exactly 100

When specific types of tax are discussed with business clients,
the taxes mentioned most frequently are ...
As a percentage of all responses

- Income tax
- Local business tax
- Turnover tax
- Excise taxes on specific commodities
- Energy taxation
- Property tax
- Inheritance tax
- Other

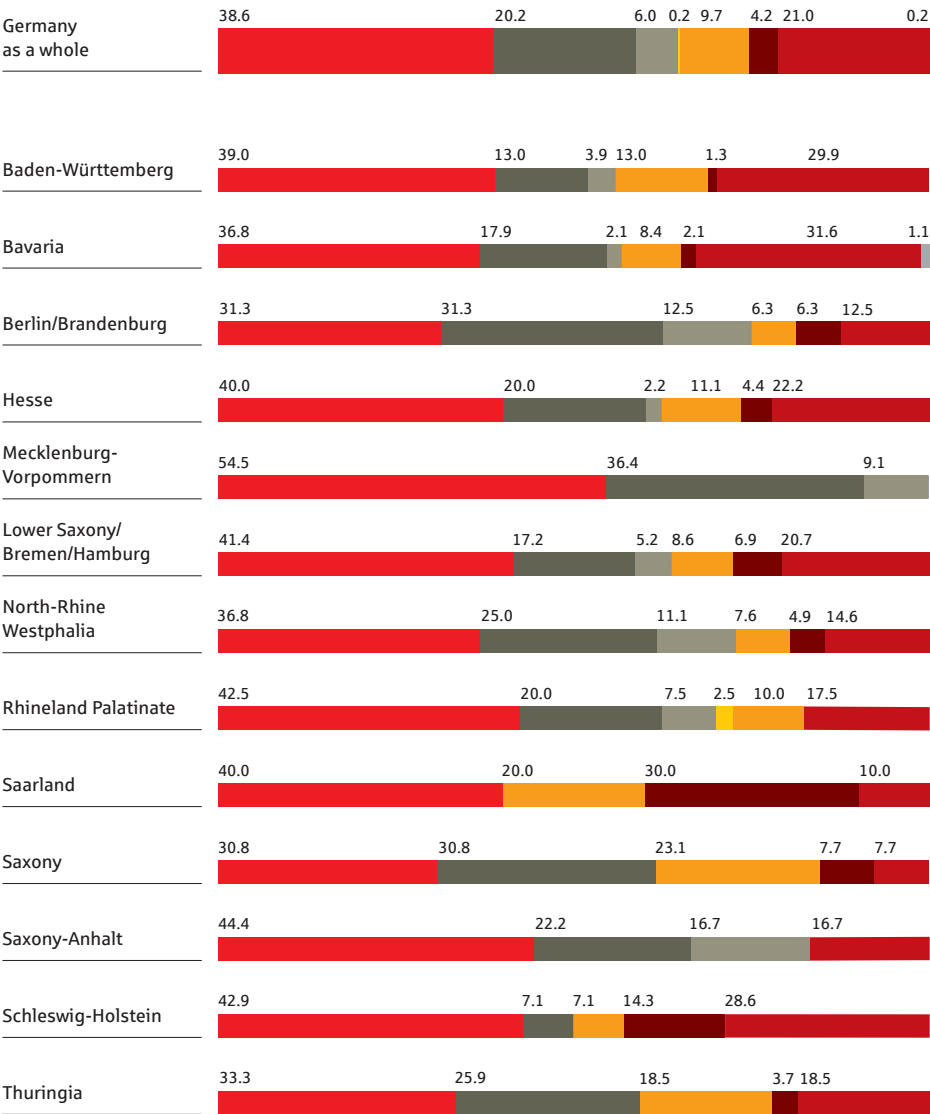
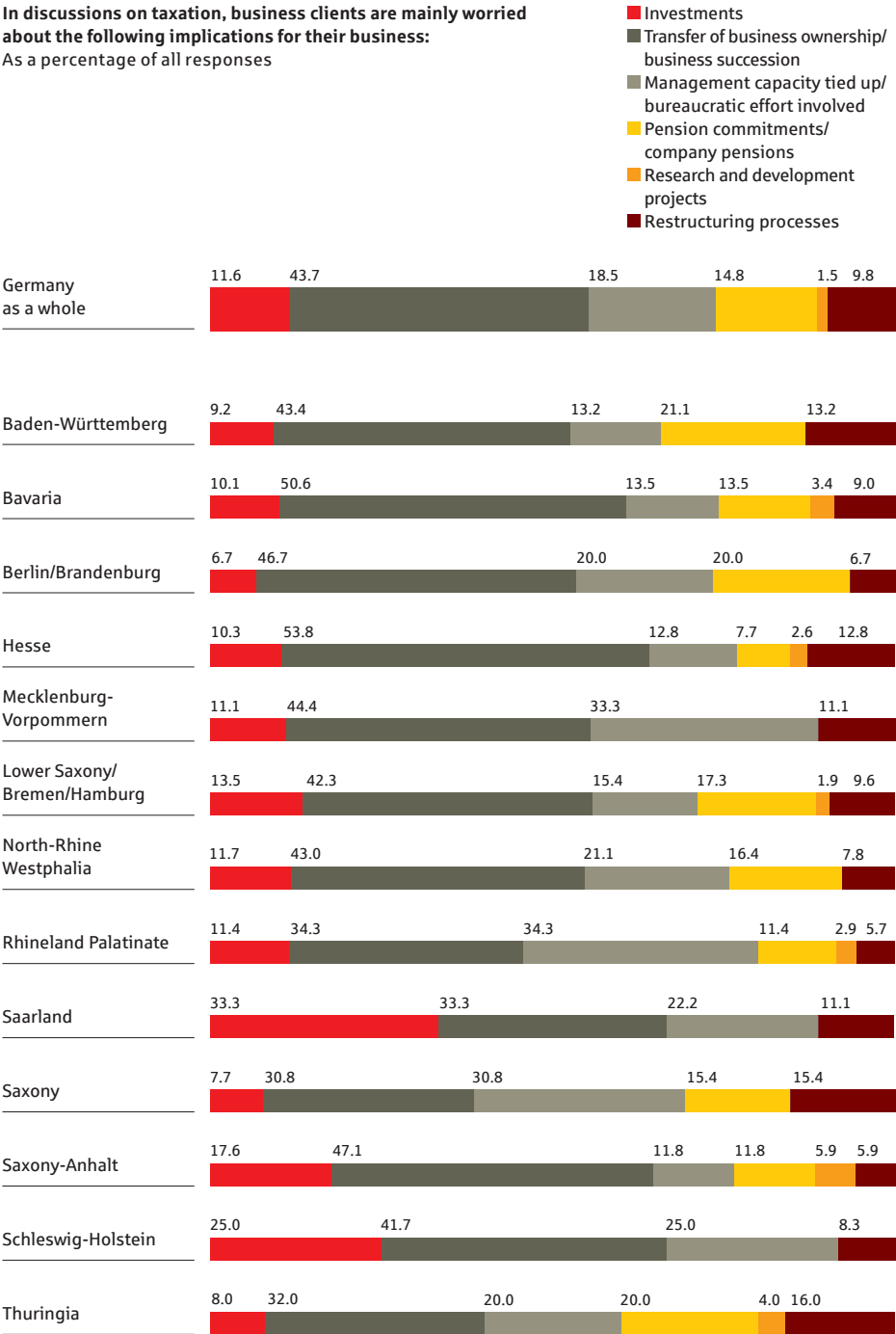


Chart 2

In discussions on taxation, business clients are mainly worried about the following implications for their business:

As a percentage of all responses



The sustainability of an enterprise will be at risk, especially if the taxes associated with the business succession have to be paid from the enterprise's assets, which will reduce its liquidity or could lead to the divestment of parts of the enterprise. Tax rules have to be designed in such a way as to safeguard the enterprise's continued existence, as well as the associated jobs and business know-how. This can be achieved by means of flexible elements such as "tax deferral", which could be used to prevent one-off effects.

Following the adverse impact on business succession, the second most important taxation effect cited is that management capacity is tied up and that it imposes bureaucratic burdens. This is consistent with the finding that 52.7 percent of the experts stressed that the complexity of tax law was an important issue in discussions with business clients.

Overall, effects on pension commitments and company pensions were the third most frequent response given in connection with effects that taxation has on enterprises. More than one in ten experts considered taxes to be an obstacle to investments in physical capital. In connection with the business implications of taxation, as many as one in ten experts stated that tax distortions had an effect on restructuring processes.

2.5 Tax reform measures: SMEs call for higher public investments and tax relief for enterprises

The overall positive economic development in Germany has been confirmed both by the key financials of Savings Banks' business clients and in the most recent survey. And the good economic environment has also had an impact on the German Treasury. The political debates about how the surplus billions should be spent have already begun.

For the Savings Banks Finance Group, it is clear that the beneficiaries of this room for manoeuvre should also include businesses and enterprises that have played a major part in this development: Germany's SMEs. This will sustain and strengthen the positive trends by generating continued growth, prosperity and secure employment.

In fact, in this year's survey among experts, the Savings Banks' customer relationship managers for business clients confirmed that small and medium-sized enterprises had expectations to this effect. More than two thirds of the experts advocated higher public investments and tax relief for enterprises. Clear priority was given to public infrastructure investments, with a share of 38.4 percent of the responses.

There is an urgent need, for instance, for investments in transport infrastructure, the expansion of fast Internet and digital networks. For enterprises, these are the necessary conditions for their competitiveness because a level playing field can only be achieved nationwide if good public infrastructure is available in all the regions, and not only in conurbations. Savings Banks – which themselves are part of the decentralised infrastructure throughout Germany – know how important this is.

With a share of roughly 30 percent of the responses – i.e. nearly ten percentage points fewer than the call for more public infrastructure – the Savings Banks' experts drew attention to the need for tax relief to be granted to enterprises.

In the general part of the survey, which has already been presented, it became clear that the primary issue for small and medium-sized enterprises was not the level of taxation. They consider the complexity of tax law to be much more important. And the responses given to the questions in this chapter will show that the business clients are not primarily interested in quantitative tax relief. Instead, the primary concern of small and

medium-sized enterprises is overall improvement of the environment for business activities.

Hence, the reduction of the complexity of tax law and the provision of properly functioning infrastructure as a government responsibility are important reform issues for SMEs.

The number three proposal for the use of the government surplus – far behind the the first two proposals – was a faster reduction of public debt. More than one in ten experts suggested that the government surpluses should be used for this purpose: more than 14 percent of the experts stated that this should be given priority.

Over five percent of the experts suggested that the government surpluses should be used to improve tax incentives for research.

Only very few experts suggested that the government surpluses should be used to strengthen the social security systems. This answer was given by only slightly more than four percent of the respondents nationwide. Most of these experts were not referring to an expansion of social benefits, but a strengthening of systems in light of the expected future demographic developments.

What should be done with the financing surpluses of public budgets? The surpluses should primarily be used for ...
As a percentage of all responses

- Tax relief for enterprises
- Tax relief for private households
- Higher public investments, e.g. transport infrastructure
- Improved tax incentives for research
- Strengthening social security systems
- Reduction of public debt

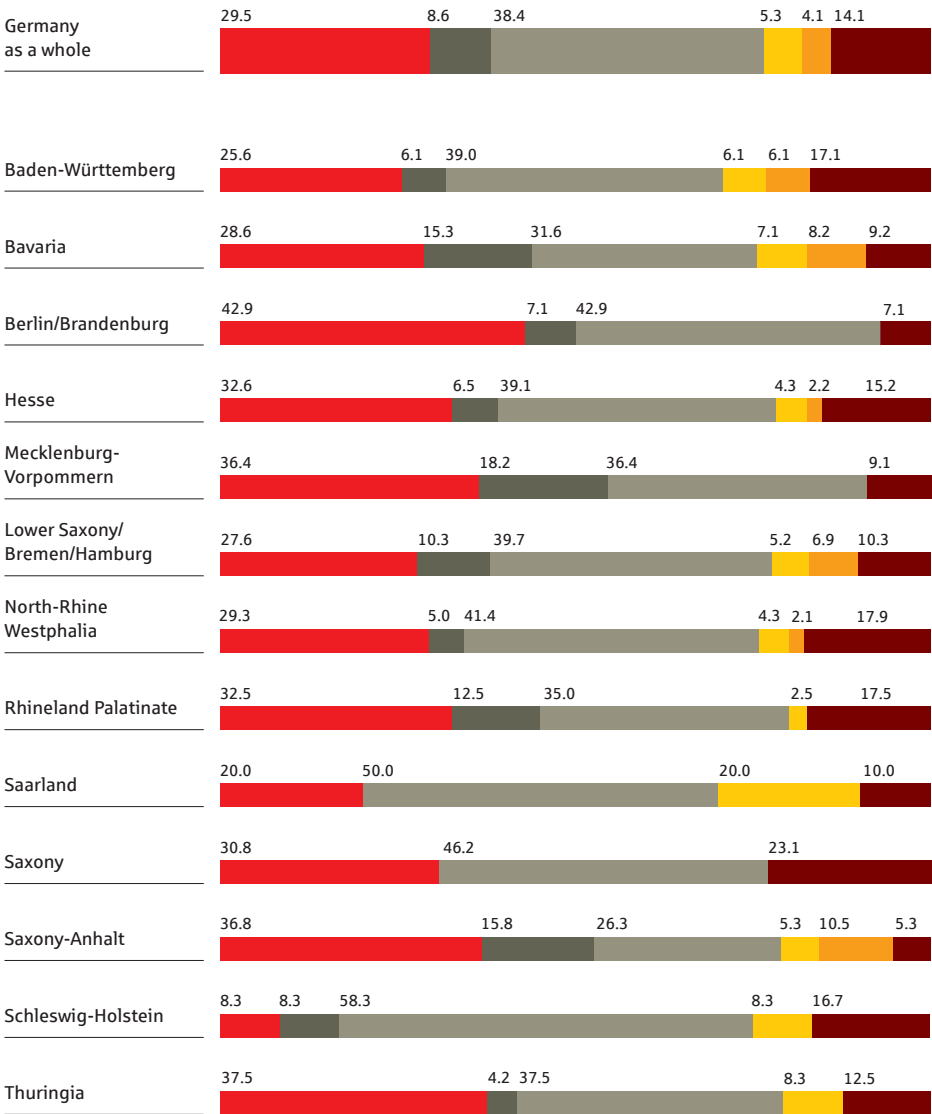


Chart 4

3 Business Performance

Current financial position and outlook for Germany's SMEs	21
3.1 Current business performance and outlook for 2018: uniquely positive economic climate	21
3.2 Profitability confirmed: SMEs are based on a solid foundation	23
3.3 Solid foundation for SMEs: the equity base	28
3.4 Investment motives and investment barriers	31



Current financial position and outlook for Germany's SMEs

3.1 Current business performance and outlook for 2018: uniquely positive economic climate

In addition to assessing the current business performance of the Savings Banks' business clients, the experts covered in the survey also described their expectations for the year 2018: on both counts, the findings were unique.

In a year-on-year comparison between the late summer of 2017 and the year before, not a single Savings Bank expert nationwide stated that the performance of SME customers had deteriorated. There has never been such a unanimous assessment across all of Germany's regions. And only 2.6 percent of the experts expect that the business performance of their SME customers will tend to deteriorate year-on-year from 2017 to 2018. This means that the strong performance will continue.

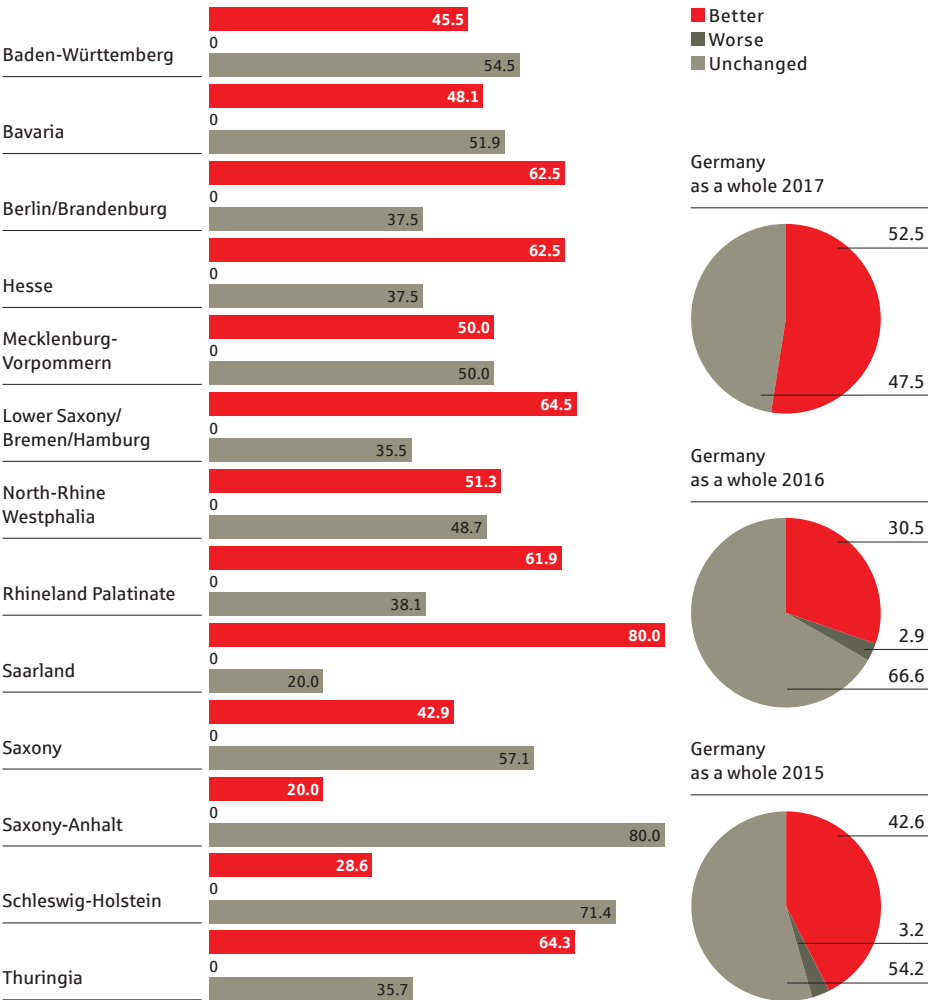
The performance will not only move sideways; instead, further improvements have been reported and are expected on a significant

scale. About half of the experts stated that, from 2016 to 2017, the performance of SMEs had improved and half of them stated that the performance had remained unchanged. 52.5 percent of the experts reported an improvement, and 47.5 percent stated that the performance was unchanged.

Clearly the greatest improvement of the business performance was attested to small and medium-sized enterprises in Saarland. Eight out of ten Savings Bank experts reported that the business performance of their business clients had improved from 2016 to 2017. The opposite was true for the responses given in Saxony-Anhalt. In this federal state, 80 percent of the Savings Banks reported that the business performance of their SME customers had not changed, while the remaining 20 percent stated that their performance had improved.

The experts expect that the positive performance will continue in the year 2018. **The Savings Banks believe that the outlook is positive for SMEs in 2018.**

Assessment of current performance of client enterprises compared with previous year
As a percentage of responding Savings Banks



Due to rounding of figures, percentages do not add up to exactly 100

Only 2.6 percent of the Savings Banks expect that the business performance of their clients will tend to deteriorate in fiscal year 2018. On the other hand, over 14 percent of the experts expect that the business performance of SMEs will tend to improve. The vast majority of the Savings Banks (83 percent) assume that the performance will remain unchanged. Since the figures comparing the performance of 2016 with that of 2017 were already positive, the assessment “unchanged” can be interpreted as “will continue to be strong”.

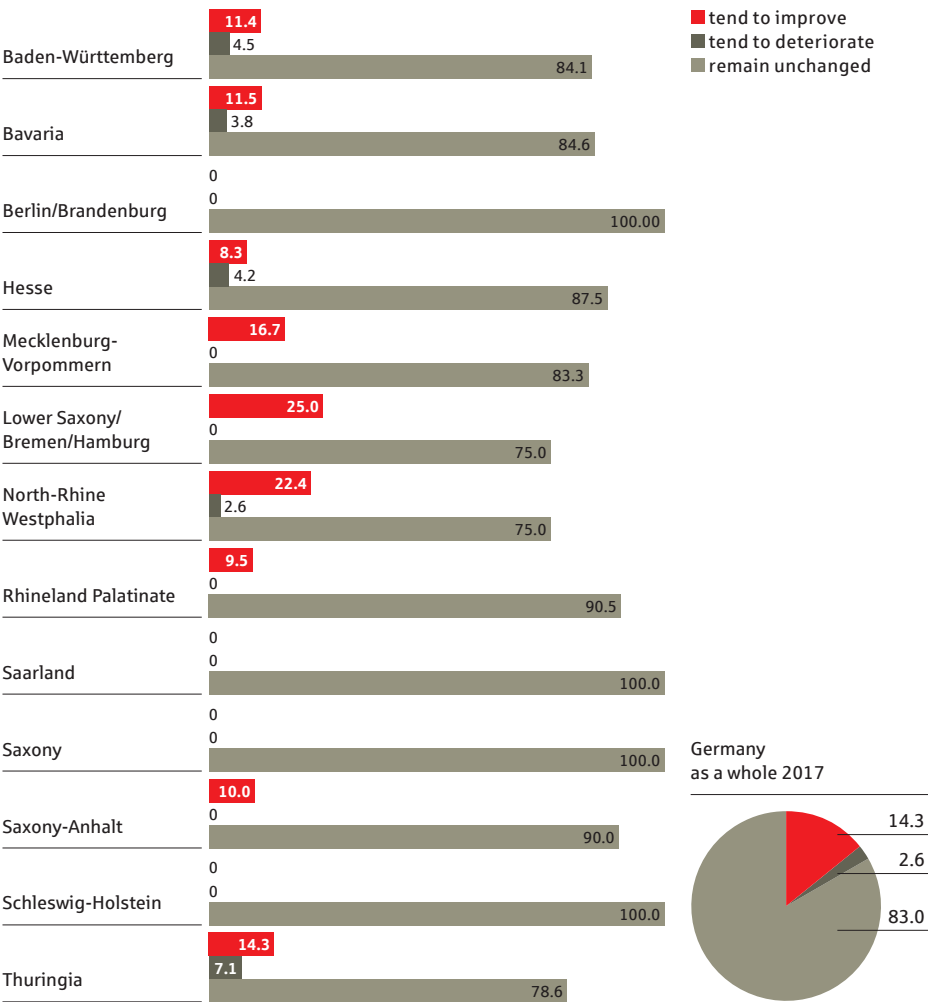
3.2 Profitability confirmed: SMEs are based on a solid foundation

Owing to the stable macroeconomic development, small and medium-sized enterprises were able to continue to stabilise their profitability. The key financial ratios analysed below are reported as medians. In detail, this leads to somewhat different results than in the DSGV’s SME fitness index “Zukunft Mittelstand” of September 2017, in which data were weighted differently and were more aggregated. However, even if the preliminary trends appear to be a touch weaker than the trends revealed by the full collection of the previous year’s balance sheets, the message is the same: **the earnings and financing position of Germany’s SMEs is currently excellent.**

Based on the provisional figures for fiscal year 2016, the **return on sales** of SMEs amounted to 7.4 percent. Compared to the previous year, the number of small and medium-sized enterprises that did not realise a profit or reported a loss increased slightly to 17.1 percent. In a longer-term comparison, both the median and the break-even ratio are at the same level as at the beginning of the decade. In fiscal year 2012, for instance, the return on sales amounted to 7.7 percent and the break-even ratio was 17.7 percent.

The return on sales of small enterprises amounted to 14.9 percent – compared with 15.3 percent in 2015. This went hand in hand with an increase in the number of small enterprises that did not earn any profits or even reported losses. In the category of enterprises with a turnover volume of up to € 1 million, this share is nearly 20 percent in the provisional analysis, i.e. two percentage points above the level of fiscal year 2015. Medium-sized enterprises with an annual turnover of between € 1 million and € 50 million generated a return on sales of 5.3 percent, which was nearly at the same level as in the previous years. In this turnover category, the enterprises which did not realise any profits or reported losses accounted for approx. 15 percent in 2016, which was also at the level of the previous fiscal year.

For 2018, their small and medium-sized enterprises expect on average that the performance will ...
As a percentage of responding Savings Banks



Due to rounding of figures, percentages do not add up to exactly 100

Return on Sales

As a percentage, by turnover volume category

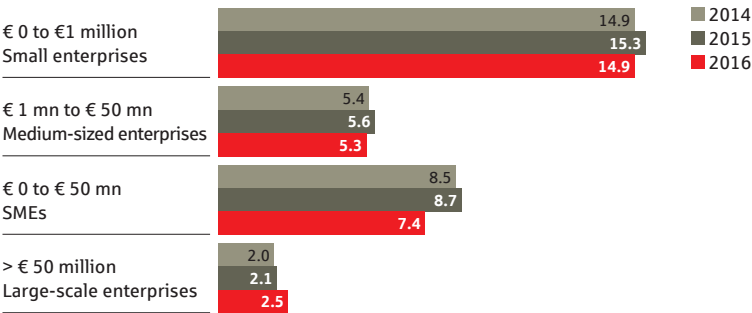


Chart 7

The return on sales of large-scale enterprises was also taken into consideration in the Diagnosis. On the one hand, this was done for purposes of comparison. On the other hand, the definition of what constitutes a small or medium-sized enterprise has changed in the past few years. Today, it is more based on qualitative criteria than on turnover limits (see definitions in chapter 4 Fundamentals).

In the data sorted by turnover volume category, a comparison between SMEs and large-scale enterprises consistently shows that the return of large-scale enterprises is lower than that of SMEs. Moreover, more large-scale enterprises report losses. Large-scale enterprises, which generate an annual turnover of over € 50 million, operate in an intensely competitive international environment, which is also characterised by limited room for manoeuvre in terms of prices and profits. The proprietor’s income, which is also included in this ratio for SMEs, is not integrated into the return on sales of large-scale enterprises. However, the trend with regard to the return on sales of large-scale enterprises is clearly positive. In fiscal year 2016,

their return on sales amounted to 2.5 percent – a further improvement year-on-year.

This is the highest level ever measured in the SME Diagnosis. The number of large-scale enterprises that did not realise profits or even had to report losses has also fallen once again. In 2016, their share was 20 percent, following 23.4 percent in fiscal 2015 and 23.9 percent for the year 2014. This means that large-scale enterprises can hold their own, even in an intensely competitive environment.

An analysis by economic sector also shows that the return on sales of large-scale enterprises remains below that of SMEs. The return on sales of large-scale enterprises is lowest in trade (1.6 percent) and highest in the manufacturing sector (3.6 percent). Only the construction sector strayed from the overall positive trend among large-scale enterprises with regard to return on sales. In this sector, return on sales decreased slightly by 0.2 percentage points to an estimated 2.8 percent in 2016. Apparently, it is only possible to translate the sector’s good capacity utilisation into the profit margin to a limited extent. This is

Number of Enterprises with Profits and Losses
As a percentage, by turnover volume category

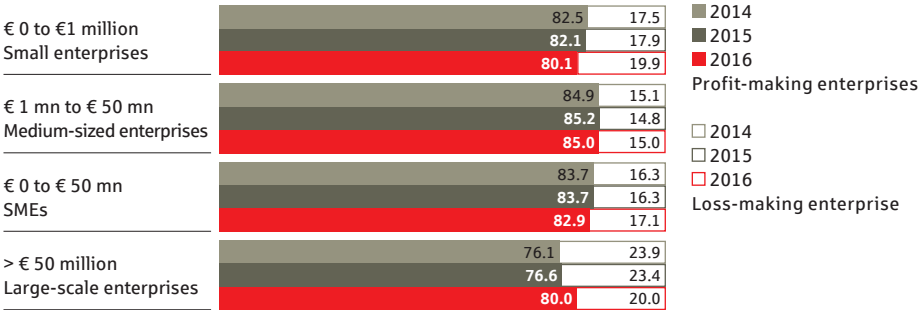


Chart 8

also evident from the fact that the number of enterprises that did not realise any profits increased to 18.9 percent in fiscal year 2016 (compared with 16.9 percent in fiscal year 2014). In the past decade, this share decreased from year to year, bearing in mind it started from very high shares of loss-making enterprises in the past.

The highest return on sales (11.6 percent) was achieved by SMEs in the services sector and the lowest return (4.2 percent) was achieved in trade, with its traditionally low margins. However, the share of loss-making enterprises is also highest in the services sector.

Return on assets is the ratio that has been consistently used in the Diagnosis to measure the profitability of the capital stock employed in an enterprise. The return on assets is an enterprise's net income and interest on borrowed capital as a percentage of total assets.

Based on the year-end financial statements available to date for fiscal year 2016, the return on assets of small and medium-sized enterprises has fallen to 9.0 percent.

Although experience from previous analyses has shown that the final ratio will be somewhat higher, it is unlikely that it will fully reach the previous year's level of over 11 percent for fiscal 2015. Nevertheless, the return on entrepreneurial activity is likely to be higher than the return on comparable risk assets.

The decline in return on assets was particularly significant for small enterprises with an annual turnover of below € 1 million. Here, the return on sales of 11.6 percent reported for 2014 fell to 10.5 percent in 2015 and then to 7.3 percent in fiscal 2016. As usual, attention must also be drawn in this SME Diagnosis to the fact that, for very small enterprises, the measurement of the return on assets is distorted by the "imputed proprietor's income".

In medium-sized enterprises with an annual turnover of between € 1 million and € 50 million, in which production is more capital-intensive than in small enterprises, the decrease in the return on assets was lower, i.e. from 11.9 percent in both 2014 and 2015 to the current level of 10.3 percent for fiscal year 2016.

Return on Assets

As a percentage, by turnover volume category

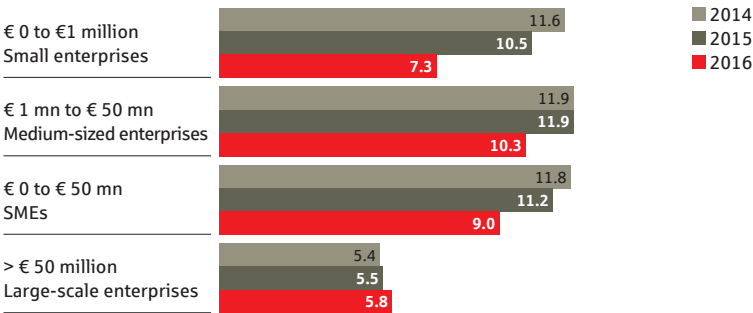


Chart 9

The return on assets of small and medium-sized enterprises in trade and in the construction sector currently amounts to approx. 13 percent; SMEs generate a return on assets of over 7 percent in the services sector and 12 percent in the manufacturing sector. Large-scale enterprises achieve the highest return on assets in the manufacturing sector (7.2 percent), followed by trade (6.6 percent), as well as the construction sector and services (3.5 and 3.1 percent, respectively). Since 2012, only large-scale enterprises in the services sector have consistently achieved a year-on-year increase in return on assets.

SMEs are reliable employers. Small and medium-sized enterprises employ and train not only close to 60 percent of all the employees liable to pay social security contributions, but also more than 80 percent of all the apprentices in Germany. And what's more: even in times of economic crisis, small and medium-sized enterprises try to retain their employees – not only with a view to their social responsibility, but also to be prepared for the next upturn in times when qualified personnel is in short supply.

Hence, the personnel expenses ratio, which indicates an enterprise's personnel expenses as a percentage of its total output, provides important information on the development of the labour costs of enterprises.

In the year under review, the **personnel expenses ratio** of SMEs fell to 16.4 percent, which is significantly below the levels of 2015 (17.6 percent) and 2014 (17.9 percent). This was probably due to the relatively low personnel expenses ratio of small enterprises, which – based on the current status of the analysis – amounted to three percent. Past experience has shown that, once more balance sheets have been received, the personnel expenses ratio is likely to increase to roughly six percent.

In medium-sized enterprises with an annual turnover of between € 1 million and € 50 million, the personnel expenses ratio fell to 23.1 percent in fiscal 2016, following a slight increase from 23.2 percent in 2014 to 23.5 percent in 2015.

Even if the personnel expenses ratio of SMEs were to increase slightly by the end of fiscal

Personnel Expenses Ratio

As a percentage, by turnover volume category

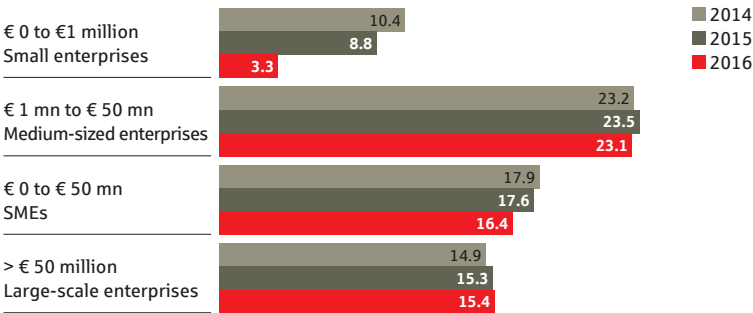


Chart 10

year 2016, it is apparent that the increase in the personnel expenses ratio of SMEs has been fairly modest in the past decade, despite the high level of employment and the associated trend towards higher pay settlements. The pay of employees in relation to labour productivity – referred to as unit labour costs – increased by 1.6 percent in 2016 year-on-year, which was again lower than the year-on-year increase in the previous year. A moderate development as a result of responsible remuneration and collective bargaining policy helps to ensure that the high level of employment will continue to increase and remain stable.

A somewhat different trend is observed in the case of large-scale enterprises: their personnel expenses ratio of 15.4 percent for fiscal year 2016 was slightly above the level of the previous years. This means that, to date, the personnel expenses ratio has increased by approx. 1.5 percentage points, compared with the beginning of the decade when it amounted to approx. 14 percent (2010-2012). However, this may also be due to a volume effect. Because of the increase in gainful employment in Germany, production

has become slightly more labour-intensive in the past few years.

Broken down by sector, the personnel expenses ratio of SMEs was highest in the manufacturing sector (28.9 percent) in 2016 – the same level as in the previous year. In the construction sector, the ratio decreased to 27.2 percent in 2016. SMEs in trade had the lowest personnel expenses as a percentage of turnover which, by definition, is high in this sector: the ratio of 12.2 percent for 2016 was just slightly higher than the ratios of the previous years.

3.3 Solid foundation for SMEs: the equity base

Equity is the anchor of stability for enterprises during times of crisis: a good equity base is a robust safeguard in the event of economic weakness or external shocks. Banking regulation on the basis of Basel II and III has probably also helped to strengthen the equity base of enterprises because a good equity base facilitates access to external funding – customer relationship managers regularly draw their business clients' attention to this point. Owing to their

Equity Ratio of Enterprises

As a percentage, by turnover volume category

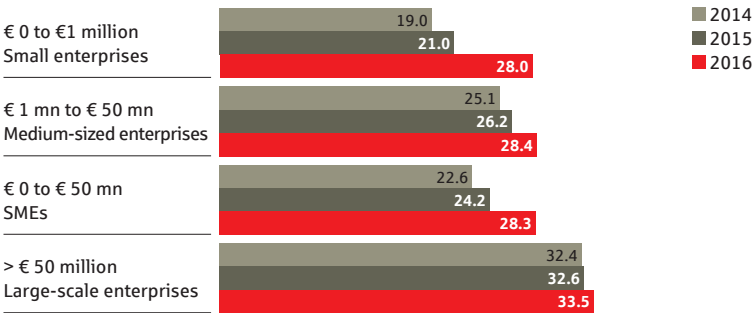


Chart 11

solid equity base, SMEs can now invest more in the sustainability of their enterprises. In addition, it is easier to use retained earnings to finance intangible capital goods such as software or licences, guarantee company pension provisions, and implement foreign investments.

Against this background, it is not surprising that, more than other enterprises, SMEs – whose owners act with a long-term perspective in mind and think in terms of generations – also strengthened their equity base in fiscal year 2016. However, large-scale enterprises also pursue this objective to consolidate the stability of their businesses.

Across all turnover volume categories, enterprises continued to increase their equity base in fiscal year 2016. In the SME segment, the median equity ratio amounted to 28.3 percent, which was more than four percentage points above the level in fiscal year 2015. However, this is likely to decrease somewhat, once more balance sheets have been received. Large-scale enterprises also increased their equity. The median of large-scale enterprises with an annual turnover of over € 50 million – i.e. the numerical value separating the higher

half of the enterprises from the lower half – increased from 32.6 percent in 2015 to 33.5 percent for fiscal year 2016.

The highest increase in equity was reported by enterprises with an annual turnover of up to € 1 million. For small enterprises, the mean equity ratio most recently amounted to 28 percent, which constituted a significant increase of seven percentage points compared with fiscal year 2015. With this equity ratio, small enterprises caught up with the average equity ratio of all SMEs for the first time since the introduction of the SME Diagnosis. However, this statement is subject to one proviso: more than other enterprises, small enterprises with weak equity capitalisation are among the businesses which submit their balance sheets rather late, so that they have not been fully taken into account at this stage of the analysis. However, despite this proviso, the equity ratio of small enterprises has increased.

Medium-sized enterprises with an annual turnover of between € 1 million and € 50 million achieved an equity ratio of 28.4 percent – which also constituted a year-on-year increase of more than two percentage points.

Number of Enterprises with and without Equity
As a percentage, by turnover volume category

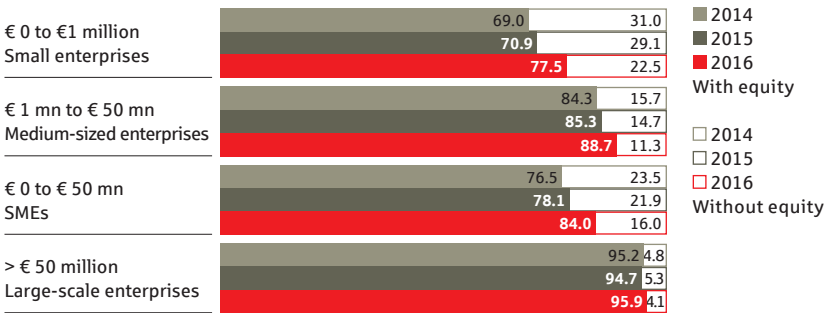


Chart 12

In line with the positive development of the enterprises’ equity capitalisation, the percentage of enterprises without equity or even with negative equity – i.e. the break-even ratio – also increased. Overall, the share of these enterprises decreased to 16 percent in the SME segment. Up to and including fiscal year 2008, one third of all small and medium-sized enterprises operated without equity or even with negative equity.

For small enterprises with an annual turnover of up to € 1 million, the break-even ratio – which was still above 30 percent in fiscal year 2014 – decreased significantly: currently, only one in five enterprises still operate without equity.

For medium-sized enterprises which generate an annual turnover of between € 1 million and € 50 million, the break-even ratio decreased from 15.7 percent in 2014 and 14.7 percent in fiscal 2015 to 11.3 percent in the year under review.

In the category of large-scale enterprises with an annual turnover of over € 50 million, the percentage of enterprises without equity

or with negative equity decreased to 4.1 percent. At the beginning of the decade, this ratio was still nearly six percent. Except for fiscal year 2015, when the percentage of large-scale enterprises without equity temporarily increased to 5.3 percent, the break-even ratio has been reduced to below five percent in the other fiscal years since 2013. This greater stability of large-scale enterprises strengthens Germany’s economy as a whole because the insolvency of a large-scale enterprise always has negative effects on the national economy as a whole, e.g. the impact on the labour market or defaulting on payments to suppliers.

A few caveats must be expressed when data are broken down into economic sectors (construction, services, trade and the manufacturing sector).

The equity ratio of large-scale enterprises in the construction sector increased from 17.0 percent in fiscal year 2015 to 17.4 percent in 2016. However, the percentage of enterprises without equity also increased slightly in this sector, rising from 3.5 to 5.5 percent. The low level of 3.5 percent for 2015

had been the outlier in the longer time series. Another possible interpretation might also be that, because of the high capacity utilisation, the enterprises had been prompted to finance more expansion and rationalisation investments at the expense of the equity base. This development would have to be interpreted in a positive light.

If this interpretation is correct, the equity base will significantly recover due to the future cash flow resulting from the increase in construction output as a result of capacity expansion. While the equity base of medium-sized construction enterprises with an annual turnover of between € 1 million and € 50 million also decreased, the percentage of enterprises without equity also decreased from 13.8 percent in 2015 to 12.0 percent in 2016, the year under review.

In the services sector, the equity ratio of enterprises with an annual turnover of more than € 50 million continued to rise. With 33.3 percent in fiscal 2015 and 34.5 percent in 2016, this category of enterprises had the second highest equity ratios. Only large-scale enterprises in the manufacturing sector achieved a higher level, with an equity ratio of over 37 percent.

The mean equity ratio of large-scale enterprises in trade remained just above the 30 percent mark. However, what is particularly encouraging is that the percentage of enterprises without equity or with negative equity decreased from 4.8 percent in 2015 to 3.5 percent in fiscal year 2016. The largest percentage of enterprises without any equity at all is found in trade in the category of small enterprises with an annual turnover of up to € 1 million. 33.1 percent of these enterprises operate without equity. Nevertheless, this percentage has declined by over three percentage points in the recent past.

3.4 Investment motives and investment barriers

Investments were made to replace old plant and machinery, to introduce modern processes in production and to expand production capacity. The investment motives cited in the current SME Diagnosis are the same as those in previous diagnoses:

Most of the investments made – nearly 45 percent – were replacement investments, followed by investments for the expansion of plant and machinery (nearly 29 percent) and investments made to finance rationalisation measures (over 26 percent). The purpose of replacement investments is to ensure that

production processes are regularly brought up to the latest technological and technical standards by introducing new plant and machinery. Rationalisation investments are designed to ensure that production processes remain competitive vis-à-vis (international) rivals. Because of the clear indications that the shortage of qualified personnel and apprentices is currently perceived as the greatest challenge for SMEs, rationalisation investments are likely to continue to grow. Growth in Germany will become more capital-intensive again, after a few years of more labour-intensive growth. At any rate, growth investments will probably not be impeded by lack of equity.

While it comes as no surprise, it is particularly encouraging that, in their responses, 28.7 percent of the Savings Bank experts drew attention to the financing of expansion investments. Compared with previous years, expansion investments were once again at a high level. This is not surprising because, as the economic recovery continues and capacity utilisation increases, plants will have to be expanded. And it is encouraging because small and medium-sized enterprises will provide the basis for future growth in Germany. Compared with previous years, the financing resources for replacement investments

decreased and investments for rationalisation measures increased, while expansion investments remained roughly at the level of previous years. The financing conditions will continue to be favourable: in their autumn report, Germany's leading economic research institutes do not expect even a slight increase in interest rates before 2019.

In all of Germany's federal states, the percentage of replacement investments is higher than the percentage of investments which are designed for rationalisation measures.

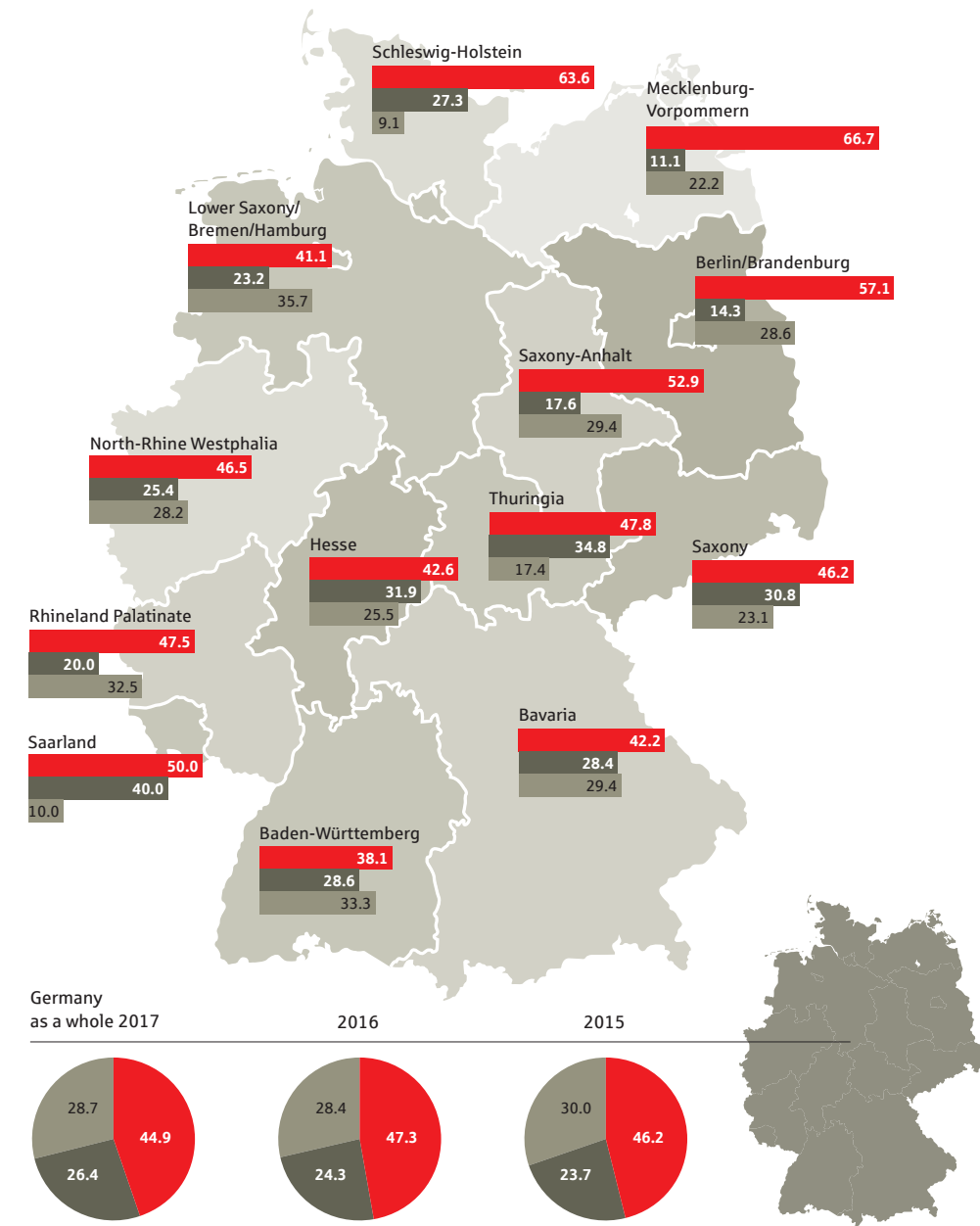
It is true that it is not possible to make a clear distinction between various investment motives. Investments can be considered to be made to replace "obsolete" plant, and hence be defined as replacement investments. At the same time, however, such investments also help to increase output volumes. For this reason, they can also be considered to be rationalisation investments. Although the motives have to be interpreted cautiously, the trends identified can be confirmed. The experts' response categories give us a good sense of the predominant "nature" of the investments.

The Savings Banks Finance Group with its associated companies is the number one

Investment Objectives

As a percentage of all responses (with a maximum of 2 responses per Savings Bank)

- Replacement investment
- Rationalisation
- Expansion



Due to rounding of figures, percentages do not add up to exactly 100

financing partner for SMEs. Nevertheless, it must be noted that obstacles to greater investment activities by small and medium-sized enterprises do exist.

The diagnosis is clear: according to nearly half of the experts, the lack of qualified personnel is the most important impediment to greater readiness of SMEs to invest. This response was given by 49 percent of the experts nationwide, followed at a certain distance by bureaucratic burdens (24 percent), economic uncertainties (nearly 14 percent) and infrastructure shortcomings (9 percent), which constitute investment barriers for SMEs.

Only 1.2 percent of the experts cited the level of labour costs or the minimum wage rules as an impediment to greater investment activities. A clear and, at the same time, encouraging finding is that, nationwide, financing barriers play no role in connection with the readiness of SMEs to invest.

In view of the continuing economic upswing, the more general category of perceived “economic uncertainties” is also likely to become less important as an investment barrier. Federal states in which roughly one quarter of the responses stated that, in the past,

economic uncertainties had acted as barriers to additional investments included in particular Saxony-Anhalt, Saxony and Thuringia.

In all of Germany’s federal states, the shortage of qualified personnel was the most frequently quoted investment barrier. Or in other words: education, training and ensuring the availability of qualified employees are among the key priorities of Germany’s new coalition government and also seen as a key challenge by state-level governments.

What barriers are cited by small and medium-sized enterprises as impediments to greater readiness to invest?

As a percentage of all responses

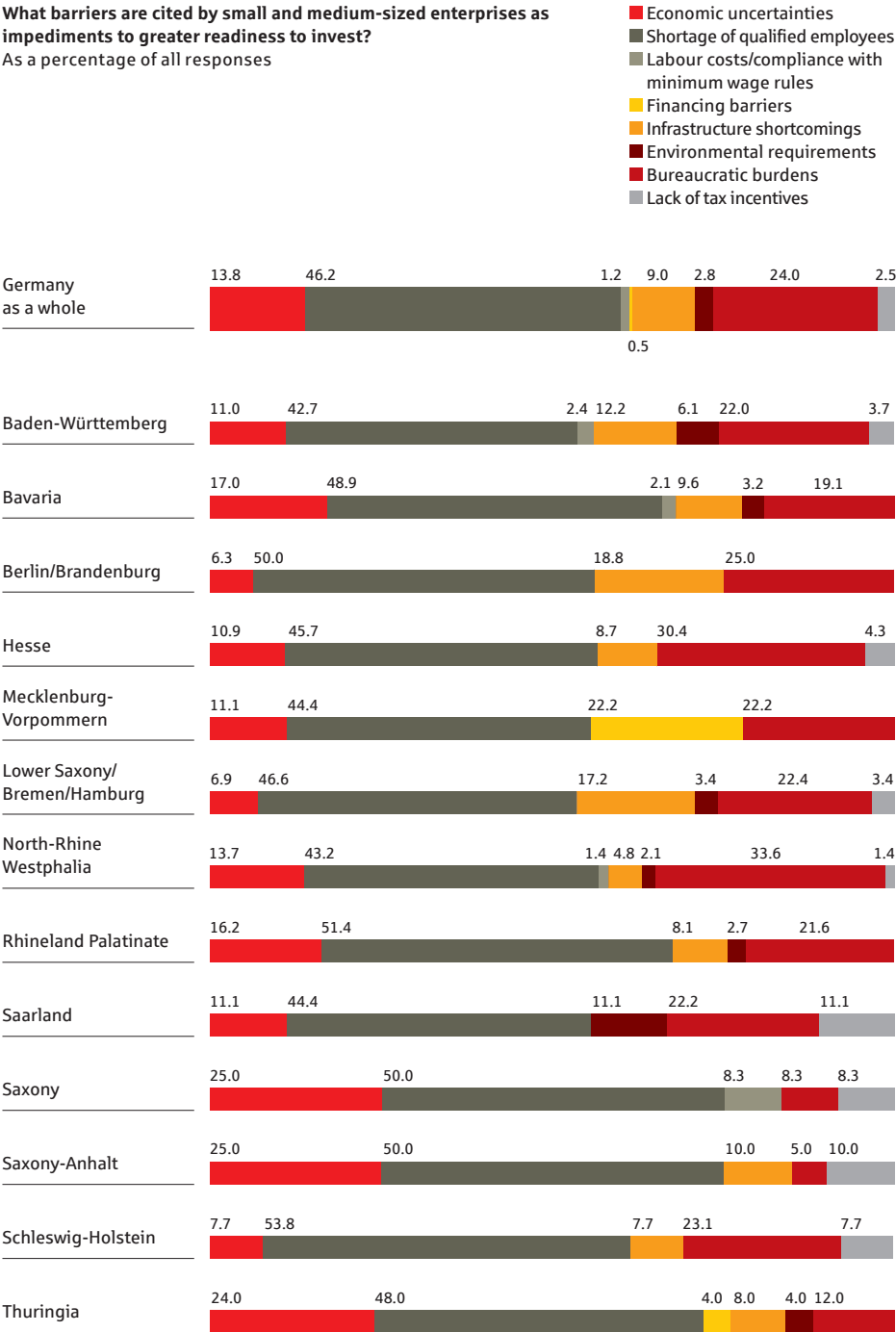


Chart 14

4 Fundamentals

Sources and Methods	37
4.1 Sources	37
4.2 Key financials	39
4.3 Calculation methods	40



Sources and Methods

The SME Diagnosis, which has been published by the German Savings Banks Association (DSGV) since 2002, is based on the business performance and business operations of Germany's small and medium-sized enterprises (SMEs).

The key statistics provided by the Bonn Institute for SME Research (IfM) underline the important role played by SMEs in Germany's economy: 99.6 percent of the 3.5 million enterprises in Germany are small and medium-sized enterprises. In addition to the roughly 3.5 million small and medium-sized enterprises, there are only approx. 15,000 large-scale enterprises.

The distinction between SMEs and large-scale enterprises is based on the quantitative criteria of turnover and number of employees: enterprises with a workforce of up to 499 employees and an annual turnover of up to € 50 million are defined as SMEs.

The qualitative criterion of ownership structure and management, which is also used by the Institute for SME Research to distinguish small and medium-sized enterprises from large-scale enterprises is not applied for the purposes of the SME Diagnosis: firstly, because it would be relatively difficult to gather information about management or ownership structures, and secondly, because the balance sheets available to the German Savings Banks Association can very easily be sorted by turnover volume.

4.1 Sources

With its extensive analyses, the SME Diagnosis is always based on two sources:

First of all, the metrics system of the Savings Banks Finance Group is based on the centralised database drawn from the balance sheets of business clients. This data base is unique in Germany in terms of its size and level of detail.

Quantitative key figures of small and medium-sized enterprises
 New SME definition as of 1 January 2016

Size of enterprises	Number of employees	Annual turnover
Micro	up to 9	up to € 2 million
Small*	up to 49	up to € 10 million
Medium-sized**	10 to 499	up to € 50 million
SMEs	under 500	up to € 50 million

Source: Institut für Mittelstandsforschung (IfM) Bonn
 * excluding micro enterprises
 ** excluding micro and small enterprises

With a total investment loan portfolio of nearly € 270 billion in mid-2017, Savings Banks are the leading provider of credit finance for enterprises.

The year-end financial statements are supplied in an anonymised form by the Savings Banks and Landesbanken serving the business clients; duplicate balance sheets of enterprises which are served by more than one Savings Bank are counted only once. The data are then analysed by the DSGV.

The data collected up to and including fiscal year 2015 cover all the SMEs, comprising a maximum of more than 300,000 balance sheets of enterprises. All the balance sheets used were classified in accordance with the current activity classification (WZ 2008).

When the present SME Diagnosis was prepared, approx. 88,000 balance sheets of small and medium-sized enterprises were already available for the fiscal year 2016. The high data density for the most recent fiscal year provides a sound basis for analysing the performance of Germany's SMEs.

The analysis of the business performance also includes the balance sheets of large-scale enterprises to permit comparisons with the key financials of SMEs. Approx. 6,900 financial statements – representing nearly half of Germany's large-scale enterprises – were available for the year 2015, for which all of the balance sheets were included in the database of the Savings Banks Finance Group.

Secondly, the analysis of the balance sheet database is supplemented by the findings of a survey conducted among experts in all of the Savings Banks in late summer 2017. To this end, the business client relationship managers of the Savings Banks were asked to rate and assess the business performance of their SME business clients. They were also asked about the current business performance and the performance expected for 2018, as well as the investment patterns of SMEs and barriers to greater willingness to invest.

The focus theme of the present SME Diagnosis is based on questions relating to taxes and taxation. This theme was prompted by

Percentage of balance sheets already available for 2016 relative to the full number of balance sheets for 2015, by annual turnover

As a percentage, by turnover volume category

	2016 (available to date)	2015 (complete)	
€ 0 to € 50 million: SMEs	87,701	230,111	38.1
€ 0 to € 0.25 million	14,047	43,444	32.3
€ 0.25 to € 0.5 million	10,344	32,505	31.8
€ 0.5 million to € 2.5 million	29,557	87,628	33.7
€ 2.5 million to € 5 million	11,233	26,488	42.4
€ 5 million to € 12.5 million	12,270	23,761	51.6
€ 12.5 million to € 50 million	10,250	16,285	62.9
Over € 50 million: large-scale enterprises	5,007	6,854	73.1

the political debate in Germany about tax relief to be granted to business enterprises against the background of the current surpluses of public budgets. In the run-up to Germany’s parliamentary election in 2017, the political parties presented different concepts for changes in tax legislation.

Because of the remarkably high response rate of approx. 80 percent of all the Savings Banks, the survey provides a differentiated picture of the current performance of Germany’s SMEs. Since Savings Banks from all of Germany’s federal states participated in the survey, it is possible to provide nationwide results as well as regional results and comparisons.

The responses given with regard to the focus theme – taxes and taxation of business clients – are not only published in the SME Diagnosis. The findings were already presented in initial discussions with policymakers to campaign for tax relief to be granted to business enterprises, in particular in the SME segment. This has demonstrated once again that the German Savings Banks Association defends the legitimate

interests of small and medium-sized enterprises with reliable data.

4.2 Key financials

The **equity ratio** – i.e. the ratio of equity to total assets – is a financial ratio and a strategic metric of the robustness of an enterprise. It indicates the extent to which the owners themselves are directly liable. Equity can be used to cover losses, and it can serve as a buffer in economically difficult times. Hence, a high equity ratio limits the risk of insolvency for enterprises as well as the risks for debt providers. However, a high equity ratio is also evidence of untapped investment and expansion opportunities in the markets.

The **return on sales** is an enterprise’s pre-tax profits divided by its total output, expressed as a percentage. An enterprise’s total output is usually its output by value. It is defined as net sales or sales revenues plus inventory changes and other own work capitalised. The total output of pure trading enterprises is identical to their sales revenues. As a general rule, production

processes have to generate sufficient profits to enable an enterprise to stay in the market in the long term without wasting resources. In addition, a satisfactory return on sales makes it easier for enterprises to increase their equity through retained earnings.

The **return on assets** is an enterprise's net income and interest expense as a percentage of total assets. It is therefore a measure of the profitability of the capital stock employed in the enterprise. If an investment in the capital market generates a higher return than an enterprise's return on assets, the purpose of its business is ultimately at issue. The alternative return that can be achieved in the capital market therefore sets a "minimum return" for profitable activities by the enterprise. However, it would be dangerous to use the current period of extremely low capital market interest rates as a basis for assessing investment projects. Instead, calculations should be based on the assumption of long-term averages. In addition, part of the return on sales should also be seen as compensation for the entrepreneurial risk.

The **personnel expenses ratio** indicates an enterprise's personnel expenses as a percentage of its total output. Personnel expenses constitute an important cost pool. Personnel-intensive production with a high personnel expenses ratio is often found in SMEs, in particular. The ratio reflects changes in productivity and wages. When analysed over time, an enterprise's performance in terms of the personnel expenses ratio is an indication of increasing or decreasing cost pressure and the remaining scope for generating earnings.

In the online version of the SME Diagnosis, other metrics – i.e. the interest expense ratio, the cash flow rate, liabilities to banks and the return on equity – are available free of charge in the **Statistical Annex** (www.dsgv.de/diagnosemittelstand).

4.3 Calculation methods

In the analysis of, and the comments made on the metrics, the SME diagnosis primarily uses the median (middle value). It illustrates statistical distributions – if they are very unequal – more clearly than the arithmetic mean (sum of observed data, divided

by their number), which may be distorted by extreme values. The median indicates the “typical” value in practice. When balance sheets are compared, medians are therefore used to analyse the key financials. An equity ratio of 28 percent, for instance, means that exactly half of the enterprises have an equity ratio of less than or equal to 28 percent. The other half of the enterprises has an equity ratio above this level.

The break-even ratio, which has also been analysed in the SME Diagnosis, indicates how many enterprises (as a percentage) are at a level of zero or below with regard to the metric involved. For example: a break-even ratio of 16 percent with regard to equity means that 16 percent of the enterprises have no equity or even a negative balance, i.e. a deficit.

Key Statistics of SMEs in Germany

	Total ¹	SMEs ¹	Share of SMEs ¹
Number of enterprises			
Enterprises, according to Business Register 2015 ²	3,469,039	3,453,676	99.6%
UVAT registered enterprises 2015 ³	3,255,537	3,243,479	99.6%
Turnover of enterprises			
Turnover of enterprises, according to Business Register 2015 ² (in €)	6,332.56 bn	2,217.75 bn	35.0%
Turnover of VAT registered enterprises 2015 ³ (in €)	5,989.74 bn	2,210.23 bn	36.9%
Employees/apprentices in enterprises/businesses			
Employees liable to pay social security contributions in enterprises, according to Business Register 2015 ²	28.82 mn	16.85 mn	58.5%
Employees liable to pay social security contributions Bin businesses (including apprentices) (31 Dec. 2015) ⁴	29.35 mn	23.15 mn	78.9%
Apprentices in businesses (31 Dec. 2015) ⁵	1.51 mn	1.24 mn	81.8%
Self-employed persons			
Self-employed persons total 2015 ⁶	4.16 mn		
of which			
Self-employed persons in liberal professions (1 Jan. 2016) ⁷	1.34 mn		
Rate of self-employment total 2015 ^{6,8}	10.3%		
Note:			
Self-employed persons excluding agriculture 2015 ⁹	3.96 mn		
Rate of self-employment excluding agriculture 2015 ^{8,9}	10.0%		
Economic output			
Net value added by enterprises 2015 ¹⁰			54.9%

Source: Institut für Mittelstandsforschung (IfM) Bonn

Comments on the key figures of SMEs as defined by the IfM Bonn for Germany

¹ All the data refer to trade and industry and the liberal professions (WZ A-N, P-S of the activity classification WZ 2008). Exceptions have been marked.

² Based on data of the Business Register. Includes all sectors of trade and industry as well as the liberal professions excluding agriculture and forestry, fishery and aquaculture, i.e. WZ B-N, P-S of WZ 2008. As of 2015, excluding "private rentals" (part of Section L, Real Estate and Renting). SMEs classified by number of employees and turnover volume.

³ Data taken from the turnover tax statistics (advance notifications). All sectors of trade and industry as well as the liberal professions excluding agriculture and forestry, fishery, i.e. WZ A-N, P-S of WZ 2008. SMEs classified by turnover volume.

⁴ Data taken from employment statistics for businesses. SMEs classified by number of employees. SMEs are businesses with less than 500 employees.

⁵ Apprentices with an apprenticeship contract in accordance with the Vocational Training Act, undergoing in-company training in a recognised skilled trade.

⁶ Micro-census data. All sectors of the economy as a whole (WZ A-U of WZ 2008), however only including private households with employed persons (WZ T) because there are no self-employed persons in public administration (WZ O) and in extraterritorial organisations (WZ U).

⁷ Data from Institut für freie Berufe (IFB), Nuremberg, based on data provided by professional organisations and estimates based on the micro-census.

⁸ Rate of self-employment = self-employed persons as a percentage of the working population.

⁹ Micro-census data. All sectors of the economy as a whole, excluding agriculture and forestry, fishery and aquaculture, i.e. WZ B-U of WZ 2008.

¹⁰ Estimate by IfM Bonn. Based on turnover tax statistics. All sectors of trade and industry as well as the liberal professions excluding agriculture and forestry, fishery and aquaculture, i.e. WZ A-N, P-S of WZ 2008. SMEs classified by turnover volume.

SME Diagnosis can be downloaded at:

www.dsgv.de/en/facts/publications.html

**Many additional tables and charts are available
on the web as PDF files.**

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