

# KfW-Mittelstandspanel 2011

## Summary of main findings<sup>1</sup>

### Box 1: Main findings

[1] The SME sector remains the job engine of the German economy. Between 2005 and 2010, total increase in employment of 1.8 million people was attributable solely to the small and medium-sized enterprise segment. In 2010 as well, small and medium-sized enterprises (SMEs) were largely responsible for the recovery on the labour market. While 170,000 jobs were lost in the public sector and in large-scale enterprises, the SME sector created 670,000 new ones.

[2] For the medium-term employment trend to 2013, only 3 % of businesses see labour shortages, including qualified skilled personnel, as a possible constraint. This confirms the findings of an earlier KfW study: In the spring of 2010, only 1 % of SMEs also viewed skilled labour recruitment as an important future challenge for their company. In contrast to public opinion, a shortage of skilled workers does not, then, currently appear to pose a key problem for small and medium-sized enterprises.

[3] After the steep slump in the 2009 crisis year (nominal -15.9 %), gross capital investments in the SME sector only recovered to a small extent in 2010 (nominal +2.8 %). However, the long-term perspective clearly shows that between 2005 and 2010 investment outlays of small and medium-sized enterprises rose above average by (nominal) 11.2 %. In the same period, the large-scale enterprises (turnover of more than of EUR 500 million) increased their own gross capital investment by only 6.8 %. The low investment propensity in the SME sector in 2010 thus indicates that SMEs have sufficient production capacity at their disposal and they have comparatively little need to replace and / or expand their capital stock.

[4] The reason for the favourable development in small and medium-sized enterprises is their high economic performance, even during the recent severe crisis. The comparatively small decline (-0.5 percentage points) in returns on sales in 2009 was offset again in 2010. Moreover, the stable returns on sales over the years of 5 % contributed to the steady increase in the equity base in the SME sector from 22.4 % to 26.6 % between 2005 and 2010. Although larger enterprises generally record a higher equity base than smaller ones, the equity ratio particularly among enterprises with 10 to 49 full-time equivalent employees (FTE) rose distinctly by 7.5 percentage points to 25.5 % between 2005 and 2010. For SMEs with 50 and more FTE employees, the increase in equity ratio in the whole period under review, however, was relatively moderate from 27.4 to 28.6 %.

[5] As econometric analyses show, stable earnings and rising equity ratios were key factors for access to credit, regardless of the business cycle: The share of enterprises not offered a loan as part of negotiations declined between 2004 and 2010 from 35 % to 20 %. However, the econometric studies also indicate that very small enterprises, even with a good credit standing, are at a structural disadvantage in access to investment loans. For example, the probability of loan rejection for a very small enterprise with the same credit rating is 14 percentage points higher than for a SME with 50 FTE employees. These restrictions on finance due to scale, owing to high handling and risk costs for small loans in relation to the amount of credit granted, would even persist if a small enterprise was more creditworthy.

[6] The SMEs were largely optimistic about the future at the time of the survey (2nd quarter 2011). 46 % of SMEs expected their turnovers and / or earnings to increase from 2011 to 2013 as compared with 2010, with only 20 % expecting declines (+26). The optimists have not only recorded comparatively high growth in the past; they had also engaged in above-average investment, innovation and export activities. Business expectations deteriorated only marginally compared with the previous year by one balance point. This underscores the very stable business trend ascertained in the SME sector.

[7] In keeping with the positive business expectations, only 38 % of SMEs see obstacles to their development up to 2013. They cited above all bureaucracy (17 %), also including normal statutory

<sup>1</sup> All findings are provisional and pertain to the evaluation status as at November 2011.

provisions, such as tax or tender regulations, and financial barriers (12 %). Companies with a high credit rating differ distinctly in their ranking of perceived constraints from those with low credit standing. Enterprises with a weak credit rating face more financing (14 %) and market and competition issues (15 %), while SMEs with a high credit standing see bureaucratic costs (19 %) as hampering their business development. Only 4 % of SMEs with a high credit standing view financial constraints as an impediment.

[8] Future financing is beset with considerable foreseeable risks, primarily the anticipated economic downswing and the impacts of the ongoing European debt crisis and the implementation of the Basel III guidelines on bank lending capacity. However, these pose no threat to medium-term corporate development for the majority of small and medium-sized enterprises, above all for those with a high credit rating. This finding shows that the SME sector is well positioned. Particularly thanks to healthy financing arrangements, sound balance sheets and stable earning power, it has not just improved its access to credit considerably in recent years, but has also laid the foundation for coping with future challenges.

The KfW SME Panel is the first and so far only representative longitudinal data set covering all small and medium-sized enterprises in Germany. A unique feature of the dataset is that it even allows calculations for micro enterprises with fewer than five employees. The data of the KfW SME Panel are collected via a repeat written survey of small and medium-sized enterprises (SMEs) in Germany with an annual turnover not exceeding EUR 500 million. According to this definition, there are almost 3.8 million SMEs in Germany, of which more than 2.9 million (75 %) belong to the tertiary sector. 84 % of SMEs have fewer than five full-time equivalent employees. Moreover, more than one in four SMEs belong to the crafts industry and four-fifths are domiciled in western Germany.<sup>2</sup>

The present 2011 report was prepared on the basis of the first of nine survey waves of the KfW SME Panel. Collected from 2003 to 2011, this data essentially depicts the economic situation between 2002 and 2010. The first part of the report contains a description of developments in employment, turnover and investments. This is then followed by an examination of profitability and the equity base. This year's report focuses on analysing financing facilities for SMEs.

The main individual findings are:<sup>3</sup>

### **Turnover, employment and investment trends in the SME sector**

1. The SME sector is the job engine of the German economy. Between 2005 and 2010, total increase in employment of 1.8 million people was attributable solely to the small and medium-sized enterprise segment. In 2010 as well, small and medium-sized enterprises (SMEs) were largely responsible for the recovery on the labour market. While 170,000

<sup>2</sup> These figures pertain to the year 2009. The number of full-time equivalent employees (FTE for short) is calculated from the number of full-time employees (including owner) plus the number of part-time employees multiplied by a factor of 0.5. Trainees are not counted as FTE employees.

<sup>3</sup> For the main empirical indicators see Table 1.

jobs were lost in the public sector and in the large-scale enterprises, the SME sector created 670,000 new ones.

2. In 2010, all segments of the SME sector recorded clear employment growth. The highest increases showed up in the service sector at 2.7 %, in larger-scale SMEs with 50 and more FTE employees<sup>4</sup> at 2.6 % and in young enterprises under five years old at 6.6 %.
3. SMEs already completely recovered from their turnover losses due to the crisis in 2010. After a steep fall by 6.2 % in 2009, turnover increased again by 6.7 % in the following year, bringing the growth rate in 2010 to above the longer-term average (2005 to 2010) of 5.8 %.
4. Unlike the trend in employment, the highest turnover growth can be found in enterprises who incurred large losses in 2009. After a sharp drop in sales of 14.1 % in 2009, SMEs in R+D-intensive manufacturing,<sup>5</sup> for example, grew by 11.8 % in the subsequent year. The development is similar in the rest of manufacturing with a drop in turnover in 2009 of 14.0 % followed by an increase of 11.5 % in the next year. Contrary to this, the knowledge-intensive service providers only grew below average by 3.0 % in 2010. This industry had, however, only recorded declines in turnover of 2.8 % during the crisis.
5. With its investment outlays for new plant and equipment and buildings (gross capital investments), the SME sector makes up a major pillar of the economy of the Federal Republic of Germany. Its gross capital investments amounted to EUR 143 billion in 2010, accounting for 55 % of total corporate investments<sup>6</sup> or 33 % of macroeconomic gross capital investments.
6. Unlike turnover, investment activity in the SME sector was slow to recover after the steep slump in the crisis year of 2009 (nominal -15.9 %). Gross SME capital investments only increased by EUR 4 billion (nominal 2.8 %) in 2009, still well under the pre-crisis level (EUR 165 billion) of 2008.

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<sup>4</sup> For the definition of employees see Section 7.1.7 in the methodology annex.

<sup>5</sup> Definitions: Research and development-intensive (R+D-intensive) manufacturers are those whose average R+D intensity (quotient of R+D expenditure and turnover) exceeds 3.5 %. The largest quantitative group in R+D-intensive industrial companies is in mechanical engineering. Knowledge-intensive services are service industries with an above-average ratio of academics or a pronounced technology bias. The numerically most important industries in knowledge-intensive services in the SME sector are real estate, architects and consulting engineers and legal, tax and management consultants.

<sup>6</sup> Corporate investments are defined as investments in machinery and equipment plus buildings (without residential building), each for the private sector. Corporate investments are ascertained in the KfW Investment Barometer.

7. However, from a long-term perspective between 2005 and 2010 investment expenditure by small and medium-sized enterprises rose above average by (nominal) 11.2 %. In the same period, large-scale enterprises increased their gross capital investments by only 6.8 %. The low investment propensity of the SME sector in 2010 thus indicates that SMEs have sufficient production capacities at their disposal and have comparatively little need for capital replacement or capital expansion.
8. The number of SME investors was similarly slow to rise between 2009 and 2010. Although at 47 % the investor ratio in 2010 was three percentage points higher than in 2009, this falls well short of the figure for 2008 (52 %), but is also below the long-term average (2004 to 2010) of 48 %. Altogether 1.76 million SMEs made investments in 2010, about 110.000 more than in 2009.
9. The moderate trend in SME sector investment activity holds for almost all industry and scale segments, the only exception being the investment outlays of small enterprises with fewer than five FTE employees. Gross capital investments here increased distinctly between 2009 and 2010 by EUR 6 billion to EUR 35 billion, but are still EUR 6 billion below the level for 2008.
10. All SMEs were optimistic about the future at the time of the survey (2nd quarter of 2011). Particularly in turnover, favourable exceeded negative expectations by far: 42 % of SMEs expected their turnovers to increase from 2011 to 2013 compared with 2010, while only 17 % anticipated a decline (balance +25). Anticipated earnings for the next two years were also largely favourable: 37 % of SMEs expected higher and only 19 % lower earnings (balance +18).
11. Although short-term (6 months) business expectations of small and medium-sized enterprises have deteriorated significantly in the second half of 2011, medium-term expected turnovers only declined by two balance points and anticipated earnings by only one between the survey periods of 2010 and 2011. This merely marginal deterioration is particularly noteworthy considering that the weak year of 2009 was the benchmark for the expectations from 2010 to 2012. Medium-term SME development would therefore seem to be very stable.
12. Particularly optimistic business expectations (turnovers and earnings) are cited by enterprises from segments with a high-growth record in the past, such as R+D-intensive manufacturers (balance +53), larger-scale SMEs with 50 and more FTE employees (balance +55) or young businesses under five years of age (balance +45). Least optimistic (balance +5) among the various segments of the SME sector were companies in the

construction industry. Predominantly negative expectations are not cited in any sector, scale or age group.

13. Regression analyses confirm these different expectations in the individual industry, scale and age groups. They also reveal that investors, innovators and exporters were comparatively optimistic about the future and well capitalised and profitable SMEs were rather less optimistic.

### **Return on sales and equity ratio in the SME sector**

14. The SME sector recorded very stable returns on sales between 2005 and 2010. Although the average among small and medium-sized businesses in the 2009 crisis year declined by 0.5 percentage points to 5.1 % compared with the previous year, this slight decline was already fully offset in 2010.
15. These stable returns on sales in the period under review apply not only for the whole SME sector but also for the individual scale classes and sectors. Even in R+D-intensive (5.7 %) and the rest of manufacturing (4.7 %), i.e. industries that suffered most under the economic crisis, returns on sales in 2010 regained the level of 2008. Moreover, each of the two segments of manufacturing increased its returns on sale by 1.3 percentage points in 2010. That was by far the strongest by industry.
16. Particularly notable here is that between 2008 and 2010 no major shifts occurred throughout the whole range of returns on sales. Both the ratio of SMEs with losses (2008: 15 %, 2009: 16 %, 2010: 13 %) and the share of enterprises with high returns on sales of more than 10 % changed only slightly (between 52 % and 54 %).
17. Positive earnings enabling profit accumulation are essential for strengthening the equity base. The stable development of sales returns between 2005 and 2010 was therefore also reflected in equity ratio trends. Altogether, the average equity ratio in the SME sector rose continuously between 2005 and 2010 by more than four percentage points to 26.6 %. Notably, even in the 2009 crisis year, SMEs were able to raise their equity base on average by almost one percentage point.
18. Except for the larger SMEs, equity ratios continuously rose in all scales of enterprise. In particular, small and medium-sized enterprises with 10 to 49 FTE employees increased their equity ratio between 2005 and 2010 by 7.5 percentage points to 25.5 %. Among the large SMEs with 50 and more FTE employees, the equity base also rose in the whole period under review from 27.4 % to 28.6 %. However, firstly, the increase was the lowest in comparison with the other scale categories and secondly, the equity ratio even declined somewhat between 2009 and 2010 by 0.8 percentage points.

19. During the whole period under review, the larger the enterprise the higher the average equity ratio is. The differential of average equity ratios between the small and larger SMEs diminished, however, from 9.1 percentage points in 2005 to seven percentage points in 2010.
20. Econometric analyses show that SMEs pay attention in their financing decisions to an optimum equity ratio and build up their equity base accordingly. Moreover, they indicate that the optimal equity ratio in the SME sector is not a constant figure but has increased over the last nine years in response to changed general conditions. The current optimum equity ratio amounts to approx. 28 %. Both the actual and optimum equity ratio may well change in future.
21. The econometric studies indicate that SMEs anticipate the volatility of the optimum equity ratio over the long term when adapting their equity ratio in their financing decisions and plan for a safety margin of 10 to 12 percentage points.

#### **Investment finance and credit availability in the SME sector**

22. Altogether, the structure of SME investment finance throughout the period under review from 2005 to 2010 has proven to be relatively constant. Although the ratio of own funds fluctuates between 43 % and 51 % and is declining somewhat currently, it is still considerably higher than the ratio of bank loans (27 % to 36 %).
23. In 2010, loans of over EUR 25 billion, i.e. 25 % of the original credit requirements, were no longer needed, because investment or financial plans had changed. Notable here is that the ratio of plan revisions declined considerably compared with the last four years, again reaching about the level in 2005 or 2006. Between 2007 and 2009, the ratio of plan revisions was above 30 %, amounting to EUR 40 to EUR 50 billion in financing volume. The comparatively low rate of plan revisions in 2010 could therefore be a reflection of stable (affording high planning certainty) business developments and expectations.
24. Compared with the scale of plan revision, the credit supply gap – that part of actual credit demand that could not be met due to the lack of a loan offer – is small. In 2010, it amounted to EUR 7 billion, EUR 1 billion less than in the previous year. In 2008, the credit shortfall was as much as EUR 14 billion.
25. Accordingly, the availability of credit for SMEs continuously improved between 2008 and 2010. In 2008, 14 % actual credit demand was not met due for lack of a loan offer by the bank (credit supply gap). In 2009, it came to approximately 11 % and in 2010 to only 10 %. A comparison over the whole period (2005 to 2010) also reveals that availability of

loans was very good in 2010. Only in 2007 was the credit supply gap even smaller at just over 5 %.

26. Credit supply improved between 2009 and 2010 across all scale segments. In small enterprises with fewer than 10 FTE employees the ratio of unserved demand for credit for lack of an offer declined from over 22 % to 17.4 %. Among the larger SMEs, the ratio declined from 6 % to 2.9 %.
27. Improved access to credit for small and medium-sized enterprises is also documented by the trends in loan rejection rates. In 2008, 27 % of SMEs still never received an offer from the bank in loan negotiations. In 2010, this figure had fallen to only 20 %. In comparison with 2004, the loan rejection rate in 2010 is as much as 15 percentage points lower.
28. Only small SMEs with fewer than 10 FTE employees, however, recorded lower loan rejection rates overall. In this segment, the ratio of enterprises not offered a loan diminished from 30 % in 2008 to 22 % in 2010. After 2007 (17 %), this is the second lowest figure in the whole period under review (2004 to 2010). In the crisis year 2009, among larger-scale SMEs with 50 and more FTE employees the loan rejection rate increased to 9 %, compared to 6 % in 2008. Financing for these enterprises was, however, already considerably eased again in 2010. A loan rejection rate of 4 % amounts to the lowest figure since 2004.
29. Additional econometric analyses confirm no indications of credit rationing for the period of 2005 to 2010 that could not be explained by business cycle, structural (scale, age, industry, legal status) or credit rating factors. Only for the year 2004 do findings indicate a credit crunch at that time.
30. An excellent corporate credit rating, e.g. in the form of high profitability or equity base, has proven to be decisive for access to investment loans. However, the analyses also demonstrate that despite a good credit rating very small enterprises have much poorer access to credit than larger SMEs.
31. Between 2008 and 2010, the investment capacity of businesses not offered a loan by the bank (at least in one failed loan negotiation) improved. While these SMEs could only carry out 36 % of their planned investments in 2008, they were nevertheless able to make 38 % in 2009 and as much as 44 % in 2010. Consequently, the amount of investments not made declined between 2008 and 2010 from EUR 24 billion to EUR 8 billion. This is still only 4 % of total planned investment in the SME sector.

32. 62 % of SMEs see no obstacles to business development up to 2013. At 71 % this percentage is particularly high among SMEs with a high credit rating. As a comparison: Only 43 % of enterprises with a low credit rating cite no development constraints.
33. The medium-term barriers cited above are primarily bureaucracy (17 %), which also includes normal statutory regulations for an advanced economy, such as tax or tender regulations, and financing constraints (12 %). Contrary to public opinion, labour shortages (3 %), including the recruitment of adequately qualified skilled personnel, do not pose a key obstacle. This finding is notable as it underlines the empirical evidence of an earlier study that even during a very good business cycle, shortage of skilled personnel is presently not a general problem for small and medium-sized enterprises. In the spring of 2010, for example, only 1 % of SMEs saw a lack of skilled personnel as a central future challenge for their company.
34. Excepting personnel shortages, companies with a good credit rating also differ distinctly when ranking perceived constraints from those with a poor rating. Enterprises with a weak credit standing, for example, face more financing (14 %) as well as market and competition issues (15 %), while SMEs with a strong credit standing see bureaucratic costs (19 %) as an impediment to corporate development. Only 4 % of SMEs with a high credit rating see financing constraints for their enterprise.
35. Considerable risks are foreseeable for future finance, primarily the anticipated economic downturn and the impacts of the ongoing European debt crisis and the implementation of the Basel III guidelines on bank lending capacity. However, these risks do not pose a threat to medium-term corporate development for the majority of small and medium-sized enterprises, above all SMEs with a high credit rating. This finding shows that the SME sector is well positioned. Thanks in particular to healthy financing arrangements, sound balance sheets and stable earning power, it has not just considerably improved its access to credit in recent years, but has also laid the foundation for coping with future challenges.

**Table 1: Main empirical indicators (all figures in per cent where not indicated otherwise)**

	2005	2006	2007	2008	2009	2010
<b>Investments</b>						
Total investor ratio	40	52	53	52	44	47
Investor ratio < five FTE employees	34	47	48	49	40	43
Investor ratio ≥ 50 FTE employees	86	85	91	86	82	85
Total investment volume (EUR billion)	182	193	204	210	176	177
Investment volume < five FTE employees (EUR billion)	45	63	59	57	43	55
Investment volume ≥ 50 FTE employees (EUR billion)	78	65	75	78	72	67
Investment volume in new plant and equipment and buildings (EUR billion)	128	134	147	165	139	143
<b>Investment finance</b>						
Originally planned credit finance requirements (EUR billion)	95	120	128	151	118	106
Total volume of borrowed capital invested <sup>a</sup> (EUR billion)	70	88	98	92	77	78
Estimated ratio of unserved credit requirements for lack of an offer by the bank to actual credit demand	13	16	5	14	11	10
Ratio of failed loan negotiations for lack of a loan offer	26	27	16	27	24	20
Ratio of actual to originally planned investment volume after loan rejection by the bank <sup>b</sup>	41	43	49	36	38	44
<b>Returns on sales<sup>c</sup></b>						
Average return on sales	5.4	4.4	5.6	5.6	5.1	5.6
Average return on sales < 10 FTE employees	9.9	6.8	9.7	9.4	9.8	10.6
Average return on sales ≥ 50 FTE employees	3.3	3.6	3.9	4.1	3.1	4.0
Ratio of SMEs with losses	14	22	18	15	16	13
<b>Equity base<sup>d</sup></b>						
Average equity ratio	22.5	23.9	24.6	25.4	26.3	26.6
Average equity ratio < 10 FTE employees	16.1	18.2	17.9	19.8	20.6	21.6
Average equity ratio ≥ 50 FTE employees	27.2	27.5	28.1	29.0	29.4	28.6
Ratio of SMEs with negative equity ratio	12	10	10	10	9	6
<b>Employment trend<sup>e</sup></b>						
Total employment growth rate	0.0	-0.9	1.7	2.1	1.5	2.5
FTE growth rate < five FTE employees	1.7	4.4	5.0	3.1	2.5	2.5
FTE growth rate in R+D-intensive manufacturing	2.7	5.6	5.4	4.1	-2.8	2.3
FTE growth rate in knowledge-intensive services	0.5	3.7	5.3	3.9	1.7	2.7
FTE growth rate in young SMEs (up to five years)	5.5	12.0	11.6	7.1	2.4	6.6
<b>Turnover trend<sup>e</sup></b>						
Total turnover growth rate	4.4	10.0	9.4	7.6	-6.2	6.7
Turnover growth rate < five FTE employees	3.2	9.2	11.7	10.0	-4.5	6.0
Turnover growth rate in R+D-intensive manufacturing	6.9	12.2	11.6	8.8	-14.1	11.8
Turnover growth rate in knowledge-intensive services	2.0	7.9	10.3	6.3	-2.8	3.0
Turnover growth rate in young SMEs (up to five years)	13.9	21.3	21.6	12.5	-0.1	12.0

Note: a The volume of borrowed capital invested corresponds to the actual volume of bank loans and subsidies used for investment finance. b Loan rejection by the bank means: At least one loan negotiation has failed and the bank makes no loan offer. c Averages weighted by turnover, return on sales for 2010 provisional estimate. d Averages weighted by total assets, projections only for enterprises obliged to keep accounts and excluding sole proprietors / traders, equity ratio for 2010 provisional estimate. e Missing figures on FTE employees and / or turnovers have not been imputed, calculations without growth rates below the 1 % and above the 99 % quantile.

Source: KfW SME Panel 2006, 2007, 2008, 2009, 2010 and 2011.