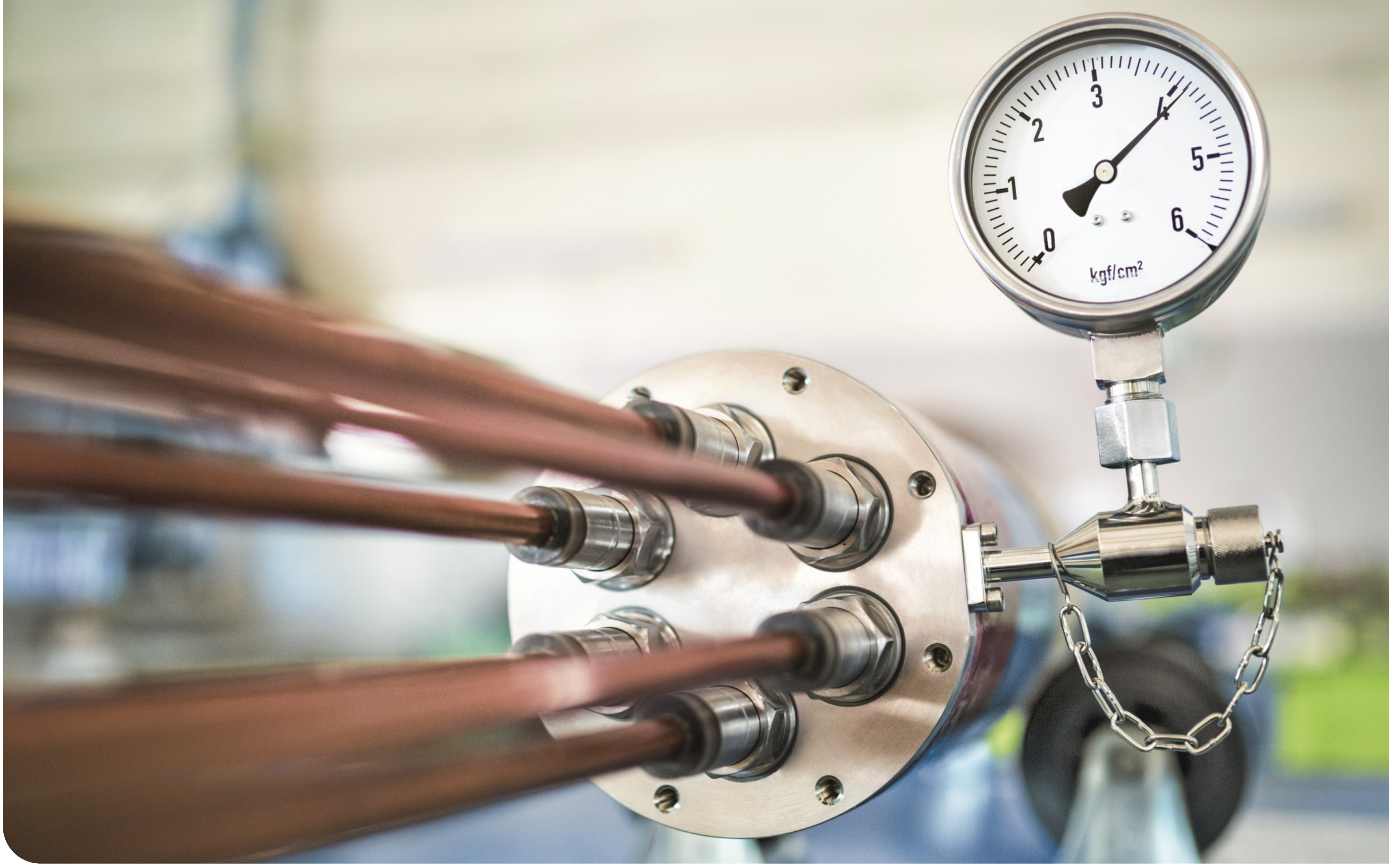

KfW Research

KfW SME Panel 2023

SMEs’ resilience is being put to the test. So far, they have come away with few bruises but now they are increasingly nervous

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Annual analysis of the structure and development of SMEs in Germany

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SMEs' resilience is being put to the test. So far, they have come away with few bruises but now they are increasingly nervous

Today the mood of many small and medium-sized enterprises (SMEs) is one of scepticism. The economic outlook is muted, prospects for investment and turnover are dim and, not least, businesses are feeling the consequences of monetary policy. The resilience of SMEs has already been put to the test since 2020 and so it has last year, too. But despite all stress factors, the damage to SMEs has been moderate. These are the findings of the KfW SME Panel 2023, which paints a detailed picture of both the present situation and the development of small and medium-sized enterprises during the past year.

The sharply increased price level in 2022 was also visible in SMEs' turnover. It rose by a good 16% in nominal terms (+ EUR 742 billion). In real terms as well, **turnover increased sharply** (price-adjusted turnover across the SME sector +10%). That means turnover growth was not driven exclusively by inflation but was also a consequence of pronounced catch-up effects from the pandemic, for example in the consumption of hospitality and catering services as well as in the areas of recreation, arts and culture and entertainment. Although more businesses are using digital sales channels, SMEs overall recorded a nominal decline in **online turnover** of 11% (-EUR 35 billion) which, among other things, reflected the weakness in retail trade last year. The downturn in online spending affected micro-businesses most of all.

Turnover was higher overall but some SMEs had lower earnings. In a number of businesses, additional turnover failed to keep pace with increased costs in 2022. **Overall profit margin** decreased from 7.4% to 7.0%. The profitability of micro-businesses in particular fell noticeably (from 13.8% to 11.8%). This was likely due mainly to the fact that these businesses had little scope to pass on the increased costs in 2022.

As a result, a significantly higher proportion of micro-businesses are experiencing liquidity problems today. The drop in profits is making it difficult for them to replenish **liquidity reserves** that came under pressure from the COVID-19 crisis. Nonetheless, the liquidity situation across the overall SME sector remains comfortable. In the spring of 2023, almost six in ten SMEs described their liquidity situation as very good or good. A further 30% described it as still satisfactory.

The **employment** situation paints what has become an almost familiar picture. SMEs created jobs, although the growth in 2022 was moderate (+20,000 new jobs), as the lion's share of overall economic employment growth was contributed by large enterprises and public-sector employers. A similar pattern could emerge this year. Employment is expected to grow across the overall economy in 2023, although employment expectations are rather trending downward among SMEs.

The capital structure of businesses presents itself as most robust, even in the face of the recent crisis. Despite the energy crisis, enterprises managed to keep their **equity base** steady. The equity ratio of SMEs fell by only a moderate 0.2 percentage points to 31.2%. Nonetheless, small businesses experienced a drop as their equity ratio fell more sharply on average. The drastic deterioration of micro-businesses' profitability in 2022 by two percentage points is likely to have played a major role here as it makes it harder for them to expand their equity buffer with retained earnings. However, SMEs again experienced structural improvements in their capital structure. The share of SMEs with a relatively high equity ratio of at least 30% increased by nearly one percentage point to 50.7%. At the same time, the share of businesses with a low equity ratio of less than 10% fell sharply to 25.1%.

SMEs' appetite for **investment projects** grew strongly in the past year, increasing by five percentage points or 183,000 companies. Fears that investment activity would decline sharply over the year because of the crises did not materialise either. On the contrary: catch-up effects from the pandemic in the first half, pull-forward effects generated by deteriorating financing conditions and rising prices of capital goods along with adjustments to mitigate energy cost increases provided a boost for SMEs' investment activity. Total new investment increased by 15% in nominal and 4% in price-adjusted terms. What is more, SMEs increased their investment activity at a higher rate than the entire corporate sector in Germany (by 10.5% in nominal terms). New investment by large enterprises grew by 'only' 7.2% in nominal terms, which would amount to a 3.6% decline in price-adjusted terms. In other words, SMEs were able to make up for some lost ground. They are playing a growing role for overall investment activity.

While the market for corporate loans currently tends to be characterised by below-average appetite for negotiations, dampened credit demand and more difficult access to credit, the data on the past year paints a different picture. In the year of the interest rate turnaround, **credit financing** in the SME sector still experienced a boom - which may have been the last one for a while. In order to (partly) finance their investments, 534,000 SMEs negotiated loans with banks and savings banks – more firms than in almost ten years. Growing appetite for negotiations came with an extremely high rate of successful outcomes. The rate of loan denials fell to an all-time low – by a wide margin – of 9% in the past year. Loan financing surged (+13% to EUR 76 billion), and the share of loans in the funding mix increased. The number of borrowers among SMEs increased by a respectable 225,000 businesses to a total of 763,000 (+42%), the highest in 15 years. A trend reversal is foreseeable for 2023. Access to credit finance is now much more difficult, with high interest rates making things particularly hard for SMEs.

Despite high borrowing levels, debt sustainability in the SME sector remains very high. The share of firms with critical **debt sustainability ratios** ('zombie enterprises') stood at a very low 3% in 2022, which represents a decline in spite of an overall drop in profit margins. Interest expense on investment loans amounted to EUR 26 billion in total in the past year, the same level as in the previous year. Given the sharp rises in interest payments on corporate loans, a noticeable increase is to be expected for 2023.

A difficult economic year 2023 lies ahead for Germany. Gross domestic product (GDP) adjusted for price, seasonal and calendar variations fell by 0.1% in the first quarter and then stagnated in the course of the second quarter. Furthermore, the most recent leading indicators point to a recession or at best to ongoing stagnation in the second half. KfW Research expects the German economy to shrink by a moderate -0.4% in 2023.[1] Still, one reason to be optimistic is that we appear to have passed the peak of inflation, price pressure is easing more and more and a cyclical turnaround is likely thanks to the revival of household consumption.

Looking back, it seems clear that Germany's businesses in general have so far come out of the energy crisis with a black eye – in the same way as they overcame the COVID-19 crisis.[2] Conditions for SMEs in the past year were anything but easy. Chief among them were the accompanying effects of Russia's war of aggression against Ukraine and the energy crisis it triggered. This was compounded by generally dampened growth prospects, high inflation, significantly higher borrowing costs and stubborn supply bottlenecks.

Despite all these stress factors, which put the frequently proven crisis resilience of SMEs to the test, only minor bruises are visible so far, as demonstrated by the KfW SME Panel 2023. It is based on both the main survey of the year 2023 (February to June) and on the most recent findings of a representative supplementary survey of September 2023, painting a comprehensive picture of the economic situation of small and medium-sized enterprises in Germany.

Sentiment in the SME sector is nosediving, access to finance is again an issue

Nonetheless, SMEs are not immune to the cyclical headwinds of the current year 2023 either. The KfW-ifo SME Barometer recently revealed a broad deterioration in sentiment across all economic sectors in which SMEs operate. September marked the fifth consecutive decline in SME business sentiment.[3] The view of the future is now laced with roughly the same amount of pessimism as at the end of 2022, when enterprises were consumed by worries about an energy crisis. Expectations are marked by much scepticism and, after the slight recovery in the first half of the year, businesses are now also more pessimistic about the current situation.

In this environment, the consequences of the monetary policy reversal are increasingly weighing on sentiment. Businesses are now feeling the restrictive policy of central banks around the world. A rapid rise in borrowing costs can be observed, and companies are describing credit access as disproportionately more difficult.

Businesses are finding it harder to access credit

It became apparent already at the end of the last year that the situation in the credit market was becoming more difficult for businesses. They reported that banks were taking an increasingly restrictive position in loan negotiations.[4] While access to finance was perceived as being easier at the start of the year, banks and savings banks responded to requests for finance from SME customers with more caution again in the middle of the year. According to the most recent KfW ifo Credit Constraint Indicator, SMEs continue to face significant obstacles to borrowing at the current margin, and these have even continued to worsen of late.[5] At the same time, a cautious revival in credit demand has again become apparent in the course of 2023. This indicates that borrowing will likely stabilise despite the sharp interest rate rise last year.

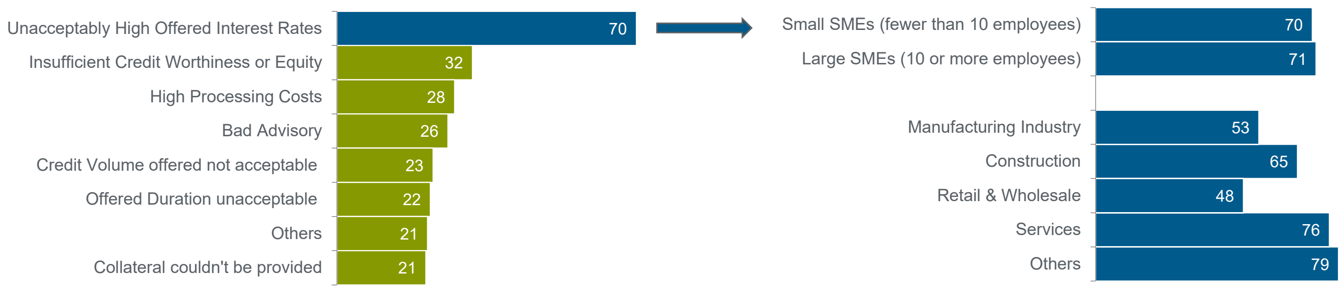
SMEs face growing problems accessing loans, interest rate level is causing particular stress

SMEs, too, were impacted by the notable deterioration in the credit environment induced by monetary tightening. By early September of the current financial year 2023, nearly one third of SMEs (31%) had negotiated loans with banks and savings banks to finance capital expenditure, to secure liquidity or to provide working capital. Enterprises were asked to name any difficulties they encountered in their loan negotiations.

By far the most common problem mentioned was excessively high interest rates (Figure 1). Around seven in ten enterprises described the interest rate they were offered as unacceptably high. It is therefore clear that the times in which businesses were rather rarely concerned about the interest rate level in loan negotiations[6] appear to be over. Other problems such as insufficient credit worthiness or equity (32%) or unacceptably high processing costs (28%) followed far behind.

Figure 1: Difficulties in SMEs' loan negotiations in the year 2023

Percentages of enterprises; only those that conducted loan negotiations and reported difficulties; right-hand side: response 'Interest rate offered unacceptably high' in per cent by segment



Source: Supplementary survey to the KfW SME Panel 2023 of September 2023.

Small and medium-sized businesses in the services sector perceived the interest rate rise as a particularly serious problem. Approx. three in four enterprises in this segment which encountered problems in loan negotiations in the current year described the interest rate offered as too high. Only around half of enterprises in manufacturing as well as retail and wholesale reported this. That high interest rates also cause problems across the overall business landscape is evident from the fact that smaller and larger SMEs both complained about this to an equal degree (Figure 1, right-hand side).

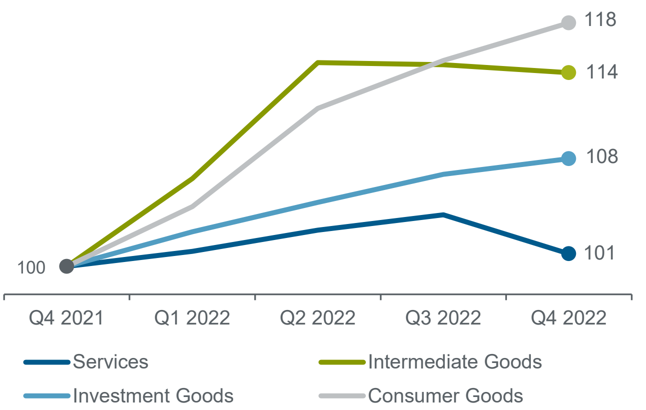
In 2022, price increases led to a significant rise in total turnover – and even in real terms, the growth was solid

Last year, total turnover of small and medium-sized enterprises increased by a nominal EUR 742 billion or +16% on the previous year, reaching a volume of EUR 5,322 billion (2021: EUR 4,580 billion). To be sure, the additional turnover generated must be seen against the backdrop of the extraordinarily high inflation of the year 2022 (+7.9% on average for the year[7]). Even adjusting for prices[8], however, the growth in turnover at the end of the year was still respectable. The price-adjusted growth of absolute aggregate turnover in the SME sector was around 10%. Unless otherwise stated, in the following we will predominantly refer to nominal values.

Looking at average growth rates per enterprise, too, it is clear (Figure 3, left) that last year SMEs continued the high pace of growth they had already achieved in 2021. Across the overall SME sector, turnover grew at an average rate of 10%, the fastest since 2006. However, we must again point out that these are nominal values, which means they were also driven by inflation. As the prices of the individual groups of goods developed differently last year (Figure 2), the nominal growth rates in the individual SME segments were also influenced to highly varying degrees by inflation.

Figure 2: Price development per group of goods

Index, 2021 Q4=100

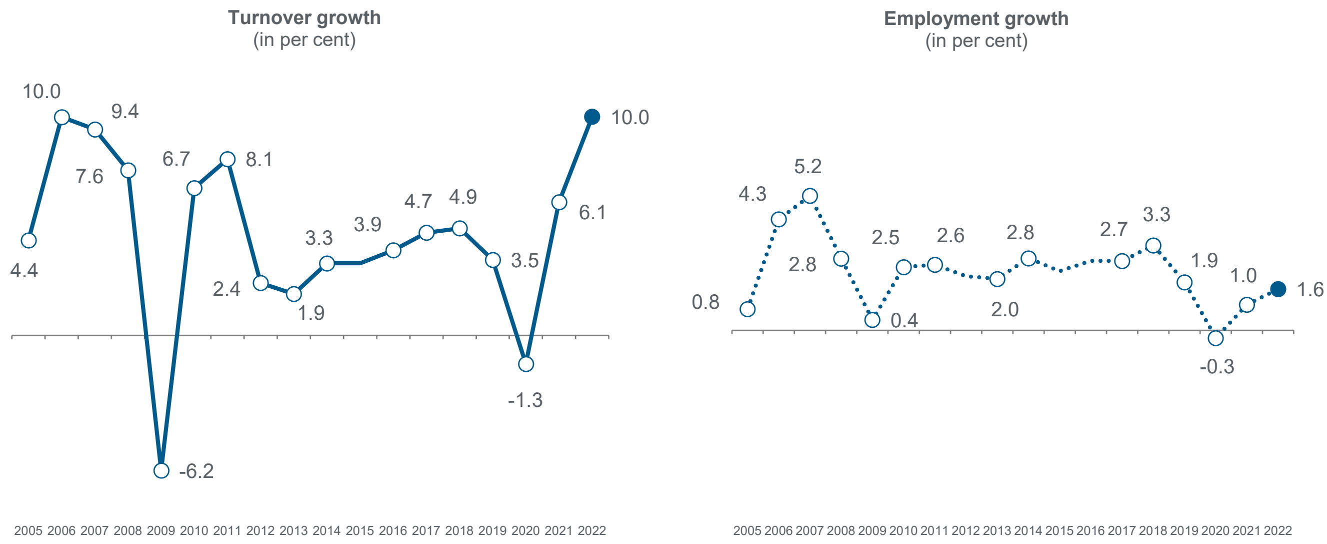


Source: Destatis, own calculations

Service providers benefited from catch-up effects and price increases in retail

Businesses in the services industries accounted for the greatest share of nominal turnover growth last year. Knowledge-intensive services[9] and Other services[10] alone accounted for 86% of the additional (nominal) turnover generated in 2022. SMEs operating in the segment of Other services in particular were responsible for a high share of aggregate turnover growth (67% or +EUR 470 billion in nominal terms). These include, for example, personal services, catering and hospitality, broad segments of the tourism industry, nursing care, training and education as well as arts, culture and sports.

Figure 3: Average annual turnover and employment growth in the SME sector



Source: KfW SME Panel 2023.

Accordingly, the average growth rates of enterprises in this segment were well above the average, at 11.5%. This was because businesses offering accommodation and catering services in particular benefited from strong catch-up effects in the wake of the nearly complete lifting of all COVID-19 restrictions in the first half of the year 2022. This applied equally to businesses operating in the areas of recreation, entertainment, arts and culture.[11]

By far the highest (nominal) growth rate – +15.9% – took place in "Other manufacturing", which is mainly represented by businesses that are active in the food industry, wood processing and the manufacture of metal products, as well as other manufacturing not further specified. While these enterprises continued their high growth momentum from 2021 (in nominal terms, +12.5%), producer prices for intermediate goods such as timber, pig iron, steel, chemical feedstock and others increased steeply (+14%), as did producer prices for consumer goods such as food, textiles, furniture and others (+18%). Significantly lower growth rates were recorded last year by SMEs active in construction (+8.6%), R&D-intensive manufacturing (+7.0%) and knowledge-intensive services (+6.3%).

Larger SMEs stand out from all size classes. Businesses with 10 to 49 employees as well as those with 50 and more employees, respectively, experienced 18% and 17% growth in nominal turnover volume. These two size classes accounted for some 83% of the total additional turnover generated by SMEs last year while accounting for 74% of total turnover and 13% of all SMEs (approx. 480,000 businesses).

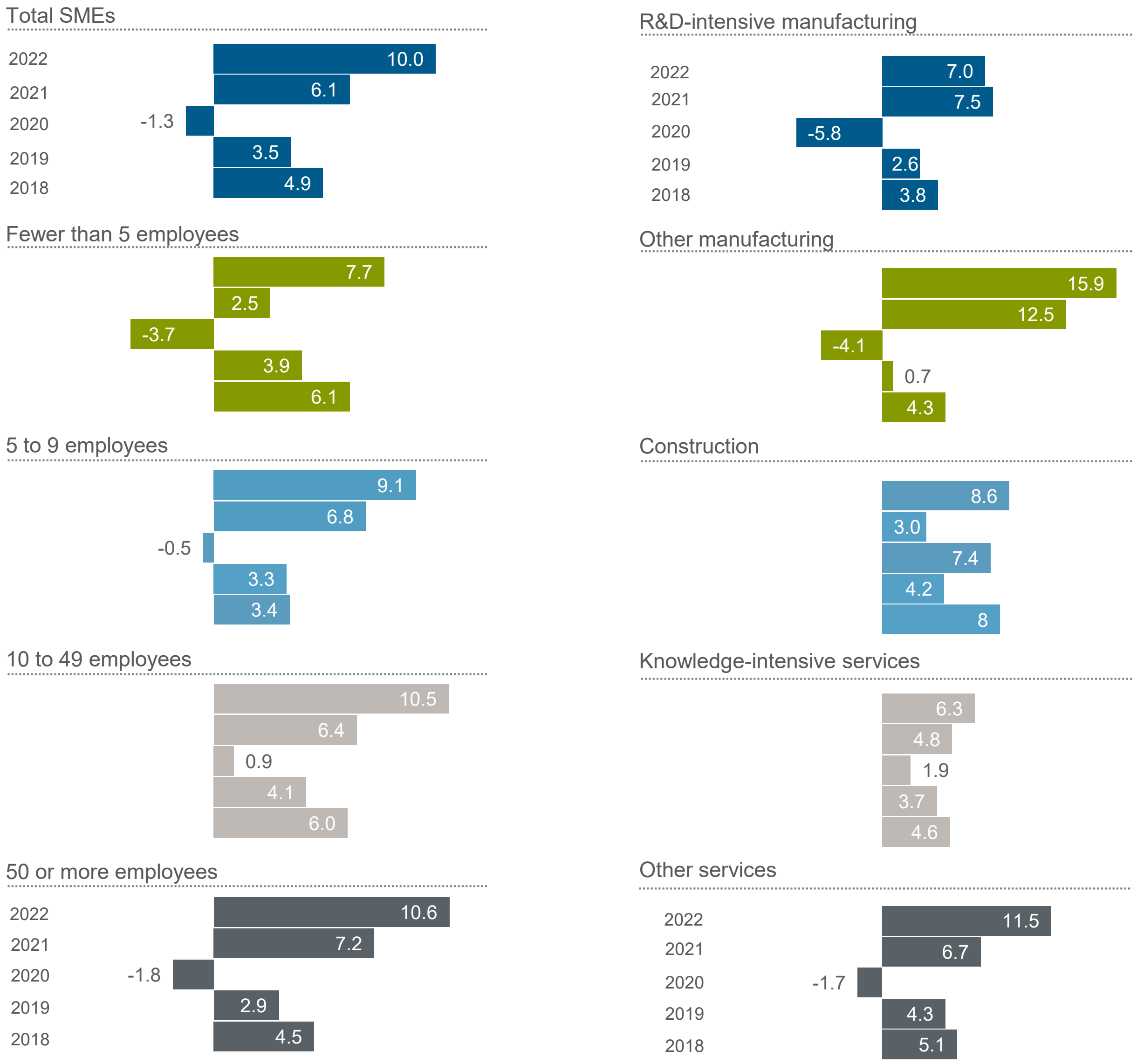
Consumer restraint impacted on micro-businesses in 2022

Micro-businesses must be counted among the turnover 'losers' of the year 2022. After all, they represent nearly 3 million or 80% of all SMEs. Although the growth rate per business was positive on average (+7.7%, Figure 4), aggregate turnover volume of businesses with fewer than five employees fell by 2% or EUR 16 billion on the previous year. A similar development – positive average turnover growth rates but a decline in volume – already occurred in 2021. The reason for this is that in both years a number of businesses in this size class suffered very high turnover losses in absolute terms. In purely arithmetic terms, this is reflected in aggregate volume but not in average growth rates.

Turnover developments among micro-businesses last year appear to be a particularly strong reflection of the inflation-induced reduction in household retail spending (on both food and non-food items). The sharp declines in online sales had a remarkably drastic impact on micro-businesses and were responsible for the overall turnover losses across this size segment last year (see next section on developments in online sales).

Figure 4: Average SME turnover growth by size class and sector

Size class by number of full-time equivalent employees; figures in per cent



Source: KfW SME Panel 2023.

This latest decline in turnover – despite general price increases – marks the continuation of an undesirable trend. It means that nominal turnover volume in this segment declined for the third time in a row. Since the year 2019 (the pre-COVID-19 year), micro-businesses have lost around 9% of their annual turnover volume overall.

SMEs' online turnover is on the decline but remains well above the pre-COVID-19 level

For many SMEs, digital sales channels have been a steadily growing building block for generating turnover in the past years. Particularly during the COVID-19 pandemic, businesses were able to prevent or offset a sharper downturn or losses in turnover (resulting from restrictions on retail, sales forces or similar) by moving sales to digital channels or adding or expanding such channels.[12]

This development did not continue in 2022. Businesses generated EUR 290 billion in total using e-commerce[13], which includes digital market places, online shops, procurement platforms and automated data exchange between businesses, for example (Figure 5). This was a nominal loss of 11% or EUR 35 billion in the digital sale of products and services. At EUR 290 billion, however, online turnover in 2022 remained well above the level of the pre-COVID-19 years (2019: EUR 243 billion). COVID-19-induced restrictions gave digital sales channels a massive boost, but 'traditional' sales channels have also been used more intensively again after they were lifted.

Macroeconomic data for the year 2022 points to a similar trend. Thus, online and mail order sales fell by 8.5% in nominal terms and 3.6% in real terms in 2022.[14] Figures released by the German Retail Federation reported a nominal decline of 2.5% for online sales.[15] This shows that SMEs have not been spared from this overall economic development. Irrespective of the decline at the current margin, SMEs more than doubled their total turnover from these channels in the past seven years (2015: EUR 153 billion). Around 5.5% of SMEs' total turnover was generated online in 2022.

In fact, the number of businesses using digital sales channels has actually increased lately. The share of SMEs generating turnover online increased by 3 percentage points to 23% (Figure 5, right). More SMEs than ever before – around 864,000 – carried out e-commerce activities (+95,000 businesses on 2021).

At the same time, however, the share of turnover among those that conducted online business fell by 4 percentage points. The contribution of e-commerce to total turnover was 26% in 2022 – provided the company generated online sales at all.

After rising sharply to 30% in 2021 – presumably as a result of the pandemic – the share of turnover has returned to the pre-pandemic level (2019: 27%). Micro-businesses with online sales generated an average of around 38% of their turnover online in 2022 (-14 percentage points) while e-commerce contributed around 18% to large SMEs' total turnover (-3 percentage points). In services it was around 28% and manufacturing SMEs roughly 13%.

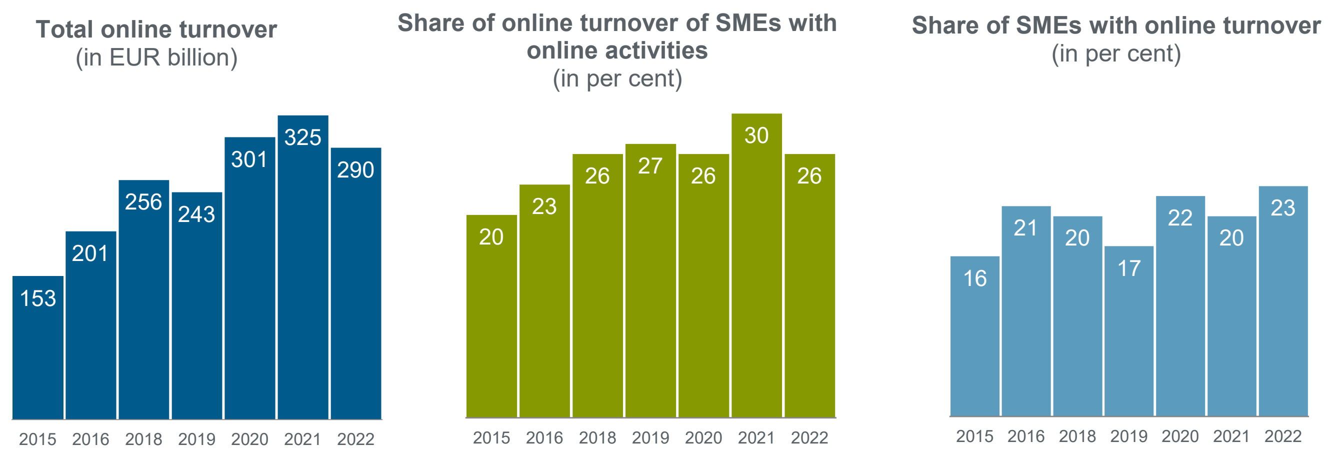
The current decline is therefore likely due primarily to the very high importance of online sales channels during the time of the COVID-19 pandemic. This is particularly evident for the segment of micro-businesses. These firms massively increased their turnover through online sales channels in the years 2020 and 2021 (+EUR 42 billion in 2021 on the pre-crisis level of 2019). The drop of -EUR 39 billion experienced by micro-businesses in 2022 was then all the more pronounced. Businesses in this size class thus accounted for most of the decline in online turnover in the SME sector.

Overall, the advancing gradual entrenchment of the 'digital pathway' on which many SMEs have embarked in their sales is unlikely to change much. Digital sales channels can be expected to continue gaining importance in the SME sector in the future as well. This will happen if only because the generations of up-and-coming entrepreneurs are more often and increasingly building their business models on e-commerce. It is already obvious that younger businesses and/or those with younger owners generate turnover using digital technology significantly more often.

SMEs are rather sceptical about turnover performance in the current financial year

The negative economic growth outlook for 2023 is also reflected in the expectations of SMEs around this year's turnover performance. Based on their assessment in the autumn of 2023, their view of the current situation has visibly deteriorated. Nearly one third of SMEs (30%) expect their turnover to decrease in the current financial year. On average, the affected businesses anticipate notable declines of 24% on the previous year's turnover. SME retailers are particularly pessimistic. Around 40% of them expect losses in turnover.

Figure 5: Key figures on online turnover in the SME sector



Source: KfW SME Panel 2023

The likely main reason for this is the decline in retail spending by households in the first half of the year. In the construction sector, on the other hand, only one in five SMEs expect lower turnover.

By contrast, around 17% of SMEs expect their turnover to grow this year. They anticipate quite a strong increase of 28% on average. Larger SMEs (with more than 10 employees) and manufacturing SMEs in particular are more likely to be optimistic about the current financial year, with 31 and 23% of SMEs in these segments, respectively, expecting higher turnover.

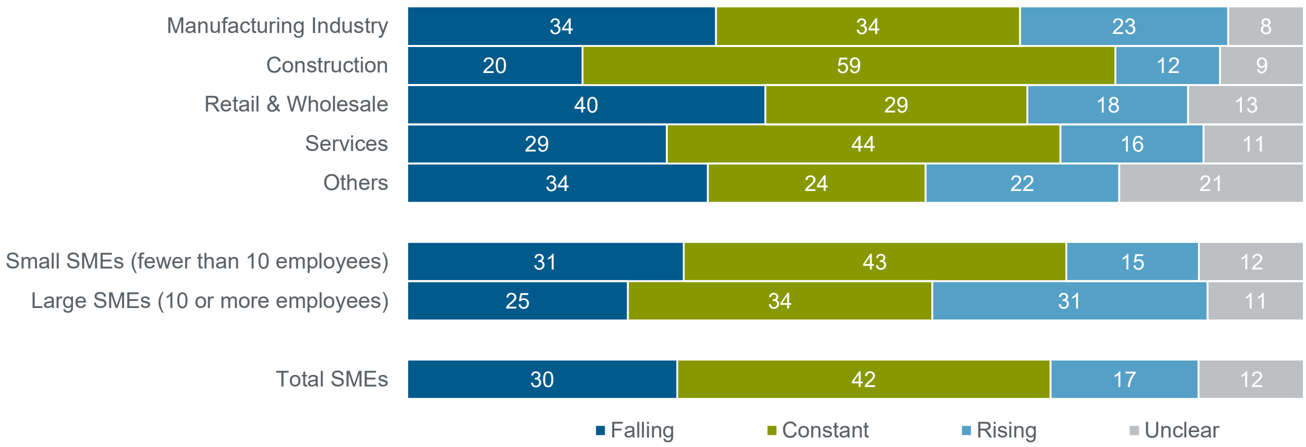
The balance of positive minus negative turnover expectations for 2023 was -14 points. It was negative in almost all segments of the SME sector; in other words, negative expectations predominated – except in the segment of larger SMEs (+6 points).

Turnover expectations for the medium term, however, are noticeably more optimistic

Turnover expectations expressed by SMEs in the spring of 2023 for the coming years (2023 to 2025), on the other hand, reveal slightly more optimism. Around one in three SMEs expect their turnover to grow in the medium term – an increase of 2 percentage points on the previous year. At the same time, the proportion of enterprises expecting turnover in the next three years to be below the level of 2022 has remained roughly the same (20%). At 12 points, the balance of positive minus negative turnover expectations in the spring of 2023 was thus clearly in positive territory and exceeded the previous year' level by 2 points. However, it is still clearly below the level of past years (2010–2022: 17 points).

Figure 6: SMEs' turnover expectations for the financial year 2023

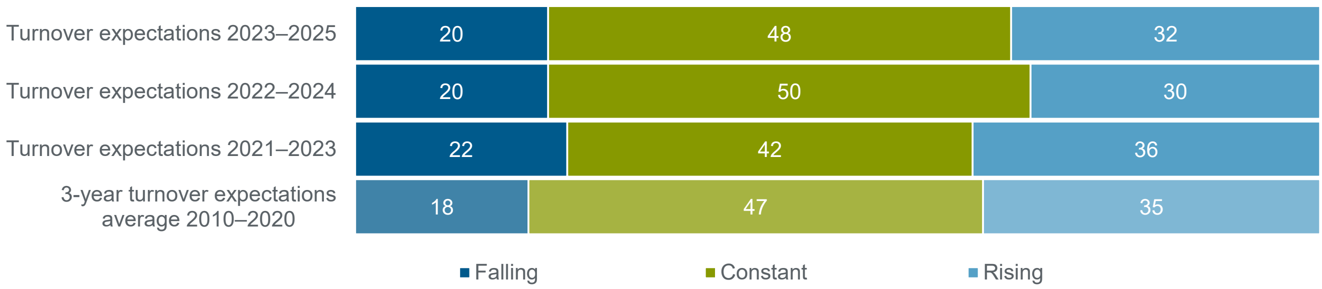
In per cent



Source: Supplementary survey to the KfW SME Panel 2023, September 2023.

Figure 7: SMEs' medium-term turnover expectations up to 2025

In per cent



Source: KfW SME Panel 2023.

SMEs' profit margins fell, resilience is being put to the test

SMEs generally exhibit an extremely steady income situation even in times of crisis. They have already demonstrated in the last crises that they can continue operating profitably and generating profits despite deep cuts to turnover. This was evident in the two COVID-19 years 2020 and 2021. Their profit margin hardly changed and recently averaged a steady 7.4% across the entire SME sector.[16]

This cannot be confirmed unreservedly for the past year. The average profit margin in the SME sector dropped slightly from 7.4 to 7.0% overall (Figure 8, left). Historically, the profitability of SMEs in 2022 thus continued on an above-average level. Nonetheless, it was the lowest of the past eight years.

The downward trend is underscored by the fact that fewer enterprises were able to post very high profitability. The share of businesses with a relatively high profit margin of 10% and more fell by 3 percentage points to 60% in 2022. Furthermore, more companies slipped into the red in 2022. The share of businesses with a negative profit margin rose to 10% (+2 percentage points from 8% in 2021). This is lower than the levels seen in the past, however. In the crisis year 2009, for example, 16% of SMEs were still suffering losses, and in 2006 it was even 21%. In all likelihood, the income situation will remain weaker in the current year 2023 as well.[17]

Cost increases have likely weighed on margins even though SMEs passed on some of the costs

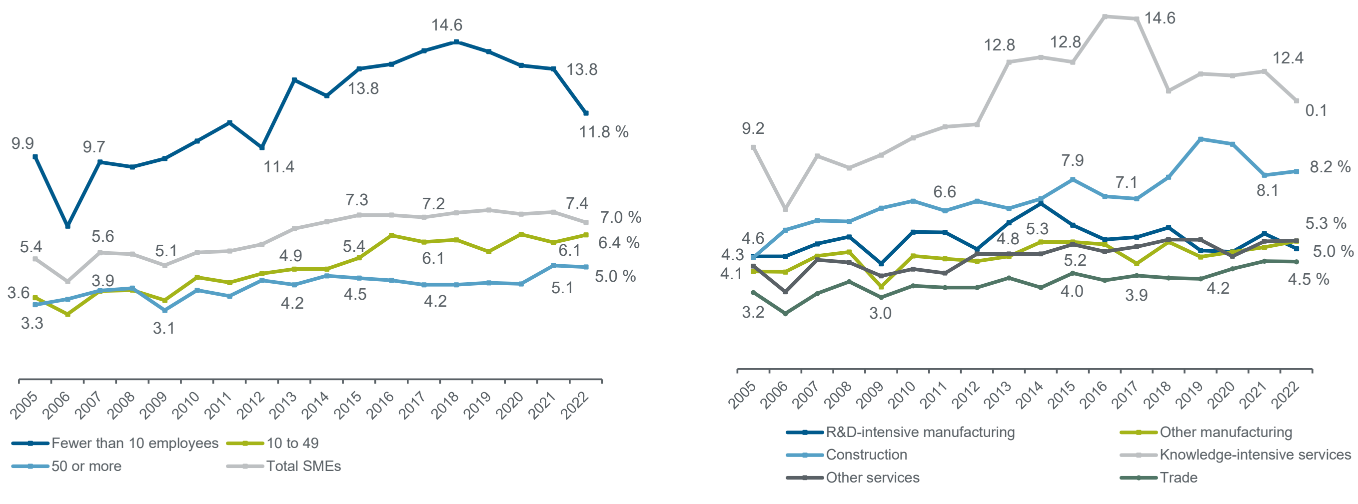
It is safe to assume that in many enterprises the additional turnover generated in 2022 was ultimately not enough to keep up with increased costs. In particular, the rapid increase in energy costs, but also the high prices of commodities and (precursor) materials, put the resilience of many enterprises to the test in 2022. As a result, prices along downstream value chains also increased very significantly at times.

At the same time, however, the majority of SMEs were capable of shouldering the increased energy prices on a sustained basis (Figure 9).[18] In March 2023, energy costs were an additional burden for half of all SMEs (50%) but one that they believed to be able to absorb – even in the long term. For a further one third of businesses, energy costs have little or no financial significance at all, despite having increased. For around 9% of all SMEs, the currently high energy costs represent a significant additional burden that would overwhelm their financial capacity if they were to remain on the level of March 2023 permanently or continue rising.[19]

One reason that many SMEs reported that they could easily manage the price level was that they were able to pass the increased costs on to their customers. A large share of almost two thirds of medium-sized enterprises (63%) reported having passed the increased costs on to customers since the outbreak of the war in 2022 by raising the prices of products and services (Figure 10).

Figure 8: SME profit margins by size class (left) and sector (right)

Size class by number of full-time equivalent employees, figures in per cent

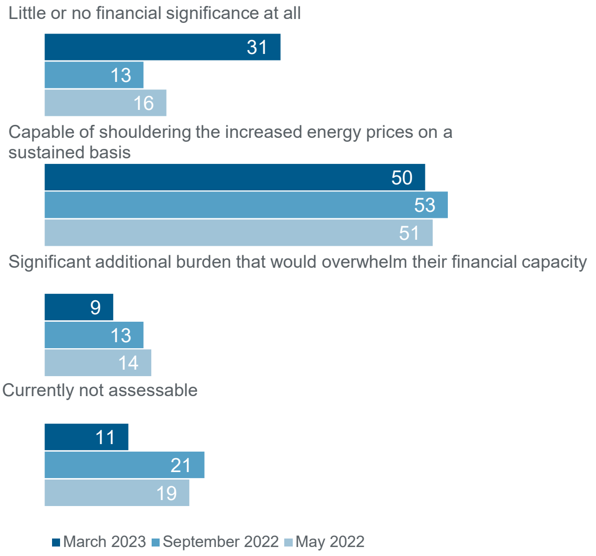


Source: KfW SME Panel 2023.

A further 12% of businesses reported such considerations in September 2023. Already in May 2022, 43% of SMEs increased their prices, with one fifth of them passing the increased energy costs on to their customers in full.[20] A segment of the business community, however, had only limited scope for passing costs on to customers through higher prices. Accordingly, that weighed on SMEs' profit margins in 2022.

Figure 9: Capacity to absorb the cost of energy

Shares of enterprises in per cent



Note: The specific question in the surveys was: 'To what extent would energy costs on the current level be sustainable for your business in the long term? If energy costs were to remain this high in the long run, then …'

Source: Supplementary surveys to the KfW SME Panel of May 2022, September 2022 and March 2023 (conducted in the first week of each month).

Micro-businesses were hit particularly hard by reduced profit margins

A closer look reveals that the deterioration in profit margins in 2022 did not affect all SME segments (Figure 8). A large portion of the subsegments under review succeeded in maintaining or even slightly increasing their profitability, such as enterprises in the construction industry (+0.1 percentage points) and medium SMEs (+0.3 percentage points).

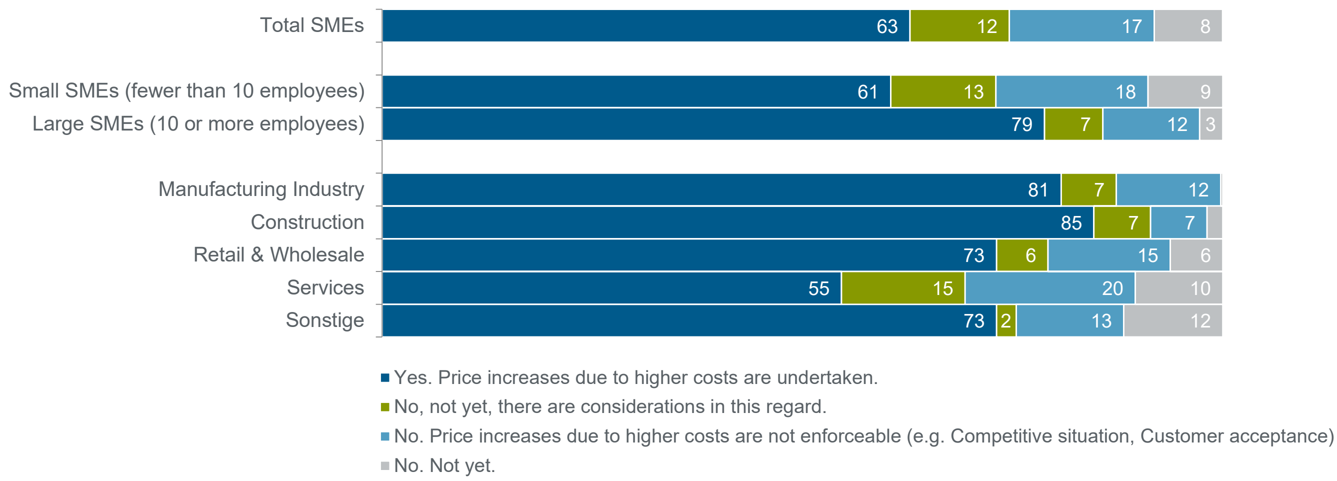
The main cause of the overarching decline was the drastic deterioration among micro-businesses, which shape developments across the broad SME sector because of their very large number. The average profit margin in this group of enterprises fell by two percentage points in 2022 to a mere 11.8%. Not only was this the lowest rate in ten years. Micro-businesses have recently been grappling with a continuous decline in profitability. Their profit to turnover ratio was steadily lower in each of the past four years. The renewed decline in the past year marks a new low.

Micro-businesses have limited power to enforce price increases

For micro-businesses, multiple factors combine to explain the development of profitability. First, the development of (nominal) turnover in the segment of micro-businesses has been on the decline for several years now (see above). Besides, many micro-businesses have limited scope for adapting their cost structure, particularly for reducing fixed costs, and thereby maintaining their profits steady.

Figure 10: Price increases in 2022 as a result of increased costs by SME segment

Shares of enterprises in per cent, as at September 2023.



Source: Supplementary survey to the KfW SME Panel 2023, September 2023.

In the year 2022, this problem worsened once again as a result of cost increases. That is because micro-businesses are also more likely to have less leverage to pass all or at least large parts of the increased cost of materials, energy and wages on to their customers (Figure 10). The same applies to SMEs providing services. What is decisive for the ability to pass costs on is the competitive intensity prevailing for the individual business. For example, if customers can easily turn to alternative offers (high price elasticity of demand), this limits the option of passing cost increases on. These conditions – intense competitive situation and lower customer acceptance – are reflected by the fact that the share of micro-businesses (and service providers) that enforced price increases last year was significantly smaller than for other business types (as at September 2023).[21] Price increases due to higher costs are not enforceable for around one in five SMEs in both segments. In other segments of the SME sector, that share was between 7% (construction) and 15% (retail and wholesale). Other unfavourable forces were the weak economic environment and the diminishing purchasing power of consumers. These factors appear to have affected micro-businesses as well as services more strongly last year.

Low profitability makes it hard for micro-businesses to replenish liquidity reserves decimated by COVID-19

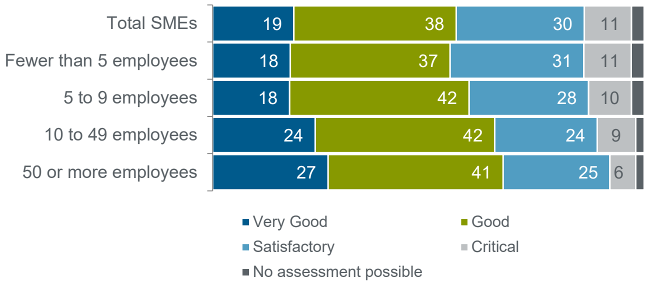
Many SMEs saw their liquidity reserves come under massive pressure during the COVID-19 pandemic. As sales revenue dropped or dried up entirely, many SMEs were unable to replenish their liquidity buffers such as cash, bank deposits or cheques to satisfactory levels. Many of them relied on their savings to survive. As businesses use liquidity primarily for meeting ongoing payment obligations from day-to-day business operations, its importance for businesses cannot be underestimated. When they no longer have sufficient liquidity they face the risk of defaulting on their payments and, ultimately, insolvency and business closure.

When the COVID-19 pandemic broke out in April 2020, around 44% of SMEs reported a decline in liquidity reserves. That share fell almost continuously in the course of the crisis. This was due to the lifting of pandemic containment measures as well as numerous support measures for the business sector. In September 2022, depletion of cash buffers affected only around one in six SMEs.[22]

Most SMEs appear to have used part of the positive turnover growth last year to replenish their liquidity buffers again. In the spring of 2023, almost six in ten SMEs described their liquidity situation as very good or good (Figure 11). A further 30% described it as still satisfactory. Large SMEs in particular currently find themselves in an outstanding liquidity position. More than one in four enterprises with more than 50 employees rated their liquidity level as very good.

Figure 11: Assessment of SMEs' current liquidity situation

Shares of enterprises in per cent



Source: KfW SME Panel 2023.

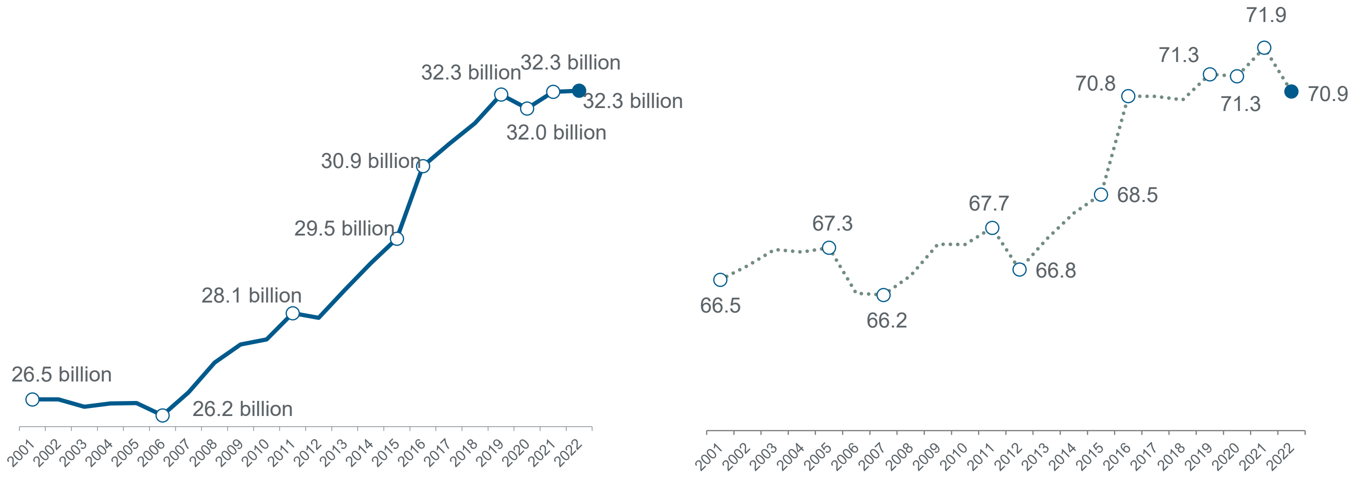
Overall, this generally positive development is pleasing because a good liquidity buffer helps businesses survive turnover losses without quickly running into payment difficulties. However, not all SMEs are currently in such a comfortable position. Slightly more than one in ten SMEs currently have major liquidity problems. Micro-businesses are affected more often than larger SMEs. Around 11% of businesses with up to five employees currently describe their liquidity levels as critical. In this segment of SMEs with more than 50 employees, that figure is a mere 6%. This may be due to the profitability weakness of small businesses described above (see preceding section). The drop in profits makes it difficult for affected businesses to replenish the liquidity reserves that came under pressure from the COVID-19 crisis. That makes them more susceptible to payment difficulties.

Employment level in the SME sector remains high

The development of employment in SMEs has stabilised further. What is more, as was already the case in 2021, the workforce grew by a moderate 20,000 workers in the past year. That means a total of 32.33 million workers were employed by SMEs in the year 2022 (Figure 12, left) – which was even slightly more than at the previous peak recorded in the pre-crisis year 2019. In 2020 the COVID-19 crisis put an end to 14 years of continuously rising employment. The nearly uninterrupted run of jobs growth in the SME sector since 2006 came to a halt. The crisis-induced job losses, however, ended up being moderate, and the pessimistic expectations expressed by businesses at the beginning of the pandemic came true to a limited extent only.

Figure 12: Employment in SMEs

Persons employed in the SME sector (left) / share of SME sector in aggregate employment in Germany in per cent (right)



Source: KfW SME Panel 2023.

Thus, employment in the SME sector is generally moving in line with employment in the overall economy. On average for the year 2022, around 45.6 million people were gainfully employed in Germany – more than at any time since German unification in 1990. That represented a rise of 589,000 people (+1.3%). But not much employment growth across the overall economy came from SMEs in 2022

However, this also highlights the fact that despite the growth, small and medium-sized enterprises on average were unable to keep pace with the increase in employment that took place across the overall economy in the year 2022. Whereas in the past years SMEs became increasingly important as employers at a more or less steady pace, last year their workforce grew at a significantly lower rate than across the economy in general. This was already suggested by the employment expectations expressed by enterprises in the spring of 2022 for the year as a whole. As a consequence, the share of SMEs in overall employment fell by one percentage point to 70.9% (Figure 12, right). By contrast, nearly all of last year's employment growth in Germany was generated in large enterprises and the public sector.

Labour market is predicted to grow in 2023 as well, but a question mark hangs over SMEs

Current economic figures on the development of employment in Germany indicate that employment will continue to grow in the current year 2023.[23] In July 2023, around 45.7 million people in Germany were gainfully employed. Year-on-year, that amounts to an increase of approx. 0.7%. For 2023, an upward trend is foreseeable at least for the economy as a whole. For SMEs, however, it remains to be seen how the difficult economic environment will impact on hiring plans in the current year. Thus, the KfW-ifo SME Barometer for July 2023 reported falling employment expectations among SMEs.[24] The ifo Employment Barometer recently reported a significantly lower willingness of companies all across Germany to hire workers.[25] What is encouraging here, however, is that services businesses on balance predict that employment will grow, bucking the general trend. As much of the SME sector is made up of service providers, this is cause for optimism.

Another sharp jump in part-time employment

Part-time employment has been growing in importance for quite some time now (Figure 13) – not just for the SME workforce but as an expression of a general trend.[26] Flexible working time models are becoming increasingly important even though employment is expanding at the same time. A relatively strong 11.2% increase in part-time employment arrangements in the SME sector was observed again last year. Full-time employment also increased, if at a much slower rate of 2.3%. Both forms of employment reached peak levels in the year 2022, with around 19 million full-time employees and some 9.7 million part-time workers.

The overall aggregate growth rate in full-time equivalent employees (FTE)[27] averaged 1.7% in 2022, after 1.0% in 2021. To be sure, the trend continues to point upward but remains well below the average of the pre-crisis years. Also noteworthy is that even during the years of the economic and financial crisis, employment developed at a more positive rate than now. This can be taken as a clear indication of how much the past crisis years have affected enterprises.

Knowledge-based services are again an anchor of stability for employment

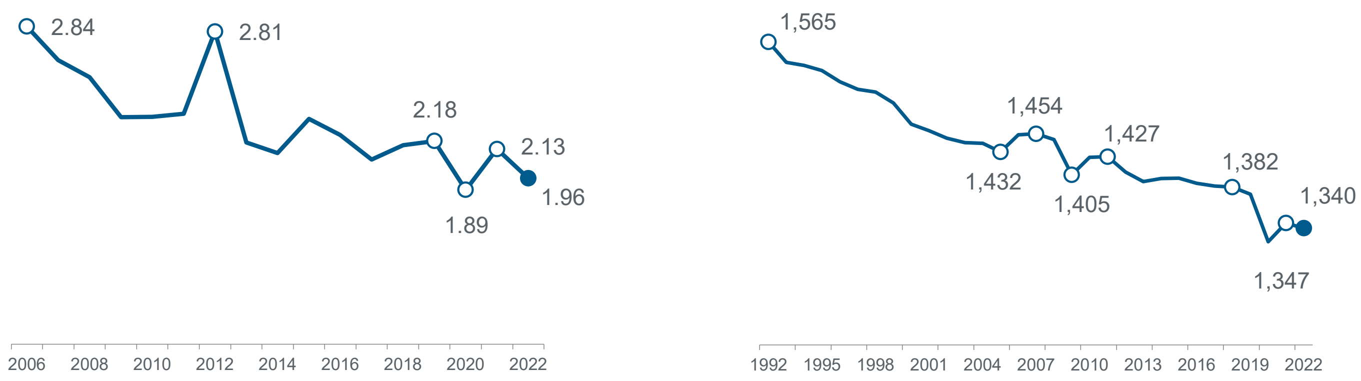
On closer inspection, there was no excessive domination of individual segments. Rather, FTE growth was spread across multiple shoulders. All size classes gained in employment, from micro-businesses with fewer than five FTE employees (on average +1.2%) to larger SMEs with 50 and more employees (on average +2.0%) (Figure 14). This is encouraging particularly with a view to SMEs in the smaller size classes, which have been hit harder by the impact of the pandemic and have lost employment in both crisis years.

Similarly, growth in employment was positive across all sectors and spread almost evenly (Figure 15). Knowledge-intensive services again exhibited the strongest growth, with companies in this segment reporting the highest average growth rate in FTE employees last year (on average +2.2%). These SMEs were on an above-average growth path already in 2021 and even succeeded in expanding their workforce in the pandemic year 2020. R&D-intensive manufacturers[28] (on average +1.7%) and businesses offering other services (+2.1%) also reported steady growth. Only small and medium-sized construction firms appear to be in rather troubled waters. They had the lowest FTE development for the second year in a row. After moderately negative growth in 2021, they reported at least a minor increase averaging 0.2% last year.

In general, it must be noted that businesses of the services industries are particularly critical for the development of aggregate employment because of their very high number. In 2022, services segments alone comprised 77.6% of all SMEs, employing around 75% of all workers in the SME sector.

Figure 13: Significance of working time models and working hours

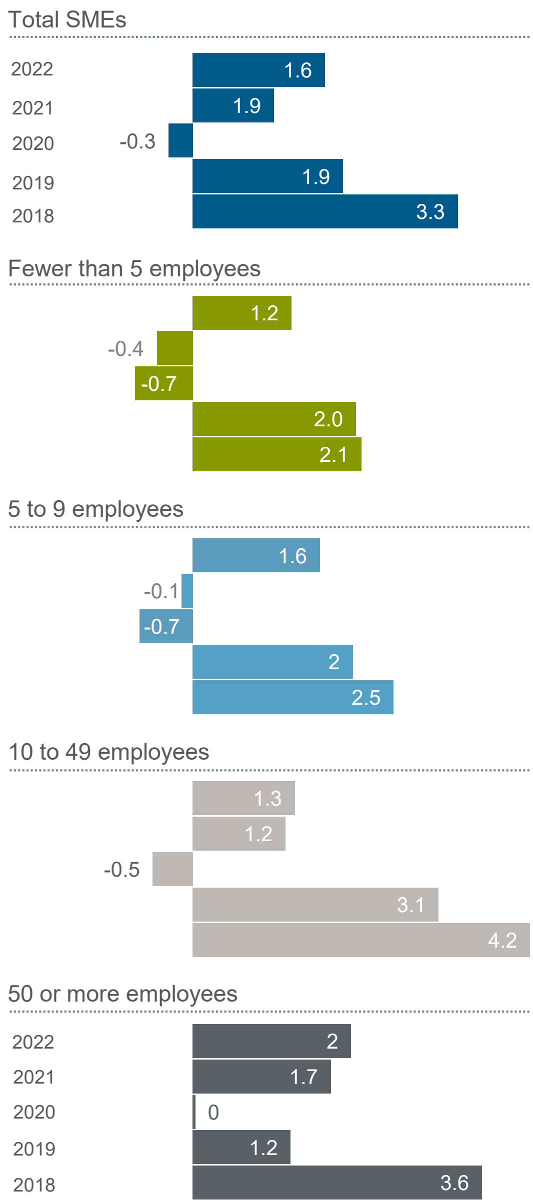
Links: Ratio of full-time equivalent jobs to part-time equivalent jobs in SMEs / right: Hours worked each year per worker in Germany



Source: KfW SME Panel 2023.

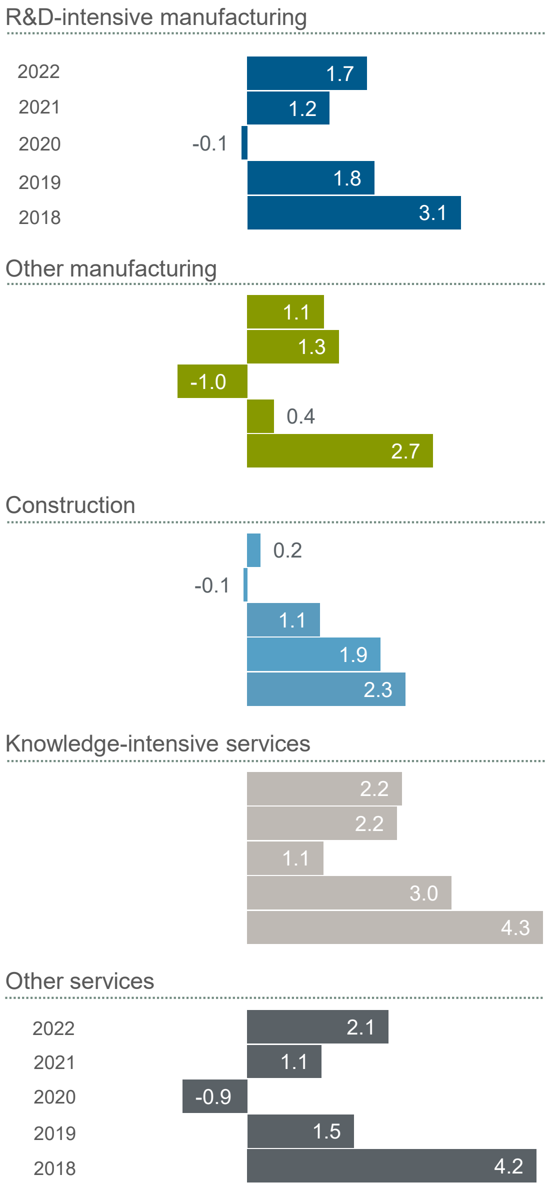
Figure 14: Annual employment growth in the SME sector by size class (2018–2022)

Size classes by number of full-time equivalent employees



Source: KfW SME Panel 2023.

Figure 15: Annual employment growth in SMEs by sector (2018–2022)



Source: KfW SME Panel 2023.

Equity buffers despite energy crisis: capital structure with only few bruises

Broadly speaking, SMEs built up large equity buffers after the turn of the millennium. That has made them significantly more resilient to unexpected events. After all, a strong equity base not only enables them to absorb losses for longer in economically difficult times. It also strengthens their credit worthiness and helps keep access to debt capital open. The past three years, which were marked by two consecutive crises, highlighted this most vividly.

To be sure, the COVID-19 crisis put the brakes on this trend of steadily rising equity ratios, but the widely feared massive depletion of the equity base of SMEs did not materialise. Thanks to SMEs' adaptability, their average equity ratios fell only moderately to 30.1% (2020). The decline in the first year of the-Covid 19 crisis was already followed by a relatively strong recovery in 2021. The equity ratio increased by 1.3 percentage points to an average 31.4%, which was near the pre-crisis level (2019: 31.8%).[29]

SMEs were not able to continue the upward trend of the pre-crisis years in 2022, but they succeeded in keeping their equity base steady despite the energy crisis (Figure 16, left). The equity ratio of SMEs fell only by a moderate 0.2 percentage points to 31.2%. Their capital structure thus presented itself as most robust, even in the face of the most recent crisis.

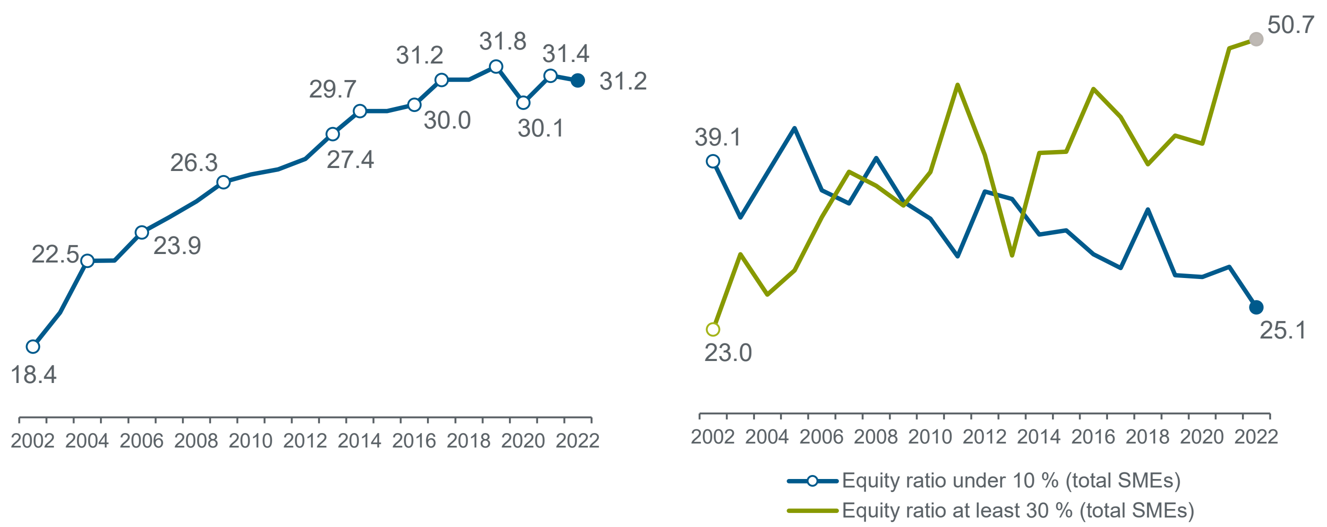
Setback for micro-businesses: strong post-COVID-19 recovery is followed by slight downturn

A detailed breakdown by company size class shows that the generally stable development of average equity ratios was mainly due to positive trends in the medium-sized segment (businesses with 10 to 49 employees) (Figure 17, left). The average equity ratio in this size class rose by one percentage point to 31.1% in 2022 (2021: 30.1%). This was likely due to, among other things, the average increases in profit margins in this segment. Larger SMEs, on the other hand, experienced slight declines in their equity base. The equity ratio of businesses with 50 and more employees fell to 34.7% – a moderate drop of 0.3 percentage points.

Small businesses experienced an even more significant downturn. The strong recovery of their equity ratios in 2021 (+6.4 percentage points) was now followed by a decline of nearly one percentage point to an average 22.8% (2021: 23.7%).

Figure 16: Basic equity ratio indicators in the SME sector

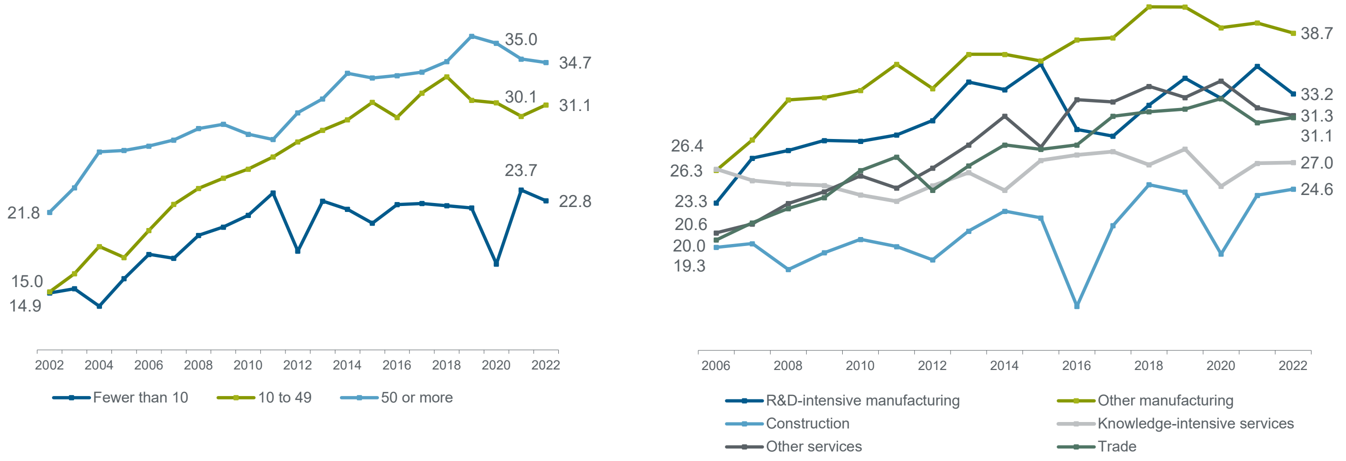
In per cent



Source: KfW SME Panel 2023.

Figure 17: SMEs' equity ratios by size class (left) and sector (right)

Per cent of SMEs; size class by number of full-time equivalent employees



Source: KfW SME Panel 2023.

The drastic deterioration of micro-businesses' profitability in 2022 by two percentage points is likely to have played a major role here because it makes it harder for them to use retained earnings to build up their equity buffer. Nonetheless, it is positive to note that the average equity ratio of micro-businesses is still above the pre-crisis level (2019: 22.2%).

A detailed breakdown by company size also illustrates that there are no signs of any closing of the gap between equity ratios of small and large SMEs, which has increasingly widened since 2011, despite a moderate improvement in the past two years. While the gap was around 8.9 percentage points in the period between 2002 and 2011, it widened to 12.4 percentage points between 2012 and 2023. While the equity ratios of small businesses with fewer than 10 employees have hovered on a similar level since 2011, enterprises in the other size classes have sharply increased their equity ratios (+4.5 and +6.6 percentage points since 2011).

Equity base in manufacturing decreased but remained on a high level

A sector comparison shows that the energy crisis has had very different impacts on the capital structure of enterprises depending on what sector they belonged to (Figure 17, right). R&D-intensive manufacturing enterprises in particular experienced a noticeable decline in equity. Their average equity ratio fell by 2.5 percentage points to 33.2% (2021: 35.7%). In other manufacturing[30] the equity ratio decreased to 38.7% (2021: 39.6%). These declines may be attributable to the muted profitability levels (especially in R&D-intensive manufacturing), but also to increased debt financing activities (see section below). Despite these negative developments, however, the equity base of SMEs manufacturers remained on a high level. The same is true of small and medium-sized service providers. Despite a drop of 0.7 percentage points, at 31.3% their average equity ratio also remains slightly above that of the overall SME sector.

By contrast, SMEs in the construction sector and in the area of knowledge-intensive services – two segments that tended to have below-average equity ratios in the past years – were able to continue strengthening their capital structure in 2022. The equity ratio of construction businesses rose to 24.6% (2021: 24.0%) and that of knowledge-intensive service providers to 27% (2021: 26.9%). Despite this positive development, however, SMEs offering knowledge-intensive services have still not been able to recover from the high COVID-19-driven declines from the year 2020, as their average equity ratio remains below the pre-crisis level (2019: 28.2%).

Figure 18: Businesses with a low (left) and high equity ratio (right)

Per cent of SMEs; size class by number of full-time equivalent employees

Source: KfW SME Panel 2023.

Capital structure has improved nonetheless

Even if the average equity ratio of small and medium-sized enterprises decreased slightly in 2022, there are still clear signs of a structural improvement in SMEs equity base. The median equity ratio for the whole SME sector rose by a strong 2 percentage points and stood at 31.9% in 2022, the highest level since surveys began.[31] This development indicates that more SMEs have a relatively high equity ratio than ever before.

Other indicators also show this (Figure 16, right): for the first time since 2002, more than half of all SMEs have a comparatively high equity ratio of at least 30% (50.7%). At the same time, the share of businesses with a low equity ratio of less than 10% fell sharply and stood at a mere 25.1% in 2022 (29% in 2021), the lowest level since surveys began. The share of businesses with a negative equity ratio also remains very low. It stood at 6% in 2022 (5% in 2021). Particularly in the size class of small businesses, the share of poorly capitalised companies dropped significantly – from 30.5% in 2021 to 25.4% in 2022 (Figure 18, left). At the same time, more than half of SMEs in this size class (50.8%) today have an equity ratio of more than 30%. As the average equity ratio in this size segment is falling nonetheless (see section above), this indicates that some already poorly capitalised small enterprises have fallen back even further. This development in particular must be monitored carefully.

Outlook on equity ratio for the current financial year is mixed

Because of the weak growth outlook for the current financial year, SMEs also have mixed expectations about how their equity ratios will develop in 2023 (Figure 19). In September 2023, around one in four businesses expected their equity ratio to decline over the year as a whole. Approx. 15% expect their equity base to develop positively, while a further 48% expect it to remain roughly the same.

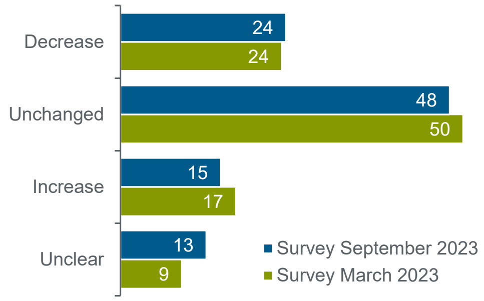
Not much has changed compared with the expectations expressed by businesses in the spring of 2023[32]. Despite generally worsening sentiment, businesses held largely unchanged views of how their equity ratio would develop up to the end of the year.

Significantly more enterprises invested in 2022 despite the energy crisis

The willingness of small and medium-sized enterprises to tackle investment projects has grown again noticeably, after decreasing in 2021 (Figure 20): The share of SMEs with investment projects grew by 5 percentage points to 43%. That means around 1.63 million small and medium-sized enterprises carried out investment projects – around 183,000 more than in the previous year. Despite the renewed increase in investment propensity, there has basically been a sideways movement since 2009 (44%) with minor upward or downward swings affecting all SME segments equally. In the years 2006 to 2008, more than one in every two SMEs invested in their business – a rate that has since been unmatched.

Figure 19: Expected development of equity ratio in the SME sector in 2023

Share of enterprises in per cent



Note: Expected development compared with 2022

Source: Supplementary surveys to the KfW SME Panel 2023, March and September 2023.

The shares of investors rose noticeably in almost all segments last year. Micro-businesses with fewer than five employees in particular stepped up their activities (share of investors +5 percentage points), as did businesses providing other services (+5 percentage points) and other manufacturing firms (+6 percentage points). However, SMEs in R&D-intensive manufacturing (+4 percentage points) and in the segments of construction, knowledge-intensive services and large SMEs (each with +3 percentage points) exhibited greater appetite for investing than in the previous year.

The positive development in investment propensity last year was likely driven by multiple factors. First, investment activity was still positively influenced by significant catch-up effects from the COVID-19 crisis, particularly at the beginning of the year 2022. But the impending interest rate reversal, too, which was set to make debt capital predictably more costly for enterprises, is likely to have incentivised some businesses, especially in the first half of 2022, to avoid delaying foreseeable necessary investments requiring debt capital (pull-forward effect). Rising inflation may also have had a similarly expectations-driven effect last year. The rise in producer prices for capital goods was still moderate last year compared with the prices of intermediate goods, consumer goods and consumables. However, concerns over a continuing significant rise in the prices of capital goods may have been a motive for businesses to pull investments forward.

Figure 20: Percentages of investing SMEs by size class (left) and sector (right)

Size classes by number of full-time equivalent employees

Source: KfW SME Panel 2023.

The energy crisis last year will also have influenced investment activity in equal measure. Rapidly rising prices have hit many SMEs hard and unprepared. In a similar way as in the first year of the-COVID-19 pandemic, many enterprises were forced to rapidly take measures in response to these changing conditions.

Already in May 2022, a large number of small and medium-sized enterprises had adopted measures to reduce energy consumption or make use of renewables (69%), including investments in electric mobility, renewable energy and energy efficiency, with larger SMEs initiating the bulk of such measures.[33]

Investments continued to undergo major adjustments throughout the year

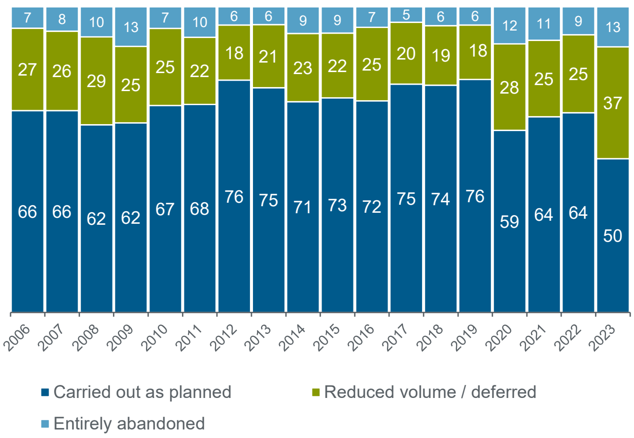
At the same time, both the energy crisis and rapid increases in prices and interest rates last year created great uncertainty which usually tended to stifle business investment. The escalation of the conflict and the impact of the war, combined with directly and indirectly perceivable consequences (such as loss of export markets, energy price increases, rising inflation, supply chain disruptions and production losses) afflicted many businesses. There was great uncertainty.

This is also illustrated by data showing how SMEs' investment plans were modified across the year (Figure 21). The share of businesses that implemented their investment projects as planned stood at 64% in 2022. Roughly one fourth of enterprises that had considered investing in their business in 2022 at the start of the year scaled back or deferred those investment projects to a later date. Thus, in a long-term comparison, the level of plan revisions was relatively high in 2022 as well. After all, the share of entirely abandoned investment projects remained at a high 9%. The share of completed investment projects was also well below the average. In the years before the COVID-19 pandemic (2012–2019), 75% of all projects were actually implemented each year on average. Last year, businesses fell well short of that level.

Ultimately, this was also reflected in the volume of investment originally planned at the start of the year that was not realised because planned projects were either cancelled, scaled down or deferred. For the year 2022, a comparatively high investment volume of EUR 56 billion was recorded in the SME sector.

Figure 21: Implementation of planned investment projects in the years 2022 and 2023

Percentage of enterprises



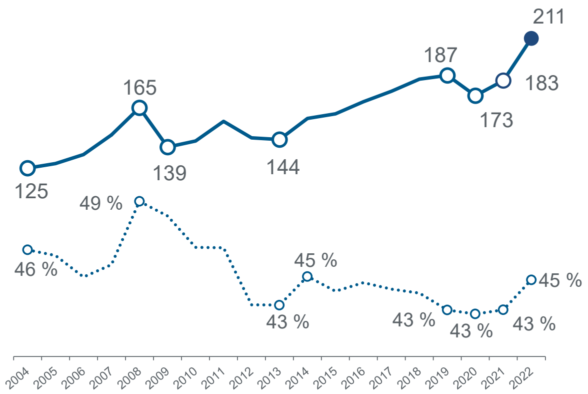
Source: KfW SME Panel 2023 in conjunction with supplementary survey of September 2023

New investments by SMEs were up, even on a price-adjusted basis

In the past year, small and medium-sized enterprises' (nominal) investments in new plant, equipment and buildings (gross fixed capital formation and new investment) increased by a significant EUR 28 billion, or 15% overall. New investment by SMEs thus amounted to around EUR 211 billion in 2022 (Figure 22).

Figure 22: New investment by SMEs

Solid line: Volume in EUR billion (nominal); dotted line: percentage of SMEs in total business investment



Source: KfW SME Panel 2023, Destatis

However, the sharp increases in prices last year must be taken into account. Producer prices for capital goods rose by +7.9% on average. This pushed the nominal investment volume sharply higher. But even when applying the corresponding deflator of gross fixed capital formation for the year 2022, new investment in the SME sector was still 3.9% higher (new investment of EUR 190 billion in real terms). That means inflation was not the sole driver of the higher volume of investment by SMEs.

SMEs invested significantly less in second-hand goods than in previous years (around EUR 29 billion in nominal terms – a decrease of EUR 3 billion). In the aggregate, the volume of total investment in the SME sector thus rose by EUR 25 billion or 11.5% (0.5% in real terms) to a nominal EUR 240 billion (EUR 216 billion in real terms) The growth in investment volume was carried by all size classes and sectors, with increases recorded in every segment. As before, however, enterprises in services industries drove up the volume.[34] In 2022 businesses in the relevant subsegments accounted for 57% of new capital expenditure and 58% of total capital expenditure.

SMEs were able to make up for some lost ground and became more important for overall investment activity

In 2022 small and medium-sized enterprises increased their investment activity at a higher rate than the entire corporate sector in Germany. Total gross fixed capital formation of all enterprises[35] rose by 'only' 10.6% % in nominal terms to EUR 473 billion (adjusted for prices, this would mean a minimal drop of 0.25% / calculated as at August 2023). Large enterprises with an annual turnover in excess of EUR 500 million accounted for EUR 262 billion of this volume. Their new investment grew by 7.2% in nominal terms or EUR 18 billion (adjusted for prices, this would mean a 3.6% decrease). In other words, real growth in corporate gross fixed capital formation last year was generated solely and exclusively by SMEs.

These developments mean that the share of SMEs in overall new business investment increased by two percentage points to currently 45% (Figure 22). That was the first significant rise in ten years. The course is set for growth, but the level remains below the long-term average. In 2008 the share of SMEs in total business investment volume in Germany stood at 49%.[36]SMEs made new investments of EUR 211 billion (nominal) in 2022 and recorded around EUR 140 billion in asset depreciation (also in nominal terms). That was roughly the level of depreciation of the previous year. Their net investment thus totalled EUR 71 billion (total business sector +EUR 8 billion).[37] The ratio of new investment volume to depreciation is on a very healthy level of 151% (comparable to the years 2017 or 2011).

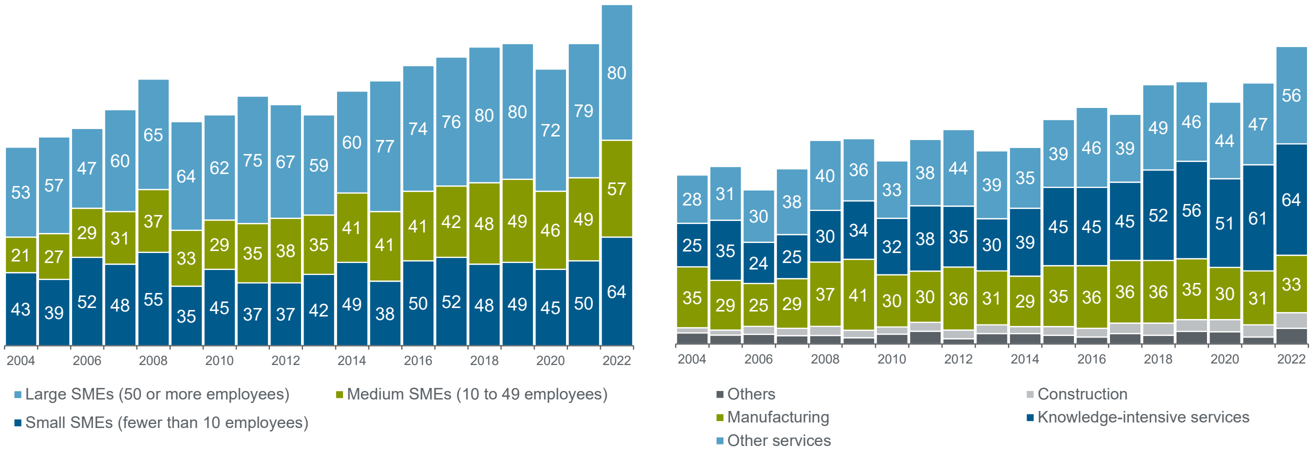
SMEs were able to more than offset the loss in value of their capital stock through their investment activity last year (in both nominal and real terms, since the deflator for gross fixed capital formation is likewise applied to calculate the volume of depreciation).

Due to inflation, the scope of investment projects remained on a high level in 2022 as well

The noticeable increase in the average (nominal) volume of investment projects in 2021 was followed by another rise in the past financial year (Figure 24). The average amount of funds invested by an SME (provided it made any investment at all) rose to EUR 179,000, a nominal increase of 5% or EUR 9,000 (2021: EUR 170,000 on average).

Figure 23: New investment in the SME sector by segment

EUR in billions (nominal); SME size class by number of full-time equivalent employees

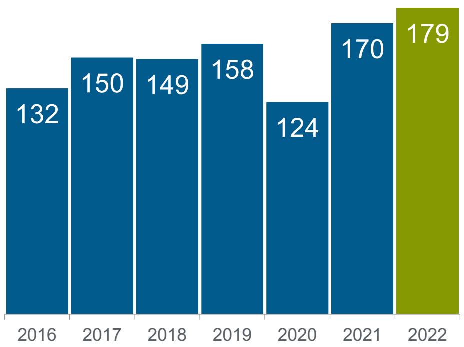


Note: The extrapolation by employment size class of SMEs does not include companies of the remaining sectors. Consequently, the individual data on new investments undertaken by the SME size classes does not add up to the total sum of new investment (gross fixed capital formation) shown in the text.

Source: KfW SME Panel 2023.

Figure 24: Average investment volume per company

EUR in thousand in nominal terms, only investing enterprises



Source: KfW SME Panel 2023

Thus, the average project volume was higher than ever, but if we take into account last year’s price increases, the result changes slightly. Adjusted for prices, average investment volume fell by around 5% to EUR 161,000. That means the average volume of investment projects in real terms roughly matched that of the pre-crisis level. The growth in project volume in 2021 could thus have been only temporary, possibly due to the realisation of large-scale projects that were put off in the pandemic year 2020.

The development in the year 2022 was not exclusively driven or distorted by few very large projects but was a consequence of the general rise in inflation, and this is also demonstrated by the median value, which increased as well. Thus, half the investment projects had a volume of less than EUR 30,000 in 2022 (EUR 28,000 in 2021). This development is corroborated yet again by data on investment intensity (investment volume per full-time equivalent employee). It rose in 2022 by a nominal 8% to an average of around EUR 8,800 (detailed figures can be obtained from the Volume of tables). In real terms, however, it dropped by 2% to around EUR 7900.

Outlook for investment in the SME sector has dimmed again for 2023

It is uncertain whether the recovery of SME investment activity will continue in the current financial year. At the moment, the signs appear to be pointing to a downturn. In early September 2023, more than half of SMEs – around 54% – indicated that they had plans for investment in the current financial year, but only 50% of them reported that they had actually completed them as planned (Figure 21). This suggests that SMEs have significantly modified their investment plans in the course of the year. At the time of the survey, more than one third of businesses (37%) reported having postponed or scaled back the investment projects planned at the beginning of the year. Around 13% of SMEs stated having completely abandoned their investment plans. The noticeable rise in borrowing costs over the same period was likely a major cause for this.

2022, the year of the interest rate turnaround, saw a surge in borrowing

While the market for corporate loans is currently rather characterised by below-average appetite for negotiations, dampened credit demand and more difficult access to credit, the data on the past year paints a different picture. The readiness or appetite of SMEs to negotiate investment loans with banks was stronger in 2022 than it had been for a long time. An important contributor was SMEs' expanded investment activity last year. It is also safe to assume that many were still keen to benefit from the comparatively favourable borrowing conditions.

A total of 534,000 SMEs conducted negotiations with banks and savings banks on loans to finance all or part of their investment activities in 2022 – the highest number since 2014 (Figure 25, right). They represented 14% of all SMEs (+3 percentage points) and 33% of those SMEs that had investment projects in the year under review (+5 percentage points), an increase of around 130,000 businesses in a year-on-year comparison. That means the propensity of small and medium-sized enterprises to conduct loan negotiations for investment purposes increased significantly in 2022, although historically it still needs to be described as restrained. The levels seen during the years preceding the economic and financial crisis are far off. At the time, around 700,000 SMEs were in negotiations for loans, and in 2006 one in two SME investors were. What probably plays an important role here is that over time, businesses have exhibited a growing desire for financial independence.

The desire to engage in negotiations on investment loans increased most in the segments of R&D-intensive manufacturing SMEs (+15 percentage points to 39%) and among large SMEs with 50 and more employees (+10 percentage points to 38%). Only knowledge-intensive service providers continued to hover on quite a low level by comparison, with 24% of companies in this group engaged in loan negotiations.

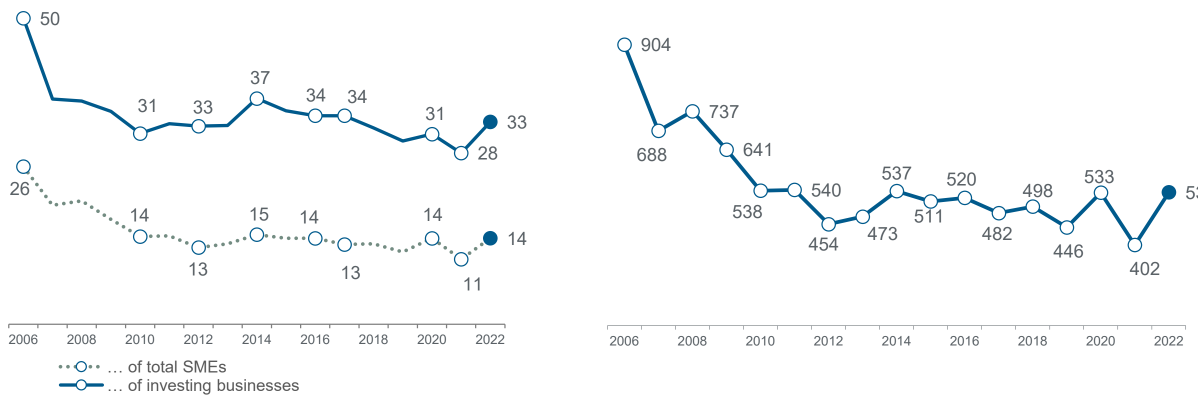
Lowest ever rate of loan denials, number of negotiations ending in success soared in 2022

The year 2022 was a good year for businesses negotiating loans. Along with increased appetite for negotiations, the rate of successful negotiations with banks or savings banks was also exceptionally high last year (Figure 26, left). For 66% of SMEs that were in loan negotiations in 2022, all ended successfully. That was a similar level as in the previous year (67%), marking another extremely high success rate. The financing environment and credit access for small and medium-sized enterprises in 2022 can therefore be described as comfortable. The success rate of micro-businesses with fewer than five employees in particular remained encouragingly high at 64% (-1 percentage point). Smaller SMEs with 5 to 9 employees, too, achieved a high success rate (+7 percentage points to 68%). SMEs of the two larger size classes were also very successful in their loan negotiations again last year.

Besides the high success rate, the loan denial rate also very clearly reflects the environment in which loan negotiations took place. It is represented by the proportion of enterprises in which all negotiations on investment loans failed, that is, by the proportion of businesses who had no access at all to loan financing in the year 2022. The rate of loan denials fell to an all-time low – by a wide margin – of 9% in the past year (Figure 26, right). That rate was already a low 12% in 2021 but fell again last year. By comparison, the historic average is 18% (2004–2021). This massive improvement for the SME sector as a whole was driven by the extremely positive development experienced by micro-businesses. For them, the loan denial rate in 2022 decreased from 17% in the previous year to now 11% (Figure 27). That was half the long-term average (2004–2021: 22%). Large SMEs, too, saw only 3% of their negotiations on investment loans end in failure (-2 percentage points).

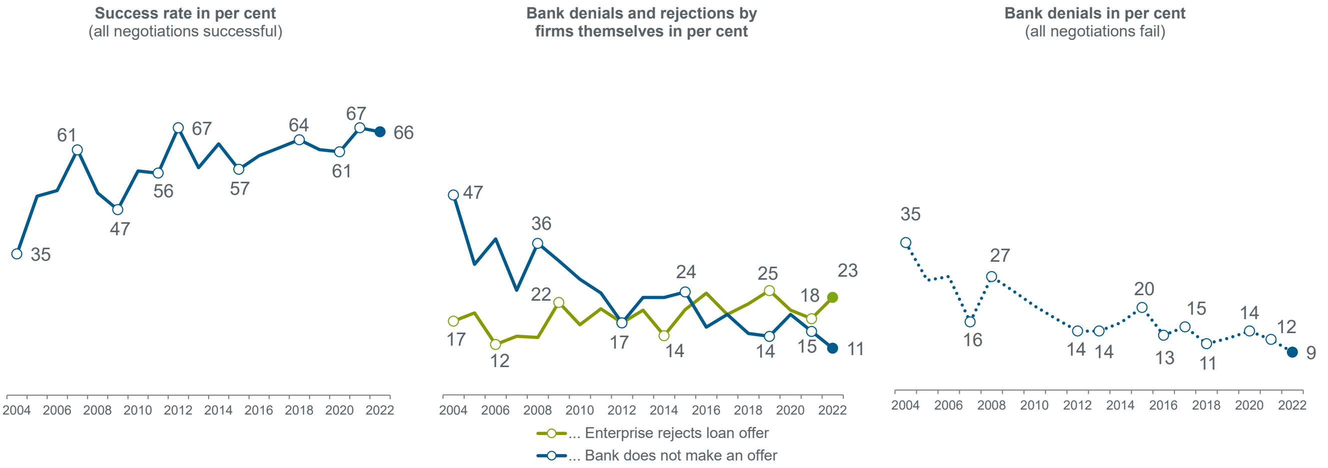
Figure 25: SMEs that negotiated loans with lenders

Shares in per cent (left); number of enterprises in thousand (right)



Source: KfW SME Panel 2023

Figure 26: Indicators for the outcome of loan negotiations in the SME sector

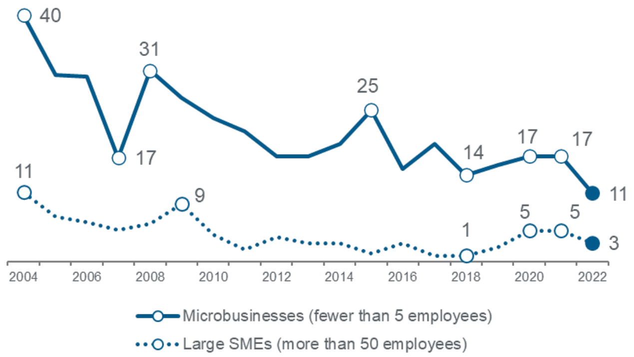


Source: KfW SME Panel 2023

The improvement in credit access for micro-businesses must generally be seen as positive. For structural reasons, very small businesses in particular are affected by difficulties in accessing capital. Owing to the asymmetrical distribution of information, lenders have great difficulty or incur very high expenses in assessing the credit worthiness of applicants or the chances of success of the projects for which these firms request debt capital. In many cases, they simply do not have a credit history. As these enterprises usually apply for small loan amounts, the cost of eliminating these information deficits is too high for lenders (see above). The result may be a loan offer in a lower amount or on less favourable terms.

Figure 27: Loan denial rate by SME size

Loan denial rate in per cent (all negotiations failed), size class by full-time equivalent employees



Source: KfW SME Panel 2023

Further indicators on the outcomes of loan negotiations confirm the positive overall picture of less restrictive credit access in 2022: Unwillingness on the part of credit institutions to present a loan offer was again less likely to cause negotiations to fail – dropping to the lowest rate ever (Figure 26, middle). The corresponding percentage fell from 15% to 11% year on year. A historic comparison illustrates what a good level this is: The long-term average rate of bank denials (2004–2021) is 25%, more than twice as high.

In addition to these bank denials, the share of rejections of loan offers by interested businesses increased by 5 percentage points to 23% (Figure 26, middle). A look at the overall picture for the past year reveals that this is a strong indication that businesses often had other funding options and may have been less likely to accept unattractive lending conditions because they had access to alternatives. This is consistent with the sharp increase in rejections of loan offers by larger SMEs in particular – from 20% to 35%. Larger enterprises usually have more access to diverse funding sources or maintain more links to banks than smaller businesses.

Borrowing for investment purposes surged in 2022, share of loans in funding mix rose moderately

The strong demand was also reflected in credit volume. The volume of loans from banks and savings banks actually used by SMEs to finance investments grew with increased investment activity and negotiation propensity (Figure 28). After the exceptional years 2019 and 2020, credit volume in 2022 hovered on a high, albeit normal level. Credit volume in 2019 was at an all-time high of EUR 81 billion, driven by the extremely favourable financing environment prevailing until then, followed by a historic drop to EUR 56 billion during the COVID-19 pandemic in 2020. In 2022, SMEs borrowed a total of EUR 76 billion from banks and savings banks to finance their capital expenditure – around EUR 9 billion or +13% more than in the previous year. This includes only investment loans and excludes working capital loans. They were spread across the various enterprise sizes roughly in line with the historic average. SMEs from the two larger size classes each account for roughly one third of the total volume. Micro-businesses made up roughly one fourth. The share of loans in the funding mix for overall investment activity in the SME sector rose slightly by one percentage point to 32%, which is slightly above the long-term average.

Short-term loans were again more sought after and continued to play a growing role overall

Short-term and long-term loans both increased in volume last year. However, SMEs remained rather reluctant to apply for loans with longer maturities of more than five years. The volume of such loans rose only moderately by EUR 2 billion to EUR 28 billion in 2022. Loans with short maturities of up to five years, however, were again highly sought after. Their volume increased strongly by EUR 7 billion to EUR 48 billion. Short-term borrowing has recently been more important than ever for SMEs. As a result, the share of short-term bank loans in overall investment volume also increased, now reaching 20% (long-term average for 2004–2021: 12%), while long-term bank loans remained on a rather low 12% (long-term average for 2004–2021: 18%).

At first glance, this result may seem surprising in light of the recent interest rate turnaround. Persistently high interest rates will thus have to be expected in the long run. However, the increased relevance of short loan maturities also reflects the enormous uncertainty about the further course and accompanying effects of Russia's war of aggression against Ukraine and the resulting energy crisis. This uncertainty could be felt across vast parts of the business landscape last year. Without optimism and certainty on which to base their planning, businesses tend to avoid longer-term financial obligations. Borrowing was an attractive option for broad sections of the SME sector in 2022.

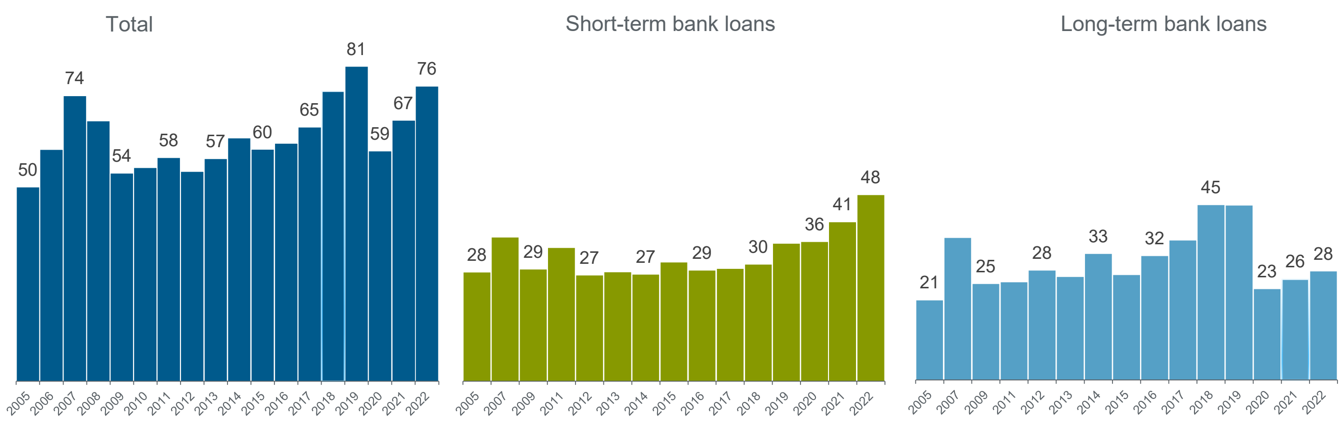
SMEs clearly showed a higher interest in using loans to finance their investment projects in 2022, which was very obvious in the number of businesses that had ultimately added bank loans to their funding mix. The number of borrowing SMEs grew by a considerable 225,000 enterprises to 763,000 overall (Figure 29). That was the highest level in 15 years, with a 42% rise.

The increased use of bank loans in investment finance can be seen across all size classes. The number of borrowing micro-businesses grew by 41%, smaller SMEs with 5 to 9 employees recorded a rise of 55% year on year, medium SMEs with 10 to 49 employees increased by 31% and the number of large SMEs with 50 and more employees rose by 46%. Credit financing thus appears to have been a very attractive funding option in all size classes in 2022.

The variant most often used by small and medium-sized borrowers – by a wide margin – was a mix of short- and long-term loans. Around 338,000 SMEs alone opted for loans with a mix of maturities in 2022, an increase of 44% on the previous year. This option has already become steadily more important in the past years. But the interest in short-term bank loans and the use of current account and overdraft facilities as well as exclusively long-term bank loans also increased on the previous year. Around 259,000 SMEs opted for short maturities (+32%) and some 166,000 SMEs for longer maturities (+56%) for their investment loans.

Figure 28: Loan volume used for investment finance in the SME sector – total and by maturity

EUR in billions



Source: KfW SME Panel 2023

Figure 29: SMEs that borrowed (for investment purposes)

In thousands of businesses

Source: KfW SME Panel 2023

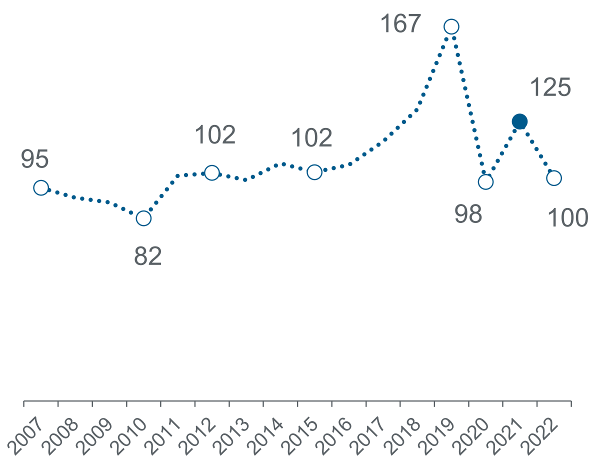
Average credit volume decreased by one fifth

The total credit volume for investment purposes in the SME sector increased strongly in 2022. The number of borrowing enterprises grew even more strongly, however. This is reflected in the average loan amount used for investment finance (Figure 30). The average volume of bank loans newly obtained to finance investments decreased by 20% to EUR 100,000 per enterprise (-EUR 25,000 on average per business undertaking credit-financed investments).

Thus, average ticket sizes were roughly on the level of the year 2020, when the focus of businesses on a large number of lesser-volume crisis adaptation investment projects caused the average loan volume to drop sharply.

Figure 30: Average loan amount (for investment purposes)

In EUR thousands; per business

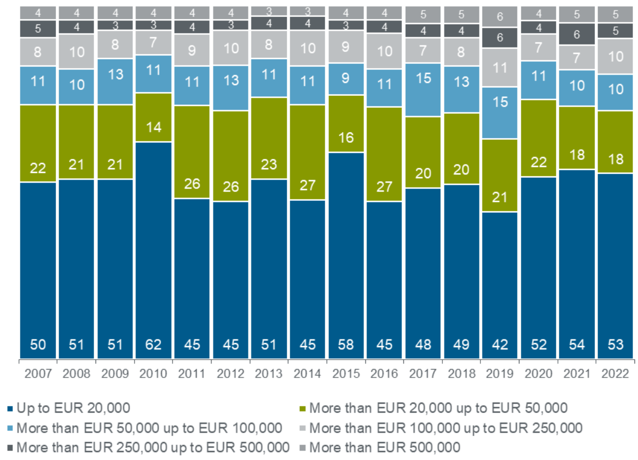


Source: KfW SME Panel 2023

A closer look at the categories of loan amounts again reveals the predominance of microloans (Figure 31): 71% of all investment loans taken up in 2022 were for a maximum of EUR 50,000, and 81% of all investment loans had a maximum amount of EUR 100,000.

Figure 31: Bank loan amounts applied for by SMEs

Share of enterprises with bank loans exceeding a specified volume in per cent
Source:



KfW SME Panel 2023

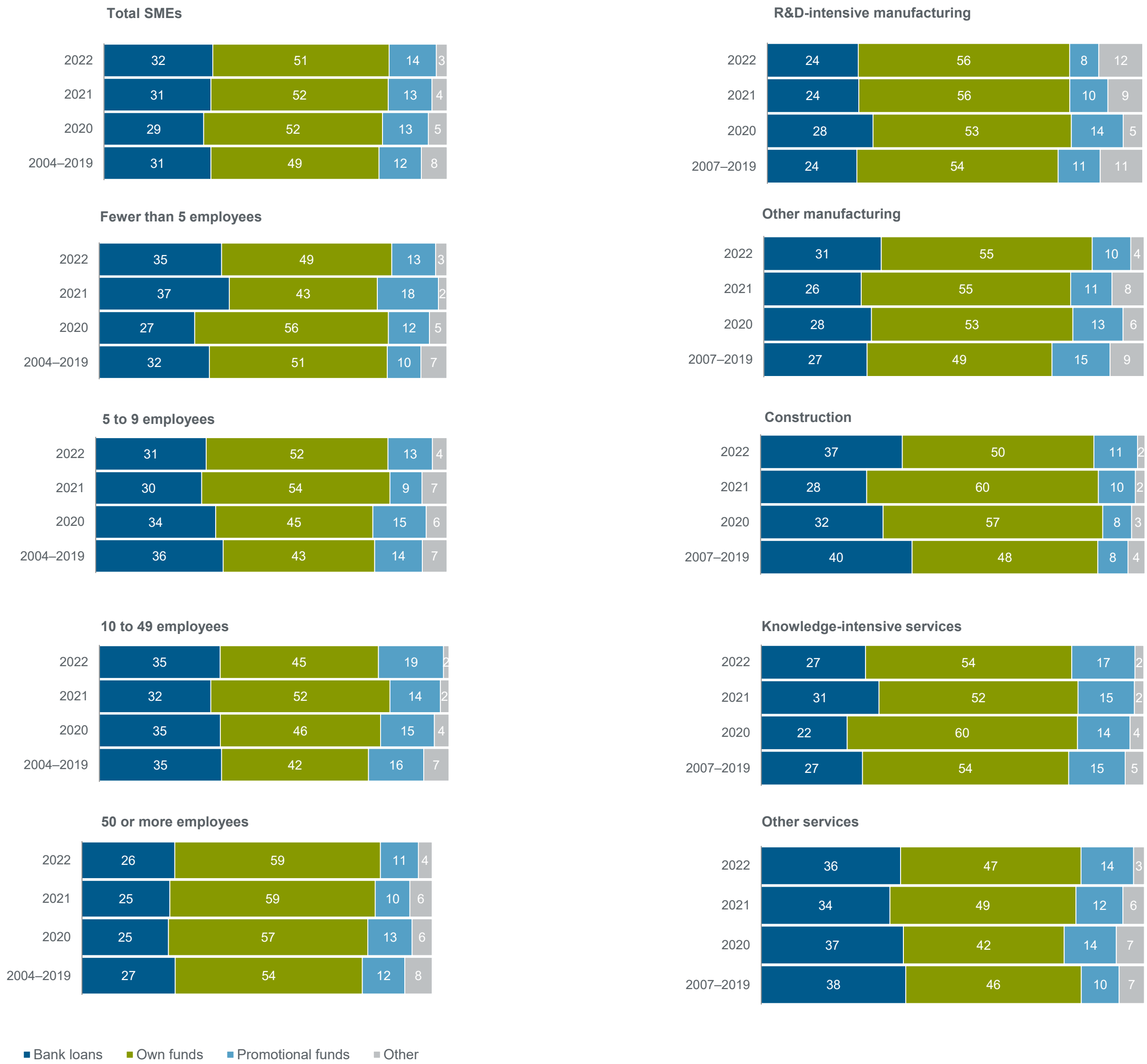
Average credit volume fell broadly across all size classes

In every size class examined, SMEs had lower average loan volumes in 2022 than in the previous year. A comparison across business size classes shows that in relative terms, average ticket size decreased most steeply among the group of micro-businesses with fewer than five employees. The average loan volume decreased here by 31% to now EUR 32,000 (long-term average 2007–2021: EUR 39,000). Consequently, the relevance of bank loans to finance investments dropped slightly for micro-businesses. The total volume of bank loans used fell slightly from EUR 17 billion to EUR 16 billion. The share of bank loans in the funding mix fell slightly by 2 percentage points to 35% but remained above the long-term average (2007–2021: 32%).

Large SMEs also recorded a decline in average absolute loan amounts in 2022. In this size segment, the average loan amount decreased by EUR 180,000 on the previous year to EUR 678,000 (-24%). That was well below the long-term average for this group of enterprises (2007–2021: EUR 823,000). Still, because of the enormous rise in borrowers in 2022 (+46% among larger SMEs), the total volume of credit used by these enterprises nonetheless increased by EUR 2 billion to EUR 23 billion. The relevance of bank loans in the funding mix of this group also grew overall (+1 percentage point to 26%).

Figure 32: SME investment finance by size class and sector

Size classes by full-time equivalent employees, shares in investment volume in per cent compared with the average of the years 2004–2019



Note: The category 'Other' comprises, among others, mezzanine capital and private equity.

Source: KfW SME Panel 2023

High volume of promotional loans for investment finance

In addition to investment loans from banks and savings banks, the use of public promotional funds represented the second major building block of external funding for SMEs' investment projects. In 2022 the volume of promotional funds used by SMEs for investment purposes amounted to EUR 33 billion, an increase of EUR 6 billion on the previous year. The share of promotional funds in total investment volume increased by 1 percentage point to 14% (Figure 32). Along with the also increased share of bank loans, promotional funds played a very important role in investment finance in the year under review, at 47% (EUR 109 billion in total). Only in 2018 was the share higher (49%).

The fact that promotional funds did not play an even larger role can be attributed to the clearly decreasing use of promotional funds in the financing of investments by micro-businesses. In that segment, the share of promotional funds in the funding mix fell by 5 percentage points to 13%, with EUR 2 billion less employed than in the previous year. By contrast, the share of promotional funds used by small SMEs with five to nine employees and medium SMEs with 10 to 49 employees increased by 4 and 5 percentage points, respectively. That represented a EUR 6 billion increase. Larger SMEs also reported a slight increase (+1 percentage point or +EUR 1 billion).

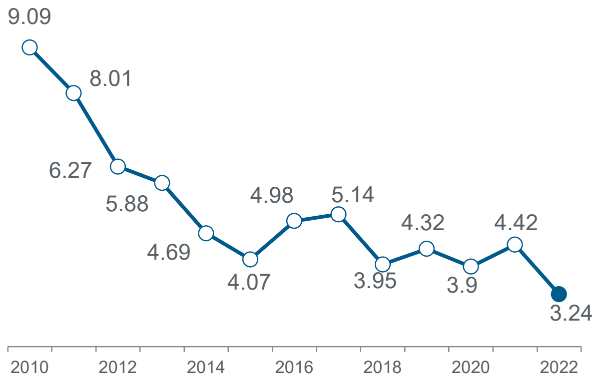
At EUR 7 billion, other sources such as private equity or mezzanine capital were once again used less than in previous years, representing a share of 3% of total financing volume (-1 percentage point, or -EUR 2 billion, on 2021). Currently there is hardly any major movement here, and a longer-term downward trend is visible instead. In the mid-2000s the importance of other funding sources was still well above 10%.

SMEs' debt sustainability remained very high; interest expenditure continued on a low level

Small and medium-sized enterprises generally had outstanding debt sustainability in 2022. The proportion of what are referred to as zombie enterprises is an indicator of this.[38] These are generally defined as businesses whose low profitability prevents them from meeting their interest obligations. The slightly lower profit margins in the SME sector last year did not bring about any deterioration in their debt sustainability. Rather, the share of companies with such critical debt sustainability ratios ('zombie enterprises') stood at a very low 3.24% in 2022 (Figure 33). Some 123,000 SMEs were unable to meet their interest obligations from their operating profit. Or phrased the other way around, almost 97% of all SMEs have sufficient debt servicing capacity.

Figure 33: SMEs with critical debt sustainability ('zombie companies')

Percentage of businesses in total SME sector



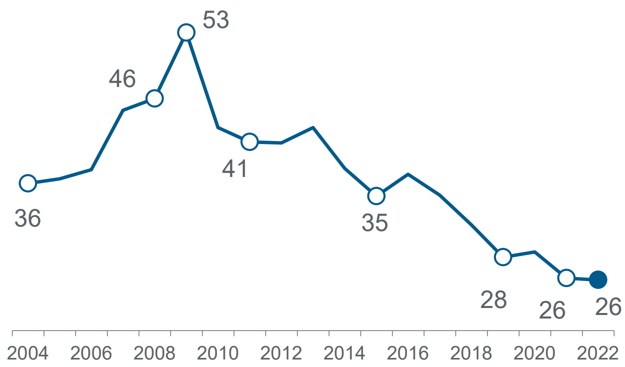
Note: For the purpose of operationalisation, interest obligations were compared with income from operational activity (i.e. earnings before interest, taxes and depreciation (EBIT)). If the quotient of operating profit and interest expenses (interest coverage ratio) is less than 1, an enterprise is classified as a zombie company. The classification also assumes a minimum age of ten years.

Source: KfW SME Panel 2023

The very favourable financing conditions of the past have greatly contributed to the current high debt sustainability levels. This is evident from SMEs' annual interest expenses. After the peak of EUR 53 billion in the year 2009, interest expenses amounted to EUR 26 billion in each of the past two years (Figure 34). However, it is plausible that this volume will grow significantly in the years ahead because interest rates on corporate loans have risen considerably. Interest expense can be expected to rise already in the current year 2023, so that the debt capacity of some businesses will likely be put to a harder test.

Figure 34: Annual interest expenses for investment loans in the SME sector

EUR in billions



Source: KfW SME Panel 2023

More than EUR 120 billion in own funds was used to finance investment

SMEs traditionally fund the lion's share of their investment expenditure with funds of their own (for example, via cash flow or reserves). That was also the case in 2022. The total volume of own funds employed by SMEs amounted to EUR 123 billion last year. Small and medium-sized enterprises in Germany employed the highest ever volume of own resources to finance their investment projects, driven by the increase of 11% or +EUR 12 billion caused by the expansion of investment volume. The share of own funds in total funding is around 51% (-1 percentage point). In this, large SMEs with 50 and more employees employ the highest share of own funds (59%), while businesses with 10 to 49 employees use the lowest share (45%).

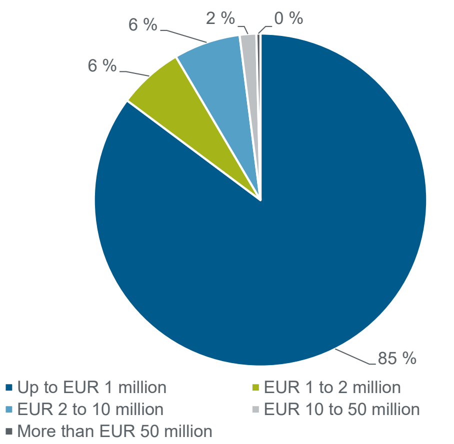
The structure of SMEs in 2022

Under the definition used here, the SME sector covers all enterprises in Germany with an annual turnover of not more than EUR 500 million. That means there were around 3.81 million SMEs in Germany in the year 2022. The SME sector thus accounts for 99.95% of all enterprises in the country. Around 3.1 million SMEs are domiciled in the western German states (82%), while 686,000 (18%) are domiciled in eastern Germany.

SMEs are very small on average

The large majority of SMEs in Germany is small (Figure 35). A share of 83% (3.17 million businesses) generate annual sales turnover of less than EUR 1 million. Fewer than 0.5% (or approx. 17,000) SMEs generate annual sales turnover of more than EUR 50 million.

Figure 35: SMEs by annual turnover in 2022

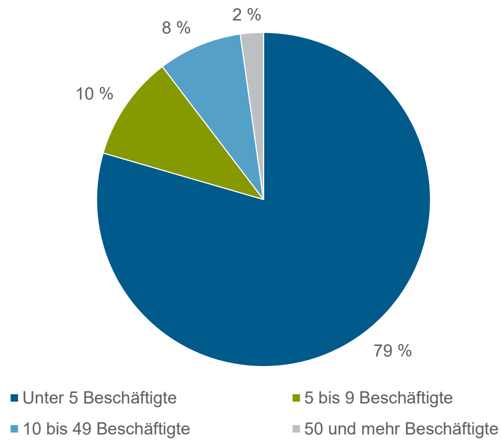


Source: KfW SME Panel 2023

The fragmented nature of the SME sector is also reflected in the numbers of employees (Figure 36). Eighty per cent of SMEs (micro-businesses, 3 million) have fewer than five employees. That share has grown by around 2 percentage points since the turn of the millennium. Ten per cent of SMEs have five to nine employees (small firms), 8% have 10 to 49 employees and 2% have a workforce of 50 or more.

In 2022, the average SME size in Germany was 8.6 full-time equivalent employees (median is 2.5), or roughly 8.5 workers, as in the previous year. The SME sector has become more fragmented in the past years, mostly as a result of increasing tertiarisation.

Figure 36: SMEs by number of employees in 2022

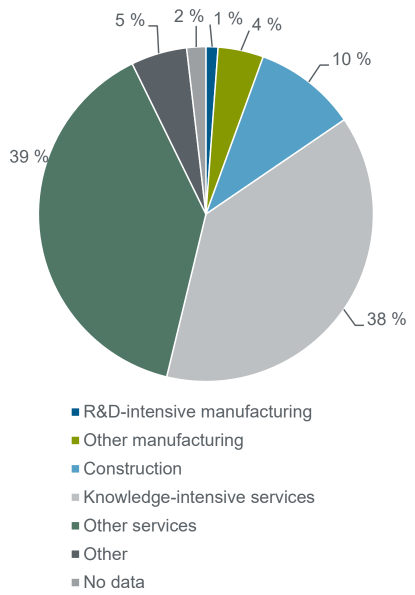


Source: KfW SME Panel 2023

Growing focus on services

Service industries are increasingly dominating economic activity. The majority of German SMEs are service providers (Figure 37), of which 2.94 million – or 77% of all SMEs – operate in service industries, with some 1.5 million of them providing knowledge-intensive services, a trend that continues to rise.

Figure 37: SMEs by sector in 2022



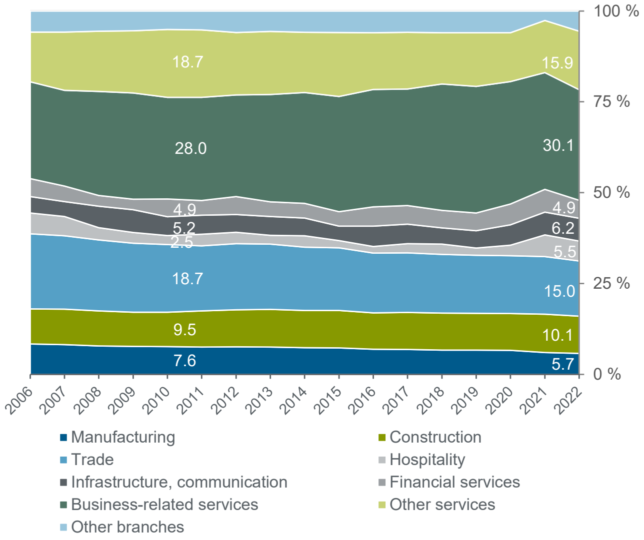
Source: KfW SME Panel 2023

There are many different causes for the shift towards services. One of them is outsourcing or contracting of what were previously in-company services to third-party companies (for example, IT maintenance, data storage, personnel recruitment, legal affairs and tax matters). These decisions are based on considerations relating to costs, specialisation and division of tasks. Another factor is that structural developments have created an increased demand for services for some time now (driven by demographic change and the growing proportion of small households, for example). Among the knowledge-intensive services, the subsegment of business-related services accounts for the largest and growing share (Figure 38).

In 2022, around 1.2% of all SMEs were R&D-intensive manufacturers (around 44,000 enterprises). Manufacturing generally accounts for a relatively low share of approx. 5.7% of all small and medium-sized enterprises but employs approx.16% of the entire workforce. On average, they have around 24 employees, a very high number.

Figure 38: Shifts in sectoral structure of SMEs from 2006 to 2021

Sectoral shares in per cent each year



Sources: KfW SME Panel 2007–2023

SMEs at a glance

In per cent, unless otherwise specified

	2016	2017	2018	2019	2020	2021	2022
Investments							
Total share of investors	42	38	42	39	46	38	43
Share of investors <5 full-time equivalent employees	37	32	37	34	40	32	37
Share of investors ≥ 50 full-time-equivalent employees	85	81	85	83	85	83	86
Total investment volume (EUR in billions)	204	211	220	222	204	215	240
Investment volume <5 FTE employees (EUR in billions)	46	51	42	49	44	44	46
Investment volume ≥50 FTE employees (EUR in billions)	83	86	94	91	79	83	87
Volume of investment in new machinery, equipment and buildings (EUR in billions)	169	176	184	187	173	183	211
Investment finance							
Borrowings to finance investments (EUR billion)	61	65	75	81	59	67	76
Rate of loan denials (in per cent)	13	15	11	12	14	12	11
Net profit ratio[a]							
Average return on sales	7.3	7.2	7.4	7.5	7.3	7.4	7.0
Average return on sales <10 FTE employees	14.0	14.6	15.0	14.6	14.0	13.8	11.8
Average return on sales ≥50 FTE employees	4.4	4.2	4.2	4.3	4.2	5.1	5.0
Proportion of SMEs with losses	10	9	9	9	12	8	10
Equity base[b]							
Average equity ratio	30.0	31.2	31.2	31.8	30.1	31.4	31.2
Average equity ratio <10 FTE employees	22.5	22.6	22.4	22.2	17.4	23.7	22.8
Average equity ratio ≥50 FTE employees	33.6	33.9	34.8	37.0	36.4	35.0	34.7
Proportion of SMEs with negative equity ratio	10	8	8	4	4	5	6
Employment trends[c]							
Total employment growth rate	2.7	2.7	3.3	1.9	-0.3	1.0	1.6
FTE growth rate <5 FTE employees	2.1	1.6	2.1	2.0	-0.7	-0.4	1.2
Development of turnover[c]							
Total turnover growth rate	3.9	4.7	4.9	3.5	-1.3	6.1	10.0
Turnover growth rate <5 FTE employees	3.6	2.8	6.1	3.9	-3.7	2.5	7.7

* Note: [a] Mean values weighted with turnover. [b] Mean values weighted with total assets, projections only for enterprises with accounting obligations and excluding individual enterprises / sole traders. [c] Missing information on FTE employees and turnover was not imputed, calculations not including growth rates below the 1% and above the 99% quantile.

KfW SME Panel

The KfW SME Panel (KfW-Mittelstandspanel) has been conducted since 2003 as a recurring postal survey of small and medium-sized enterprises in Germany with annual turnover of up to EUR 500 million. Thus far, 21 waves have been completed.

With a database of up to 15,000 companies a year, the KfW SME Panel is the only representative survey of the German SME sector, making it the most important source of data on issues relevant to SMEs. As it is representative of all SMEs of all sizes and across all industries in Germany, the KfW SME Panel offers the possibility to conduct projections for micro-businesses with fewer than five employees as well. A total of 11,328 SMEs took part in the current wave.

The KfW SME Panel is used as the basis for analyses of long-term structural developments in the SME sector. It provides a representative picture of the current situation and the needs and plans of SMEs in Germany. It focuses on annually recurring information about companies' performance, investment activity, financing structure and innovation and digitalisation activity. This tool offers a unique opportunity to determine quantitative key figures for SMEs such as investment spending, borrowing and equity ratios.

The basic population used for the KfW SME Panel comprises all SMEs in Germany. These include private-sector companies from all sectors of the economy with annual turnover of not more than EUR 500 million. The population does not include the public sector, banks or non-profit organisations. Currently there are no official statistics providing adequate information on the number of SMEs or the number of people they employ. In order to determine the population of SMEs for 2022 and the population of employees at SMEs in 2022, the German Company Register (Unternehmensregister) and the official employment statistics (Erwerbstätigenrechnung) were used as a basis for the 2023 survey.

The KfW SME Panel sample is designed in such a way that it can generate representative and reliable data. The sample is split into four groups: type of promotion, branches, firm size as measured by the number of employees, and region. In order to draw conclusions on the basic population based on the sample, the results of the survey are weighted/extrapolated. The four main group characteristics are used to determine the extrapolation factors. These factors look at the distribution in the net sample (in line with the four group characteristics) in relation to their distribution in the population as a whole. Overall, two extrapolation factors are determined: an unlinked factor for extrapolating qualitative parameters to the number of SMEs in Germany, and a linked factor for extrapolating quantitative parameters to the number of employees in SMEs in Germany. Details can be obtained from the Volume of tables relating to the KfW SME Panel (in German).

The survey is conducted by the Marketing & Consumer Intelligence Division of GfK SE on behalf of KfW Group. The project received expert advice from the Centre for European Economic Research (ZEW) in Mannheim. The main survey of the 21st wave was conducted in the period from 6 February 2022 to 16 June 2022.

Supplementary survey to the KfW SME Panel

The analyses on the situation of enterprises in 2023 (turnover trends, investment activity, access to finance) were based on an additional supplementary survey to the KfW SME Panel 2023 conducted in early September 2023. All enterprises that had already participated in an earlier wave of the KfW SME Panel and had provided a valid email address were surveyed. Responses from a total of 2,718 enterprises were evaluated. As the supplementary survey was linked to the main database of the KfW SME Panel, its results also provided a representative picture.

Further information can be obtained at **www.kfw-mittelstandspanel.de**.

[1] Scheuermeyer, P.; Borger, K. and Schoenwald, S. (2023), KfW Economic Compass August 2023, Headwinds abound, but a consumption-driven recovery is on the cards, KfW Research.

[2] Scheuermeyer, P. (2023), Wettbewerbsfähigkeit nach dem Gaspreisschock: Auf Energiepreise und Effizienz kommt es an (Competitiveness after the gas price shock: energy prices and efficiency are what matters – in German), Focus on Economics No. 434, KfW Research.

[3] Borger, K. (2023) KfW-ifo SME Barometer September 2023 – SME business sentiment is bottoming out, KfW Research.

[4] Herold Esteves, J. G. (2022), KfW-ifo Credit Constraint Indicator Q4 2022: The situation in the credit market has become increasingly difficult for businesses, KfW Research.

[5] Schoenwald, S. (2023), KfW-ifo Credit Constraint Indicator Q3 2023: Challenges are mounting for businesses requesting loans (forthcoming), KfW Research.

[6] Gerstenberger, J. (2018), Kreditverhandlungen – Warum so viele KMU darauf verzichten (Loan negotiations – why so many SMEs forego them– in German only), Focus on Economics No. 207, KfW Research.

[7] Inflation rate was +7.9% in the year 2022 – Federal Statistical Office (destatis.de)

[8] There is no general deflator for aggregate turnover volume or a general price index that could be applied to turnover volume in the business sector. The Federal Statistical Office uses different deflators for various economic sectors or segments, and some of them are very detailed. There are very few possibilities for making such a distinction on the basis of the KfW SME Panel. For this reason we applied the deflator of gross domestic product to adjust SME turnover for prices.

[9] Knowledge-intensive services comprise service subsectors with an above-average share of university graduates in total employment, or services with a strong focus on technology. These include, for example, architecture and engineering firms, law firms, tax and management consultancies, data processing and telecommunication services. The definition is based on what is known as the NIW/ISI list of research-intensive industries and services, which in turn follows the Federal Statistical Office's 'Classification of Economic Activities (WZ 2008)'.

[10] Other services includes many SME retailers or wholesalers. Among them are businesses operating in the areas of nursing, training, culture and sport.

[11] Federal Statistical Office (2023), Press conference 'Gross domestic product of 2022 for Germany' – statement by Dr Ruth Brand, Stefan Hauf, Michael Kuhn and Peter Schmidt.

[12] Cf. Schwartz, M., and Gerstenberger, J., (2021), KfW SME Panel 2021: SMEs have have shown adaptability in the coronavirus crisis but cracks are appearing in the foundations of small businesses, KfW Research.

[13] The German Federal Statistical Office defines e-commerce as the buying and selling of products and services through electronic networks, especially via the internet or an EDI (electronic data interchange between computer systems of different enterprises). In order to count as e-commerce, the activity must involve ordering products or services using these electronic networks. Payment and delivery can be made using conventional means. A large portion of e-commerce consists of automated transmission and further handling of recurring and easily predictable orders as part of business processes between enterprises.

[14] Federal Statistical Office (2023), 2022 turnover in retail trade down a real 0.6% on 2021, press release No. 039 of 31 January 2023, Wiesbaden.

[15] German Retail Federation (HDE) (2023), half-yearly HDE press conference 2023, https://einzelhandel.de/hdepk.

[16] Profit margin is defined as the ratio of pre-tax profit to turnover. The figure shows the mean values of profit margin weighted against turnover.

[17] This is indicated by findings from the spring, see: Creditreform Wirtschaftsforschung (2023), Wirtschaftslage und Finanzierung im Mittelstand: Frühjahr 2023 (*Economic situation and financing in the SME sector* – our title translation, in German), Verband der Vereine Creditreform e.V., Neuss: https://www.creditreform.de/fileadmin/user_upload/central_files/News/News_Wirtschaftsforschung/2023/Wirtschaftslage_Mittelstand/2023-04-26_AY_OE_MIT-fruehjahr-2023.pdf

[18] The observed shifts between September 2022 and March 2023 are likely primarily the result of gradually easing uncertainty around the topic of energy costs. One reason for this is that the measures adopted so far to reduce the energy consumption of a very large number of SMEs are having an effect. Besides, the situation in the energy price markets has been easing substantially since last autumn. The declines in market prices are likely to encourage many company bosses to hope for steady prices in the future. Furthermore, the price increases which the majority of enterprises initially feared have likely either not materialised at all because they were already locked into long-term individual agreements or been realised by now under new or amended supply agreements. This provides greater clarity on the burdens and development of energy costs within the individual enterprise. In addition, the Federal Government introduced an energy price brake on gas, electricity and district heat in the winter in order to provide relief for businesses and households in an environment of sharply higher energy prices. The price brake caps the price on a predetermined level (such as 40 euro cents per kWh of electricity for small businesses) for 80% of the previous year's consumption and will remain in effect until April 2024. Not only does the price brake provide actual relief for businesses currently affected by the price cap; most of all, it also likely gives them planning certainty about future price developments.

[19] Schwartz, M and Grewenig, E. (2023), Hohe Energiekosten im März 2023 für deutlich mehr Unternehmen im Mittelstand finanziell gut zu verkraften (High energy costs in March 2023 easy to manage for significantly more SMEs – in German only), Focus on Economics No. 426, KfW Research. – Schwartz, M., Abel-Koch, J. and Brüggemann, A. (2022), Hohe Energiekosten durch den Krieg in der Ukraine – in der Breite des Mittelstands (noch) tragbar (High energy costs as a result of the war in Ukraine – (still) bearable for most SMEs – in German), Focus on Economics No. 403, KfW Research.

[20] Schwartz, M., Brüggemann, A. and Schwarz, M. (2022), Energiekosten im Mittelstand steigen: Unternehmen geben Preiserhöhungen weiter und ergreifen Maßnahmen zur Energieeinsparung (SMEs' energy costs are rising: businesses are passing price rises on and taking measures to save energy – in German), Focus on Economics No. 384, KfW Research.

[21] Schwartz, M., Brüggemann, A. and Schwarz, M. (2022), Energiekosten im Mittelstand steigen: Unternehmen geben Preiserhöhungen weiter und ergreifen Maßnahmen zur Energieeinsparung (SMEs' energy costs are rising: businesses are passing price rises on and taking measures to save energy – in German), Focus on Economics No. 384, KfW Research.

[22] The relevant findings from the supplementary COVID-19 surveys to the KfW SME Panel can be found here: Schwartz, M., and Gerstenberger, J., (2020), SMEs are firmly in the grip of the coronavirus crisis but (still) holding on strong, Focus on Economics No. 286, KfW Research. – Schwartz, M., and Gerstenberger, J., (2020), Coronavirus crisis in Germany's SMEs: Return to full economic activity still far off, but gradual opening has eased pressure on liquidity, Focus on Economics No. 294, KfW Research. – Gerstenberger, J. And Schwartz, M. (2020), KfW SME Panel 2020: Coronavirus pandemic has dampened expectations for 2020 – SMEs entered the crisis from a strong position, KfW Research. – Schwartz, M. and Gerstenberger, J. (2021), Zwar belastet die Corona-Krise den Mittelstand auch zu Jahresbeginn, allerdings bleibt die Lage trotz des Lockdowns stabil (*The coronavirus crisis is weighing on SMEs at the start of the year too, but the situation is steady despite the lockdown* – German only), Focus on Economics No. 315, KfW Research. – Gerstenberger J. (2021), Licht am Ende des Tunnels – die Lage im Mittelstand entspannt sich (*Light at the end of the tunnel – the situation in the SME sector is improving* – German only), Focus on Economics No. 333, KfW Research. – Schwartz, M. (2022), Corona-Betroffenheit im Mittelstand nimmt wieder zu: Personalausfälle häufen sich, aber finanzielle Lage intakt (Coronavirus impact on SMEs is worsening again, but financial situation is intact – German only), Focus on Economics No. 374, KfW Research. – Schwartz, M. (2022), KfW SME Panel 2022: SMEs have largely digested the pandemic, but the war in Ukraine and the energy crisis are clouding the business outlook, KfW Research.

[23] Federal Statistical Office (2023), Erwerbstätigkeit entwickelt sich im Juli 2023 weiter stabil (Employment stabilised again in July 2023 – our title translation, in German), press release No. 345 of 31 August 2023, Wiesbaden.

[24] Borger, K. (2023), KfW-ifo SME Barometer July 2023 – The mood at the start of the summer quarter has turned sour, KfW Research

[25] ifo Employment Barometer Falls (July 2023) | Facts | ifo Institute

[26] Domestic product – quarterly results – Fachserie 18 Reihe 1.2 – 1st quarter 2023 (destatis.de)

[27] The employment growth rate described here was determined on the basis of full-time equivalents (FTEs). As opposed to showing the number of persons in

gainful employment, this concept maps actual labour demand. FTE employees are calculated from the number of full-time employees (including business owners) plus the number of part-time employees multiplied by a factor of 0.5. Apprentices are not included.

[28] Research- and development-intensive (R&D intensive) manufacturing is defined as those manufacturing subsectors whose average research and development intensity (R&D intensity: ratio of R&D expenses to turnover) is higher than 3.5%. The definition is based on what is known as the NIW/ISI list of research-intensive industries and services, which in turn follows the Federal Statistical Office's 'Classification of Economic Activities (WZ 2008)'. Engineering, medical technology, instrumentation and control technology, vehicles, pharmaceuticals and office equipment are of particular quantitative importance.

[29] The equity ratio is defined as the quotient of equity and balance sheet total. The figure shows the mean values of the equity ratio weighted against the balance sheet total. The calculations apply only to enterprises required to draw up balance sheets.

[30] The subsegment of other manufacturing (non-R&D-intensive manufacturing) is mainly represented by enterprises operating in the food industry, wood processing and the manufacture of metal products, as well as other manufacturing not further specified.

[31] If the median exceeds the mean, the distribution is negatively skewed (left-skewed). With respect to the equity ratio this means that a large portion of enterprises have a similar equity ratio but few enterprises have a noticeably lower one.

[32] Gerstenberger, J. (2023), Anpassungsfähigkeit des Mittelstands in der Energiekrise zeigt Wirkung – Druck auf Eigenkapitalquoten lässt nach (Adaptability of SMEs in the energy crisis is showing results – pressure on equity ratios is falling – in German only), Focus on Economics No. 436, KfW Research.

[33] Schwartz, M., Brüggemann, A. and Schwarz, M. (2022), Energiekosten im Mittelstand steigen: Unternehmen geben Preiserhöhungen weiter und ergreifen Maßnahmen zur Energieeinsparung (SMEs' energy costs are rising: businesses are passing price rises on and taking measures to save energy – in German), Focus on Economics No. 384, KfW Research. Further data from March 2023 confirms enterprises' pronounced activities (primarily aimed at reducing energy costs, see Schwartz, M and Grewenig, E. (2023), Hohe Energiekosten im März 2023 für deutlich mehr Unternehmen im Mittelstand finanziell gut zu verkraften (High energy costs in March 2023 easy to manage for significantly more SMEs – in German only), Focus on Economics No. 426, KfW Research.

[34]In the past 15 years the relative importance of service enterprises for SMEs' investment activity has grown by nearly one third. This also reflects the general transformation of the business landscape towards services. There are multiple reasons for this development. One of them is that businesses have been outsourcing or contracting what were previously in-company services to third-party companies. These decisions are based on considerations relating to costs, specialisation and division of tasks. Another factor is that structural developments have created increased demand for services for some time now (driven by demographic change and the growing proportion of small households, among other factors).

[35] Gross fixed capital formation in the business sector comprises private sector investment in machinery and equipment plus construction (without residential construction).

[36] The major revision of national accounts and the associated modification to the concept of investment has been applied since the 2015 reporting period of the KfW SME Panel. Of particular relevance for enterprises is expenditure on research and development, which is now reclassified as gross fixed capital formation since implementation in 2014 of the European System of National and Regional Accounts of 2010 (ESA 2010). All time series of national accounts that have been revised for conceptual reasons for the period from 1991 are available. This has led to an increase in the volume of gross fixed capital formation and depreciation across the entire economy in comparison with previously reported figures. For reasons of data collection, the revision cannot be applied to the investment and depreciation volumes of SMEs. The reported volumes thus do not change in comparison with earlier years. Instead the volumes have been modified for the entire business sector, the overall economy and, consequently, also for large enterprises. Due to the limitations on the collection of data pertaining to the changed investment concept, the volumes relating to SMEs tend to be underestimated and, accordingly, those of large enterprises overestimated.

[37] In order to determine the absolute volumes of net investment overall in both the SME and overall business sector in Germany, KfW SME Panel data were coupled with investment data provided by the Federal Statistical Office on the entire business sector. The investment and depreciation volume in the SME sector is surveyed in the context of the KfW SME Panel. Total business investment is calculated by adjusting gross fixed capital formation for investment by the state and in residential construction. Depreciation in the business sector is calculated in the same way. The underlying data were obtained from Fachserie 18, Reihe 1.4 of the Federal Statistical Office. The investment volume as well as the depreciation volume of large enterprises (with an annual turnover of more than EUR 500 million) are determined by subtracting the volumes calculated for SMEs from the corresponding values for the entire business sector.

[38] The debate around zombie companies is not new. They are generally associated with weak growth, reluctance to invest or productivity deficits. A few years ago, the low-interest-rate environment was seen as a potential driver. It was to serve as a lever for creating incentives to invest more. The concern was that continuing to inject capital would enable even financially weak businesses to remain in the market with support. However, there was nothing to suggest that the share of financially weak enterprises may have grown.