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SMEs have shown adaptability in the coronavirus crisis but cracks are appearing in the foundations of small businesses

Annual analysis of the structure and development of SMEs in Germany

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SMEs have shown adaptability in the coronavirus crisis but cracks are appearing in the foundations of small businesses

The coronavirus pandemic has hit Germany's SMEs hard. The turnover losses of EUR 277 billion which small and medium-sized enterprises suffered last year clearly reflect this. Compared with the economic and financial crisis, the cuts were deep but manageable. The same applies to employment, as SMEs made moderate cuts to their workforce. These are the findings of the KfW SME Panel 2021, which provides a detailed picture of the situation of SMEs in the crisis.

It shows that SMEs are feeling the burden of the pandemic but generally appear to have gotten through the crisis year with few bruises. Rapid adjustments to business models and, above all, strong growth in digital sales of products and services have often proven to be a lifesaver and prevented worse outcomes. They enabled firms to mitigate turnover losses. Similar developments can be expected for 2021. Currently, one in three businesses expect further losses in turnover. However, medium-term expectations are already settling at a normal level. That gives rise to hope, particularly since businesses are currently observing an upward trend. According to their own reports, turnover losses have recently fallen significantly. By contrast, supply chain disruptions have grown noticeably of late.

Despite sharp losses in turnover, SMEs were able to continue operating profitably. Their profit margin fell only minimally and proved to be crisis-resilient. Among retailers it even increased. Overall, the multiple economic stabilisation and support measures aimed at offsetting turnover losses have probably turned out to be effective.

Pressure on the earnings situation is visible but has been less severe than expected. Thus, the widely feared massive depletion of the equity base across the breadth of the SME sector has not materialised (for the time being). In the aggregate, the equity ratio has fallen only moderately, although a closer look reveals a very uneven distribution. Large SMEs experienced barely perceptible falls, while small businesses suffered steep declines. Their equity ratio fell to a 15-year low. These SMEs are at greater risk of overindebtedness. Among micro-businesses, average turnover losses were also highest.

The coronavirus crisis will probably end up placing a burden on the capital structure of a number of

businesses this year as well. A swift recovery of equity ratios in the SME sector should not be expected. Around one in four SMEs even expect their equity ratio to be lower in 2021 than at the end of 2020.

Businesses have made sharp cuts to capital expenditure. The coronavirus crisis dampened SMEs' investment appetite in 2020. Never before did so many enterprises put their plans on hold, postponing investment worth EUR 61 billion. The decline appears to have been on a similar scale in 2021. Foreseeably this will put a dampener on investment overall. New investment fell by 7%, declining in all segments. As large enterprises have also been less severely affected in general, the role of SMEs for total investment activity in the German business sector dropped to a new low.

It has become clear that the need to adapt or maintain business operations caused the number of investors to soar. At the same time, however, project size plummeted as smaller crisis adaptation investment projects predominated. This was also reflected in borrowing activity. While the number of borrowers skyrocketed (+25%), ticket sizes fell dramatically (-41%). Three quarters of all investment loans taken up were for a maximum of EUR 50,000. The near vertical drop in borrowing volumes and the significant rise in the number of borrowers are predominantly attributable to the response of small businesses.

The total volume of SME bank loans fell sharply as a consequence, plunging by 22%. Demand for long-term finance, in particular, has slumped. SMEs faced a difficult funding environment but the success rate of loan negotiations fell only slightly. Predictably, applications for public promotional funds to finance capital expenditure also picked up in 2020 (+5%). Furthermore, an increased use of own funds compensated for low borrowing volumes in the financing mix.

At the beginning of the year 2020, the coronavirus crisis hit Germany and the world unexpectedly and with force. Swift government action, however, mitigated the impact of the crisis for the business sector in Germany. On average for 2020, gross domestic product ultimately contracted by 'only' 4.8%, putting Germany in a better

position than most other G7 economies.

Growing vaccination rates and the risk-oriented lifting of restrictions generally provide hope that Germany will bring the coronavirus pandemic under control within a foreseeable period of time and durably overcome the past economic slump.

For 2021 as a whole, Germany’s GDP will likely have grown by 3% and already exceeded the pre-crisis level even before the end of the year. Thanks to growing consumer enthusiasm, the sectors that have been hit particularly hard by the pandemic such as hospitality are enjoying the long-awaited recovery. Manufacturing and construction are grappling with material bottlenecks, to be sure, but the outlook is very good thanks to an exceptionally strong order volume.

KfW Research has continually monitored the impact of the coronavirus crisis on German SMEs since its outbreak with representative supplementary surveys as part of the KfW SME Panel.¹ The report presented here on the situation of SMEs is based on the primary survey of the KfW SME Panel 2021, as well as on the most recent findings of the sixth supplementary coronavirus survey of September 2021, and therefore provides a comprehensive and up-to-date overall picture.

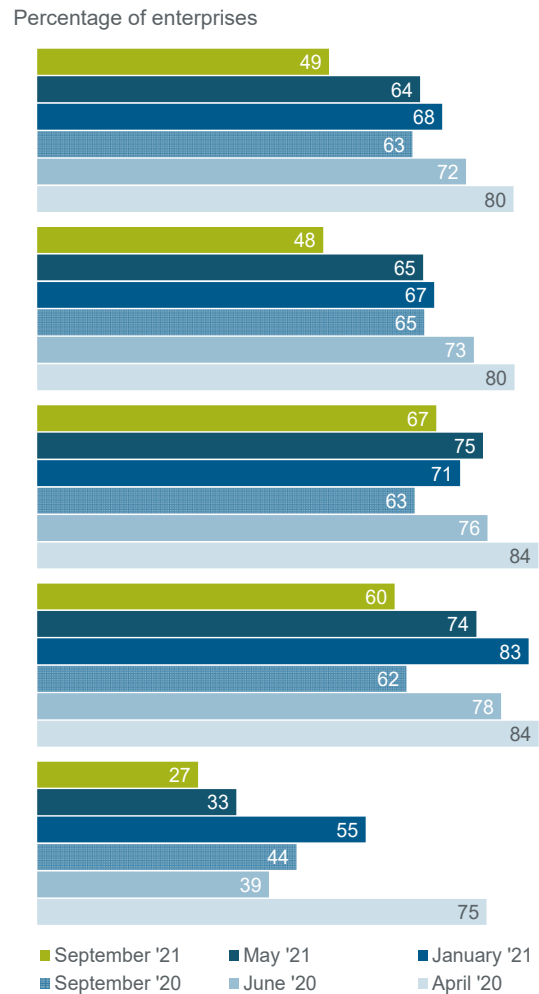
Impact of coronavirus crisis is weakening noticeably

The gradual easing of numerous pandemic restrictions that began in May has led to a significant decline in the impact of the coronavirus crisis on SMEs. But the crisis continues to heavily affect many businesses. At the beginning of September, around 1.9 million SMEs (49%, Figure 1, green bar) were still grappling with the consequences of the pandemic. That was around 560,000 fewer than in May.

The most vigorous recovery can be seen in service businesses (-17 percentage points) and the retail sector (-14 PP). These businesses benefited most from the lifting of many restrictions. In the manufacturing sector, by contrast, the impact of the coronavirus crisis has weakened less noticeably (-8 PP). That means SMEs in this sector are still more heavily affected by

the pandemic than those in other sectors (67%).

Figure 1: Impact of the coronavirus on SMEs

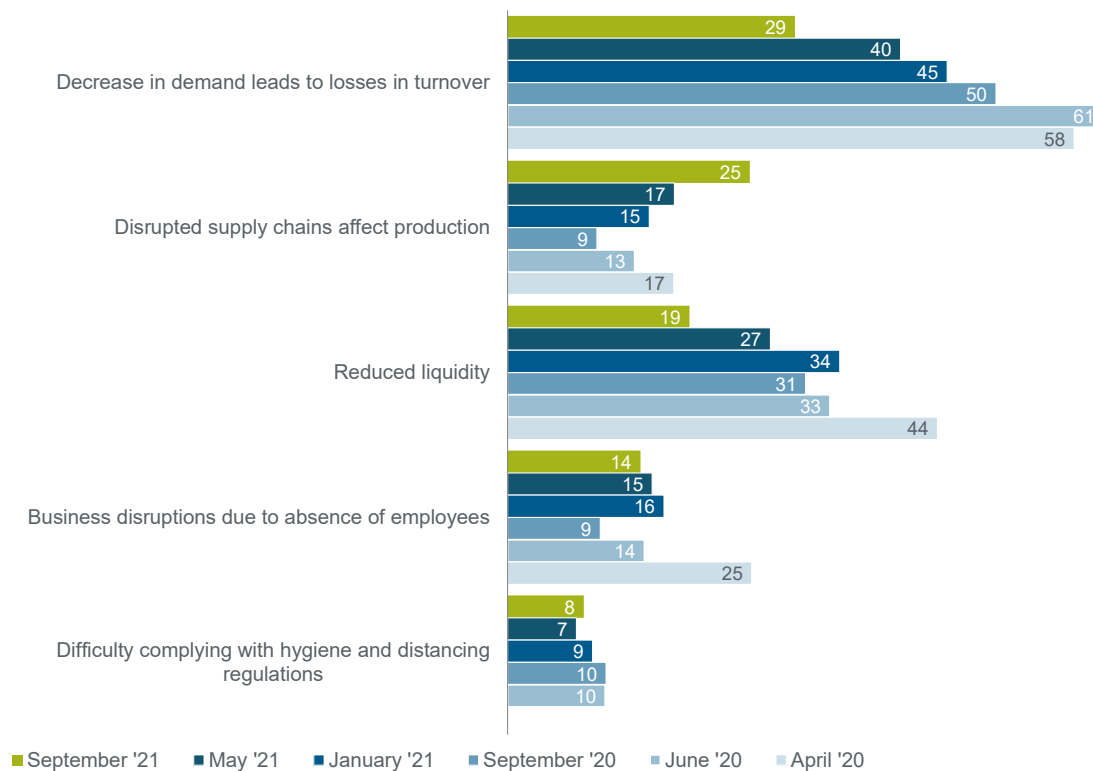


Sources: 1st to 6th supplementary coronavirus survey to the KfW SME Panel.

This depends mainly on what pandemic impact currently predominates (Figure 2). With the easing of restrictions in Germany, significantly fewer domestic SMEs are affected by declines in demand – particularly in the services and retail sectors. Only 29% of SMEs are still lamenting this, whereas that share was still 61% in June of last year. Accordingly, the liquidity situation of many SMEs has also continued to improve noticeably. Only around one in five businesses (19%) have reported a pandemic-induced drop in liquidity.

Figure 2: Current impact of the coronavirus crisis on SMEs (as at 9 September 2021)

Percentage of enterprises



Sources: 1st to 6th supplementary coronavirus survey to the KfW SME Panel.

By contrast, supply chain disruptions have increased again noticeably. They currently affect one in four SMEs overall – and half of SMEs in the manufacturing sector. This reflects not just the restrictions on cross-border trade in goods and services but tighter pandemic containment measures in place in other countries.²

However, there was only a small drop in reports about problems in keeping operations running due to employee absences. This continues to affect around 14% of SMEs. In the most recent survey in May that share was 15%. Employee absences due to quarantine, illness and the closure of schools or child daycare facilities are likely to have played a key role here. Sectors where remote working is hardly possible, in particular, reported more problems than average (manufacturing: 22%, construction: 21%).

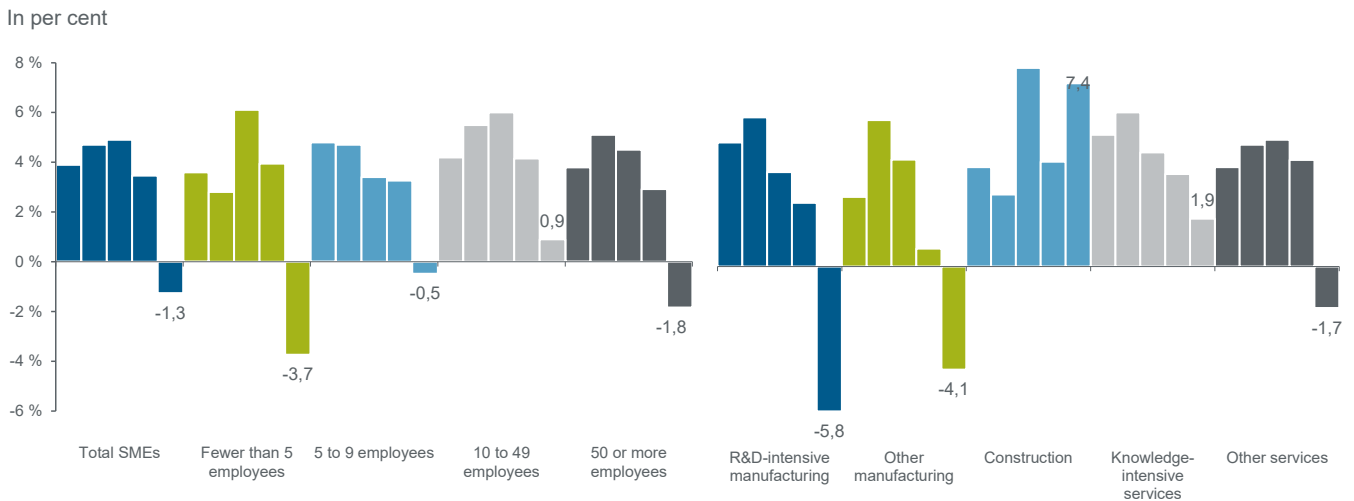
In September a similar proportion of businesses was still having problems complying with hygiene protocols

and distancing regulations as in the months before (8 vs. 7% in May).

Turnover losses: Things could have been worse ...

The coronavirus crisis and associated restrictions dealt a severe blow to SMEs in 2020. Business closures, restrictions on contacts, hygiene requirements and travel restrictions had the intended effect. The drop in turnovers, above all, shows the full force with which the coronavirus pandemic hit the SME sector. SMEs suffered turnover losses totalling EUR 277 billion in 2020, a drop of around 6%. Overall turnovers of small and medium-sized enterprises in Germany fell to EUR 4,349 billion during that year.

A large part of these turnover losses can probably be attributed to the first lockdown in the spring months of 2020. The gradual easing of restrictions paved the way for a vigorous recovery over the summer. But despite this catching-up process, SMEs managed to recover only part of the high turnover losses which they suffered in the first half of the year.

Figure 3: Annual turnover growth of SMEs by sector, 2016 to 2020

Source: KfW SME Panel 2017–2021.

The main reason was the renewed increase in infection rates in autumn and the new restrictions subsequently put in place from November. Unlike in the spring, however, this time there was much less damage to the overall economy. To be sure, hospitality, arts, entertainment and recreational venues were hit with closures again, as were most personal services. Retail outlets, on the other hand, remained open, and industrial output continued to grow on the back of the global recovery without any significant disruptions. But for a vast number of companies – especially those that rely on close contact to customers – it was anything but ‘business as usual’ almost all year long. In many cases, businesses could not fully utilise their capacities because of distancing and hygiene requirements. As a consequence, some businesses even decided to stay closed even when they were allowed to open.

As a result, the average turnover growth rate in 2020 was negative at -1.3% (Figure 3). Only few SME segments were able to avoid turnover losses. But although turnovers thus fell noticeably overall, losses appear to have been moderate compared with the decline of -6.2% in 2009 during the global economic and financial crisis and compared with the generally broad impact the coronavirus crisis had on the SME sector.

So overall, SMEs got through the crisis year with few bruises. Earlier expectations had anticipated higher losses. The fact that this did not happen may also be due to the simple fact that there were not just ‘crisis losers’. A shift in consumption meant that some SME segments were also able to benefit from the crisis. The primary beneficiaries were food retailers, drugstores, online shops, delivery services, logistics services, the pharmaceutical industry, as well as online services and

software companies. Likewise, rapid changes to business models and, above all, strong growth in digital sales channels often proved to be a lifesaver and prevented worse outcomes (see section below).

Other services recorded the highest losses

Even if the overall picture indicates that companies got away with a ‘black eye’, companies have indeed been impacted in very different ways. Other services businesses accounted for the largest share of aggregate turnover losses in the SME sector by far. This segment, which comprises 1.35 million SMEs, or 35% of all companies, does not just have multiple overlaps with stationary retail. It also includes, for example, personal services, catering and hospitality, broad sections of the tourism industry, nursing care, training and education, as well as arts, culture and sports. These are all sectors that were heavily affected by coronavirus restrictions. The losses there amounted to around EUR 161 billion for the year as a whole and averaged 1.7% per business (Figure 3).

The fact that this segment, which was heavily affected by coronavirus restrictions, did not suffer even higher turnover losses is probably due to the circumstance mentioned above that there were also businesses that experienced a significant increase in demand for their products and services. Turnover losses for R&D-intensive manufacturing businesses³, other manufacturing enterprises⁴ and knowledge-intensive services⁵ remained on a low level, with absolute losses of EUR 36 billion, EUR 26 billion and EUR 54 billion in 2020.

What is remarkable is that no subsegment of any sector is even close to the much higher negative growth rates seen in the global financial crisis. That is

because a significant share of businesses were able to continue operating largely unaffected under hygiene precautions despite the coronavirus crisis and some segments even managed to achieve higher turnovers.⁶ SMEs of the information and communication technology area also benefited. That contributed to limiting SMEs' aggregate turnover losses.

Construction businesses were also able to achieve higher turnovers (+EUR 20 billion in absolute terms, average turnover growth of 7.4%). The high growth rate achieved by construction SMEs is hardly surprising given that the boom in residential construction is continuing – despite the coronavirus crisis.

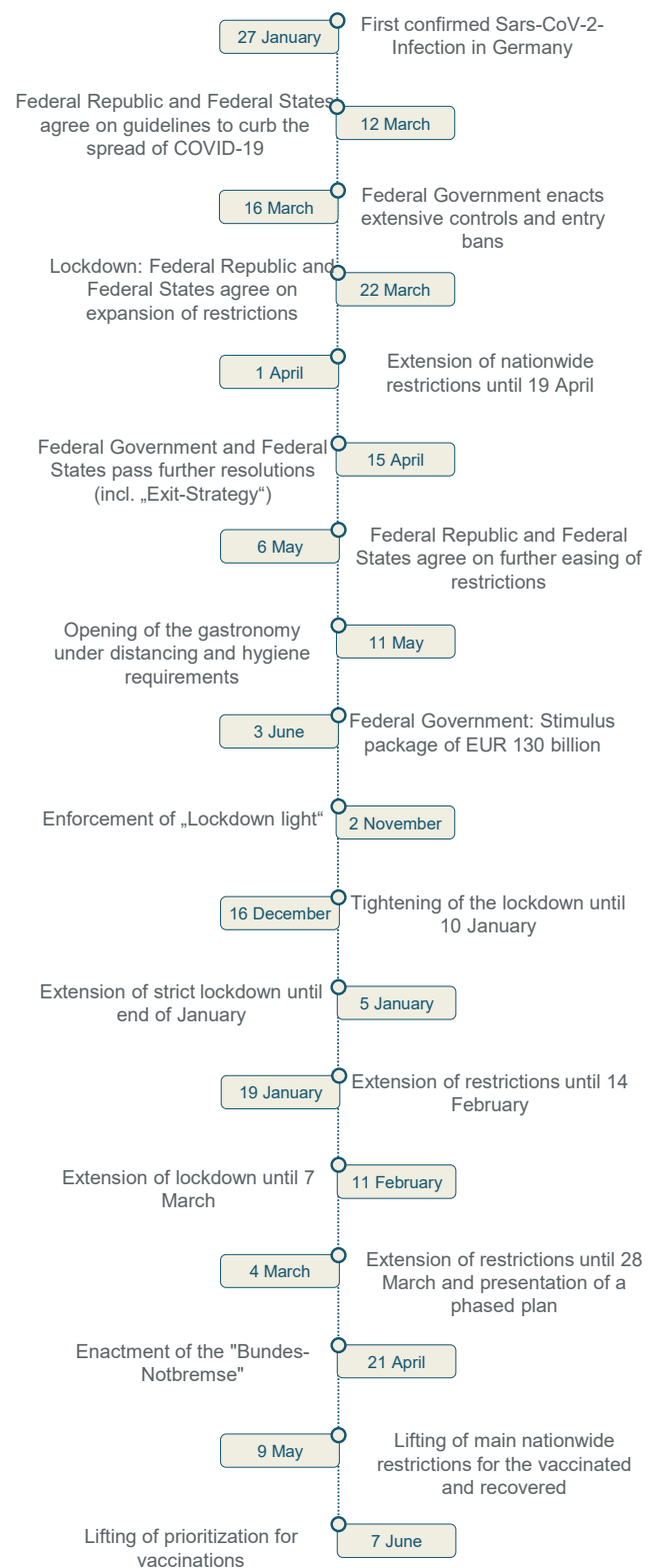
A comparison across business size classes shows that a high share of the 'volume losses' was suffered by large enterprises with 50 and more employees (-EUR 224 billion or an average loss of -1.8%). A further EUR 46 billion was lost in the segment of micro-businesses with fewer than five employees. Average turnover losses there were significantly higher at -3.7%, to be sure, but since total turnover per enterprise is relatively low because of the small business size, the higher average loss in absolute figures carries less weight.

Online turnover growth has likely prevented worse outcomes: 200,000 more SMEs are using digital channels in the coronavirus crisis

The crisis has made businesses inventive. Already in the spring of 2020, 43% of SMEs had responded to the coronavirus crisis by making adjustments to their products/service offering, business model and, above all, sales methods.⁷ At the time, a further 14% were planning to make such adjustments. As the pandemic progressed, an even higher share of businesses likely responded accordingly. The transition to or additional use of digital sales channels in particular may have proven to be a lifesaver for many businesses last year.

Expanding or introducing e-commerce activities⁸ has the potential to help many SMEs to offset turnover losses at least in part or generate additional turnovers that could not be realised using conventional sales channels (such as stationary trading, sales forces and trade shows) as a result of the restrictions in place in 2020. This also applies to service providers, who have thus far used online sales channels relatively rarely.

Brief overview of key figures of the coronavirus crisis



The KfW SME Panel clearly illustrates that many enterprises were able to harness the potential of e-commerce to mitigate losses in turnover during the current crisis. E-commerce turnover reached EUR 302 billion in 2020. That included digital market places, online shops, procurement platforms and

automated data exchange between businesses, for example. It was a massive increase of 24% or EUR 59 billion in the digital sale of products and services (for comparison, EUR 243 billion in 2019 / EUR 153 billion in 2015). That means SMEs generated around 7% of their total turnover online last year.

But the higher volume is not necessarily due to the fact that businesses with online operations expanded their respective turnovers. The contribution of e-commerce to an enterprise's total turnover was 26% in 2020 – provided the company generated online sales at all (2019: 27%). Rather, the share of SMEs with e-commerce activities increased significantly. Some 853,000 SMEs generated turnover via e-commerce. That was 22% of all small and medium-sized enterprises, an increase of 5 percentage points or just over 200,000 businesses compared with the previous year. The growing significance of online turnover pervades all segments, with the share of SMEs with online activities increasing by 4 to 9 percentage points.

Most of the additional e-commerce activities take place on a rather measurable scale. In particular, more enterprises achieved a maximum of 10% of their total turnover online (up from 5 to 8% of all SMEs). Significant online turnovers, in other words between 10 and less than 50% of total turnover, was achieved by 10% of SMEs (+2 percentage points compared with 2019). That, in turn, can be interpreted as a strong indication of rapid and rather minor adaptation processes.

Even regardless of the dynamics of the coronavirus crisis, digital sales channels can be expected to continue gaining importance in the SME sector. This will happen, if only because the following generation of entrepreneurs are building their business models more often and increasingly on e-commerce. These processes appear to be irreversible. In younger enterprises that have been in business for less than ten years, the contribution of e-commerce to turnover

already averages 46%.

Subdued outlook for the current year: Turnover losses expected on similar level

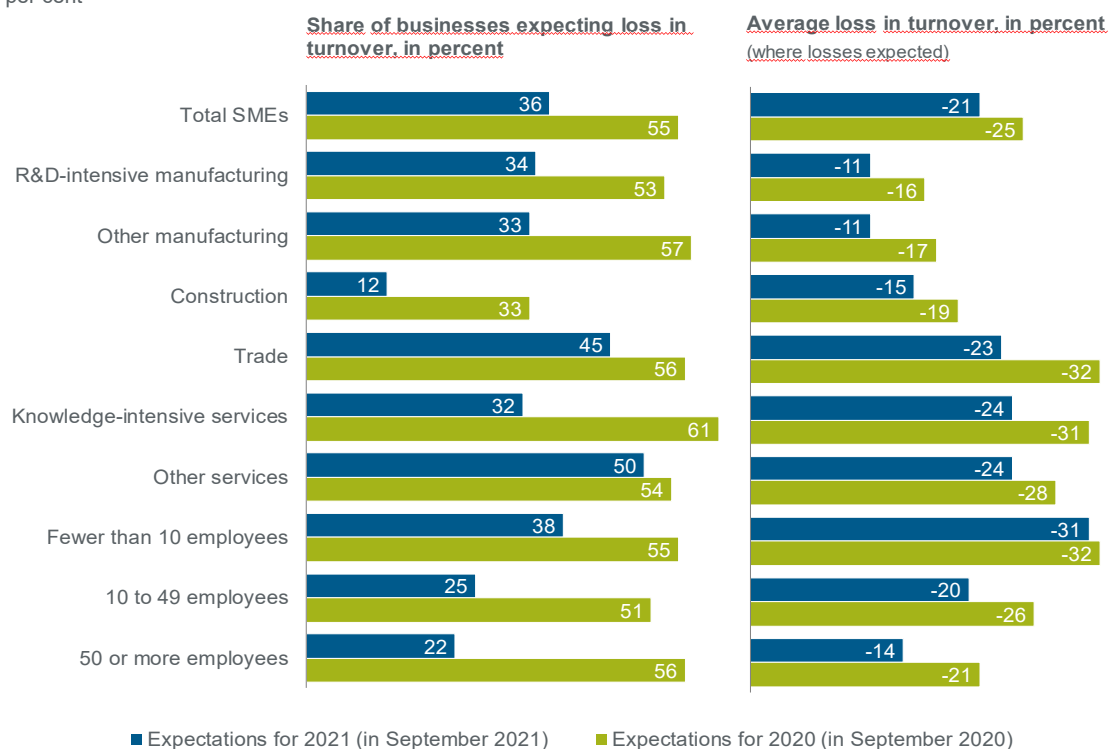
Businesses continue to view their turnover development with caution. Losses that were triggered by the impact of the restrictions can hardly be made up for in 2021 either. Besides, hygiene restrictions remain in place that still do not allow many enterprises to operate normally. In addition, high uncertainty about the further course of the pandemic remains as a steady companion. The turnover expectations expressed by SMEs for all of 2021 in the sixth supplementary coronavirus survey in September 2021 are therefore rather pessimistic – if more positive than at the same time in the previous year (Figure 4).

Thus, one in three small and medium-sized enterprises expected their turnovers this financial year to be below the previous year's level (36%), which was 19% fewer SMEs than the year before. On average, these enterprises expect their turnover to drop by about one fifth. This, too, is less than the year before. Still, the impact and expected turnover losses remain on a high level. Another 11% anticipate rising turnovers (2020: 6%), and 41% of businesses expect turnovers to remain steady (2020: 26%). Across the entire SME sector, businesses expect an average turnover growth rate of -0.9% for the year 2021. That would be roughly the level of the previous year. It would be the first time since the KfW SME Panel started surveys that turnovers decline in two consecutive years. Not even the economic and financial crisis had such an impact.

The nonetheless positive trend is evident in all subsegments of the SME sector. There are differences in intensity, however. Notably, almost the same proportion of SMEs in the segment of other services expect lower turnover in 2021 as the year before. Larger enterprises, knowledge-intensive service providers and other manufacturing SMEs reported the greatest improvement.

Figure 4: Turnover expectations for the year 2021

In per cent



Note: The figure illustrates the expected decline in turnover in the relevant year compared with the previous year's turnover.

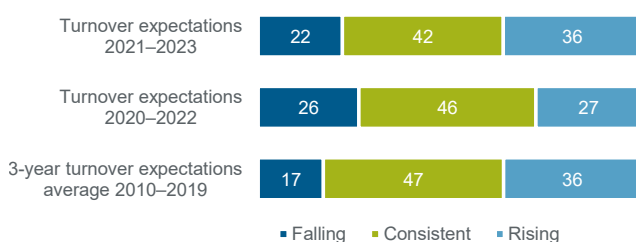
Sources: Fifth and sixth supplementary coronavirus survey of the KfW SME Panel (September 2020 and September 2021).

Turnover expectations for the medium term are tending to normalise

Turnover expectations voiced by SMEs for the coming years (2021 to 2023) are looking somewhat more relaxed than a year ago (Figure 5). The coronavirus crisis will continue to weigh on the turnover situation, to be sure, but businesses appear to expect a lessening impact. Thus, more than one in three SMEs (36% or +9 percentage points) are more optimistic and expect turnover to pick up again in the medium term (compared with the coronavirus year 2020). That is a share equal to or even slightly higher than before the pandemic.

Figure 5: SMEs' medium-term turnover expectations up to 2023

In per cent



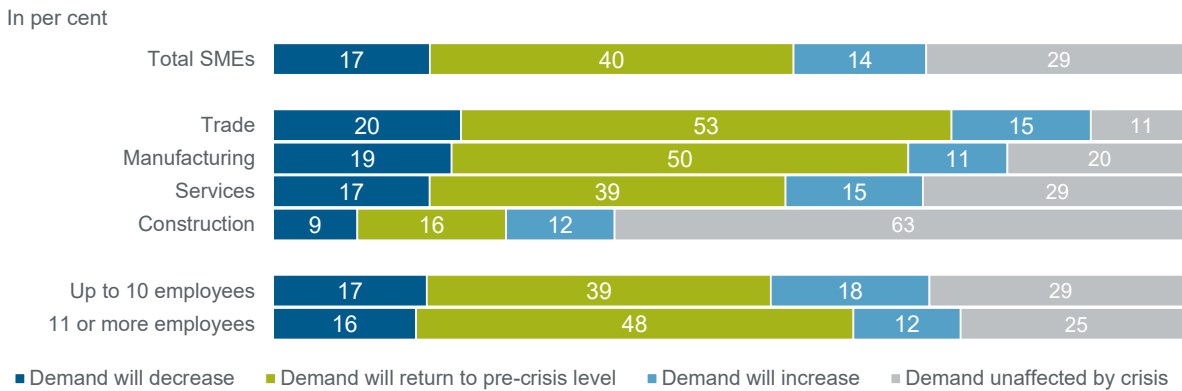
Source: KfW SME Panel 2010–2021

At the same time, the proportion of enterprises expecting turnover to be lower in the next three years (2021–2023) than in 2020 has dropped (22% or -4 percentage points). While that is still the second-highest share of pessimists since surveys started under the KfW SME Panel, before the pandemic the long-term average rate of SMEs with pessimistic expectations was 17%. But with 14 points, the balance of positive minus negative turnover expectations in 2020 was again closer to the average of past years (2004–2019: 19%). In 2020 that rate had slumped to 1 percentage point. In other words, SMEs are already much more optimistic about the future.

But a significant number of SMEs expect the crisis to have a long-term impact on product demand

Nonetheless, many SMEs expect the crisis to have a lasting impact on demand for their most important products and services.⁹ After all, the coronavirus pandemic and the associated restrictions have profoundly changed our social lives and patterns of consumption and behaviour. Some of these changes are so sweeping that they are likely to remain in place even after the end of the pandemic.

Figure 6: Expected long-term impact of the crisis on demand for SMEs' products



Note: The question asked was: 'Do you expect the changed consumer behaviour to influence demand for the most important products or services your enterprise offers even after the end of the crisis?'

Source: fifth supplementary coronavirus survey to the KfW SME Panel.

Around 17% of SMEs – some 650,000 businesses – believe that they will no longer be positioned as well with their current range of products and services in the post-coronavirus world and that demand for them will remain below pre-crisis levels indefinitely (Figure 6). Enterprises that have been heavily affected by the restrictions, in particular, are more likely to have a pessimistic outlook. Around one in two enterprises that saw their survival threatened by the crisis in the spring of 2021 expect decreased demand for their products after the crisis as well. Our survey findings also reveal that the expectations regarding the post-coronavirus demand situation are not exclusively negative. Around 14% of SMEs expect stronger demand for their products / services after the crisis. That means one in seven SMEs expect to be able to benefit from the changes brought about by the crisis.

If we combine the positive and negative expectations, around one in three small and medium-sized enterprises (31%) expect the changed consumer behaviour to continue to influence demand for the most important products or services they provide even after the crisis has ended. A slightly higher share of enterprises, however, does not expect the crisis to have a lingering effect. Roughly four in ten SMEs expect demand for their products to stabilise around pre-crisis levels.

Profit margin has again proven crisis-resilient

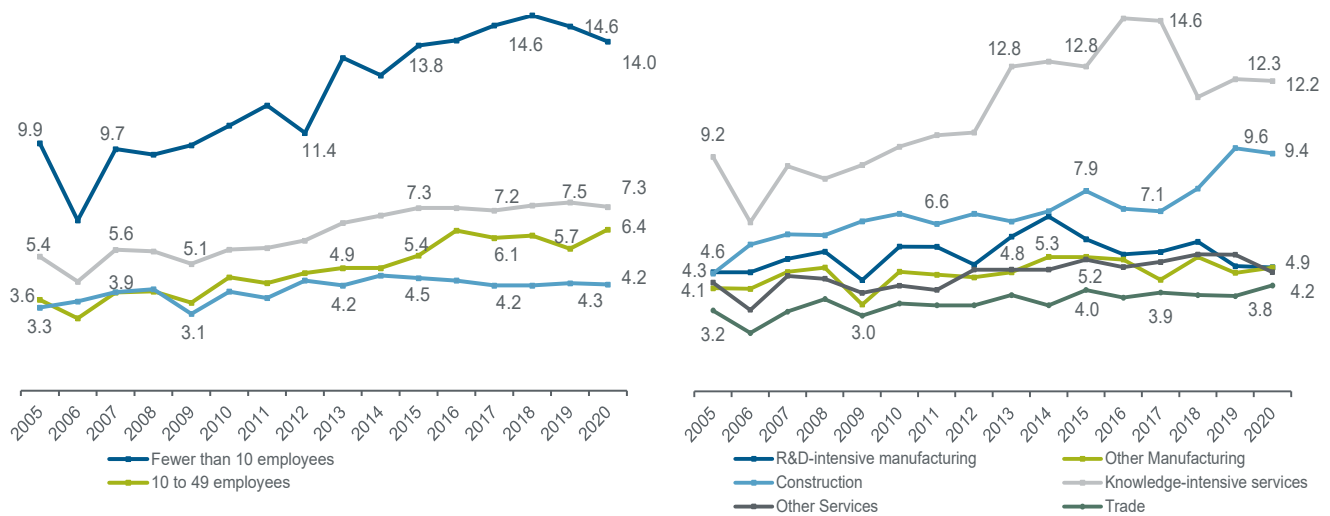
SMEs already demonstrated in the last crisis that they can continue operating profitably and generating profits despite deep cuts to turnover. Thus, turnovers of small and medium-sized enterprises contracted by 6.2% in

2009 but their profit margin¹⁰ decreased only minimally from 5.6 to 5.1% and the share of SMEs that incurred losses actually fell (2008: 15%, 2009: 13%). A similar picture has now emerged for the coronavirus crisis in 2020 as well: The average profit margin in the SME sector dropped slightly from 7.5 to 7.3% overall (Figure 7).

The profit margin of SMEs again proved to be relatively resilient in times of crisis. A sharper drop in profitability would definitely have been conceivable. Overall, however, the multiple economic stabilisation and support measures have probably proven effective. Thus, affected businesses were able to obtain subsidies to offset turnover losses and cover fixed costs. The funds disbursed under the emergency aid programme and bridging aids I and II in 2020 amounted to some EUR 18 billion. But for many businesses these payments probably offset only part of their turnover losses. Business support was therefore also complemented by assistance measures that helped to reduce the burden of fixed costs for affected companies. This included, in particular, short-time work allowance but also expanded options for deferring rent payments, loan repayments and the like. In addition, many businesses were also successful in adapting their cost structure to reduced turnover. With that, SMEs' overall profitability dropped in the course of the pandemic but from a historic perspective the losses are manageable. In 2006, for example, the mean profit margin was a mere 4.4%. So despite declining at the current margin, it still increased by two thirds or nearly 3 percentage points in the past 15 years.

Figure 7: SME profit margins by size class (left) and industry (right)

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



Source: KfW SME Panel 2006–2021.

Fewer SMEs with losses than in 2008/2009

The generally high profitability that has grown over the years has given businesses a buffer that enables them to cushion losses in turnover in the current crisis without slipping into the red. Nonetheless, the share of enterprises with a negative profit margin has risen to 12% (+3 percentage points from 9% in 2019). Thus, slightly more than one in ten businesses suffered losses. It is likely that those that struggled to generate a positive annual profit were mainly the ones that already had a relatively low profit margin to begin with before the crisis. They are also under greater cost pressure.

But here, too, it must be noted that this value is by no means abnormal nor much higher than in the past. In the crisis year 2009, for example, 16% of SMEs were still suffering losses, and in 2006 it was even 21%. A similar assertion can be made for the proportion of businesses that have a relatively high profitability of 10% and more. In 2020 this applied to 59% of SMEs (-1 percentage point from 60% in 2019). That share was 53% in the crisis year 2009 and only 43% in 2006. This framework data helps put the current level and dynamics under the coronavirus crisis into perspective.

Retail and wholesale became more profitable under the coronavirus crisis but profitability declined most for micro-businesses and other services

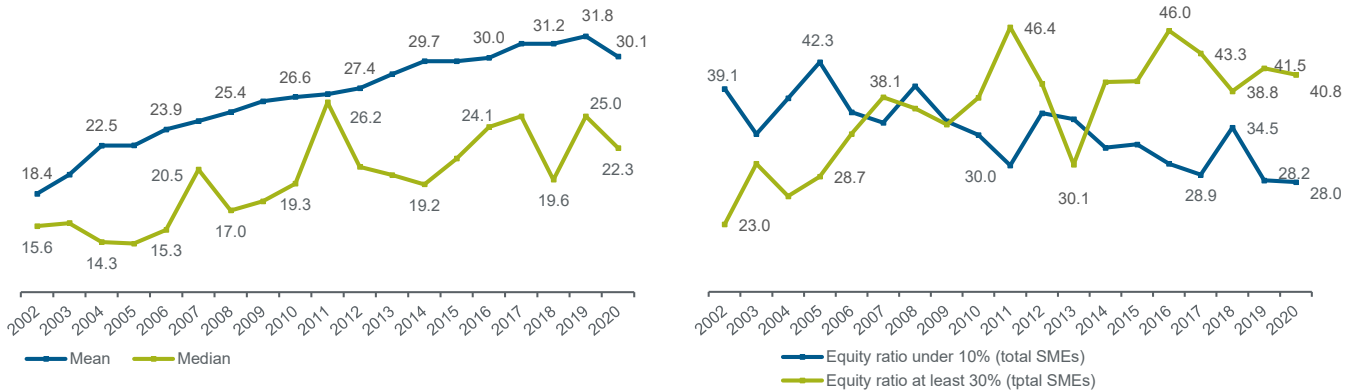
Retail and wholesale – traditionally the SME segment with the lowest profitability (average of 3.5% for the years 2005–2019) actually became more profitable in 2020 – and not only that. The improvement of 0.4 percentage points to 4.2% also represents an all-

time high. Never before did SME retailers and wholesalers report higher profitability in the KfW SME Panel than in the year 2020 – if still on a below-average level in a segment comparison. For one thing, this is likely due in part to the support measures outlined above. For another, it is once again evident that not all retailers and wholesalers were adversely affected by the crisis – even if that is the overall public perception. Earlier data had already pointed to a generally positive development in retail and wholesale. According to data from the German Federal Statistical Office, retail turnovers grew by a nominal 5.4% on the previous year despite various and prolonged restrictions. The profit margin of SME retailers and wholesalers now also appears to reflect this positive development.

By contrast, the comparatively high turnover losses of micro-businesses in 2020 are reflected in lower profits, which is also hardly surprising. The profitability of these micro-businesses dropped to 14% (-0.6% on the previous year). Other services businesses lost profitability by a similar magnitude (-0.7% on the previous year). But these enterprises had very low average profitability already at the beginning of the crisis. They were hit harder by the coronavirus-induced decline (2020: 4.7%). It needs to be mentioned that this broadly defined segment includes retail SMEs, which experienced good profitability. In other words: If we separate out this development, the loss in profitability in the other services segment would be much larger (other services without retail and wholesale: 6.2% in 2020 vs. 7.8% in 2019).

Figure 8: Basic equity ratio indicators in the SME sector

In per cent



Source: KfW SME Panel 2003–2021.

This should come as no surprise if we look again at the composition of the segment (personal services, catering, hospitality, tourism, arts and culture, sport, etc.).

In a comparison of enterprise sizes it is also noteworthy that medium-sized enterprises with 10 to 49 employees were able to significantly increase their profitability in 2020. In addition, the divide between small and large SMEs remains despite the most recent shifts. Small SMEs were around 3.3 times more profitable than large SMEs in 2020. But this is also a matter of commercial necessity because smaller businesses cannot benefit from economies of scale, or very little, because of smaller batch sizes and more frequent custom products or one-off services.

Upward trend has ended: equity ratios fell moderately

Even if the declines in turnover and profit losses have been less dramatic than initially feared – overall pressure on the income situation remains visible. That has consequences for the capital structure of many businesses because losses eat into equity. Even if businesses borrowed significantly less to finance investment in 2020 (see section below), a considerable number of SMEs still had to borrow debt capital during the crisis to bridge liquidity bottlenecks.¹¹ The subsequent rise in the ratio of debt to equity put pressure on companies' equity ratio. This is now becoming evident.

The widely feared massive depletion of the equity base of businesses, however, has not occurred – for now. Nonetheless, the trend of steadily rising equity ratios that has been ongoing in the SME sector since the turn

of the millennium did not continue in the past financial year. The impact of the coronavirus pandemic caused a decline in average equity ratios to 30.1% (Figure 8, left). The 'trend reversal' has thus been relatively mild and the average decline of 1.7 percentage points can be regarded as moderate (2019: 31.8%). So the overall capital structure of SMEs is steady. The risk of over-indebtedness across the overall SME sector therefore remains minimal.

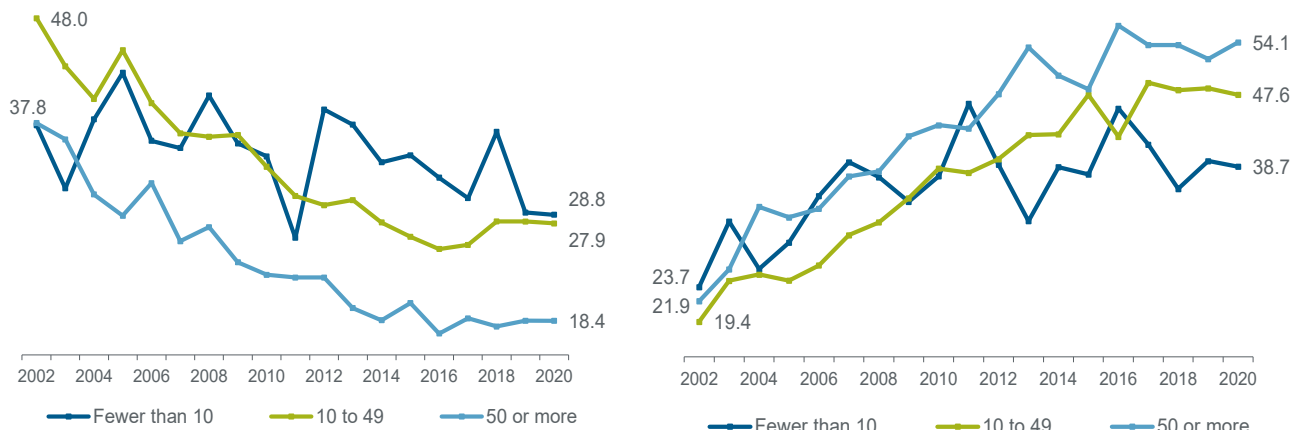
This is also reflected in other key indicators. The proportion of businesses with a relatively low equity ratio of less than 10% has remained at around 28% (28.0% in 2020 vs. 28.2% in 2019). The proportion of businesses with a relatively high equity ratio of at least 30% has decreased only marginally (40.8% in 2020 vs. 41.5% in 2019). Besides, both trends apply to all enterprise size classes (Figure 9). The share of businesses with a negative equity ratio also remains very low and is unchanged at 4% as in the previous year.

Vigorous buildup of equity has kept SMEs resilient

Overall, small and medium-sized enterprises in Germany continue to have a comfortable equity base despite the outbreak of the coronavirus crisis. Around the turn of the millennium the equity ratio¹² was still at around 18%. SMEs achieved massive improvements across the board since then, with the average equity ratio growing by around 12 percentage points between 2002 and 2020 despite the current burdens. They achieved this equity growth primarily through the retention of earnings. However, the subdued investment activity of the past years was another factor that contributed to increasing equity ratios.

Figure 9: Businesses with a low (left) and high equity ratio (right)

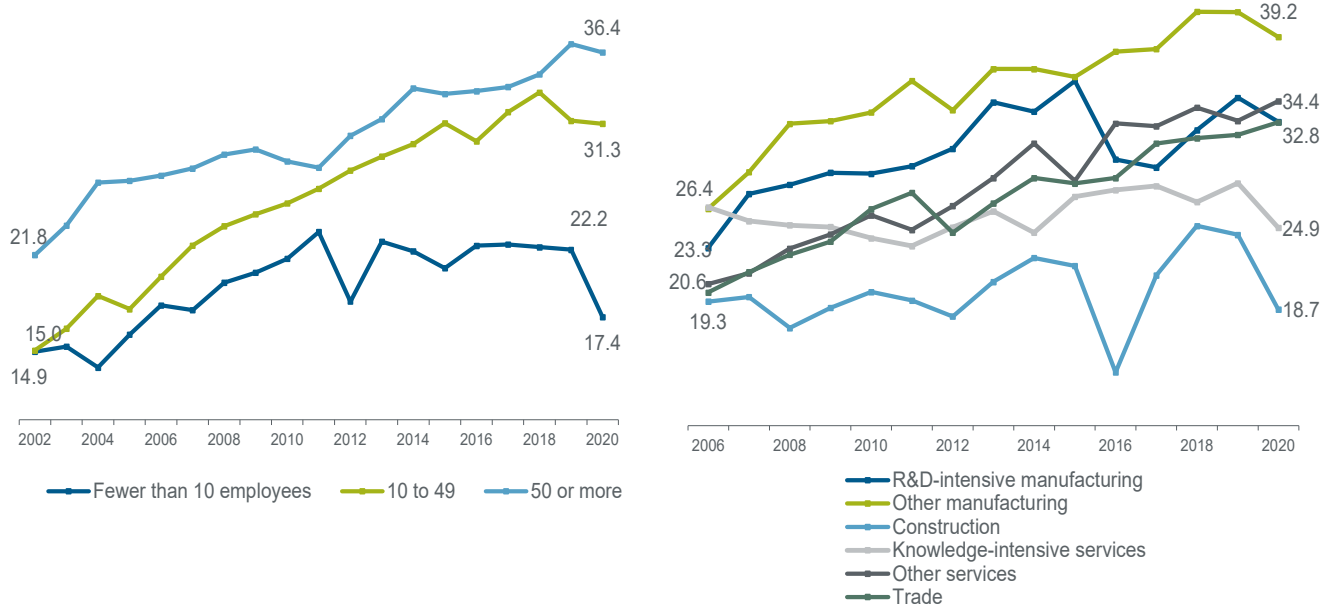
Shares of enterprises in per cent; size class by number of full-time equivalent employees



Source: KfW SME Panel 2003–2021

Figure 10: SMEs' equity ratios by size class (left) and sector (right)

Shares of enterprises in per cent; size class by number of full-time equivalent employees



Source: KfW SME Panel 2003–2021.

In the past, SMEs grew much more aware of the importance of having adequate equity as a result of changes made to banking regulation (Basel II) at the beginning of the 2000s. These changes forced SMEs to take a closer look at their own risks and credit rating in order not to jeopardise their access to credit. Besides strategic considerations on how to improve their credit ratings, important motives for SMEs to raise their equity levels also included the wish to remain independent, the drive to become more resilient in times of crisis and the desire to remain flexible. Many enterprises still had enduring memories of credit restrictions during the financial crisis.¹³ The focus of SMEs in Germany on having strong equity buffers has made them much more resilient against unexpected

events – which include the coronavirus crisis. It seems to have paid off in the past year.

Equity base of micro-businesses has dropped sharply

The – generally moderate – negative effects of the coronavirus pandemic on the equity situation of SMEs, however, are not evenly distributed. Detailed analyses confirm this. Small businesses with fewer than ten employees, in particular, suffered deep losses. In 2020 their equity ratio fell by nearly five percentage points to a low 17.4% on average (Figure 10, left). The last time the equity ratio of this segment was lower was 15 years ago (16.1% in 2005). Businesses that are not so well capitalised to begin with are the ones to experience the

deepest losses. It can be assumed here that many small SMEs were forced to borrow debt capital in the course of the crisis in order to bridge liquidity bottlenecks. A further decline in equity could become problematic. Not only would it weigh on affected enterprises' credit rating and, consequently, their access to capital. The risk of overindebtedness and resulting insolvency also grows for enterprises with a thin equity buffer.

By contrast, SMEs of the two larger size classes were much more successful in mitigating the burdens and only experienced almost negligible losses. On average, their equity base remained almost steady. The divide between the equity ratios of small and large SMEs thus widened once again significantly in 2020. Most recently the equity ratio of businesses with 50 and more employees was more than double that of small enterprises.

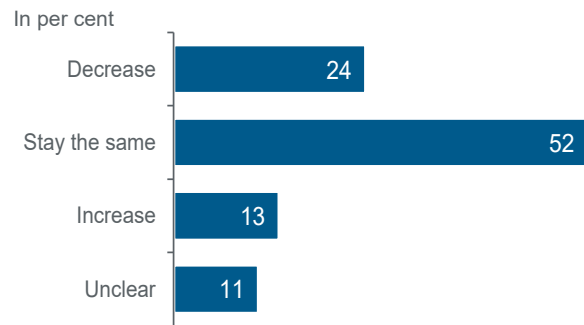
A sector comparison shows that somewhat surprisingly, the segment of other services – despite slight declines in profit margins – on average actually experienced a growing equity ratio (+1.5 percentage points to 34.4%). This suggests that SMEs in this segment have probably retained more of the earnings generated in 2020. The capital structure of retail and wholesale SMEs – a subsegment of other services – likely benefited additionally from the slightly improved profitability of these businesses (+0.9 percentage points to 32.8%). The enterprises of both subsegments of manufacturing recorded minor declines in their average equity ratios, which lost just over two percentage points on the previous year. Construction SMEs experienced the sharpest drop in their equity ratio. They reported a drop of 5.6 percentage points on average in the year 2020 (18.7%).

No broad recovery of equity ratios is expected

The coronavirus crisis will probably end up placing a burden on the capital structure of a number of businesses this year as well. Many enterprises therefore do not expect a swift recovery of equity ratios in the SME sector. Around one in four SMEs (24%) even expect their equity ratio to be lower than at the end of 2020 (Figure 11). This is true in particular for enterprises that expect turnover losses for this year – half of all businesses in this group fear that their equity reserves will be depleted, for example.

At the same time, however, more than half of SMEs are confident that they will be able to maintain their equity ratio steady this year. Around 13% even hope to increase it. SMEs with positive turnover expectations for 2021 in particular are hopeful of being able to strengthen their equity base.

Figure 11: Expected development of equity ratio in 2021



Source: sixth supplementary coronavirus survey to the KfW SME Panel (September 2021).

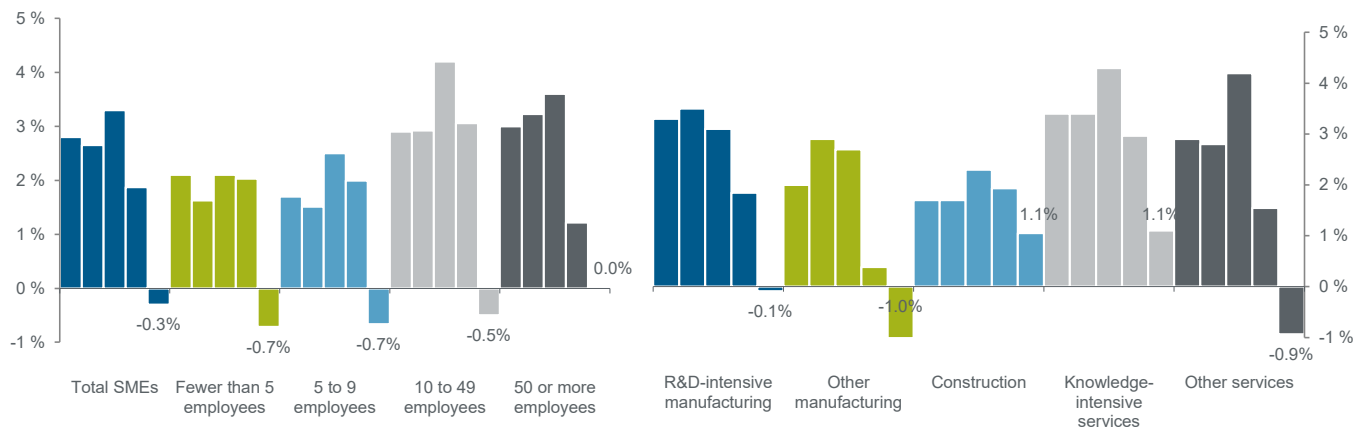
Moderate job cuts in the SME sector

The consequences of the pandemic obviously weigh on the employment situation of businesses in Germany. According to preliminary calculations by Destatis, the number of employees across the economy in 2020 was 1.1% lower than in 2019 (+0.9% in 2019).¹⁴ That means the coronavirus crisis has ended a streak of employment growth in Germany that has lasted over 14 years. Nonetheless, Germany's labour market has proven to be relatively robust in this crisis. Short-time work allowance in particular has proven to be a stabiliser of employment. Around 6 million employees received this allowance in April 2020 alone. More than half went to manufacturing (31%), retail and wholesale (17%) and the hospitality industry (11%).¹⁵ In light of the growing skills shortages, short-time work allowance gives many employers a chance to keep their workers on the payroll. Small and medium-sized enterprises benefit from this in a particular way. As things stand, however, facilitated access to short-time work allowance was set to expire at the end of 2021.

Despite this support, the positive dynamic of employment development in the SME sector was not maintained last year. The growth rate of full-time equivalent employees (FTEs)¹⁶ turned from consistently positive to negative for the first time in 16 years.

Figure 12: Annual employment growth in the SME sector by segment from 2016 to 2020

Size classes by number of full-time equivalent employees



Source: KfW SME Panel 2017–2021.

Employment grew even in the years of the economic and financial crisis. Job losses in 2020 averaged -0.3% across all businesses (+1.9% in 2019). But compared with the available figures on the development of employment in the overall economy in Germany, the decline in employment in the SME sector is moderate. Just a year ago, SMEs had significantly more pessimistic employment expectations.¹⁷ As a result of a subsequent decrease in the coronavirus impact and various government support packages, however, including the prolongation of the short-time work allowance, fortunately these expectations did not fully come to pass.

SMEs of the smaller size classes were hit relatively harder (Figure 12). The number of FTE employees decreased there by 0.5 to 0.7% on average. Across the various segments, the decline was slightly higher among other manufacturing enterprises (-1.0%) and other services businesses (-0.9%). In terms of aggregate employment losses, however, other services businesses are decisive because they make up a very high number of SMEs. Besides, they were hit harder by pandemic restrictions (retailers and hospitality businesses, for example). But not all sectors or size classes were affected by job losses (Figure 12). The segment of knowledge-intensive services and construction SMEs were particular standouts in this regard. As was already evident from turnover developments, businesses in these segments on average remained on course for growth in 2020 – irrespective of the coronavirus crisis – and can therefore definitely be regarded as anchors of stability of the SME sector in the current crisis situation. Both subsegments of the

SME sector expanded employment, each with a year-on-year growth rate of +1.1% for FTE employees. Furthermore, R&D-intensive manufacturing enterprises remained almost unaffected by job losses (-0.1%). Large SMEs maintained their workforce steady on the previous year.

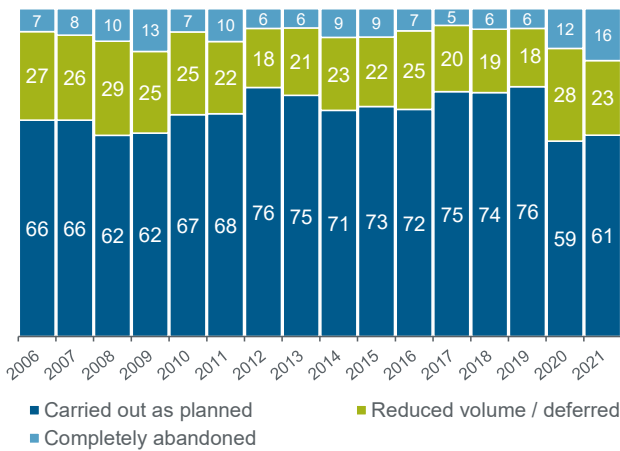
The coronavirus crisis thwarted SMEs' investment plans in 2020

The assessment made by KfW Research as part of the supplementary coronavirus surveys among SMEs had already indicated it. High uncertainty dampened SMEs' investment appetite in 2020. The coronavirus crisis thwarted the investment plans of many SMEs. More SMEs abandoned, deferred or reduced investment projects they had planned at the start of the year than ever before (Figure 13). However, that was not due exclusively to the high uncertainty about where the economy was generally heading. Numerous businesses also drew on funds initially planned for capital expenditure projects to fill their liquidity gap, especially in the spring of 2020.¹⁸

Only 59% of businesses that started the year with the intention to invest in 2020 carried out their investments as planned. That share was 75% on average between 2012 and 2019. The proportion of SMEs that completely abandoned at least one investment project was roughly double the typical share in the past years (12 vs. 6% in 2019). Another 28% of businesses planning to invest deferred a project to a later date or scaled down a project from its initial scope (+10 percentage points). Only in the crisis years of 2008/2009 did SMEs make similarly drastic crisis-induced changes to investment plans during the year.

Figure 13: Implementation of planned investment projects in the years 2020 and 2021

Percentage of enterprises



Source: KfW SME Panel 2007–2021 in conjunction with the sixth supplementary coronavirus survey of September 2021.

A look at the original investment volume planned by businesses at the start of the year that was ultimately not realised because projects were either abandoned, reduced or deferred gives us an impression of how much of the investment volume planned by SMEs was blocked by the pandemic over the year. That volume amounted to more than EUR 60 billion in the crisis years 2008 and 2009, whereas around EUR 43 billion on average remains uninvested in a ‘normal’ year. According to the KfW SME Panel, this volume of the plan revision was approx. EUR 61 billion for all of 2020 (and already hit EUR 53 billion in September 2020).¹⁹

No investment upswing foreseeable in 2021

Current estimates of investment plans in the SME sector from September 2021 provide little hope for improvement (Figure 13, last bar). To be sure, the share of enterprises intending to implement their investment projects during the year as planned increased slightly (+2 percentage points to 61%). What is also cause for optimism is that fewer enterprises that had considered investing in their business in 2021 intend to scale back or defer those investments to a later date (-5 percentage points).

Overall, however, there is still a wide gap to the pre-crisis level. But this impression is dampened primarily by the fact that never before have so many SMEs reported wanting to or having already completely

abandoned at least one investment project in the course of the year (16%).

Investment activity suffered a foreseeable setback

Concerns that the decline in investment volume of the crisis years 2008/2009 could be surpassed have not been confirmed. At the time, new capital expenditure in the SME sector fell by 16% on the previous year (EUR 26 billion). The coronavirus crisis had a less adverse impact in 2020. Businesses suffered half the losses recorded back then. Small and medium-sized enterprises’ investment in new plant, equipment and buildings (gross fixed capital formation and new investment) increased by approx. EUR 14 billion or 7% in the past year. New investment by SMEs in 2020 thus amounted to around EUR 173 billion.

SMEs also invested slightly less in second-hand goods than the year before (around EUR 31 billion or -5 EUR billion). In the aggregate, the volume of total investment in the SME sector thus fell by EUR 18 billion or 8.3% to a nominal EUR 204 billion. The investment upswing in the SME sector that has lasted for six years thus came to an abrupt end in 2020. After SME investment activity stagnated for several years following the financial crisis, (nominal) new investment by SMEs increased at least slightly each year between 2013 and 2019.

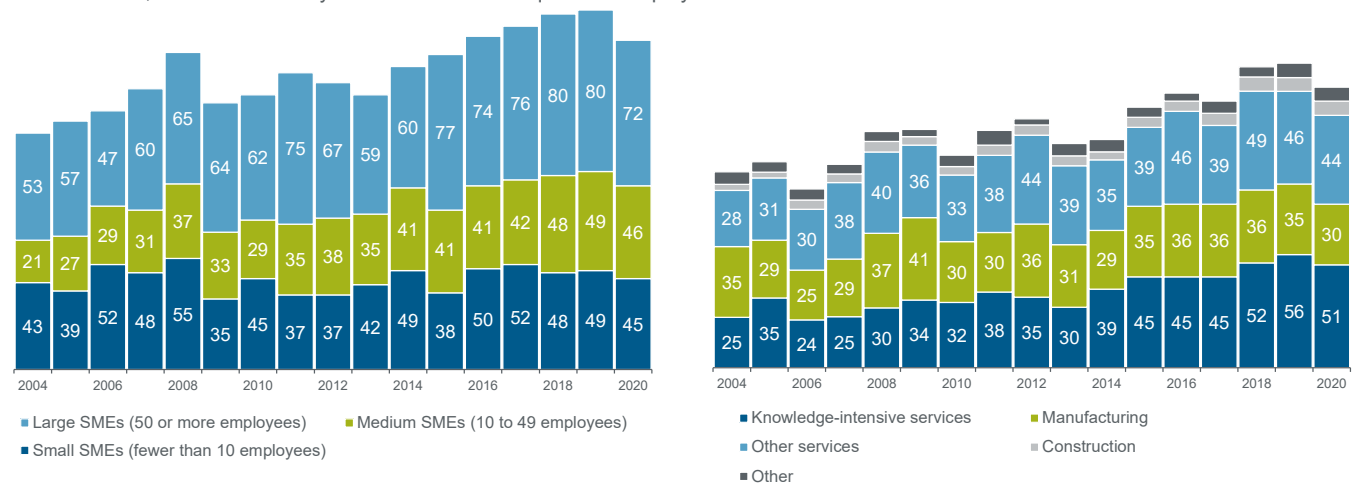
Investment decreased across the SME sector

The decline in the volume of investment stretches across all SME segments (Figure 14). But as before, services continue to contribute heavily to the volume of capital expenditure. In 2020 services industries overall accounted for 55% of new capital expenditure (EUR 96 billion) or 54% of total capital expenditure (EUR 110 billion). By contrast, the long-term average of both rates is approx. 48% (2004–2019). In 2004 the share of services in total and new investment was just 42%. In other words, in the past 15 years the relative importance of service enterprises for SMEs’ investment activity has grown by nearly one third. The coronavirus crisis has done nothing to change this either.

This also reflects the general transformation of the business landscape towards services. The reasons for this development are multiple. One of them is businesses’ outsourcing or contracting of what were previously in-company services to third-party companies.

Figure 14: New investment in the SME sector by segment

EUR in billions; 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 do not add up to the total sum of new investment (gross fixed capital formation) shown in the text.

Source: KfW SME Panel 2005–2010.

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).

Manufacturing SMEs have been rather reluctant to invest already in the past years. The volume dropped in 2020 as well. Up to and including 2020, the aggregate volume of investment undertaken by these enterprises thus fell for the third year in a row. Irrespective of the coronavirus crisis, this mainly reflects the difficult economic environment in which this sector operates. The relative importance of manufacturing for aggregate investment activity in the SME sector continues on a record low level. The share of manufacturing in aggregate investment remained at only 16% in 2020 (EUR 33 billion).

SMEs are affected slightly disproportionately, significance of SMEs for overall investment activity drops to new low

SME investment activity was thus slightly more affected by the impact of the coronavirus crisis in 2020 than large enterprises and the overall business sector. Aggregate gross fixed capital formation of the business sector²⁰ in Germany decreased from approx. EUR 436 to EUR 413 billion, a drop of around 5.5% on the previous year.²¹

Large enterprises with an annual turnover in excess of EUR 500 million accounted for EUR 240 billion of this. Their new investment fell by 4.1% or EUR 10 billion.

The share of SMEs in total new business investment thus continued to decline and is now just 42% (43% in 2019, 44% in 2018). That means the relative importance of SMEs for total investment activity in the business sector has fallen continuously in the past years even without the coronavirus crisis. In 2008 the share of SMEs in the total business investment volume in Germany was still 49%. In other words, it has lost seven percentage points since then.²²

In 2020, SMEs made around EUR 173 billion of new investments but depreciated approx. EUR 141 billion (+EUR 9 billion year on year). Their net investment thus totalled EUR 32 billion.²³ The capital investment to depreciation ratio continues on a very good level of 123%. So despite a decline in new investments alongside growing depreciations, SMEs were able to offset the loss in value of their capital stock with sufficient new investment activity. Large enterprises, on the other hand, again registered negative net investment, this time of -EUR 23 billion.

Coronavirus crisis has sent investment project size into a tailspin – smaller crisis adaptation projects dominate

SMEs that invested in 2020 used significantly lower amounts on average than in the previous years. Among those small and medium-sized enterprises that invested, the average amount invested fell significantly to just EUR 124,000. That was a decline by 22% or EUR 34,000 (EUR 158,000 on average in 2019). The median also continued to decrease, as half the investment projects had a volume of less than EUR 20,000 (EUR 22,000 in 2019).

This is a clear sign that SMEs' investment projects by and large tend to have a modest volume – even though they have been characterised by an above-average number of larger projects in the past years. The coronavirus crisis has reinforced this once more. The much higher number of smaller projects made the average project volume lower than ever before.

Data on investment intensity (investment volume per full-time equivalent employee) underscore this again. The corresponding value fell to a historically low EUR 7,676 on average for each enterprise with an investment project in the year 2020. The sharpest drops were recorded by other services businesses (-14%), micro-businesses with fewer than five employees (-11%), SMEs with 5 to 9 employees (-22%) and young businesses that have been in operation for less than five years (-50%) (detailed data on the segments are shown in the Volume of tables).

Much suggests that the coronavirus crisis shifted the investment needs and preferences of SMEs in 2020. A substantially larger share of initially planned projects were not realised (see above). In the course of the year, businesses likely replaced them much more often with smaller investment projects that helped them better adapt to the prevailing crisis situation. These include, among others, investments directed at complying with hygiene requirements, but also investments in the field of digitalisation. Examples of these are projects aimed at the renewal of IT infrastructure (including the creation of additional remote working capacities), the use of new digital applications or the digitalisation of products. Previous findings of KfW Research point to this. The high

importance of such projects is mainly attributable to the needs created by the coronavirus crisis.

Adaptation requirements created by coronavirus crisis led to higher number of investors

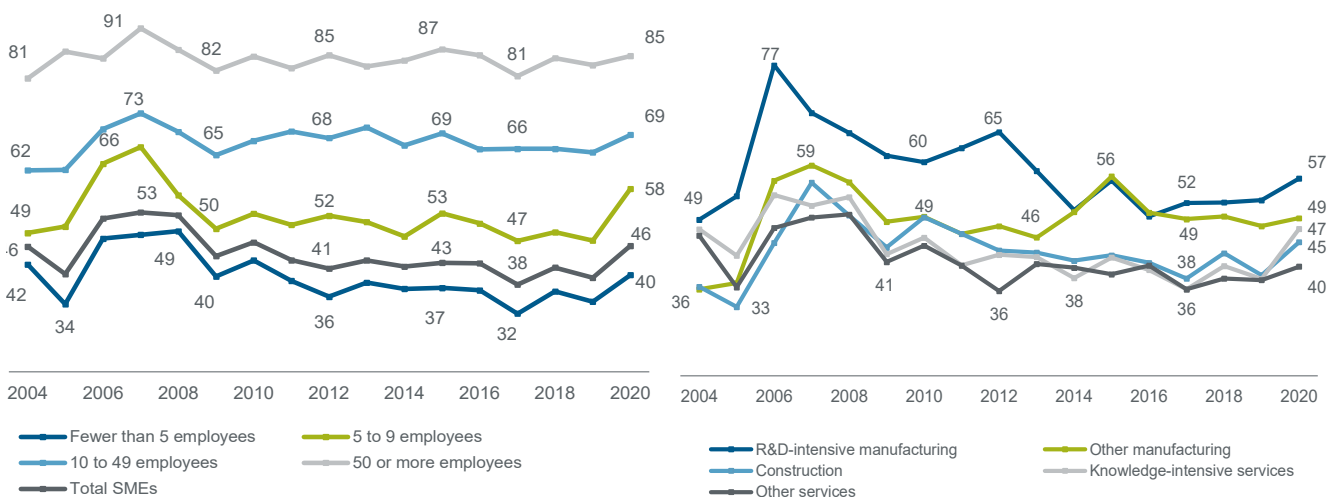
The outlined need to adapt or keep business operations running made SMEs much more willing to initiate investment projects in 2020. The share of SMEs with investment projects soared to 46% in 2020 – a massive rise by 7 percentage points or 235,000 enterprises (39% in 2019). Around 1.73 million small and medium-sized enterprises thus carried out investment projects.

The proportion of investors is thus on a level not seen since the year 2010. At the time, 47% of businesses were investing. Since the year 2009 there has basically been a stubborn sideways movement (44%) with a slight downward trend. All SME segments were equally affected. In the years 2006 to 2008, more than one in every two enterprises invested – a rate unmatched since then. Whether this long-term trend of subdued investment is now coming to an end as a result of the coronavirus crisis cannot yet be determined.

The proportions of investors rose noticeably in all segments in 2020. Micro-businesses with fewer than five employees in particular stepped up their activities (share of investors +6 percentage points), as did SMEs with 5 to 9 employees (+11 percentage points) and businesses providing knowledge-intensive services (+9 percentage points). However, SMEs in R&D-intensive manufacturing (+4 percentage points) and the construction industry (+6 percentage points) also exhibited a greater propensity to invest than in the previous year.

Figure 15: Share of SMEs with investment projects by size class (left) and sector (right)

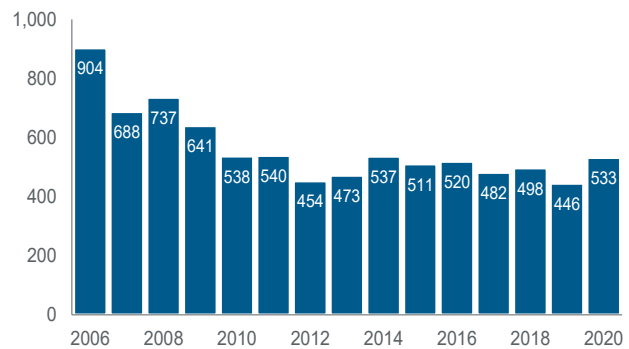
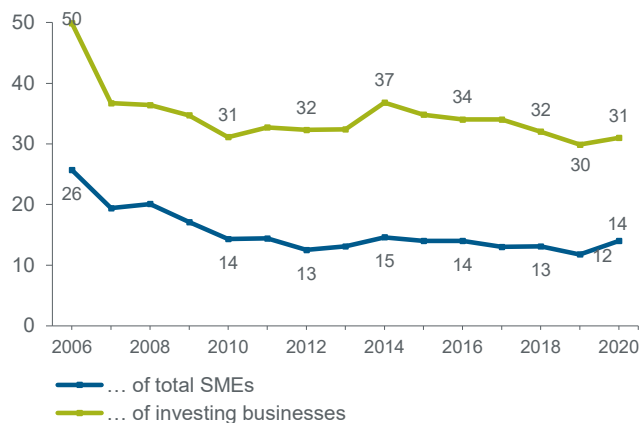
Size classes by number of full-time equivalent employees



Source: KfW SME Panel 2005–2021.

Figure 16: SMEs that negotiated loans with lenders

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



Source: KfW SME Panel 2007–2021.

Demand for investment loans has grown ...

In 2020, a total of 533,000 SMEs conducted negotiations with banks and savings banks on loans to finance their investment activities. After many years of continuing decline, the propensity of businesses to negotiate loans for investment purposes with their banks thus increased for the first time since 2014. Fourteen per cent of all SMEs (+2 percentage points) and 31% of those SMEs that had investment projects in the year under review (+1 percentage points) conducted loan negotiations. The increase in loan negotiations for investment projects was probably driven primarily by the significantly increased investment propensity.

Despite the low rates of growth, there is no indication that SMEs had given up their long-standing reluctance to negotiate investment loans. The figures seen during the years preceding the economic and financial crisis are still far off. Thus, the long-term average since 2006 has been 15% (proportion of all investors) and 35% (proportion of all businesses). In 2006, as many as half of all investors conducted loan negotiations. From the viewpoint of SMEs, fundamental arguments against borrowing to finance investment projects include the desire to be financially independent, concerns about the effort involved, and disclosure and documentation requirements.²⁴

... but credit financing of investments has dropped noticeably nonetheless, with fewer long-term loans

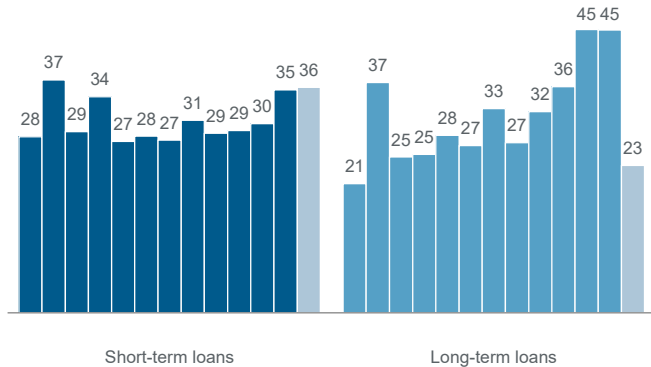
Nonetheless, the volume of loans from banks and savings banks actually used to finance investments fell noticeably in 2020. After the all-time high of EUR 81 billion in 2019 – driven by the prevailing very favourable financing conditions – the volume of bank loans

extended to SMEs plunged to EUR 59 billion in 2020. That was a decline by EUR 22 billion or 27%. A variation in lending in the SME sector of such magnitude is unprecedented. It is worth mentioning again at this point that many businesses instead took up loans to bridge liquidity bottlenecks, which are not included in this count.

After bank loans had grown in importance almost continuously since the year 2011, the share of loans in the financing mix for overall investment activity in the SME sector has now fallen to 29% (Figure 23). It is worth noting here that the decline in loan financing occurred exclusively in the segment of long-term bank loans with maturities exceeding five years (Figure 17). While loans with shorter maturities even increased slightly year on year (up by EUR 1 billion to EUR 36 billion in 2020), the volume of loans with long maturities almost halved (down by EUR 22 billion to EUR 23 billion in 2020). This 47% decline is a sufficiently clear reflection of the enormous uncertainty amid vast parts of the business landscape (and society) in 2020. Where optimism, certainty and predictability are lacking, people are more likely to avoid committing to longer-term payment obligations. However, the fact that investment projects of the year 2020 had a much smaller volume on average than in the preceding years is also likely to have played an important role. Inevitably, this also reduces average borrowing requirements, which can then be met more readily and quickly with short- or medium-term loans.

Figure 17: Credit financing of investments by maturity

EUR in billions



Source: KfW SME Panel 2006–2021.

Number of borrowers surged

The increased propensity of businesses to negotiate with banks is already an indication that they became more interested in obtaining loans to finance investments in 2020. Despite a reduction in lending volume, the number of actual borrowers among SMEs increased noticeably. Around 605,000 enterprises took up bank loans to finance their investment projects last year. That was an increase of more than 120,000 businesses or 25% on 2019. The number of enterprises taking up loans has not been on such a high level since 2011. It was only prior to the crisis years that the number of SME borrowers was significantly higher.

A large portion of enterprises concentrated on short-term loans in 2020 as well. Approx. 251,000 SMEs took up a short-term bank loan or made use of overdraft facilities (+5% compared with 2019). Around 141,000 SMEs took up a long-term bank loan (+22%). The greatest change came from the segment of borrowers who chose a mix of short-term and long-term loans. Around 212,000 SMEs took up loans with various maturities – a 64% increase.

Loan amounts were much lower

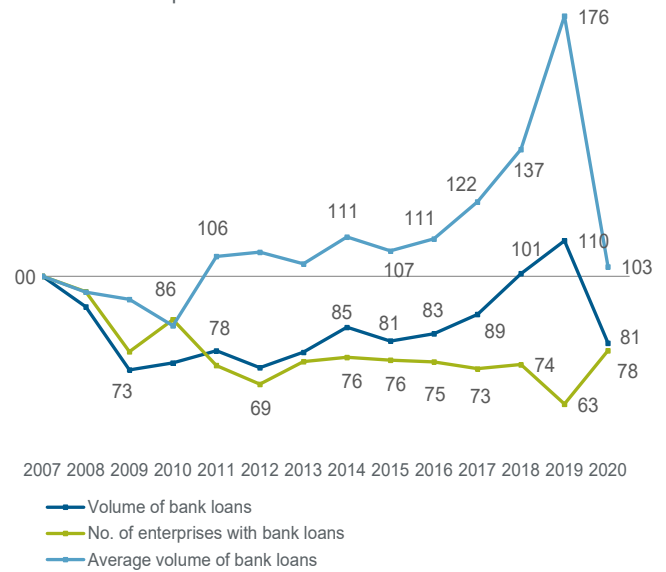
In terms of investment loans, the year 2020 was characterised by two opposing movements: a significantly higher number of businesses using bank loans to finance investments on the one hand and a drastically reduced overall loan volume on the other hand. The previously mentioned focus of businesses on a higher number of lesser-volume crisis adaptation investment projects was expressed in this accordingly, (inevitably) leading to lower loan amounts at the same time (Figure 18 provides a succinct overview of the trends).

To be sure, a much larger number of businesses chose

the path of loan financing but with much smaller ticket sizes than in previous years. The average volume of bank loans newly applied for to finance investment in 2020 was 41% lower than in the previous year and was now just EUR 98,000 (-EUR 67,000). The last time lower average ticket sizes were recorded in the SME sector was in 2010 (EUR 82,000). By contrast, loan amounts have increased consistently and strongly for several years now, triggered by the favourable financing environment. This development has now come to an abrupt end.

Figure 18: Indexed development of relevant SME borrowing indicators

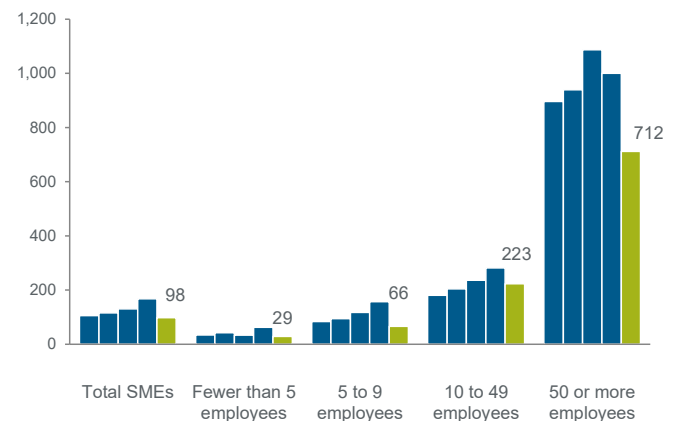
2007=100 index points



Source: KfW SME Panel 2008–2021.

Figure 19: Average volume of investment loans of SMEs from 2016 to 2020

In EUR thousand; size classes by number of full-time equivalent employees



Source: KfW SME Panel 2015–2021.

A closer look at the categories of loan amounts confirms this again (Figure 20): 74% of all investment

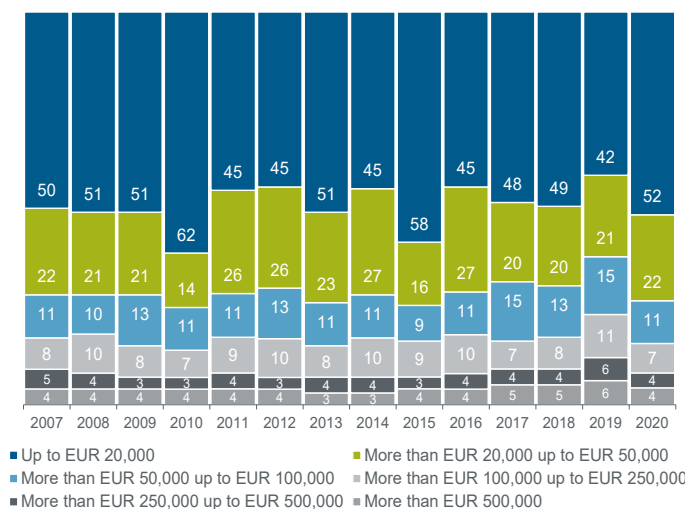
loans taken up in 2020 were for not more than EUR 50,000 and 85% of all investment loans had a maximum loan amount of EUR 100,000. Compared with the previous year, what is particularly evident is that the proportion of microloans up to EUR 20,000 grew strongly (+10 percentage points to 52%), while at the same time the proportion of high-volume loans in excess of EUR 250,000 in the SME sector fell from 12% to now 8%. On the basis of the historical comparison, the credit appetite of SMEs in 2020 would be roughly in line with the long-term average (approx. EUR 105,000 on average every year since 2007) and it would indeed be justified to refer to this as a correction.

Micro-businesses drive down loan volume

The near vertical drop in borrowing volumes, as well as the significant rise in the number of borrowers, is predominantly attributable to the response of small businesses in 2020. Micro-businesses with fewer than five employees had a particularly heavy impact. That segment alone made up 83% or around 100,000 of all SMEs borrowing additionally in 2020. The number of companies taking up bank loans grew by 31% here to 413,000. Bank loans were also used much more often in the group of enterprises with 5 to 9 employees (+22% year on year, or +15,000 businesses). One possible cause is that as a result of the crisis, these businesses in particular had insufficient liquidity to finance necessary capital expenditure. It is safe to assume that larger enterprises were more likely to draw on their financial reserves.

Figure 20: Bank loan amounts applied for by SMEs

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



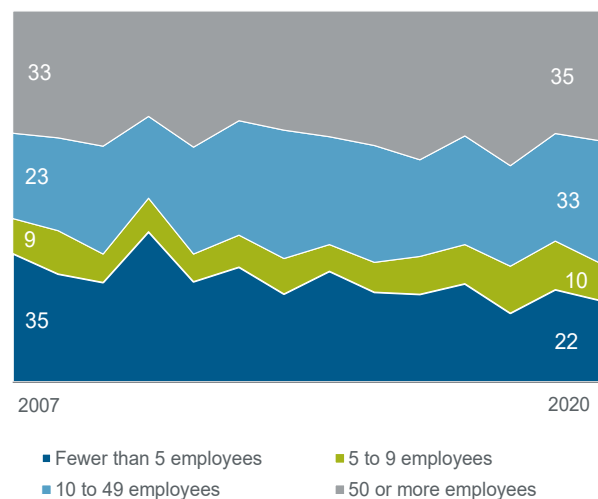
Note: Only SMEs with loan negotiations that actually used bank loans to finance investment.

Source: KfW SME Panel 2008–2021.

At the same time, average loan amounts decreased here significantly compared with the previous year. For micro-businesses with fewer than five employees the ticket size fell by 54% to only just EUR 29,000. For businesses with 5 to 9 employees the ticket size dropped by 59% to EUR 66,000. As a consequence – despite the higher number of borrowers – the share of bank loans in the financing mix for investment in both groups declined rapidly by 13 and 16 percentage points respectively (Figure 23). The last time bank loans were less relevant for investment finance in micro-businesses was 15 years ago. The volume of bank loans used in these two segments combined fell from EUR 30 billion to EUR 17 billion on the previous year, dropping to only just one third of all bank loans (Figure 21). Thus, as a result of the coronavirus crisis smaller businesses continued to lose importance for the structure of overall SME credit finance.

Figure 21: Shares of SME size classes in total SME borrowing

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



Source: KfW SME Panel 2008–2021.

The outlined fundamental credit financing dynamic of the year 2020, characterised by a growing number of borrowers along with shrinking average loan volumes, is also found among larger enterprises but is less distinct. For example, 2,000 enterprises in the group of SMEs with 50 and more employees took up more bank loans. At the same time, the average ticket size fell by 28% to approx. EUR 711,000. The share of bank loans in the financing mix decreased by 3 percentage points to 25%.

Difficult financing environment, slightly reduced success rate of loan negotiations

SMEs were slightly less successful in all negotiations about investment loans with banks and savings banks

than in the years before. The corresponding proportion of SMEs that conducted loan negotiations fell slightly by 1 percentage point from 62 to 61% (Figure 22A). But this is still a very good level in a long-term comparison. From an overarching perspective, credit access in 2020 can thus still be described as open. A slightly more detailed assessment shows that the segment of small enterprises with 5 to 9 employees prevented a sharper decline (Figure 22B). Their **success rate** in the past year improved significantly (+11 percentage points), while SMEs of the other size classes had a lower success rate than in the previous year. The variations on the previous year remained within the normal range, however. For example, the success rate of micro-businesses fell from 61% in 2007 as a result of the economic and financial crisis to as low as 41% in the subsequent years. In times of the coronavirus crisis, such a drop has not yet been evident (currently at 53%).

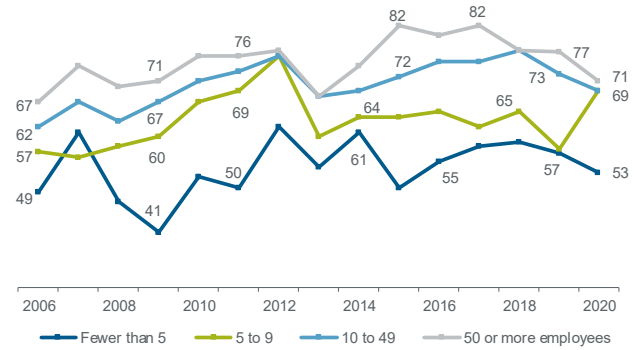
Figure 22: Outcome of loan negotiations

Shares of enterprises in per cent; size class by number of full-time equivalent employees

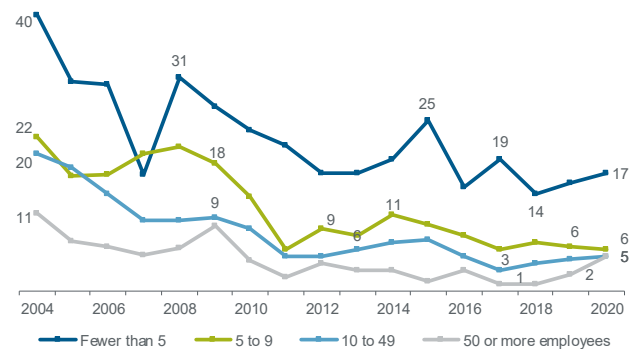
A) Overview outcome in general



B) Successful negotiations by size class



C) Rate of loan denials by class size



Source: KfW SME Panel 2005–2021.

The generally moderate year-on-year decline is also reflected in the **rate of loan denials**. The proportion of enterprises who failed in all their negotiations on investment loans was 14% in 2020 (Figure 22C). That was a moderate increase of 2 percentage points (12%) on the year 2019. But here again, compared with the historical average the rate was encouragingly positive (19% on average for 2004–2019).

The other two indicators of the KfW SME Panel on the outcome of loan negotiations reveal an opposing trend for 2020. Loan negotiations in the SME sector failed 5 percentage points more often as a result of credit

institutions not making an offer (14%). This is an indication that credit institutions took a slightly more restrictive approach in their negotiations last year as well. This mainly affected micro-businesses, where the proportion of **bank denials** increased from 18 to 27%. While that rate had fallen to a very low level of 18% in recent years, particularly because of the extremely good financing conditions, on a historical scale this level remains moderate (average rate for 2006–2015: 30%).

For structural reasons, very small businesses in particular are often 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 overall credit worthiness 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. In addition, the share of **rejections of loan offers received by enterprises** decreased at the same time (-5 percentage points to 20%). For one thing, this could indicate that credit institutions presented SMEs with improved offers. For another, it may provide a possible indication that SMEs were more often willing to also accept rather unattractive loan conditions, for example as a result of having fewer funding options or alternative financing sources.

Promotional funds for investments were in high demand

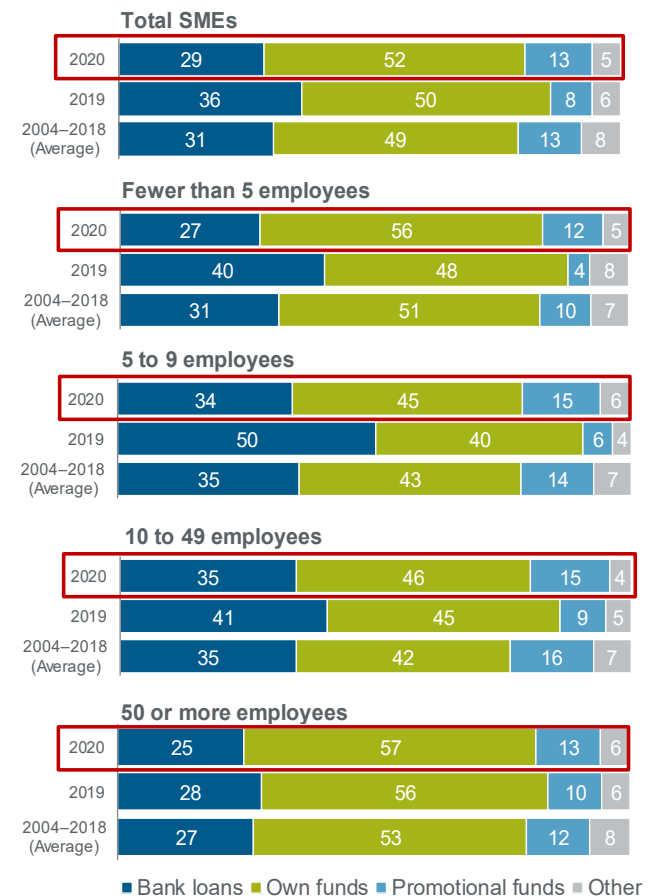
Enterprises requested significantly more public promotional funds to finance investment projects last year. Unlike in 2019, when a large portion of the investment volume was mobilised by borrowing more from banks, a significantly larger portion was financed using promotional funds. The share of promotional funds in total investment finance rose by 5 percentage points to 13% (8% in 2019). That share averaged 12% over the past 16 years. The volume of promotional funds used by SMEs rose by approx. EUR 9 billion to EUR 27 billion (2019: EUR 18 billion).

Thus, the importance of promotional funds in the financing mix for investments was only marginally above the historic average in 2020. A concentration on any particular segment cannot be identified. An increase in the share of promotional funds can be observed in all segments. In terms of proportions, increases were recorded particularly in micro-businesses with fewer than five employees (+8 percentage points

to 12%), enterprises with five to nine employees (+9 PP to 15%), R&D-intensive manufacturing SMEs (+8 PP to 14%) and other services businesses (+9 PP to 14%). Promotional funds increased less sharply in other manufacturing (+1 PP to 13%) and other SMEs with 50 and more employees (+3 PP to 13%).

Figure 23: SME investment finance by size class

Size classes by number of full-time equivalent employees, percentage of investment volume



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

Source: KfW SME Panel 2008–2021.

Promotional funds and bank loans to finance investments amounted to a combined volume of EUR 85 billion in 2020. This is a significant drop of EUR 12 billion on 2019 due to the massive decline in bank loans. The last time this loan volume was lower was in 2015 (EUR 82 billion) and in the years following the economic and financial crisis (2009–2013), when they averaged EUR 79 billion.

Other sources (e.g. private equity or mezzanine capital) were used in a similar volume as in previous years with EUR 11 billion, representing a share of 5% of total financing volume (-1 percentage point compared with 2019). Not much changed in this respect.

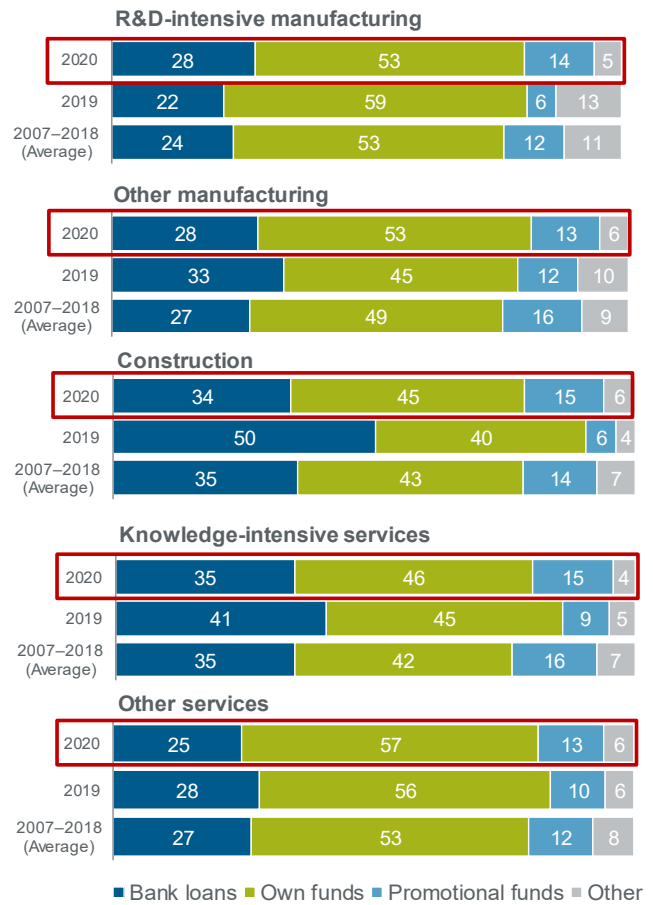
Use of own resources remained roughly on the previous year’s level

The reduced use of bank loans for investment finance was offset not just by higher demand for promotional funds but by a moderate increase in the use of own resources. The share of own funds in the volume of capital expenditure increased by 2 percentage points to 52%. However, the corresponding volume fell by EUR 4 billion to EUR 106 billion as a result of the general decline in investment expenditure. Thus, the use of own resources remained above the long-term average (EUR 97 billion from 2004 to2019). Overall, 2020 saw a sideways movement. The financial buffers built up in the past years were generally not used to finance investment expenditure in 2020.

The segment analysis also shows a mixed picture. Micro-businesses and other manufacturers in particular increased the share of own resources in the financing mix (+8 percentage points). By contrast, there was hardly any movement in large SMEs with 10 or more employees, while other services businesses (-4 percentage points) and R&D-intensive manufacturers (-6 percentage points) reduced their use of own funds compared with the previous year.

Figure 24: SME investment finance by sector

Size classes by number of full-time equivalent employees, percentage of investment volume



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

Source: KfW SME Panel 2008-2021.

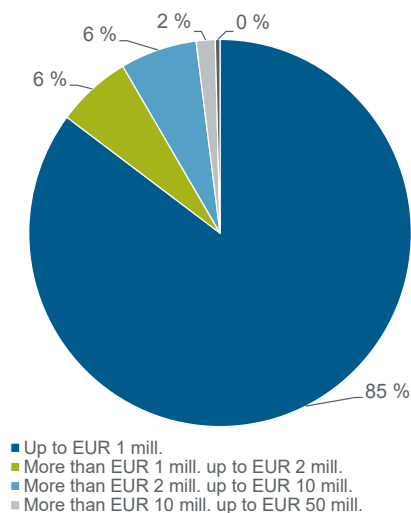
The structure of SMEs in 2020

The SME sector covers all enterprises in Germany with an annual turnover of not more than EUR 500 million. By this definition, there were around 3.8 million SMEs in Germany in the year 2020. The SME sector thus accounts for 99.95% of all enterprises in Germany. Around 3.1 million SMEs are domiciled in the western German states (82%), while 694,000 (18%) are domiciled in eastern Germany.

SMEs are very small on average

The vast majority of SMEs in Germany is small (Figure 25). A share of 85% (3.24 million businesses) generate annual sales turnover of less than EUR 1 million. Less than 0.4% (or approx. 15,000 of SMEs) generate annual sales turnover of more than EUR 50 million.

Figure 25: SMEs by annual turnover in 2020

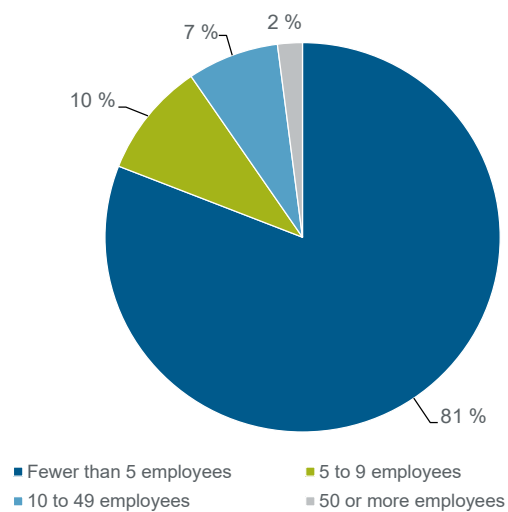


Source: KfW SME Panel 2021.

The fragmented nature of the SME sector is also reflected in employee numbers (Figure 26). Eighty-one per cent of SMEs (micro-businesses, 3.1 million) have fewer than five employees. That share has grown by around four percentage points since the turn of the millennium. Ten per cent of SMEs have five to nine employees (small firms), 7% have ten to 49 employees and 2.1% have a workforce of 50 or more.

The average SME size in Germany in 2020 was 7.5 full-time equivalent employees (median is 2), or roughly 9.0 workers. The SME sector has become more fragmented in the past years, mostly as a result of increasing tertiarisation.

Figure 26: SMEs by number of employees in 2020

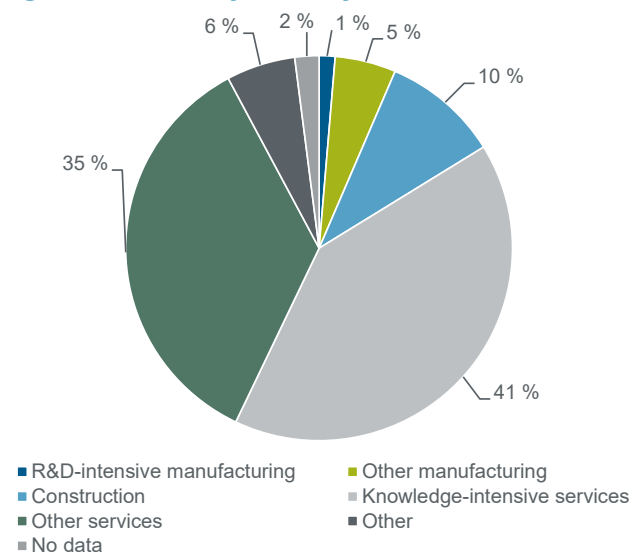


Source: KfW SME Panel 2021.

Growing focus on services

Service industries are increasingly dominating economic activity. The majority of German SMEs are service providers (Figure 27), of which 2.89 million – or 76% of all SMEs – operate in service industries, with 1.55 million of them providing knowledge-intensive services, a trend that is increasing.

Figure 27: SMEs by industry in 2020



Source: KfW SME Panel 2021.

There are many different causes for the shift towards services. One of them is businesses' 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

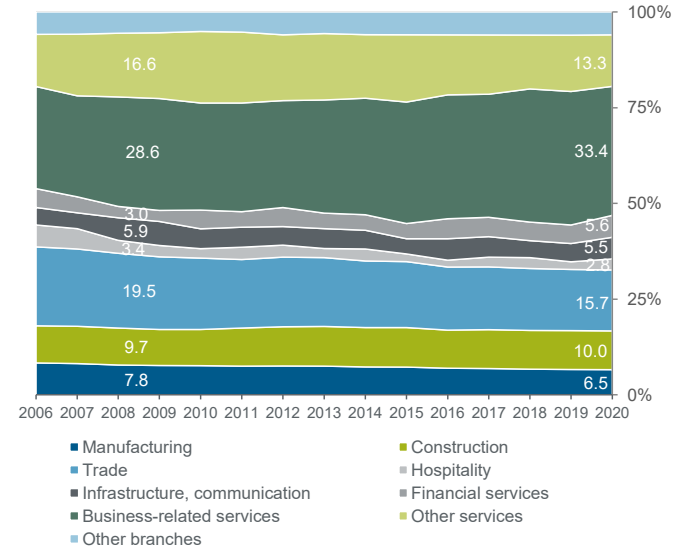
developments have created an increased demand for services for some time now (driven by demographic change and the growing proportion of small households, for example).

Among the knowledge-intensive services, the sub-segment of business-related services accounts for the largest and growing share (Figure 28). Since 2008, their number has increased by approx. 300,000. By contrast, the number of small and medium-sized enterprises in hospitality and retail has fallen by some 110,000 each over the same period.

In 2020, around 1.3% of all SMEs were R&D-intensive manufacturers (around 51,000 enterprises). Manufacturing generally accounts for a relatively low share of approx. 6.4% of all small and medium-sized enterprises but employs more than 16% of the entire workforce.

Figure 28: Shifts in sectoral structure of SMEs from 2006 to 2020

Sectoral shares in per cent each year



Sources: KfW SME Panel 2007–2021.

SMEs at a glance

In per cent, unless otherwise specified

	2014	2015	2016	2017	2018	2019	2020
Investments							
Total share of investors	42	43	42	38	42	39	46
Share of investors <5 full-time equivalent employees	37	37	37	32	37	34	40
Share of investors ≥ 50 full-time-equivalent employees	84	87	85	81	85	83	85
Total investment volume (EUR in billions)	202	199	204	211	220	222	204
Investment volume <5 FTE employees (EUR in billions)	53	45	46	51	42	49	44
Investment volume ≥50 FTE employees (EUR in billions)	71	84	83	86	94	91	79
Volume of investment in new machinery, equipment and buildings (EUR in billions)	158	161	169	176	184	187	173
Investment finance							
Borrowings to finance investments (EUR billion)	63	60	61	65	75	81	59
Rate of loan denials (in per cent)	16	20	13	15	11	12	14
Net profit ratio^b							
Average return on sales	7.0	7.3	7.3	7.2	7.4	7.5	7.3
Average return on sales <10 FTE employees	12.6	13.8	14.0	14.6	15.0	14.6	10.0
Average return on sales ≥50 FTE employees	4.6	4.5	4.4	4.2	4.2	4.3	4.2
Proportion of SMEs with losses	12	8	10	9	9	9	12
Equity base^c							
Average equity ratio	29.7	29.7	30.0	31.2	31.2	31.8	30.1
Average equity ratio <10 FTE employees	22.1	20.9	22.5	22.6	22.4	22.2	17.4
Average equity ratio ≥50 FTE employees	33.8	33.4	33.6	33.9	34.8	37.0	36.4
Proportion of SMEs with negative equity ratio	10	11	10	8	8	4	4
Employment trends^d							
Total employment growth rate	2.8	2.3	2.7	2.7	3.3	1.9	-0.3
FTE growth rate <5 FTE employees	2.6	1.7	2.1	1.6	2.1	2.0	-0.7
Development of turnover^d							
Total turnover growth rate	3.3	3.3	3.9	4.7	4.9	3.5	-1.3
Turnover growth rate <5 FTE employees	2.3	2.9	3.6	2.8	6.1	3.9	-3.7

* Note: ^a Total debt capital realised means the volume of bank loans and promotional funds actually used for investment finance. ^b Mean values weighted with turnover. ^c Mean values weighted with total assets, projections only for enterprises with accounting obligations and excluding individual enterprises / sole traders. ^d 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, 19 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 the SME sector. 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 11,403 SMEs took part in the current wave.

Analyses of long-term structural developments in the SME sector are performed on the basis of the KfW SME Panel. It gives 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 2020 and the population of employees at SMEs in 2020, the German Company Register (Unternehmensregister) and the official employment statistics (Erwerbstätigenrechnung) were used as a basis for the 2021 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.

The survey is conducted by the Financial Services 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 19th wave of the KfW SME Panel was conducted in the period from 15 February 2021 to 25 June 2021.

Supplementary coronavirus surveys to the KfW SME Panel

The analyses undertaken to determine the effect of the coronavirus crisis on SMEs are based on six supplementary surveys conducted as part of the KfW SME Panel. To this end, the Financial Services Division of GfK SE conducted a representative online survey of small and medium-sized enterprises on the current impacts of the coronavirus crisis on behalf of KfW Group (April 2020, June 2020, September 2020 as well as January 2021, May 2021 and most recently 1-10 September 2021). 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 approx. 2,100 to 3,400 enterprises were evaluated in each of the surveys. As the supplementary survey was linked to the main database of the KfW SME Panel, its results provide a representative picture of the current coronavirus impact.

Further information can be obtained [here](#).

¹ Details on the surveys can be obtained from the box on methodology at the end of the current article. General findings on previous supplementary coronavirus surveys 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. – Gerstenberger, J. and Schwartz, M. (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 – in 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 – in German only), Focus on Economics No. 333, KfW Research.

² The causes of the current supply chain disruptions are manifold and not exclusively and directly due to the coronavirus crisis. For more information see Abel-Koch, J. (2021), Supply bottlenecks are significantly impacting all areas of the SME sector, Focus on Economics No. 351, KfW Research.

³ 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)'.

⁴ 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.

⁵ 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)'.

⁶ For example, according to data from the German Federal Statistical Office, retail turnovers grew by a nominal 5.4% on the previous year despite various and prolonged restrictions (Destatis 2021), Einzelhandelsumsatz im Jahr 2020 voraussichtlich 4,1 % höher als 2019 (Retail turnover in 2020 set to exceed 2019 level by 4.1% – our title translation, in German), press release No. 002 of 5 January 2021, https://www.destatis.de/DE/Presse/Pressemitteilungen/2021/01/PD21_002_452_12.html.

⁷ Zimmermann, V. (2020), SMEs are responding creatively to the coronavirus crisis, Focus on Economics No. 291, KfW Research.

⁸ According to the definition of the German Federal Statistical Office, e-commerce is 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.

⁹ Gerstenberger, J. (2021), No way back: Many SMEs expect the coronavirus crisis to have a lasting impact on product demand, Focus on Economics No. 342, KfW Research.

¹⁰ 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.

¹¹ That led to a sharp increase in new lending to businesses and self-employed persons, especially in the first and second quarter of 2020. Banks gave 7.3% and 6.0% more loans during that period than in the same period the year before. Cf. KfW Credit Market Outlook Q1/2021, KfW Research.

¹² 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.

¹³ Gerstenberger, J. (2018), Hohe Eigenkapitalquoten im Mittelstand: KMU schätzen ihre Unabhängigkeit (High equity ratios: SMEs value their independence – in German only), Focus on Economics No. 206, KfW Research.

¹⁴ Employment in 2020: upward trend in the labour market ended after 14 years – Federal Statistical Office (destatis.de) https://www.destatis.de/EN/Press/2021/01/PE21_001_13321.html

¹⁵ Federal Employment Agency (2020). Short-time work realised – Germany, western/eastern, states, districts and Employment Agencies (May 2020).

¹⁶ 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.

¹⁷ 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.

¹⁸ For details on the impact of the coronavirus crisis on investment activity of SMEs in Germany see: Schwartz, M.; Borger, K.; Brüggemann, A., Gerstenberger, J., Köhler-Geib, F. and Zimmermann, V. (2020), SMEs between financial resilience and a digital and green investment surge – a trade-off that should not be, Focus on Economics No. 306, KfW Research.

¹⁹ Schwartz, M.; Borger, K.; Brüggemann, A., Gerstenberger, J., Köhler-Geib, F. and Zimmermann, V. (2020), SMEs between financial resilience and a digital and green investment surge – a trade-off that should not be, Focus on Economics No. 306, KfW Research.

²⁰ Gross fixed capital formation in the business sector comprises private sector investment in machinery and equipment plus construction (without residential construction).

²¹ Aggregate business investment in Germany has already been on a downward trend for quite some time now. In the 1990s, businesses on average still invested 13.9% of gross domestic product (GDP) in equipment, industrial buildings and other facilities. The investment ratio in the 2000s then fell to 12.6% before dropping to an average 12.2% in the 2010s. The peak that preceded the financial crisis (2008: 13.1%) was never matched again despite an uninterrupted ten-year growth phase from the year 2010. See Schwartz, M.; Borger, K.; Brüggemann, A., Gerstenberger, J., Köhler-Geib, F. and Zimmermann, V. (2020), SMEs between financial resilience and a digital and green investment surge – a trade-off that should not be, Focus on Economics No. 306, KfW Research.

²² 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 volumes 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.

²³ 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.

²⁴ Schwartz, M. (2017), KfW SME Panel 2017: Germany's SMEs continue to break records– sectoral transformation poses new challenges, KfW Research.