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Which enterprises have been hit hardest by the coronavirus crisis and what lessons can we learn from it?

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The impact of the coronavirus pandemic has hit the entire SME sector but different segments have been affected to varying degrees. The following analysis aims to explore which groups of small and medium-sized enterprises are suffering more, which are suffering less and what lessons can be learned from the crisis.

Overall, 24% of SMEs have recorded a decrease in their equity ratio in the course of the coronavirus crisis. Enterprises that already had a rather low credit rating before the crisis have been more likely to experience decreasing equity ratios (39 vs. 20% of SMEs with an excellent to good credit rating), as have those that are internationally active (29%). Small businesses (24%) are struggling more to survive the crisis than medium-sized SMEs, for example (20%).

By contrast, enterprises whose credit rating indicates well developed management skills and those that conducted innovation and digitalisation projects already before the crisis, enabling them to build up innovative capabilities and achieve a higher degree of digitalisation, have displayed higher crisis resilience (share of enterprises with a decreased equity ratio: 22 and 20%) than businesses that do not fit this description (25 and 26%).

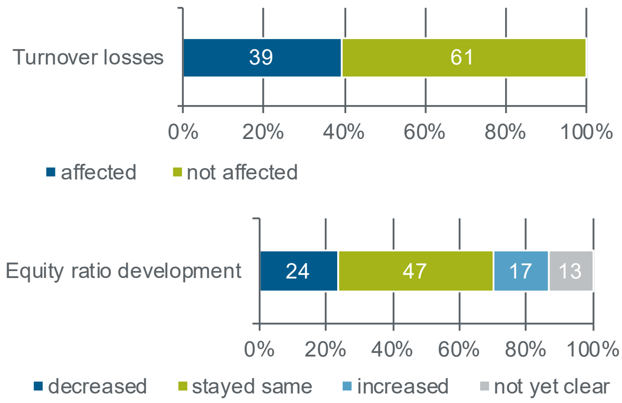
One of the lessons to be learned from this crisis is that future crises are likely to expose the greater vulnerability of small businesses as well. This also applies to the high importance of management skills for active crisis management and to the ability of innovative enterprises in particular to respond to challenges with creativity and flexibility. On the other hand, there is no way of predicting in what ways specific sectors or internationally active enterprises might be affected by future crises.

Not least, the experience of this crisis and the higher debt of many enterprises makes it more difficult to reconcile the conflicting goals of greater crisis resilience and the need to invest more in climate action, environmental protection and competitiveness. In climate action and environmental protection, a consistent framework such as a reliable CO_2 price signal is an important building block. Financial incentives that generate impetus across the entire SME sector to invest in climate action and environmental protection, innovation and new technologies also play a role. Available tools range from low-interest loans (that include a subsidy component), through expanding R&D promotion to improving the supply of equity finance for start-ups. In order to ensure that the challenge of transitioning to a resilient, competitive and climate-neutral economy can be met once the acute crisis phase has been overcome, economic policymakers must now set the right course.

The coronavirus pandemic that broke out in Germany in the spring of 2020 has had severe impacts on our lives but also on enterprises.[i] SMEs had to endure losses in turnover even more often than employee absences, disruptions to supply chains or other difficulties.[1]

Figure 1: Financial impact of coronavirus crisis

In per cent



Source: KfW SME Panel, 5th supplementary coronavirus survey (May 2021)

The aim of the following study is to ascertain what crisis impact or resilience patterns can be identified and what lessons can be learned from this crisis for possible future crises as well as with a view to necessary economic policy measures for the recovery phase following the end of the acute crisis phase.

We examine the extent to which businesses have been affected by losses in turnover and the development of equity ratios during the coronavirus crisis as indicators of crisis impact (Figure 1). The main focus is on the development of equity ratios, as they reflect losses in turnover that could not be offset but have led to a depletion of equity or forced businesses to borrow in order to secure liquidity.

[i] This study was conducted in a partnership between Creditreform Rating AG, Neuss, and the economics department of KfW Group.

Note: This paper contains the opinion of the authors and does not necessarily represent the position of KfW.

Another reason the equity ratio is an important indicator is that a deterioration in an enterprise's equity ratio has negative effects on its borrowing options beyond the acute crisis phase. After all, the equity ratio is an important parameter for determining a company's credit rating. Furthermore, any necessary increase in the equity ratio – through the retention of profits, for example – takes a certain amount of time.

Overall, German SMEs have weathered the crisis relatively well

In May 2021, 39% of SMEs were still grappling with losses in turnover. At the beginning of the crisis that share was 86%.[2] In May 2021, 24% of SMEs reported a drop in their equity ratio in the course of the pandemic, while 13% could not yet provide an update at that point in time (Figure 1).

The overall impact of the coronavirus crisis on enterprises can be assessed as rather moderate, as just under one quarter of enterprises have so far reported a deterioration in their equity ratio. This assessment also reflects the circumstance that the financing situation and equity ratios of small and medium-sized enterprises were extremely favourable before the coronavirus crisis.[3] The average equity ratio in the SME sector indeed rose to a new record level immediately before the outbreak of the pandemic, at just under 32%. A widespread increase in overindebtedness across the SME sector is therefore unlikely.

Besides the relaxation of restrictions and the less stringent second lockdown, this is probably in part the result of government support measures and far-reaching adjustments undertaken by small and medium-sized enterprises. Already at the beginning of the crisis, these adjustments related to the products and services on offer, internal processes and sales channels and probably affected the sales and cost situation directly.[4] Finally, digitalisation measures such as the expansion of home working capacities in combination with measures aimed at improving digital communication are likely to have contributed to limiting employee absences and keeping businesses operating overall.

Small businesses most often affected by declining equity ratios

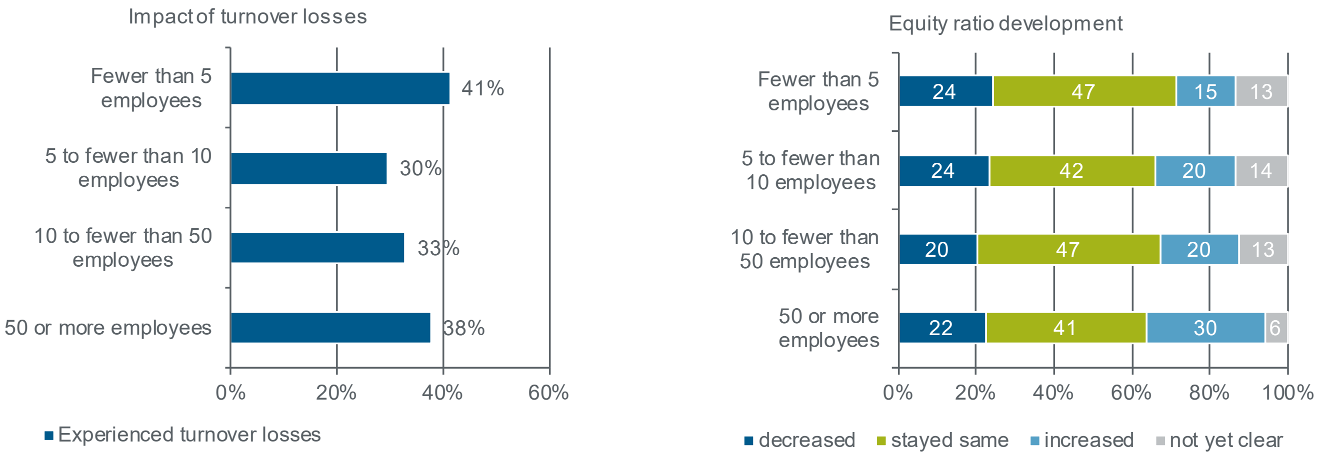
A closer look at enterprise sizes[5] shows that small businesses with fewer than five employees and larger firms with 50 and more employees had to endure losses in turnover most often (41 and 38%, respectively – Figure 2). The different degrees to which companies of different sizes have been affected by turnover losses probably conceal other influencing factors, in particular, such as the sector to which they belong, their sales region and differences in the possibilities and capabilities companies have to actively manage the crisis. As demonstrated below, some of these influencing factors have significant and sometimes even mutually cancelling effects on crisis impact.

The deterioration of the equity ratio also follows a similar pattern along the lines of enterprise size classes. Here, too, the proportion of enterprises whose equity ratio has decreased in the course of the crisis is highest among the group of small businesses, at 24%, but then drops to 20% among businesses with 10 to fewer than 50 employees and rises moderately again to 22% in the top enterprise size class. Apart from the fact that small businesses are more often affected by turnover losses, the likely reason their equity ratio tends to develop more negatively is that they typically have fewer cash reserves and need to make up for losses in turnover more quickly by taking up loans.

The higher crisis impact is also having a negative effect on the equity ratios of some large SMEs. With regard to the development of equity ratios across enterprise size classes, however, it is also true that the larger the enterprise, the higher the proportion of SMEs that have succeeded in improving their equity base during the pandemic.

Figure 2: Financial impact of coronavirus crisis by enterprise size

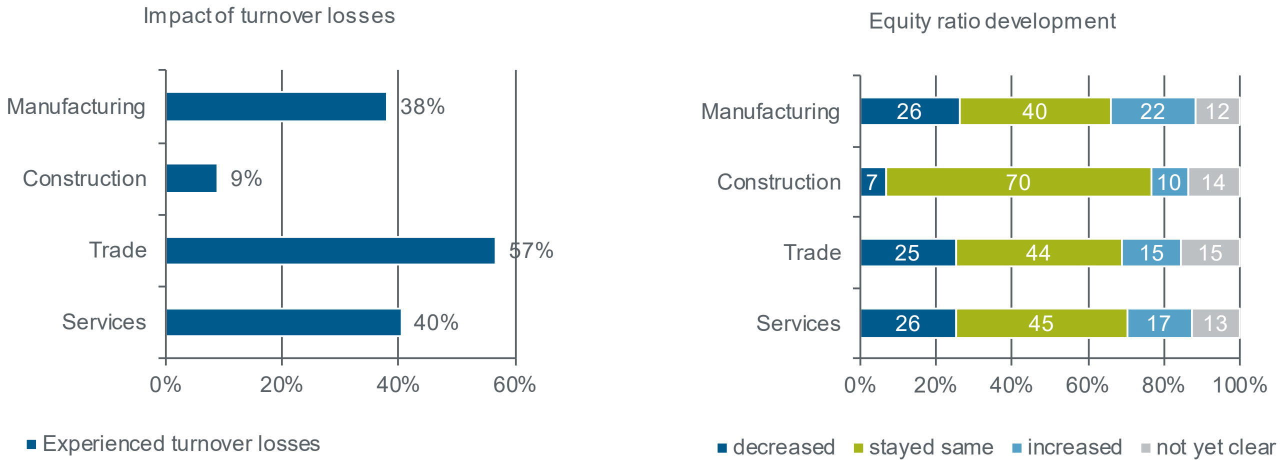
In per cent



Source: KfW SME Panel, 5th supplementary coronavirus survey (May 2021)

Figure 3: Financial impact of coronavirus crisis by business sector

In per cent



Source: KfW SME Panel, 5th supplementary coronavirus survey (May 2021)

Construction sector least affected by the coronavirus crisis

Retail and wholesale enterprises are most likely to be affected by turnover losses (57%), while construction firms are least affected (9%). Manufacturing and services are in mid-range, with 40% and 38% impacted by the crisis (Figure 3).

The findings relating to the retail and wholesale sector can probably be explained by the fact that these enterprises were particularly affected by pandemic containment measures such as closures or restrictions on business operations. Wholesale and foreign trade merchants, on the other hand, were likely affected primarily by the slump in global trade and supply chain disruptions. This probably applies to the more export-oriented manufacturing SMEs as well.[6] Export markets did not show signs of recovering until the spring of 2021, while supply chain disruptions also remain relevant for a considerable portion of small and medium-sized enterprises overall.

Finally, the services sector was also hit hard by pandemic containment measures. They were imposed on accommodation and hospitality businesses and on many person-to-person services (such as hairdressers and gyms). Business service providers, on the other hand, were likely more often affected by a drop in demand due to the crisis. The low proportion of construction firms that suffered turnover losses is due to the fact that the coronavirus pandemic had only a minor negative impact on what was an extremely positive business situation in the construction sector before the outbreak.

These different degrees of impact affect the development of the equity ratio only in some cases, however, for example where companies were propped up by state support measures and were able to reduce their running costs. Particularly where the downward trend in equity ratios is concerned, construction is the only sector to stand well apart from other economic sectors. Only 7% of construction firms reported a deterioration in their equity ratio, which is a very low rate (compared with 25 to 26% in other economic sectors).

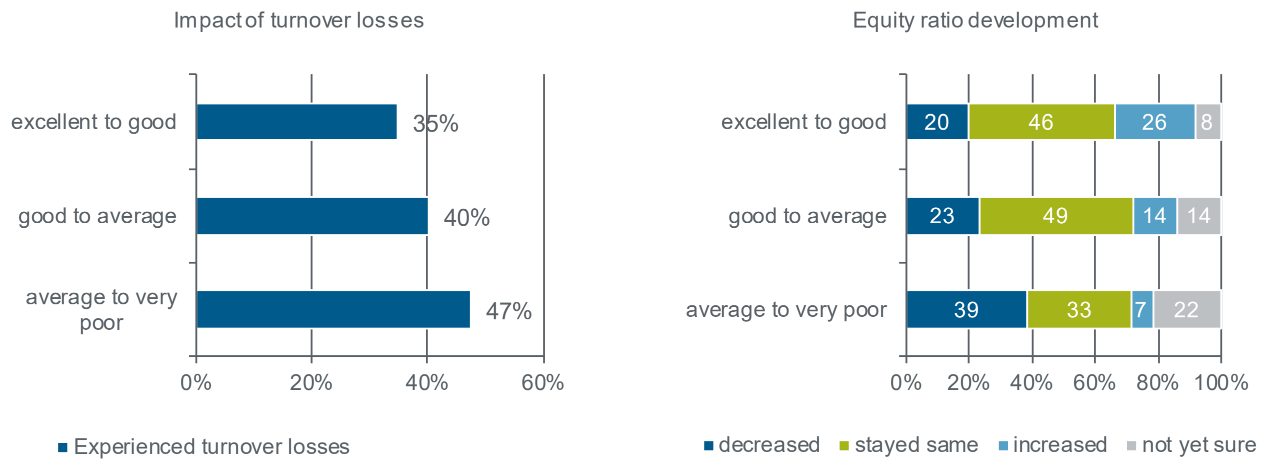
Businesses whose credit rating was already weak before the pandemic tend to have more trouble getting through the crisis

A broad-based cooperation with Vereine Creditreform e. V. enabled us to include the businesses' credit standing in the analysis. With respect to credit rating[7] before the beginning of the crisis, it became evident that small and medium-sized enterprises that already had a low credit rating before the outbreak of the coronavirus pandemic also had greater difficulty weathering the crisis both in terms of turnover losses and the development of the equity ratio.[8] The share of enterprises that had to endure a deterioration in their equity ratio increases from 20% in the category with the highest credit rating to 39% in the category with the lowest credit rating (Figure 4).

This clear result is surprising only at first glance because a good rating can also reflect higher liquidity reserves. In particular, the rating score is also an indicator of the quality of the business itself.[9] For example, it reflects the quality of its management – which is otherwise seldom adequately captured in business surveys – given that a company's past and long-term business success – on which a high credit rating is based – would not be achievable without good management. These qualities in particular may also have made it easier to manage the coronavirus crisis more successfully than would be possible for enterprises with less developed management skills.

Figure 4: Financial impact of coronavirus crisis by pre-crisis company credit rating

In per cent



Source: KfW SME Panel, 5th supplementary coronavirus survey (May 2021)

Internationally active enterprises are more likely to suffer in the coronavirus crisis

Enterprises that generated international turnover before the coronavirus pandemic have also navigated the coronavirus crisis less successfully than businesses with purely domestic operations in terms of both turnover losses and changes in equity ratio. Losses in turnover affected 46% of internationally active firms but 37% of SMEs that are focused on the domestic market.

In internationally active enterprises the equity ratio also deteriorated significantly more often than in SMEs whose business is focused on Germany (29 vs. 22% – Figure 5). The reasons for this are likely to be found in the previously mentioned slump in global economic output and disruptions to supply chains – which are more often international for these firms.

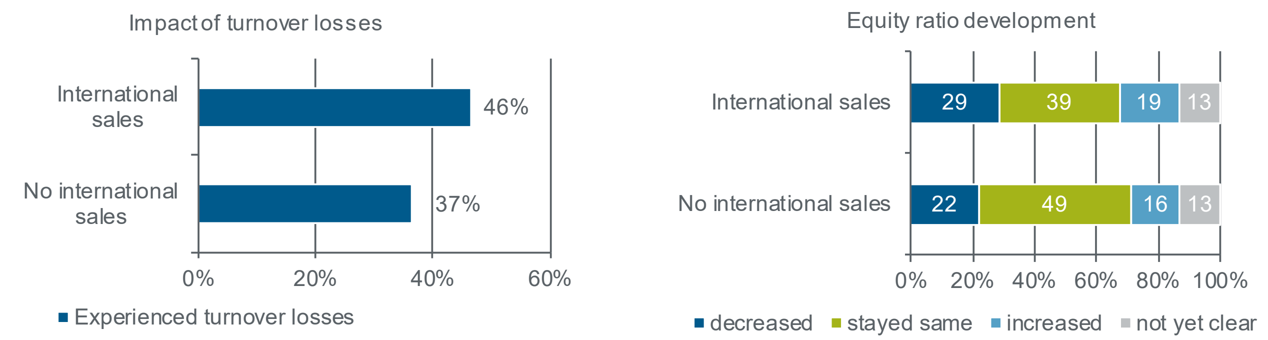
Equity ratio of innovators and digital transformers is less severely hit by the crisis

For the classification of businesses by innovation and digitalisation activities prior to the coronavirus pandemic, the findings on the impact of turnover losses are not quite as unequivocal as would have been expected based on the dominant opinions in the literature. Various studies found that innovators or enterprises with advanced levels of digitalisation have weathered past crises more successfully.[10]

By contrast, it has been found that innovators suffer losses in turnover slightly more often than non-innovators (42 vs. 38%). This may be due to the fact that innovators are more likely to be found among large and internationally active enterprises. For digitalisation activities, the situation is as expected: The share of enterprises that suffered turnover losses is lower among enterprises that implemented digitalisation projects before the pandemic, at 36 vs. 41% (Figure 6).

Figure 5: Financial impact of the coronavirus crisis based on international sales

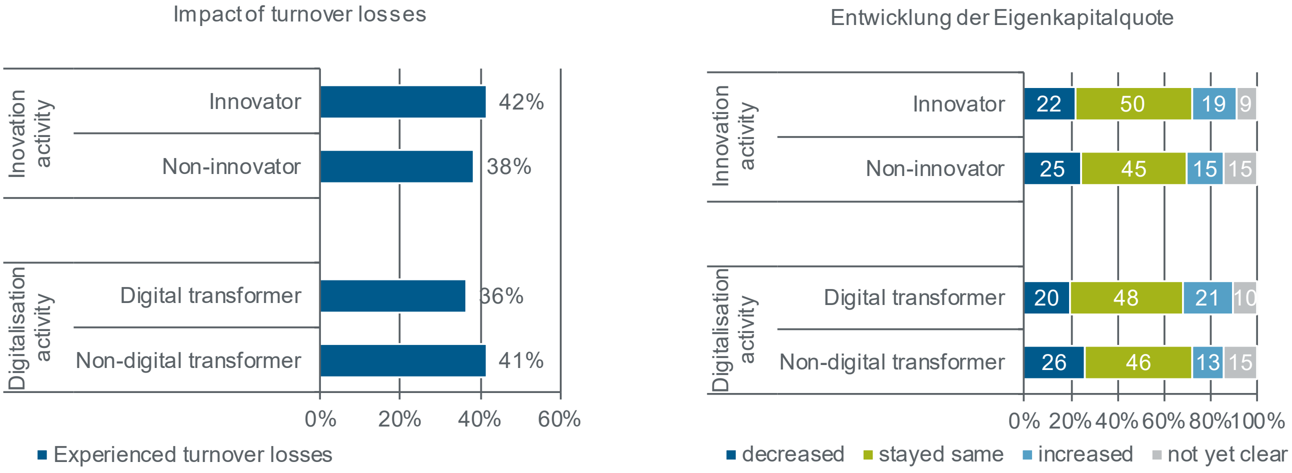
In per cent



Source: KfW SME Panel, 5th supplementary coronavirus survey (May 2021)

Figure 6: Financial impact of coronavirus crisis depending on digitalisation and innovation activities

In per cent



Source: KfW SME Panel, 5th supplementary coronavirus survey (May 2021)

The latter finding is unsurprising, as digitalised enterprises in particular can be expected to be able to manage the coronavirus crisis better than other SMEs. That is because digitalisation measures in particular can be expected to have the potential to mitigate negative impacts of a crisis such as the one triggered by the coronavirus pandemic.11 Examples include online trade, cashless payment systems, virtual communication forms, home working arrangements and e-health services.

With respect to the equity ratio, on the other hand, the situation is as expected with regard to both digitalisation and innvation activity. Enterprises that innovated or carried out digitalisation projects before the coronavirus crisis were less likely to experience declines in their equity ratios (22 and 20%) than counterparts that had no digitalisation or innovation activities (25 and 6%). This finding is corroborated by the fact that the share of enterprises with improved equity ratios is indeed higher among innovators and digital transformers. This shows that although innovators were more likely to experience a certain level of turnover losses, they were also less likely to be forced to borrow or deplete their liquidity reserves than other enterprises.

It was found that enterprises that innovated before the crisis were also more likely to continue or even increase their innovation and digitalisation activities during the crisis.[12] The ability of these enterprises to respond flexibly and creatively to drops in demand, supply shortages and other crisis impacts and to adhere to distancing requirements while remaining visible to customers and cooperation partners has likely been pivotal to their success in weathering the crisis better than others. Skills available within the company to innovate and – particularly under pandemic conditions – design and implement digitalisation measures are likely to have been instrumental in managing the crisis successfully.

Conclusion

The coronavirus pandemic has left visible traces in the equity ratios of around one quarter of German SMEs. It is reasonable to expect that the consequences of this will not have vanished even after the acute crisis phase has ended. However, in assessing this finding it must also be emphasised that the impact of the crisis is thus to be regarded as rather moderate. This is particularly true on the basis of the decidedly good situation prior to the crisis and its stabilisation as it progressed. The overall business sector is unlikely to be at risk of over-indebtedness.

The impact of the crisis has not affected all SMEs equally, hitting certain segments with greater intensity. The aim of the present study was to identify the patterns of crisis impact and crisis resilience.

What patterns of crisis impact can be identified?

Particularly with regard to a deterioration in equity ratios, enterprises affected by the crisis are more likely to be found among those that already had a low credit rating before the outbreak of the pandemic, among internationally active businesses and in sectors that were not able to profit from a temporary pandemic boom that would have shielded them from the impact. Small businesses also struggle more to survive the crisis than medium-sized SMEs, for example.

By contrast, higher crisis resilience can be identified for enterprises whose credit rating indicates distinct management skills, as well as for those that carried out innovation and digitalisation projects already before the crisis and have thus built up capacities and a high level of digitalisation. Furthermore, large SMEs also survive the crisis better than small businesses – especially when the evaluation takes into account the share of enterprises whose equity ratio has increased.

Learning from the crisis: How transferable are the current findings to other crises?

In order to apply lessons learned from the current crisis to future crises, we first have to question to what extent the current crisis is transferable to others. The fact is that crises differ. The crisis of 2008/2009, for example, was triggered by the bursting of the real estate bubble in the US. Previously underestimated and concealed risks in bank balance sheets came to light abruptly. This led to serious upheavals in the global financial system and financing difficulties for the real economy. The ensuing global economic slump hit Germany particularly through a drop in demand for exports, thus affecting mainly large enterprises in the globally more closely interconnected manufacturing sector.

By contrast, the current crisis was caused by the impact of a pandemic and the necessary containment measures. It hit the economy much more broadly. To be sure, the coronavirus crisis also dealt a heavy blow to the global economy and international trade. As described above, this time, unlike in 2009, retailers and service providers took a particular hit – sectors that rely on personal contact and focus more on the domestic market.

Nonetheless, particular findings from the current crisis can also be applied to other crises. One of them is that small businesses are more vulnerable. Because of their smaller size, they have fewer options for building up sufficient reserves to overcome crises. The great importance of management skills to actively navigate through the crisis and the ability to respond creatively to challenges, which is common in innovative companies in particular, will likely prove helpful in future crises as well.

Crisis management measures: Where should economic policy intervene?

In assessing the impact of crises it must also be considered that the failure of businesses is always linked to the market process. Market adjustment processes are more common in times of crisis. The closure of businesses that are unsuccessful because they operate less efficiently or fail to meet the needs of the market, for example, is therefore a necessary process from an economic point of view. Economic policy support measures aimed at artificially propping up businesses with unviable business models should therefore be considered inappropriate. This applies to businesses that were already in financial distress before the crisis, for example. Measures designed to mitigate the impact of abrupt or very fast structural change are conceivable here, however.

The case is different when certain business segments are hit harder by crisis situations than other business groups owing to structural and immanent disadvantages. This holds true for small businesses, for example, which have limited options for building up sufficient reserves, as previously explained. At the same time, these businesses play an important role in the economic process. They occupy market niches, perform the role of efficient suppliers of large enterprises and thus operate profitably in times of economic normality. Losing such enterprises to a crisis would damage the economy. Economic support measures as an immediate crisis management tool should therefore be expressly regarded as necessary. This involves internationally active businesses as well, as they have had to endure setbacks that were typically of a temporary nature only and due to the crisis.

Last but not least, promoting businesses that innovate and carry out digitalisation projects is an ongoing economic policy task. Instances of market failure such as ‘asymmetrical information distribution’ between these businesses and potential providers of capital and the nature of knowledge as a ‘public good’ make it hard for these enterprises to obtain external finance and generate income from their activities. Promotional measures that go beyond acute crisis management are necessary here in order to prevent these instances of market failure from causing affected enterprises to invest too little in innovation and digitalisation than would be desirable from an aggregate economic point of view.[13]

Economic policy measures should focus on climate neutrality, competitiveness and crisis resilience after the acute crisis response phase

The experience of the crisis has likely made many enterprises more willing to improve their crisis resilience. This desire makes it harder to reconcile the conflicting goals between investments in improved crisis resilience on the one hand and future-related investments – such as climate action and environmental protection as well as competitiveness through innovation and digitalisation – on the other hand. This target conflict poses the risk that the latter types of investment will be put off even more often in the future. The decline in equity ratios in many enterprises is likely to be an additional obstacle to business investment overall. It threatens to slow down the necessary improvements to Germany’s technological competitiveness and its transition to sustainable economic management.

One important element is to provide a consistent framework, such as a reliable and predictable, rising CO_2 price signal for climate action and environmental protection. Others include financial incentives such as loans coupled with subsidies in order to provide all enterprises with greater incentives to invest in climate action, innovation and new technologies. With regard to the development of new technologies associated with greater development uncertainty, consideration must also be given to expanding the contribution of the state in the form of R&D subsidies and tax incentives for R&D. Not least, the further development and improved availability of equity finance will become very important for young technology enterprises as well.

However, crisis resilience must not be understood exclusively as a barrier to other important investments. Rather, enhancing crisis resilience is a key field of action in its own right that merits close attention in the post-coronavirus period. Further key fields of action that are closely related with this are the intelligent use of international relationships and the further strengthening of the European Union. In order to ensure that the challenge of transitioning to a resilient, competitive and climate-neutral economy can be mastered after the acute phase of the crisis has been overcome, economic policymakers must now set the right course. KfW Research has compiled proposals on how this can be done in a separate position paper.[14]

[1] Cf. Gerstenberger, J. (2021): Licht am Ende des Tunnels – die Lage im Mttelstand entspannt sich (*Light at the end of the tunnel – the situation of SMEs is easing – our title translation, in German only*), Focus on Economics No. 333, KfW Research.

[2] Cf. 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.

[3] Cf. Gerstenberger, J. (2020): Business Survey 2020 Lending climate: Businesses were well equipped for the crisis, KfW Research and 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

[4] Cf. Zimmermann, V. (2020): SMEs are responding creatively to the coronavirus crisis, Focus on Economics No. 291, KfW Research.

[5] The number of employees is calculated in full-time equivalents including all active owners but excluding trainees and apprentices. Two part-time employees are counted as one full-time employee.

[6] Cf. Abel-Koch, J. and Ullrich, K. (2020): Short-term shock with lasting effects: The coronavirus crisis and international value chains, Focus on Economics No. 309, KfW Research.

[7] The credit rating issued by Vereine Creditreform is based on a total of 15 criteria that cover financial status and liquidity (information reported in the annual statements), structural risks (sector, size and age of enterprise, productivity) and soft factors (payment history, volume of existing orders, order intake, management quality).

[8] The credit rating is determined on a scale of 100 to 600, with 100 representing the best achievable score and 600 the suspension of payments. The category 'outstanding – good' applies to enterprises with an index value up to 229, the category 'good – and medium' an index value from 230 to 299 and the category 'medium – very low' comprises enterprises with an index value of 300 and higher. Category limits were defined in such a way that all groups are covered by a sufficient number of observations for the analysis.

[9] Cf. Peters, B.; Robert, M. S. and Vuong, V. A. (2017): Dynamic R&D Choice and the Impact of the Firm's Financial Stregth, Economics of Innovation and New Technology 26(12):134–149.

[10] Cf. Dachs, B. and Peters, B. (2020): Covid-19-Krise und die erwarteten Auswirkungen auf F&E in Unternehmen (*COVID-19 crisis and expected impact on R&D in businesses* – our title translation, in German only), ZEW policy brief No. 2 April 2020. and Bertschek, I.; Polder, M. and Schulte, P. (2019): ICT and resilience in times of crisis: evidence from cross-country micro moments data, Economics of innovation and new technology 28(1):1–16.

[11] Cf. Bertschek, I. (2020): Digitalisierung – der Corona-Impfstoff für die Wirtschaft (*Digitalisation as a corona vaccine for the German economy* – in German only), Wirtschaftsdienst 2020/9, p. 653–656.

[12] Cf. Zimmermann, V. (2021): KfW SME Digitalisation Report 2020. Digitalisation activity fell before Corona, ambivalent development during the crisis, KfW Research and Zimmermann, V. (2021): KfW SME Innovation Report 2020, Coronavirus crisis is slowing down innovation, KfW Research.

[13] Cf. Zimmermann, V. (2020): Financing of digitalisation and capital expenditure in SMEs – a comparison, Focus on Economics No. 280, KfW Research.
Zimmermann, V. (2019): How SMEs fund their innovation and investment expenditure – a comparison, Focus on Economics No. 237, KfW Research.
Zimmermann, V. and Thomä, J.: (2012), Innovationsschutz im Mittelstand: Strategien und deren Bestimmungsfaktoren (*Protecting innovations in SMEs: Strategies and their determinants* – in German only), KfW Economic Research. Points of View No. 16.

[14] Cf. F. Köhler-Geib et al. (2021): Emerging stronger from the coronavirus crisis – five areas of action for a sustainable transformation, KfW Research position paper, 26 August 2021.