

The Bundesbank's surveys of firms – applications for assessing the financial situation in the corporate sector

In order to fulfil its tasks – in monetary policy, financial stability and banking supervision, for example – the Deutsche Bundesbank needs up-to-date information on the situation in the German economy and the corporate sector. Given the important role that corporate financing plays for German banks, timely insights into developments in the corporate sector are of particular interest when assessing the state of the financial system. This is especially true in times when economic conditions can change very quickly as a result of extraordinary events, such as the coronavirus pandemic or the Russian war against Ukraine. Against this backdrop, the Bundesbank launched two surveys to assess and evaluate the financial situation of the corporate sector in a targeted and timely manner: a regular survey of firms (Bundesbank Online Panel Firms) and – during the pandemic – an ad hoc survey of industry associations. In this context, both surveys can be used to obtain up-to-date information on the financial situations and business conditions of enterprises as well as to capture potential developments and future challenges by asking respondents about their expectations.

At the beginning of the pandemic, the Bundesbank was able to use the survey data to assess the impact of the measures taken to contain the spread of the virus. The survey data reveal striking differences between sectors, confirming the insights gained from the analyses on German enterprises' profitability and financing presented in the Monthly Report of December 2021. In the spring of 2020, for instance, the coronavirus containment measures were accompanied by a considerable decline in business activity, especially amongst enterprises from particularly affected services sectors such as retail trade, transportation and storage, and the accommodation and food service activities sector. These firms suffered a drop in and also reported increased financing needs. Furthermore, access to loans became more difficult while liquidity reserves dwindled.

The Bundesbank's most recent surveys show that the financial situation in the corporate sector improved at the beginning of 2022 as compared with the situation in 2020. In the first quarter of 2022, there were considerably fewer concerns about potential liquidity bottlenecks than there had been in the initial phase of the pandemic. However, supply-side difficulties, such as the shortage of skilled workers, higher costs and supply chain bottlenecks, have become more important. The last two challenges, in particular, have been significantly aggravated by the Russian invasion of Ukraine. At the beginning of 2022, energy-intensive enterprises, especially, saw their financing needs increase, while lending conditions tightened for these enterprises.

Using the survey data, it was possible to capture the consequences of the war against Ukraine for the corporate sector in a timely manner. For example, firms with economic relations with Russia or Ukraine reported a greater impact on their business activities and higher financing needs in comparison with enterprises with no relations with either country.

■ Introduction

Need for independent surveys to capture current developments in the corporate sector

In order to fulfil its tasks – in monetary policy, financial stability and banking supervision, for example – the Deutsche Bundesbank needs up-to-date information on the situation in the German economy. The Bundesbank possesses extensive information on the corporate sector and its financial situation through the reporting system and the annual financial statement statistics for enterprises.¹ However, in 2020, the Bundesbank identified the need for dedicated surveys on the business situation in the corporate sector in order to obtain timely insights into developments within the non-financial sector. This is particularly pertinent with regard to assessing developments in the financial system, as corporate financing plays an important role for German banks. Against this backdrop, the Bundesbank launched two surveys to assess and evaluate the financial situation of the corporate sector in a targeted and timely manner: a regular survey of enterprises and – during the pandemic – an ad hoc survey of industry associations.

Around 10,000 enterprises are surveyed each quarter on their business assessments and expectations

As part of the Bundesbank Online Panel Firms (BOP-F), the Bundesbank surveys a representative sample of enterprises with regard to their situations, assessments and expectations. The survey of firms was launched in June 2020 and has been conducted on a quarterly basis since July 2021. Each survey is divided into three rounds, so that information on developments in the corporate sector can be collected at a monthly frequency. Around 10,000 firms participate in the survey each quarter. Half of the questionnaire consists of “core” questions, which are asked in every survey and thus allow for a comparison over time. These include, for example, questions on developments in business activities, expectations and financing needs. The other half consists of varying question modules that may address current events, such as the impact of the war on Ukraine on sales figures, as well as structural characteristics of enterprises, such as their energy consumption.

In addition, the Bundesbank has repeatedly surveyed industry associations on developments in the financial situations of their member enterprises. These surveys were conducted at irregular intervals, enabling analyses of the impact of selected events on the financial situation in the corporate sector. The associations were surveyed three times in 2020, while the fourth and most recent survey took place in January 2022.² On average, around 40 associations have participated in each survey so far. The survey of associations contains only a relatively small number of questions, some of which are open-ended. This allows for relatively quick evaluation of the data and means that the survey also captures aspects that are not explicitly addressed in the questions.

Survey of industry associations provides information on the financial situations of enterprises relatively quickly

In the context of the coronavirus pandemic and the Russian invasion of Ukraine, both surveys have proven to be useful for the timely assessment of developments and financing conditions in the corporate sector. These events changed the economic environment at a pace and to an extent rarely seen in recent decades. For example, the measures taken since spring 2020 to contain the pandemic have led, amongst other things, to a sharp decline in demand, meaning that enterprises have been confronted with large declines in sales. The pandemic also created difficulties for international supply chains. Moreover, energy and producer prices rose significantly in 2021. These issues were further exacerbated by the Russian invasion of Ukraine in February 2022. For example, firms with economic relations with Russia or Ukraine reported a greater impact on their business activities and higher financing needs compared with enterprises with no relations with either country. However, these enterprises represent a small part of the corporate sector.

The coronavirus pandemic and Russian war against Ukraine illustrate the usefulness of the surveys

¹ See Deutsche Bundesbank (2011, 2021a).

² At that time, Russia's war against Ukraine was not yet foreseeable.

Development of the business situation in the corporate sector since the outbreak of the coronavirus pandemic

The information gleaned from both surveys can be used to depict current developments in the financial situation and business conditions in the corporate sector. This applies to enterprises' business activities and liquidity situations as well as to developments in their need for external financing. In addition, by asking questions on expectations, it is possible to gauge potential developments and future challenges for non-financial corporations. This information can be used to assess the impact of extraordinary events such as the coronavirus pandemic on the corporate sector.

Enterprises are regularly asked about the latest developments in their key metrics. At the beginning of the pandemic, the measures to contain the spread of the virus had a particularly pronounced impact on demand. In June 2020, for instance, 58% of enterprises reported a decline in business activity as a result of the coronavirus pandemic. At the time of the fourth survey in February 2021, the share of enterprises that recorded a decline in their business activities compared with the same month a year earlier stood at 48%. There were considerable differences across sectors. For instance, accommodation and food service activities, transportation and storage, and retail trade³ were particularly affected by the impact of the pandemic.⁴ In the latest survey from the second quarter of 2022, enterprises were again asked about developments in their sales figures. Between March 2021 and March 2022, 28% of the responding enterprises recorded a decline in sales, while the share of firms reporting rising sales reached 35%.

The situation in terms of firms' liquid assets has also improved. At the beginning of the pandemic in spring 2020, 46% of the surveyed enterprises reported a decline in liquid assets. During the lockdown of winter 2020-21, this

share stood at 36% and stabilised at 28% in 2021. The percentage of enterprises reporting an increase in liquid funds rose from 8% in spring 2020 to 22% at the end of 2021.

By contrast, enterprises' access to intermediate inputs worsened, particularly over the course of 2021. At the beginning of the pandemic, 43% of enterprises reported a deterioration in their access to intermediate inputs. This share initially fell to 36% in the first quarter of 2021. Supply difficulties then worsened again, with 56% of enterprises reporting a deterioration in their access to intermediate inputs in the first quarter of 2022.

Supply chain bottlenecks and the extensive phasing-out of coronavirus containment measures are linked to the development of current trade receivables and payables. In the first survey in June 2020, enterprises reported a significant decline at the beginning of the pandemic, with 33% of enterprises reporting a decline in trade receivables and 26% a decrease in trade payables. Both metrics increased again over the course of the pandemic. The percentage of enterprises with declining trade receivables or trade payables fell steadily to 14% and 13%, respectively, at the end of 2021, while the share of enterprises with increasing trade receivables or trade payables went up from 11% and 9%, respectively, in spring 2020 to 19% and 15% in the first quarter of 2022.

Enterprises considered their access to financing to be fairly stable. The share of enterprises reporting difficulties in accessing financing sources has remained constant at around 15% since the first survey.

The economic recovery is also reflected in the survey of industry associations. In November 2020 and January 2022, the surveyed associations were asked about the share of their mem-

Increase in supply chain problems during the pandemic

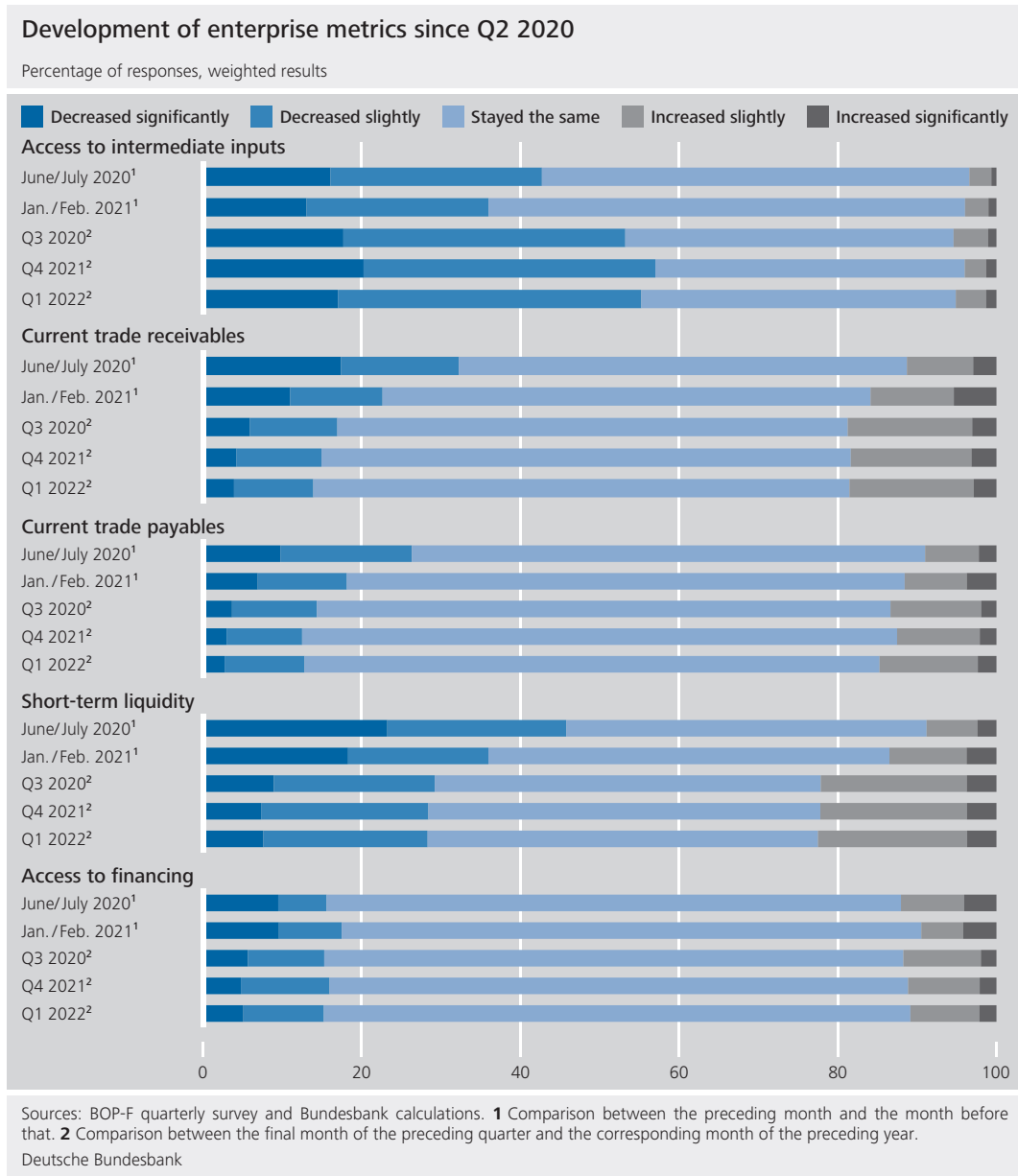
Sharp decline in demand at the start of the pandemic – significant improvement in sales at the beginning of 2022

Liquidity situation has also improved

Major sectoral differences remain despite stabilised demand

³ In the following, "affected sectors" comprises enterprises in the retail trade, transportation and storage, and accommodation and food service activities sectors.

⁴ See also Deutsche Bundesbank (2021a, 2021b).



ber enterprises that had experienced a decrease in sales compared with a typical quarter (the fourth quarter of 2019, for example). In November 2020, the median share of enterprises with a decrease in sales was just under 50%. By the following survey in January 2022, the median share of member enterprises reporting declining sales figures had fallen to 20%. Considerable differences across sectors remain. Associations noted that, in particular, the enterprises belonging to the sectors accommodation and food service activities, events, and personal service activities (cosmetics, hairdressers, etc.) were still being affected

by the impact of coronavirus containment measures at the beginning of 2022.

In the BOP-F survey, enterprises are regularly asked about their expectations and greatest challenges. The repercussions of the pandemic are reflected especially clearly in the way in which these challenges have evolved. In spring 2020, the lack of customer demand was classified as a particularly serious problem for the subsequent six months, with 42% of enterprises rating the absence of demand as a pressing or extremely pressing problem for the subsequent six months. In June 2020, the following problems were considered pressing or ex-

Challenges faced by enterprises shift from a lack of demand to supply-side problems

tremely pressing: competitive pressure and the shortage of skilled labour (both 31%), high labour and production costs (22%), difficulties in accessing financing (17%), and supply difficulties (10%).

The challenges faced by enterprises have shifted significantly over the course of the pandemic. The percentage of enterprises that considered potential declines in demand as a pressing or extremely pressing problem fell steadily to 22% in the first quarter of 2022. By contrast, the importance of supply-side difficulties grew considerably. The share of enterprises expecting to experience difficulties due to shortages in the availability of skilled labour rose from 31% in spring 2020 to 67% at the beginning of 2022. This period also saw a significant rise in the challenges posed by high labour and production costs (from 22% to 53%) as well as by supply chain difficulties (from 10% to 44%).

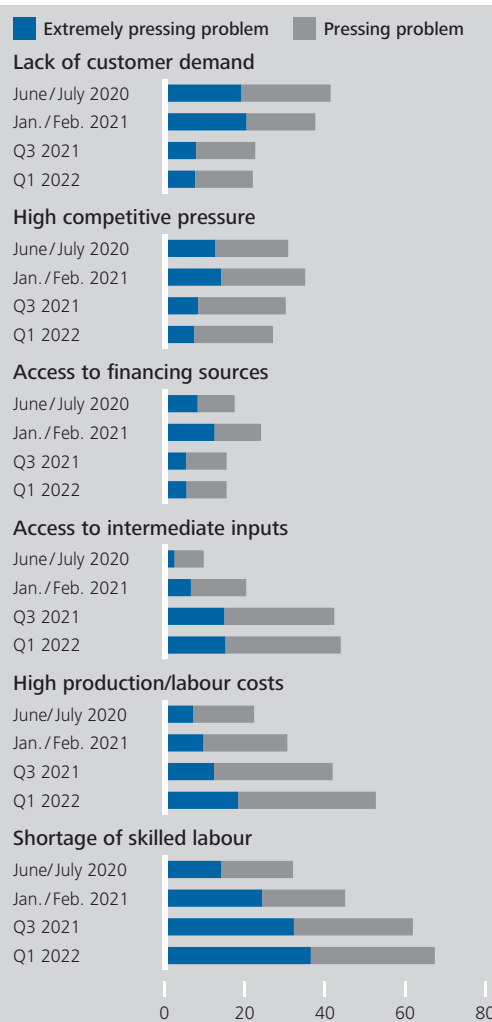
Developments in enterprises' financial situations over the course of the pandemic

Particularly high financing needs in services sectors affected by the pandemic at its onset

Enterprises' financial situations have exhibited a similar sectoral pattern to that of the pandemic's impact on enterprises' business activities. For instance, the impact of the pandemic was particularly evident in the retail trade, accommodation and food service activities, and transportation and storage sectors. Financing needs in these sectors grew sharply at the onset of the pandemic between April and May 2020 (increased significantly: 24%, increased slightly: 11%). At the end of 2020, these figures rose again somewhat (increased significantly: 27%, increased slightly: 13%). In other sectors, 12% of enterprises reported a significant increase in financing needs and 11% a slight increase at both of these points in time. In 2021, the reference period was extended from one month to one year, meaning that the figures are not directly comparable. Nevertheless, this disparity across sectors with respect to enterprises' financing needs related to the pandemic was

Expectations regarding problems enterprises face over the next six months

Percentage of responses, weighted results



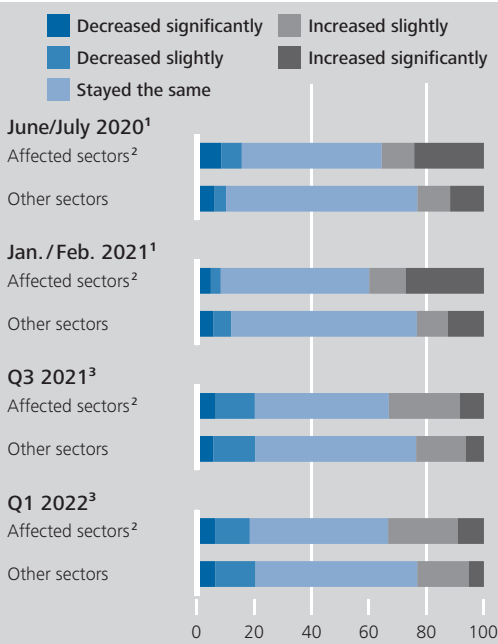
Sources: BOP-F quarterly survey and Bundesbank calculations.
 Deutsche Bundesbank

still pronounced in 2021, albeit to a lesser degree. Compared with the same months in the previous year, the percentage of enterprises in sectors affected by the pandemic with increased financing needs stood at 33% in both June and December 2021 (increased significantly: 9%, increased slightly: 24%). Meanwhile, this share remained stable at 23% in other sectors (increased significantly: 6%, increased slightly: 17%).

The improvement of the situation in the corporate sector is also reflected in the development of initiated credit negotiations. At the start of the pandemic in the spring of 2020, around

Need for credit financing by sector

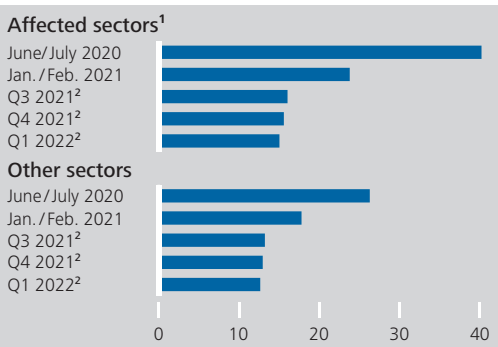
Percentage of responses, weighted results



Sources: BOP-F quarterly survey and Bundesbank calculations. **1** Comparison between the preceding month and the month before that. **2** Retail trade, transportation and storage, and accommodation and food service activities. **3** Comparison between the final month of the preceding quarter and the corresponding month of the preceding year.
 Deutsche Bundesbank

Enterprises that conducted credit negotiations over the past three months

Percentage of responses, weighted results



Sources: BOP-F quarterly survey and Bundesbank calculations. **1** Retail trade, transportation and storage, and accommodation and food service activities. **2** Reference period: Preceding quarter.
 Deutsche Bundesbank

Share of enterprises conducting credit negotiations in decline until the fourth quarter of 2021

28% of enterprises reported that they had initiated negotiations for a bank loan in the three months prior to the survey. This share had already fallen below 20% by the end of 2020 and then fell steadily to 13% in the fourth quarter of 2021. A sectoral breakdown with respect to the impact of the pandemic shows that

around 40% of enterprises from affected sectors initiated credit negotiations in the spring of 2020, while this share was around 25% for enterprises from other sectors. These sectoral differences have steadily diminished over the course of the pandemic. The percentage of enterprises from affected sectors that had initiated credit negotiations stood at 23% at the end of 2020 and fell to 15% by the fourth quarter of 2021. By contrast, the share of enterprises conducting credit negotiations in other sectors fell from 18% at the end of 2020 to 13% in the fourth quarter of 2021.

The impact of the pandemic on the corporate sector can also be gauged from the results of loan negotiations that were conducted. For instance, banks were rather cautious about lending at the beginning of the pandemic in spring 2020. Just one-third of the credit negotiations conducted were concluded at the desired conditions, and 15% of negotiations resulted in loans being granted at less favourable conditions. By contrast, 22% of credit negotiations had not yet been finalised by the time of the survey in June-July 2020, while 28% had been concluded without a deal.

Improvement in access to credit for enterprises over the course of the pandemic

Lending conditions improved significantly for enterprises over the further course of the pandemic. At the end of 2020, 44% of credit negotiations had been approved at the desired conditions. This share subsequently improved to around 50% over the course of 2021. The share of credit negotiations approved at less favourable conditions increased to 21% by 2021. Meanwhile, the percentages of credit negotiations that were still pending or had been concluded without a deal at the time of the survey both fell to around 15% in 2021.

The survey of industry associations also shows that enterprises' access to credit improved over the course of the pandemic. In January 2022, two-thirds of associations reported no deterioration in their member enterprises' access to bank loans during the fourth quarter of 2021 despite renewed restrictions. Overall, access to

credit was much less restricted across all sectors in January 2022 than it had been in November 2020. Only enterprises in the accommodation and food service activities and personal service activities sectors reported ongoing difficulties in obtaining loans. In January 2022, rejected loan applications represented a considerable problem for a total of 42% of associations (applications rejected very often: 17%, often: 25%). In November 2020, however, rejections had been a problem for 80% of associations, with 50% reporting their members' applications being rejected often and 30% very often. The percentage of associations whose member enterprises complained about long processing times for loan applications also declined between November 2020 and January 2022 (from 75% to 59%). During this period, the percentage of associations whose members reported less favourable credit conditions also declined, from 90% to 60%.

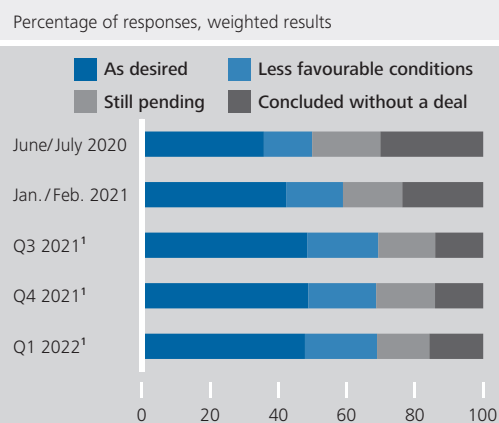
Drop in share of enterprises facing existential threats between November 2020 and January 2022

The fact that the financial situation in the corporate sector improved between November 2020 and January 2022 is also reflected by the reduced share of enterprises reporting existential difficulties. In this respect, the January 2022 survey of associations reveals that – as measured by the median across the associations – 5% of enterprises perceived their existence as threatened. This represents a significant improvement compared with the 25% of enterprises that saw existential threats to their business in the November 2020 survey.

Significantly improved liquidity reserves at the beginning of 2022 compared with the first quarter of 2021 – decline in sectoral differences

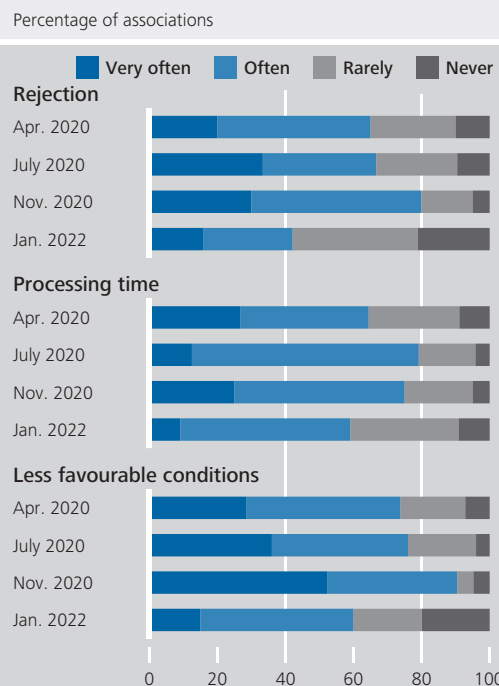
The data on available liquidity reserves in the survey of firms confirm that the financial bottlenecks in the corporate sector were less severe in the course of 2021. Enterprises were asked to estimate for how long a period they would continue to have sufficient liquidity before having to discontinue or abandon their business activities. The share of enterprises with generally sufficient liquidity rose from 40% at the beginning of 2021 to 51% in the third quarter of 2021. In the first quarter of 2022, this share averaged 48%. The share of enterprises facing, in their own estimation, acute liquidity bottle-

Result of credit negotiations conducted over the past three months



Sources: BOP-F quarterly survey and Bundesbank calculations.
¹ Reference period: Preceding quarter.
 Deutsche Bundesbank

Difficulties faced by enterprises in accessing loans excluding KfW coronavirus aid or assistance programmes

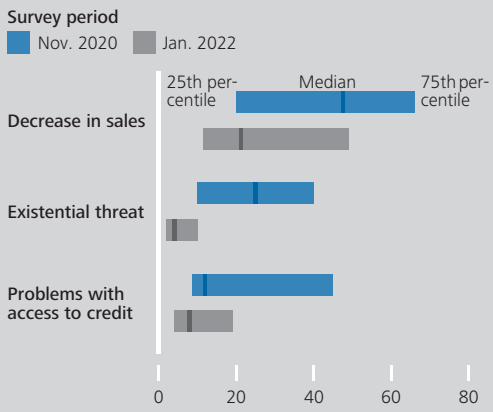


Source: Bundesbank's survey of associations.
 Deutsche Bundesbank

necks (liquidity reserves of up to two months) fell from 20% in the first quarter of 2021 to 10% in the summer of 2021. However, the latest figures from the first quarter of 2022 show that the share of these enterprises has risen to 14%.

Business situation of enterprises

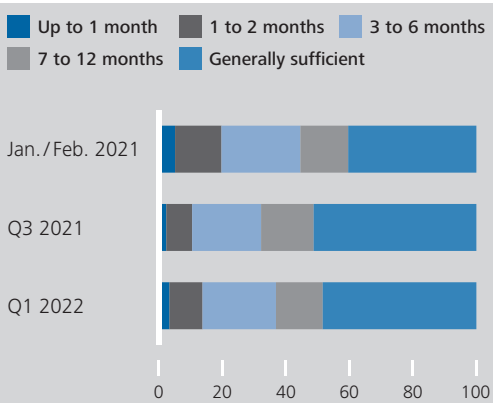
Associations' responses on percentage share of affected enterprises



Source: Bundesbank's survey of associations. Deutsche Bundesbank

Period of sufficient liquidity until business activities are discontinued or abandoned

Percentage of responses, weighted results



Sources: BOP-F quarterly survey and Bundesbank calculations. Deutsche Bundesbank

A sectoral differentiation helps provide further insights into the development of potential liquidity bottlenecks. At the beginning of 2021, nearly one-third of enterprises in sectors particularly affected by the pandemic (retail trade, transportation and storage, and accommodation and food service activities) possessed liquidity reserves of up to two months, while 22% reported generally sufficient liquidity. By contrast, the share of enterprises from other sectors with liquidity reserves of up to two months was 17% and the share with generally sufficient liquidity was 44%. These differences were hardly apparent in the third quarter of 2021. In both sectoral groups, the share of en-

terprises with liquidity reserves of up to two months fell to 10% in each case. The share of enterprises with generally sufficient liquidity rose to 45% in the affected sectors and to 52% in other sectors. In the first quarter of 2022, the liquidity situation in both groups of enterprises deteriorated again somewhat, but not to the level reported in the same quarter of the previous year. The share of enterprises with liquidity reserves of up to two months rose to 16% in the affected sectors and to 13% in other sectors. The share of enterprises with generally sufficient liquidity declined slightly to 42% in the affected sectors and 50% in other sectors.

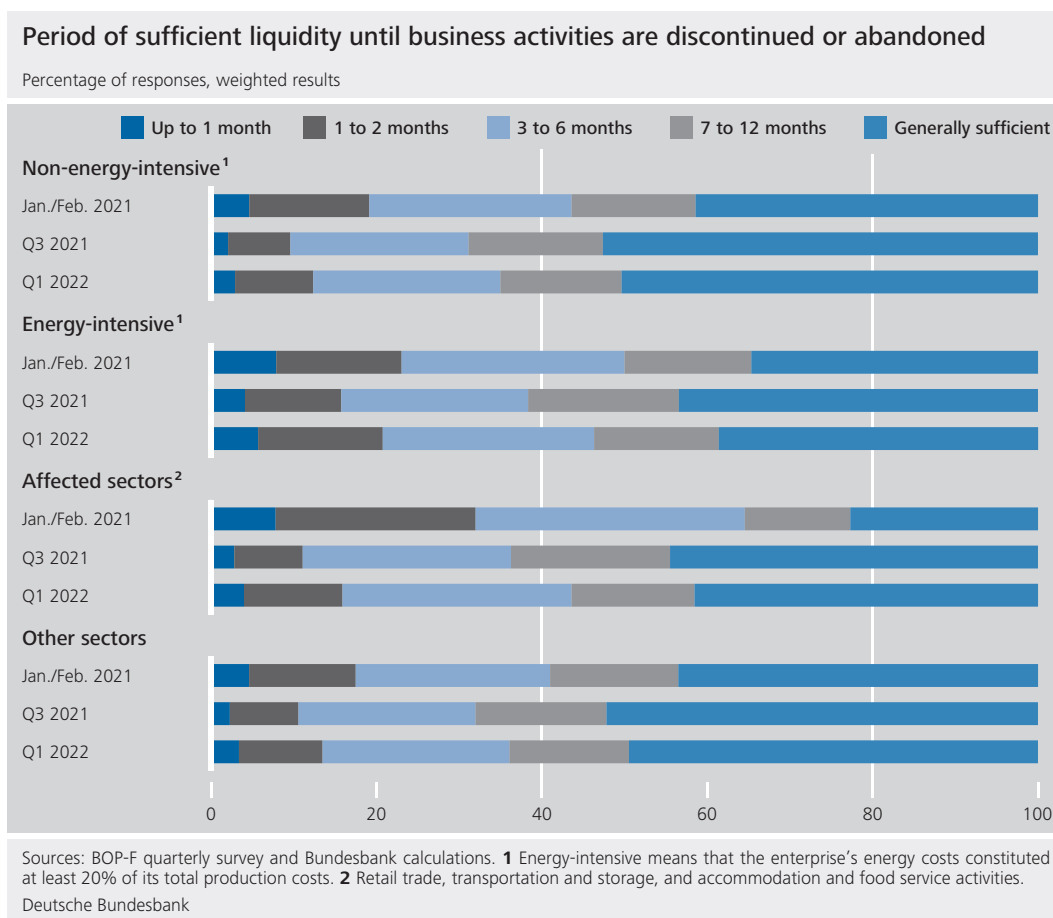
Current developments in the corporate sector in light of high energy prices and the Russian invasion of Ukraine

Whilst a large part of the coronavirus containment measures were lifted at the beginning of 2022, rising energy and producer prices as well as the Russian invasion of Ukraine posed new challenges for the corporate sector.

Energy prices, which had already risen in 2021, surged significantly once again as a result of the Russian invasion of Ukraine. Energy-intensive enterprises in particular have felt the effects of this development. The survey of firms conducted in the first quarter of 2022 was able to obtain a picture of enterprises' energy intensity by asking about the share of their production costs comprised of costs for energy sources. In the following, enterprises with an energy cost share of more than 20% are classified as energy-intensive. This applied to 17% of the enterprises surveyed in the first quarter of 2022.

With regard to energy intensity, the survey from the first quarter of 2022 shows significant differences in the assessment of future challenges. The differences in the assessment of production costs and access to financing

Energy-intensive enterprises under pressure due to rising energy prices and Russian invasion of Ukraine



sources were particularly striking. Amongst energy-intensive enterprises, the percentage of enterprises that rated high labour and production costs as a pressing or extremely pressing problem for the subsequent six months stood at 65%, while 22% considered access to financing problematic. By contrast, in the first quarter of 2022, high production costs and access to financing were classified as pressing or extremely pressing problems by 50% and 14% of enterprises with low energy intensity, respectively.

Recent survey data shows that energy-intensive enterprises reported greater financing needs than enterprises with low energy intensity. Amongst energy-intensive enterprises, the share of enterprises that conducted negotiations for a bank loan held steady at 18% in the fourth quarter of 2021 and the first quarter of 2022. For enterprises with low energy intensity, this share rose slightly from 12% in the fourth quarter of 2021 to 14% in the first quarter of

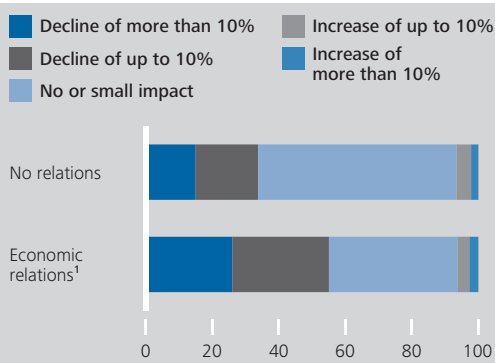
2022. The results of credit negotiations have recently been significantly worse for energy-intensive enterprises. For these enterprises, the share of credit negotiations concluded at the desired conditions fell from 47% in the third quarter of 2021 to 29% in the first quarter of 2022, while the share of loans granted at less favourable conditions increased from 18% to 30% in the same period. By contrast, among non-energy-intensive enterprises, the share of credit negotiations concluded at the desired conditions fell from 53% in the third quarter of 2021 to 47% in the first quarter of 2022. In the same period, the share of loans granted at less favourable conditions increased from 16% to 27%.

At the beginning of 2022, energy-intensive enterprises had smaller liquidity buffers than enterprises with low energy intensity. In the first quarter of 2022, around 21% of energy-intensive enterprises possessed liquidity reserves of up to two months, while 36% had

In early 2022, enterprises with high energy intensity already faced greater financing needs and more difficult access to credit

Expectations for the impact of the war in Ukraine on sales in 2022

Percentage of responses, weighted results

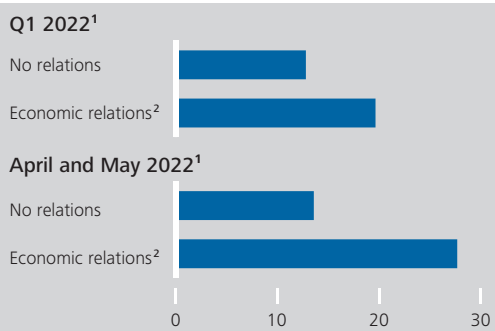


Sources: BOP-F monthly survey and Bundesbank calculations, survey period April and May 2022. ¹ Trade, investment or production sites in Russia or Ukraine in 2021.

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Enterprises that conducted credit negotiations by economic relations with Russia or Ukraine

Percentage of responses, weighted results



Sources: BOP-F monthly survey and Bundesbank calculations. ¹ Reference period: Preceding quarter. ² Trade, investment or production sites in Russia or Ukraine in 2021.

Deutsche Bundesbank

impact on sales figures. With regard to energy intensity, energy-intensive enterprises anticipated that the war would have a much more severe impact on their sales figures than those with low energy intensity. Amongst enterprises with high energy intensity, 45% expected annual sales to decline in 2022 as a result of the war, with 24% expecting sales to decline by at least 10%. By contrast, around 32% of non-energy-intensive enterprises expected sales to decline as a result of the war, of which 12% expected sales to fall by at least 10%.

In order to assess the direct impact of the Russian invasion of Ukraine, enterprises were asked whether they had had economic relations (trade, investment or production sites) with Russia or Ukraine in 2021. In April and May 2022, just under 8% of the enterprises surveyed answered this question in the affirmative. These enterprises are significantly larger than enterprises without economic relations with either state (45% vs. 14% of enterprises with at least 50 employees) and were more likely to belong to the manufacturing sector (47% vs. 13%). Unsurprisingly, enterprises with economic relations with Ukraine or Russia expected that the impact of the Russian invasion would have a much greater impact on sales in 2022. Around 26% of these enterprises anticipated that sales would fall by more than 10%. A further 29% of these enterprises expected sales to drop by up to 10%. By contrast, the share of enterprises with no economic relations with Russia or Ukraine that expected a drop in sales was 34%, with 15% expecting a drop in sales of more than 10%.

8% of enterprises have direct economic relations with Russia or Ukraine – majority also expect a drop in sales

generally sufficient liquidity. By contrast, 12% of non-energy-intensive enterprises possessed liquidity reserves of up to two months and 49% reported generally sufficient liquidity.

In the second quarter of 2022, enterprises were also asked about the impact they expected the Russian invasion of Ukraine to have on annual sales in 2022. In total, just under 15% of the enterprises participating in the most recent survey expected that the war would reduce sales by at least 10%. A further 20% anticipated a decline of up to 10%. By contrast, in April and May 2022, just under 7% of enterprises expected that the war would have a positive im-

The impact of the war on enterprises' demand for credit is also dependent on their economic relations with both parties to the conflict. Amongst enterprises with no economic relations with Russia or Ukraine, the increase in the share of enterprises that had initiated credit negotiations was moderate, rising from 13% in the fourth quarter of 2021 to 14% in the first quarter of 2022. By contrast, enterprises with economic relations with either or both of the

Enterprises with direct economic relations with Russia or Ukraine currently facing increased financing needs

Energy-intensive enterprises expect declining sales as a result of the Russian invasion of Ukraine

The impact of the November-December aid on the financial situation of enterprises

The German Federal Government implemented various measures in the wake of the coronavirus pandemic to minimise its impact on the corporate sector. These included, in particular, the suspension of the obligation to file for insolvency, the extension of the period of entitlement to short-time working benefits, the guarantee of bank loans via the special programme of the KfW banking group (Kreditanstalt für Wiederaufbau), and various emergency aid transfers for enterprises to compensate for losses of sales resulting from mandatory coronavirus containment measures. By May 2022, the Federal Government had paid out more than €70 billion in grants as coronavirus aid.¹

A Bundesbank study investigated the impact of November-December aid on the financial situation of enterprises during the lockdown of winter 2020-21 (see Gärtner and Marek (2022)). The BOP-F survey conducted in February 2021 enabled quasi-experimental methods to be used for an in-depth assessment of the direct impact of the November-December aid on the financial situation of enterprises. Specifically, it analysed the impact of the support measures on liquidity reserves, employment expectations, investment decisions, and credit negotiations and their results. At the time the survey was carried out, a large share of the applications for November-December aid had not yet been processed. The effects of the aid transfers can thus be estimated by comparing enterprises whose applications were still outstanding with those whose applications had been approved. In the analysis, empirical matching methods were used to take account of enterprise

characteristics that may have had an impact on the status of their application.

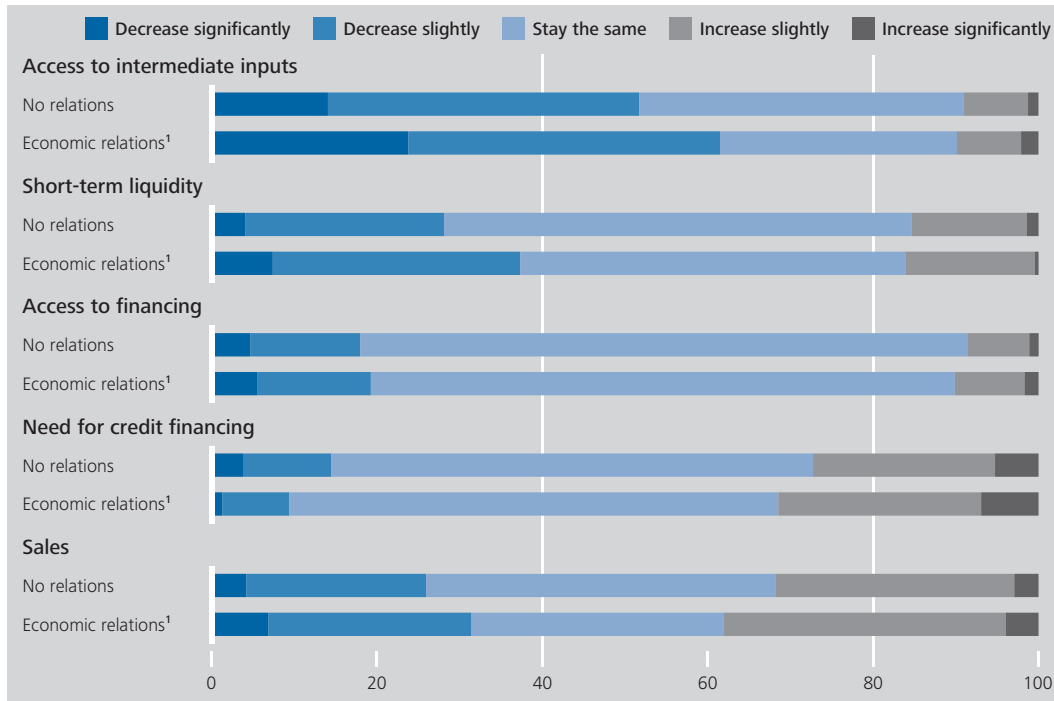
The empirical analysis suggests that enterprises whose applications for November-December aid transfers had been approved were 5 percentage points less likely to experience liquidity bottlenecks (liquidity reserves of up to two months). By contrast, however, there is hardly any indication that the provision of aid had an impact on employment expectations or investment activity. In addition, the study also shows that enterprises increasingly sought funding via bank loans if they did not receive any transfer payments. The likelihood of entering into credit negotiations was 8 percentage points lower for enterprises whose applications for aid were approved. Furthermore, the results provide evidence that the transfer scheme improved the creditworthiness of firms. In this context, it can be shown that receiving aid increased the probability of obtaining a loan at the desired conditions by about 14 to 18 percentage points.

Overall, the November-December aid helped to reduce the likelihood of more restrictive credit conditions that, in turn, could have exacerbated financial bottlenecks in sectors that were particularly affected by the pandemic.

¹ See www.dashboard-deutschland.de

Expectations for business metrics between March 2022 and March 2023 by economic relations with Russia or Ukraine

Percentage of responses, weighted results



Sources: BOP-F monthly survey and Bundesbank calculations, survey period April and May 2022. ¹ Trade, investment or production sites in Russia or Ukraine in 2021.
 Deutsche Bundesbank

states saw their credit demand rise significantly from 20% in the fourth quarter of 2021 to 28% in the first quarter of 2022. In the first quarter of 2022, there was hardly any difference in the results of credit negotiations with respect to the enterprises' economic relations with Russia or Ukraine. Amongst enterprises with economic relations with both countries, the shares of credit negotiations concluded at the desired or less favourable conditions were 39% and 27%, respectively. By contrast, for enterprises without economic relations with these countries, these figures stood at 42% and 28%, respectively.

addition, 61% of these enterprises expected a deterioration in their access to intermediate inputs, while 37% and 16% expected a decrease or increase in short-term liquidity, respectively. For enterprises with no relations to either country, the shares of enterprises with declining or rising sales expectations for the reference period between March 2022 and March 2023 were 26% and 31%, respectively. Meanwhile, 52% expected a deterioration in access to intermediate inputs. 28% and 15% of these enterprises expected a decline or increase in liquidity, respectively.

Economic relations with parties to the conflict shape expectations for relevant enterprise metrics

In the second quarter of 2022, the impact of economic relations with Ukraine and Russia was evident in enterprises' expectations for developments in relevant enterprise metrics. Of the enterprises with economic relations with the parties to the conflict, 31% expected a decline in sales and 38% expected an increase in sales between March 2022 and March 2023. In

In the second quarter of 2022, enterprises' expectations regarding their need for financing were shaped by their economic relations with Russia or Ukraine. 31% of enterprises with and 27% of enterprises without relations with the parties to the conflict expected an increase in the need for credit financing between March 2022 and March 2023. Despite differing expectations regarding the business situation, the

differences in expectations regarding access to financing sources are extremely small between enterprises with and without relations with Russia or Ukraine. In the second quarter of 2022, 19% of enterprises with and 18% of en-

terprises without economic relations with the affected countries expected a decline in access to financing between March 2022 and March 2023.

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