

Stefan Lautenbacher, Stefan Sauer and Klaus Wohlrabe

How Difficult Is It for Managers to Predict Their Future Business Development? A New Measure of Perceived Business Uncertainty

ABSTRACT

This article introduces the *ifo Business Uncertainty*, a measure of how difficult it is for managers to predict the future business development of their firm. The indicator is based on a new monthly question in a representative survey of the German economy, the *ifo Business Survey*. It captures the perceived uncertainty of managers, because it could affect their investment and hiring decisions, and thus the business cycle. We show that our new measure of perceived uncertainty increased sharply at the beginning of the Covid-19 crisis. Since then, it has decreased somewhat, but it remains at an elevated level. Moreover, we compare the *ifo Business Uncertainty* to a second indicator of firms' subjective uncertainty and find that they are almost perfectly aligned. Last, we show that the relationship of the *ifo Business Uncertainty* with the *ifo Business Climate Index* is strongly negative.

Economic uncertainty is a much-discussed topic in politics, central banks, and macroeconomic research. It is widely believed that uncertainty contributed to initiating and worsening the Great Recession. Moreover, in the past decade, uncertainty has also often been cited to explain the slowing of the economy, for instance, during the eurozone sovereign debt crisis, the Brexit negotiations, and the trade war between the US and China. Theoretically, uncertainty can affect the economy through various channels. On the

one hand, it can increase risk premiums in financial markets and thus the cost of financing. On the other hand, greater uncertainty can make households and firms more cautious and may cause them to postpone decisions that are not easily reversed. If households are reluctant to buy durable consumer goods, such as cars and furniture, and businesses postpone investments and new hires, overall economic demand can be weakened.

Since uncertainty is not directly observable, various proxy measures have been developed in the past. These include, for example, implied or realized volatility of stock market returns, the dispersion of business expectations, and counts of uncertainty-related keywords in newspaper articles (Bloom 2009; Bachmann et al. 2013; Baker et al. 2016). However, these measures sometimes show large differences (Kozeniauskas et al. 2018). It is also an open question how well they are aligned with the *actual perceived* uncertainty of decision-makers in the economy. Their uncertainty is crucial, since it can influence consumption and investment behavior. For this reason, in recent years, surveys have been increasingly used to measure the subjective uncertainty of households and firms. Concerning firms, since April 2019, the *ifo Institute* elicits the uncertainty of managers in its monthly business survey with the following question:

Predicting the future development of our business situation is currently

easy rather easy rather difficult difficult

A possible advantage of this question is that it captures uncertainty indirectly. The words “uncer-



Stefan Lautenbacher

is Junior Economist and Doctoral Student at the *ifo Center* for Macroeconomics and Surveys



Stefan Sauer

is Specialist at the *ifo Center* for Macroeconomics and Surveys



Klaus Wohlrabe

is Head of Surveys and Deputy Director of the *ifo Center* for Macroeconomics and Surveys

tainty” or “uncertain” do not appear in it. Their use might blur the measurement if these terms have negative connotations for respondents. A possible bias in the answers is thus avoided.

Figure 1 shows the percentages¹ of the four answer categories in the answers of all participating companies over the time since the question was originally introduced. A large part of the answers is usually concentrated in the two middle categories “rather easy” and “rather difficult.” The share of respondents who find it difficult to predict their firm’s future business development initially fluctuated around 10%. In March and April 2020, however, with the outbreak of the Covid-19 crisis, there was a sharp rise in this percentage to over 40%. Although it then dropped again noticeably, it is still much higher than before the pandemic.

IFO BUSINESS UNCERTAINTY INDEX

Based on these percentages, we can calculate an indicator of uncertainty in the German economy using the following formula, which is intended to reflect the degree of uncertainty in the four categorical answers:

$$\text{Uncertainty} = 0 \cdot \text{share}(\text{easy}) + \frac{1}{3} \cdot \text{share}(\text{rather easy}) + \frac{2}{3} \cdot \text{share}(\text{rather difficult}) + 1 \cdot \text{share}(\text{difficult})$$

The value range of the indicator thus lies between 0 and 100, whereby 100 reflects the greatest uncertainty, which would be indicated if all firms chose the “difficult” category. A value of 0 would of course mean that the firms are able to predict their business development without any problems.

Figure 2 shows the ifo Business Uncertainty in the German economy since April 2019. The indicator has consistently remained above 50, which marks the center of the uncertainty scale. Together with the answer shares in Figure 1, this suggests that there is a certain base level of uncertainty among managers regarding the further course of their business. Even before the Covid-19 crisis, i.e., in comparatively quiet economic times, it was not easy for managers to predict their future business development. In March and April, the Covid-19 crisis caused a significant increase in uncertainty, peaking out at 73.8 in April. Despite the decline over the following months, in October 2020, the indicator is currently still at a noticeably higher level than before the pandemic outbreak. In addition to this uncertainty measure, since July 2017, uncertainty has also been elicited using a direct question in the ifo Business Survey.

We assess the uncertainty with respect to our business development in the next 6 months as follows: the respondents can indicate their subjective uncertainty on an approximately continuous scale, the ends of which are labeled “low” and “high.” Scale values range

¹ The methodology for calculating these shares is the same as for the other indicators from the ifo Business Survey. For a detailed description, see Sauer and Wohlrabe (2020).

Figure 1

Share of the Four Uncertainty Categories in All Answers

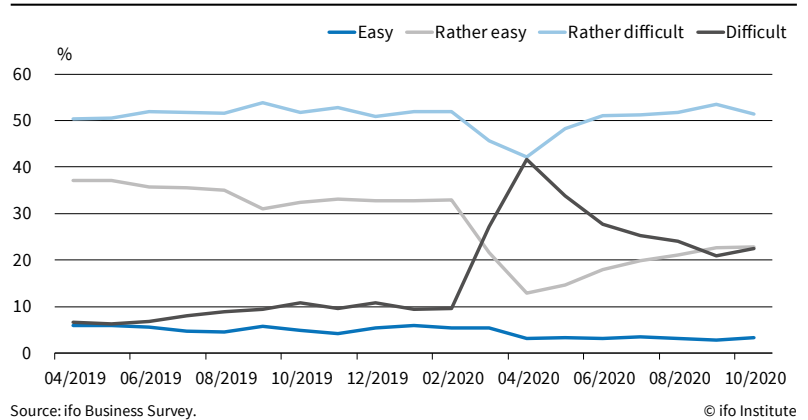


Figure 2

ifo Business Uncertainty for the German Economy

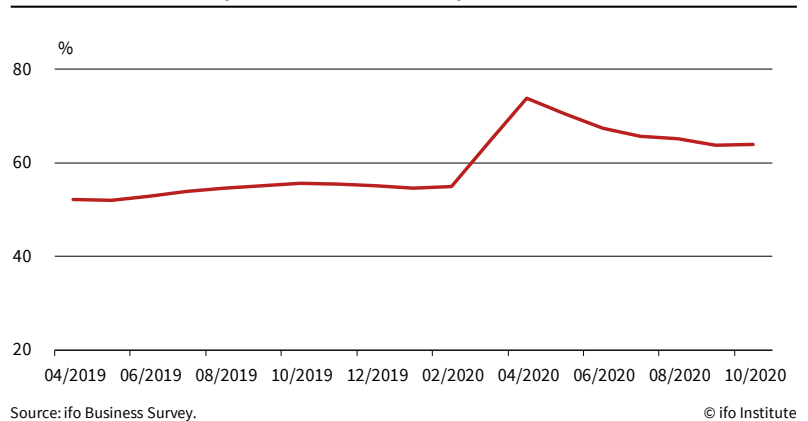
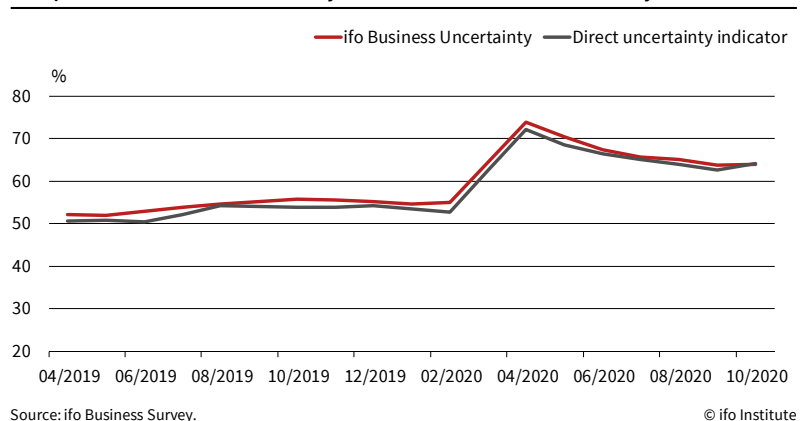


Figure 3

Comparison of the Two Uncertainty Measures for the Overall Economy

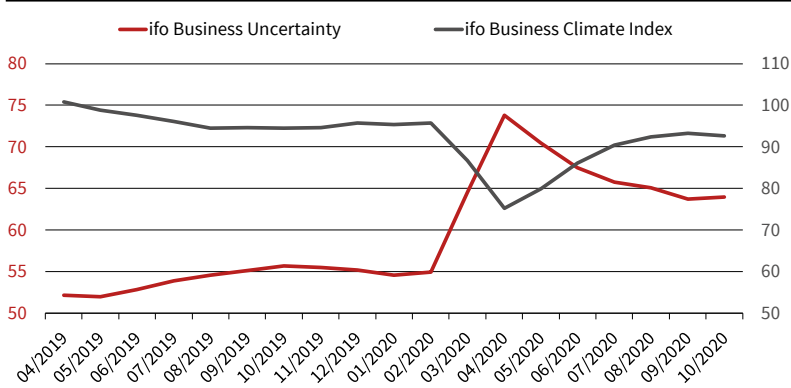


between 0 and 100, whereby higher values correspond to greater uncertainty. The weighted average of the answers to this direct question yields a second uncertainty indicator.

Figure 3 shows that the (short) time series of the two uncertainty indicators are almost identical. This suggests that the two different underlying questions of the indicators measure the same perception, which validates the results of the ifo Business Uncertainty. Moreover, it implies that managers seem to have a

Figure 4

Comparison of the ifo Business Uncertainty Index and the ifo Business Climate



Source: ifo Business Survey.

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good understanding of the concept of uncertainty: if business leaders find it more difficult to predict their future business situation, on average they also rate their own uncertainty as greater. Lautenbacher (2020) discusses these measures of uncertainty in detail and additionally compares them with firms' business expectations for the next six months and their current business situation based on the same survey. He finds that the more pessimistic managers are about their future business development and the more negatively they assess their current business situation, the more uncertain they are. There are also two special cases. First, even in a business situation rated as "good," uncertainty can be high if a deterioration in the situation is expected. Second, managers remain uncertain in a business situation rated as "bad" even if they expect the situation to improve.

Based on these findings, it is not surprising that the new uncertainty measure also has a strong negative correlation with the ifo Business Climate Index (see Figure 4). After all, the index is constructed as the average of the assessment of the business situation and business expectations. A deterioration in the business climate is thus typically accompanied by an increase in perceived uncertainty. If the business climate index rises, managers tend to find it easier to predict the future development of their business situation.

SUMMARY

This article has introduced a new uncertainty measure, the ifo Business Uncertainty. It is based on managers' perceptions of how difficult they find it to predict the business development of their firm. As such, it measures uncertainty at the decision-maker level, where it may affect investment and hiring, and, at an aggregate level, the business cycle. The ifo Business Uncertainty peaked at the beginning of the Covid-19 crisis before it decreased somewhat and remained at an elevated level until October 2020. The indicator moves almost perfectly concurrently with a sec-

ond measure of firms' subjective uncertainty and it is strongly negatively related to the ifo Business Climate Index. The new uncertainty measure will be published regularly by the ifo Institute in the monthly press releases for the ifo Business Climate Index and can be downloaded from the ifo website.

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