

Axel Pols*, Stefan Sauer** and
Klaus Wohlrabe***

The Bitkom-ifo Digital Index: A New Indicator for the Economic Development of the Digital Economy in Germany

With its monthly business surveys, the ifo Institute provides valuable indicators for economic development in Germany – not only for the economy as a whole, but also for many sectors and industries. The digital sector is an increasingly important sector, covering a broad spectrum of economic subdivisions associated with digitalization. This article illustrates how the results of the ifo Business Surveys can be used to construct a business climate for the digital economy that reflects the economic developments in this sector. The Bitkom-ifo Digital Index was developed in cooperation with Bitkom, the most important association of the digital economy in Germany. In addition to the methodical construction of the index, this article briefly describes current results and developments.

CONSTRUCTION OF THE DIGITAL INDEX

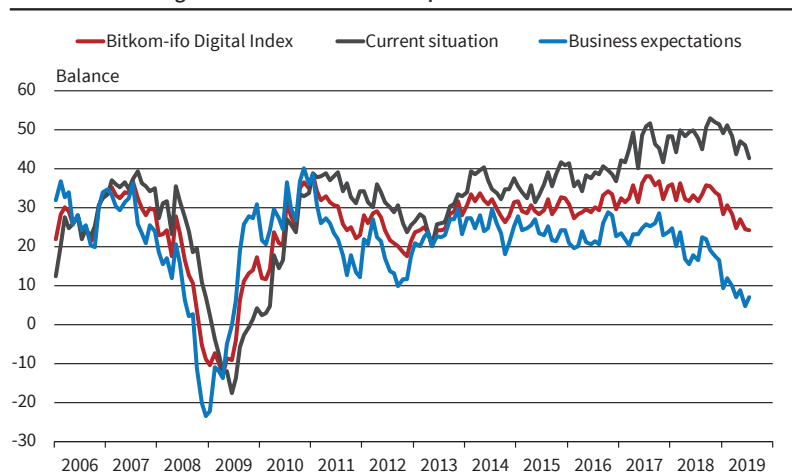
Information and communications technology (ICT) companies supply technologies and services for the processing and communication of data, which means they form the core of the digital economy. The special significance of ICT results from its function as an important driver of innovation and growth in almost all economic sectors. While digitalization was initially limited to individual company sectors and industries, it is now

increasingly shaping economic and social change. This makes digitalization a decisive factor not only for the competitiveness of individual companies, but also for the future viability of entire economies in the context of global competition.

Since the official classification of economic activities by the German Federal Statistical Office (Destatis 2008) does not feature a definition of the digital economy, the economic sectors that are to be included in the new digital index need to be defined first. In consultation with Bitkom, ifo has decided to include four manufacturing sectors (electronic components; computers and peripheral equipment; communication equipment; consumer electronics); wholesale and retail trade of information and communication technology; as well as three service sectors (telecommunications; computer programming, consultancy and related activities; data processing, hosting, and web portals).

To calculate the indicators for the digital economy as a whole, existing time series from the monthly ifo Business Surveys are used for the abovementioned economic sectors and aggregated with corresponding weights. These are based on the number of people employed in the respective sectors. With a total of 75.9 percent, the service activities have by far the largest weighting on the Digital Index. Trade activities (12.9 percent) and hardware manufacturing (11.2 percent), meanwhile, are included in the overall indicator with a lower weighting. The distribution also roughly reflects the number of participants in the ifo Business Survey. In total, the Digital Index is based on responses from around 400 companies. The calculation of the Bitkom-ifo Digital Index is analogous to the methodology of the ifo Business Climate Germany (Sauer and Wohlrabe 2018) in that it calculates a geometric mean of the current business situation and the business expectations.

Figure 1
The Bitkom-ifo Digital Index and Its Two Components



Source: ifo Business Survey.

© ifo Institute

* Bitkom – Federal Association for Information Technology, Telecommunications and New Media, Berlin.

** ifo Institute.

*** ifo Institute.

RESULTS AND INTERPRETATION

Figure 1 shows the Bitkom-ifo Digital Index together with its two components, business situation and expectations. The time series starts in 2006 and is presented as a balance, which can theoretically range between – 100 and + 100. The business situation is currently (July 2019) rated very positively by companies in the digital economy. The majority of participating companies are satisfied with their current business situation. Since its peak in October 2018, however, the situation indicator has declined somewhat, although it is still at a high level. Expectations have been characterized by dwindling optimism since around mid-2017 – except for a brief phase in mid-2018. One reason for this was certainly that the already very good assessments of the situation could hardly improve any further. Correspondingly, companies indicated that the current situation should remain good. More recently, however, expectations were also characterized by a generally more skeptical outlook for the German economy. As a result, the Bitkom-ifo Digital Index has also declined in recent months, but the values are still clearly in the positive range. More detailed results can be found in Pols et al. (2019).

In comparison with the ifo Business Climate for Germany, the upswings and downswings of the two indicators largely coincide in time. This is also confirmed by the very high correlations between the series – more than 0.9 in each case. However, the short-term economic signals of the survey indicators may differ despite the fundamentally similar development of the series.

CONCLUSION

The Bitkom-ifo Digital Index is a new indicator for Germany's digital industry. It includes information from manufacturing, trade, and the service sector. The latter has the largest weighting in the index, as it mainly covers services related to the internet. Analogous to the ifo Business Climate Index for Germany, a business climate is calculated as a geometric mean of the business situation and expectations. The basic course of the new index is similar to the index for the economy as a whole, but it often also shows sector-specific information that differs from the overall development. The Bitkom-ifo Digital Index is the first economic indicator to explicitly deal with the digital sector. In the future, it will be published exclusively by the industry association Bitkom and can be accessed on the association's website along with other results. There are, for example, also time series for expectations of price or employee development or for negative influences on the business of the companies in the digital economy.

REFERENCES

- Destatis (2008), *Structure of the Classification of Economic Activities*, Wiesbaden.
- Pols, A., S. Sauer and K. Wohlrabe (2019), "Der Bitkom-ifo-Digitalindex: Ein neuer Indikator für die konjunkturelle Entwicklung der Digitalwirtschaft in Deutschland", *ifo Schnelldienst* 72(11), 29-32.
- Sauer, S. and K. Wohlrabe, (2018), "The New ifo Business Climate Index for Germany", *CESifo Forum* 19(2), 59-64.