4 Other Indicators and Analyses from the ifo Business Survey

4.7 The ifo Investment Expectations

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4.7.1 A History of ifo's Investment Surveys

The business cycle is closely linked to economic investment. Economic downswings are often accompanied by reduced investment, while upswing and boom phases mostly come with a high investment activity. These investments can stimulate the economy and are a precondition for steady economic growth. However, official data on investment is only available after a considerable delay. Therefore, good early indicators for economic investment are very helpful for business cycle analysis and economic forecasting.

The ifo Institute has always focused on investment surveys for different industries, such as the ifo Investment Survey in Manufacturing (Weichselberger 2007) and the ifo Investment Survey for the Leasing Industry (Städtler 2019), which had been conducted since the 1950s and 70s respectively. Among other questions, these surveys asked the participating companies for the exact volume of their actual and planned investments, measured in euros (D-Mark before the year 2002).

The investment survey activities were eventually extended to other industries to cover the investment of the German economy more broadly. In contrast to the quantitative investment surveys in the manufacturing and the leasing industry, companies from other industries were only asked for a trend of their investment activity. In the trade sector, questions about total investment as well as investments in buildings and in equipment have been included once a year in the ifo Business Survey since 2000, and twice a year in the service sector since 2005.

4.7.2 The Investment Survey since 2015

In 2015, a uniform set of qualitative questions was introduced in the ifo Business Survey for manufacturing, trade, and services. For the construction industry, no investment questions were added, as it only contributes a share of 1 percent of the overall economic investments. Although the construction companies realize a large part of the investments in buildings, the investment itself is assigned to the industry that pays for the investments.

These uniform investment questions are now asked twice a year in March and November. The former quantitative investment surveys for the manufacturing industry and the leasing industry, on the other hand, have been discontinued.

The questions asked in March relate to the past year and the current year:

- Last year, our total investments were higher / approximately the same / lower (compared

to the year before).

- This year, our total investments are expected to be higher / approximately the same / lower (compared to last year).

In November, the time horizon shifts. While the question about the current year is repeated, a question about the coming year is added:

- Next year, our total investments are expected to be higher / remain approximately the same / be lower (compared to the current year).

The same questions are not only asked for total investments but also separately for

- investments in buildings,
- investments in equipment,
- investments in software and databases,
- investments in research and development.

These questions are now used to construct investment indicators. These so-called ifo Investment Expectations are available for the overall economy, on the industry-level, and for various sub-industries. The weighting and aggregation of the responses are analogous to the methodology for the other indicators of the ifo Business Survey. As a balance, the indicators show the difference between the percentages of positive answers (higher investments) and negative answers (lower investments). However, as the questions always refer to investment activity in a particular year, no seasonal adjustment is made.

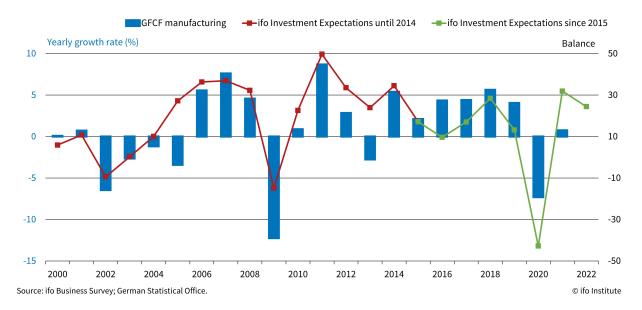
4.7.3 The Forecasting Power of the ifo Investment Expectations

For an analysis of the informative value of the ifo Investment Expectations, the survey results from the years up to 2014 were linked to those from 2015 onwards. For trade and services, this was easily done, as the questions pre-2015 were already qualitative. Since the survey results for the manufacturing industry up to 2014 are only available in quantitative terms, they have been converted into qualitative values. Constant investments were assumed if the investment volume indicated by the company was within a range of ± 1 percent for two consecutive years. Otherwise, quantitative changes in the investment expenditure made or planned were allocated to the "higher" or "lower" category, depending on the direction of the change.

First of all, the ifo Investment Expectations for the current year, which are collected in March, are compared with the actual rate of change in total investment (gross fixed capital formation (GFCF)). The official statistics only provide annual data with a considerable delay. Therefore, the ifo Investment Expectations on the industry level are an important early indicator. Figures 4.16 to 4.18 illustrate the results for the manufacturing industry, the trade sector, and the service sector. The correlation coefficient, which indicates the relationship between the ifo

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Investment Expectations and the rate of change of total investments, is 0.77 in manufacturing, 0.62 in trade, and 0.67 in services. The ifo Investment Expectations for the current year, surveyed in March, are therefore a good predictor of the actual change in total investment.





As expected, the correlation between the ifo Investment Expectations and the rate of change of total investments increases with the November survey results. The corresponding coefficient is 0.83 in manufacturing and 0.66 in services (Figures 4.19 and 4.20). For trade, no long-term analysis is yet possible, as investment questions in November have only been asked since 2015.

Furthermore, based on the investment expectations of the three industries, the ifo Investment Expectations are also calculated for the overall economy. Services, manufacturing, and trade are weighted with their respective shares in value added. The ifo Investment Expectations for the overall economy are also very closely related to the rate of change in total private investments (Figures 4.21 and 4.22). Using investment expectations from the spring survey, the correlation coefficient for the current year is 0.78. Using the investment expectations from the autumn survey, this rises to 0.85.

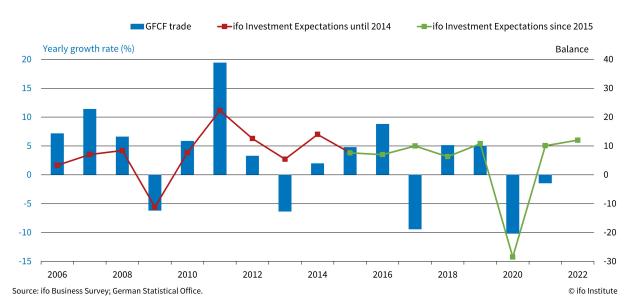
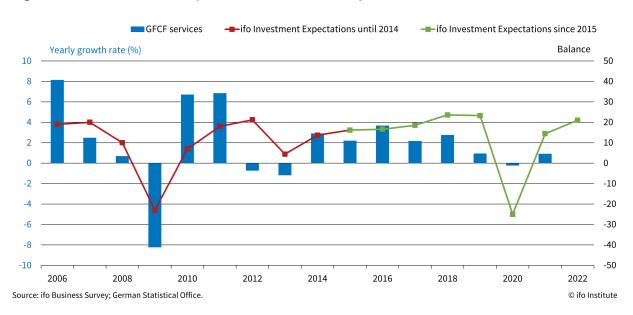


Figure 4.17: ifo Investment Expectations for the current year in trade (March results)

Figure 4.18: ifo Investment Expectations for the current year in services (March results)



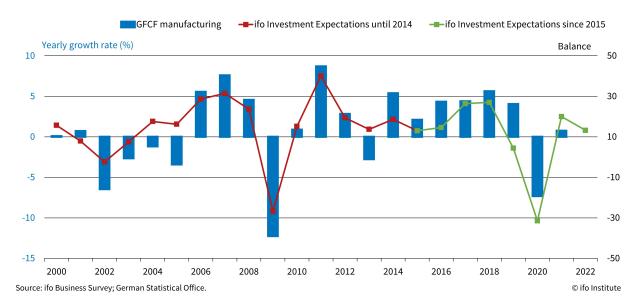
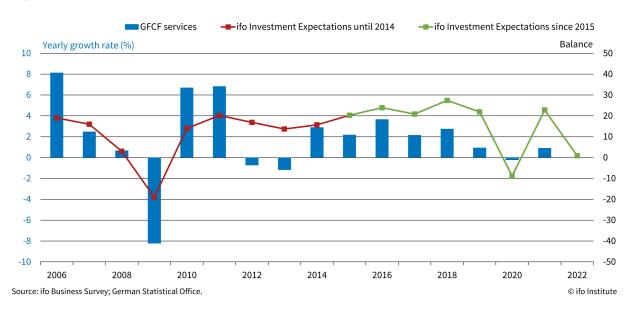


Figure 4.19: ifo Investment Expectations for the current year in manufacturing (November results)

Figure 4.20: ifo Investment Expectations for the current year in services (November results)



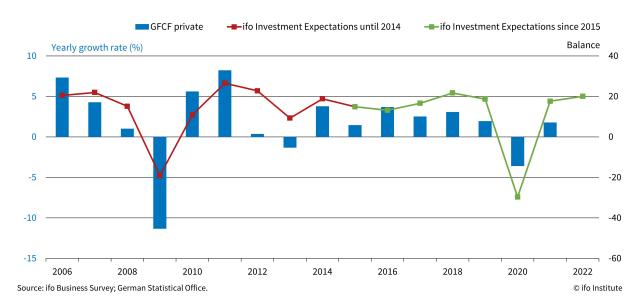


Figure 4.21: ifo Investment Expectations for the current year in the overall economy (March results)

Figure 4.22: ifo Investment Expectations for the current year in the overall economy (November results)

