

# **Logistics Indicator**

## **Results 2010-Q1 to 2023-Q4**

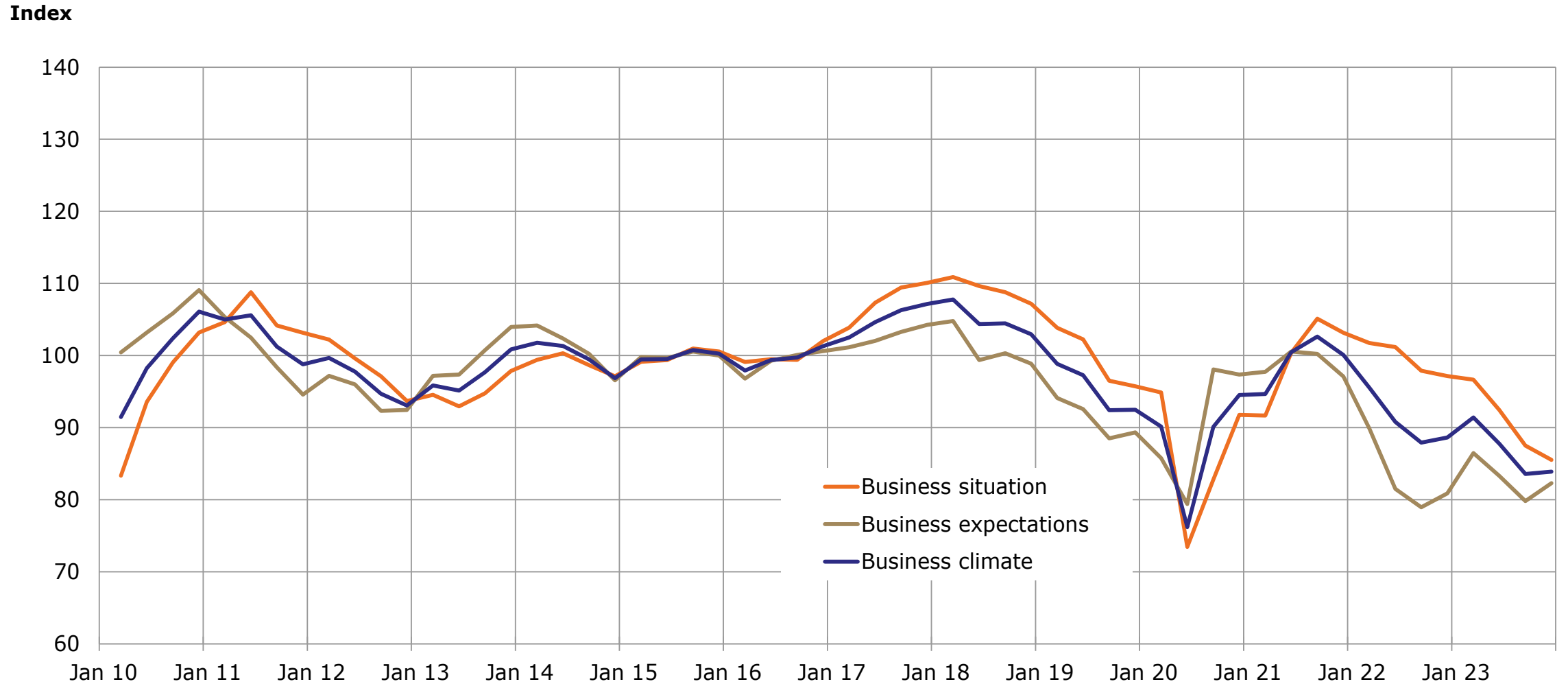
**Prof. Dr. Timo Wollmershäuser**

**Moritz Schasching**

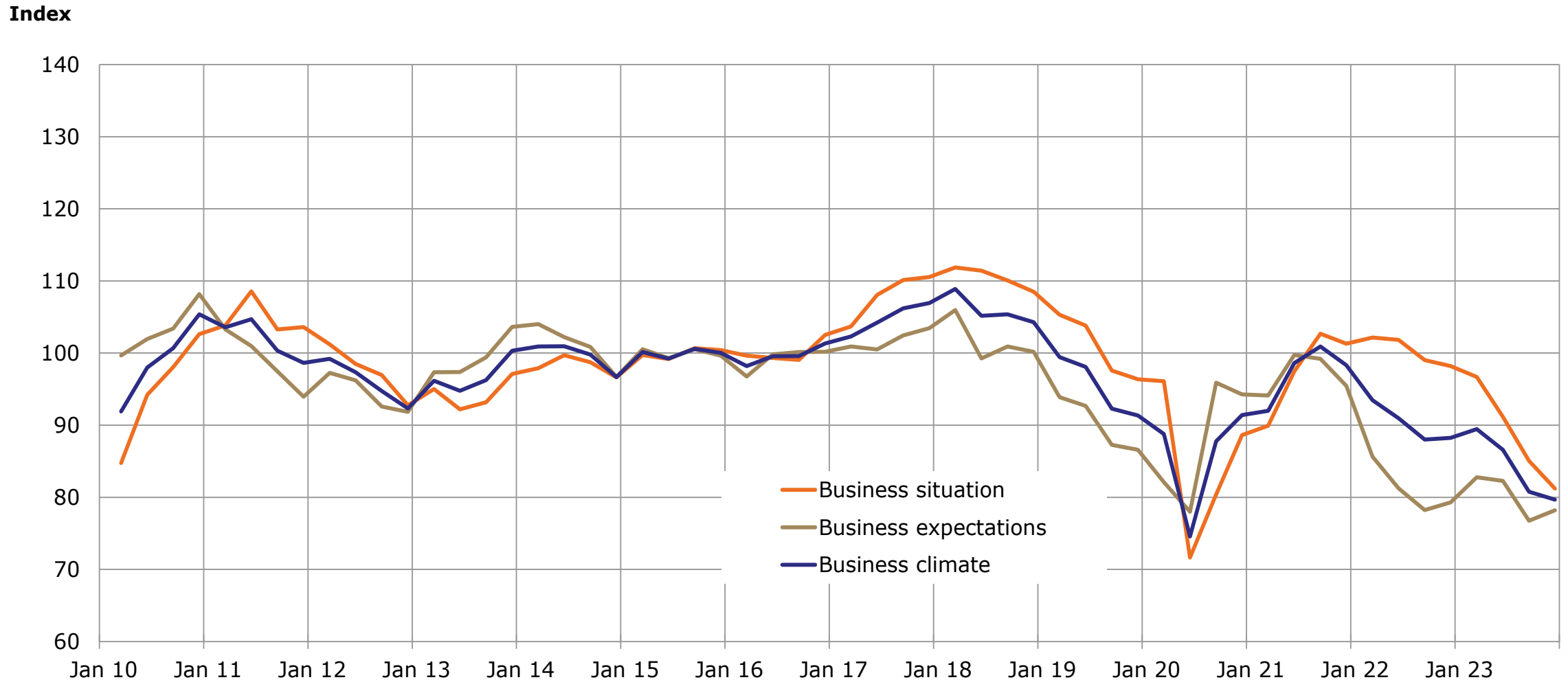
ifo Institute

ifo Center for Macroeconomics and Surveys

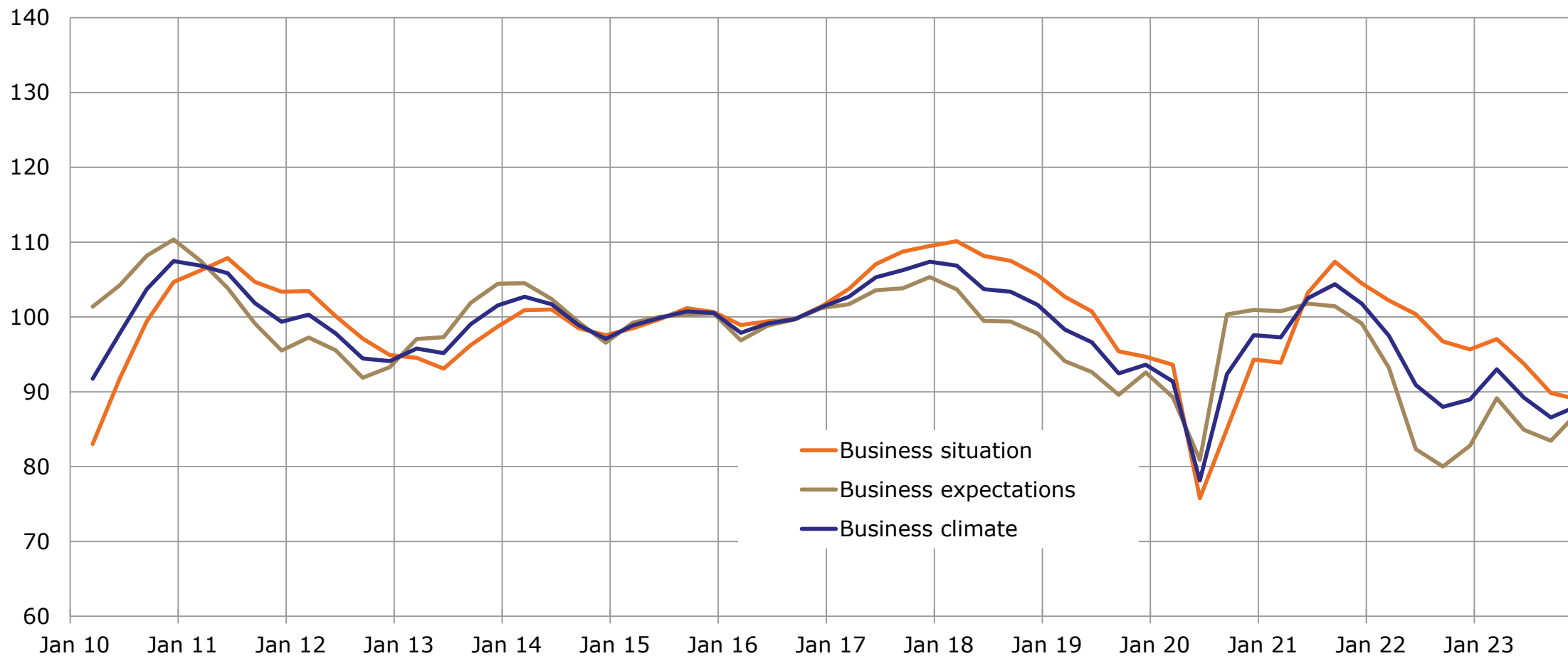
# Composite Indicator



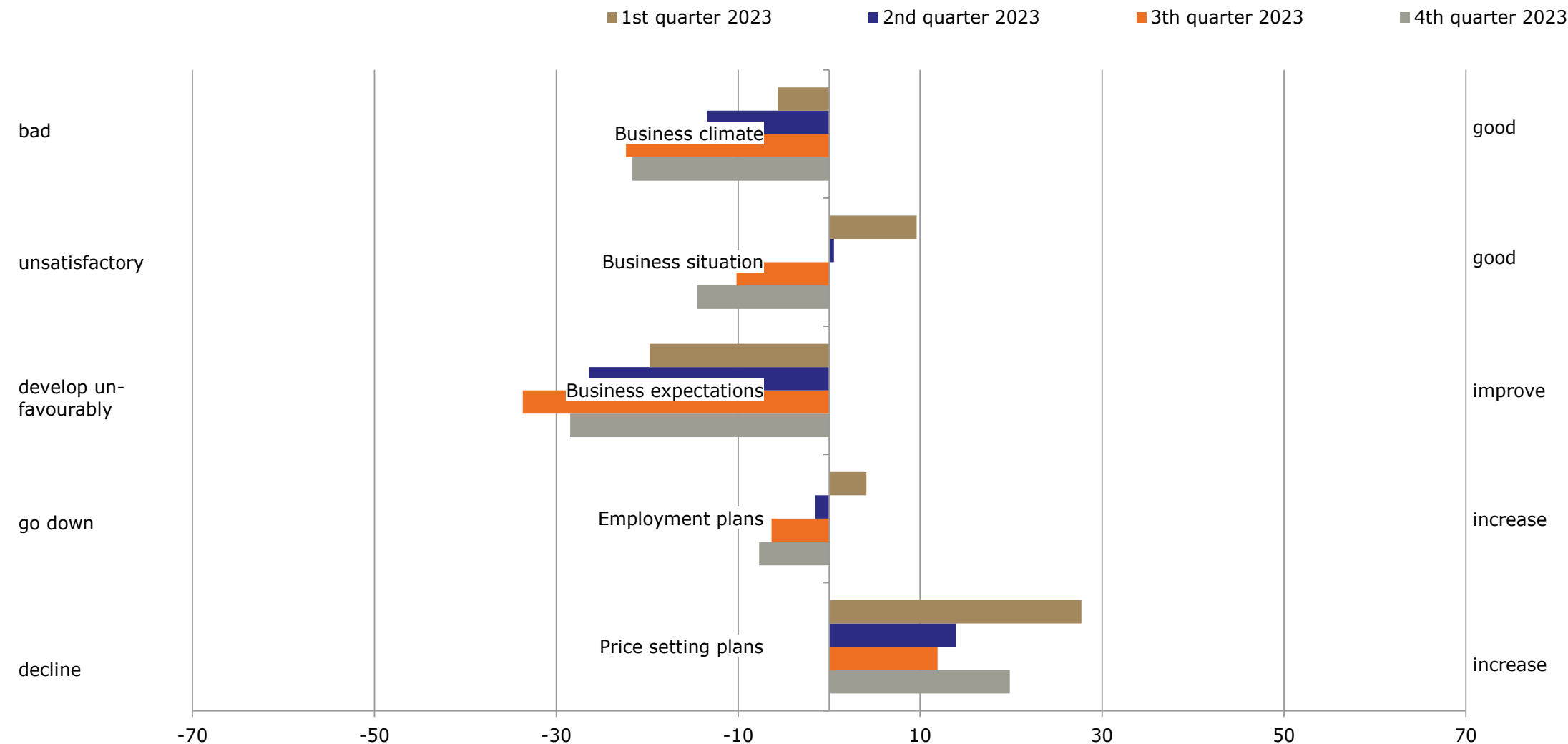
# Logistics Service Providers



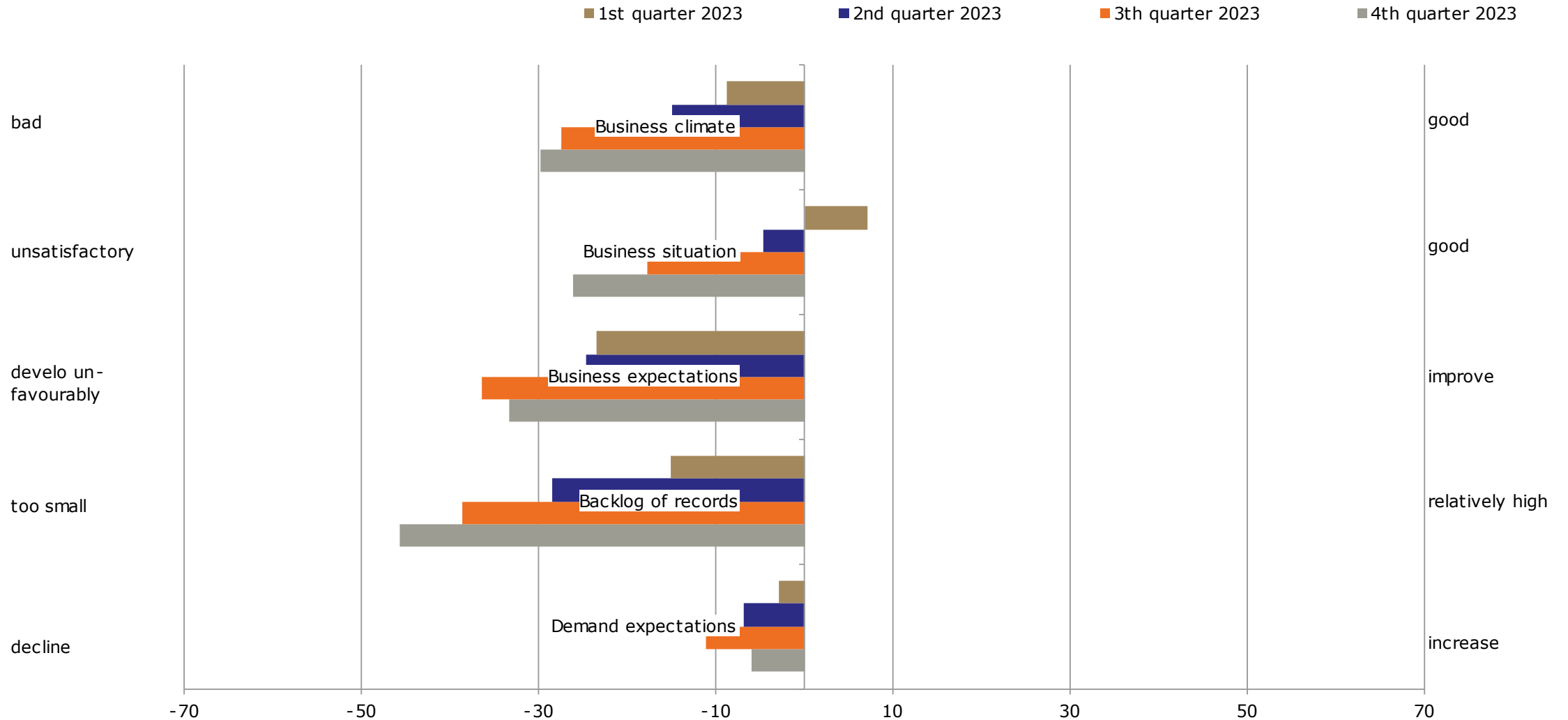
## Index



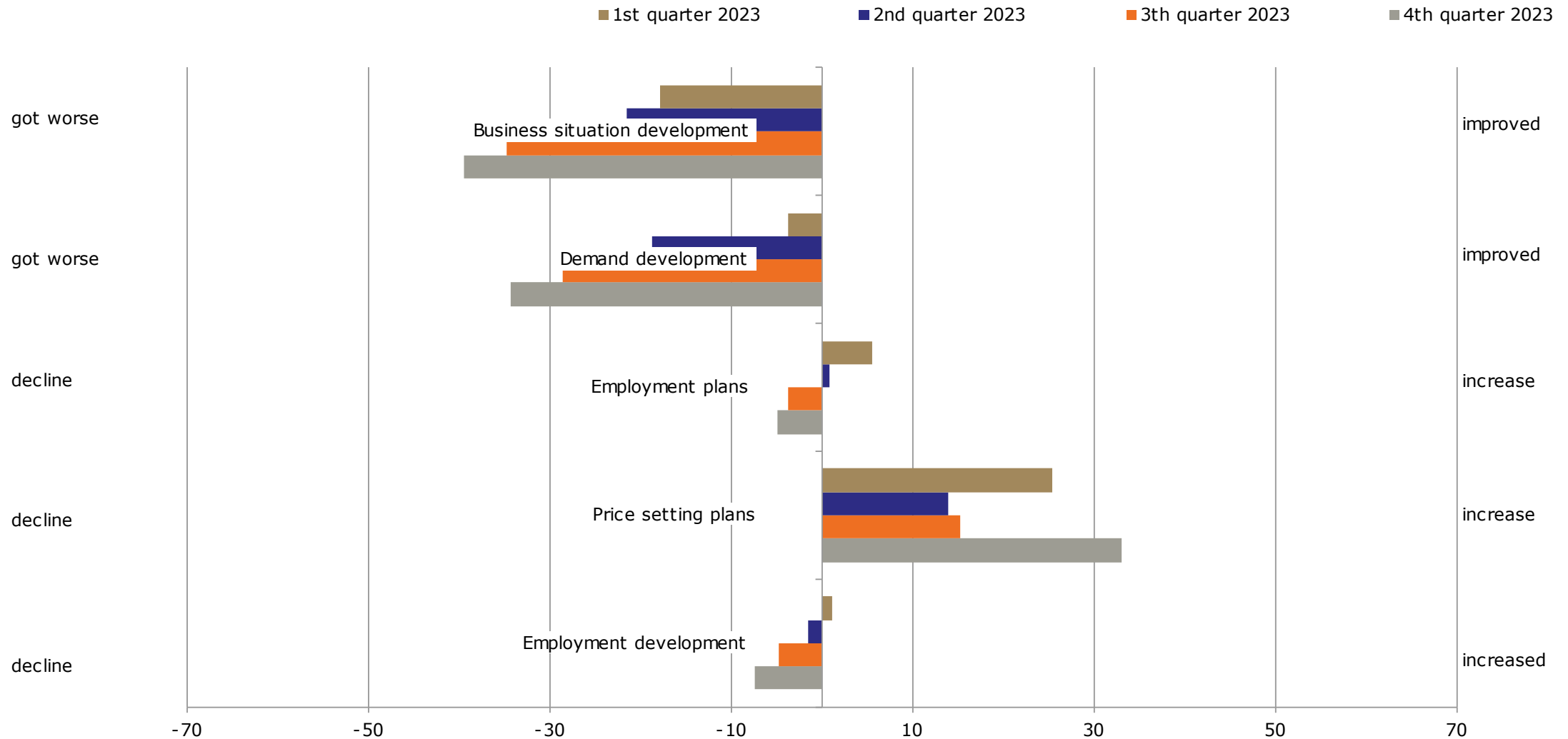
# Logistics Industry - quarters



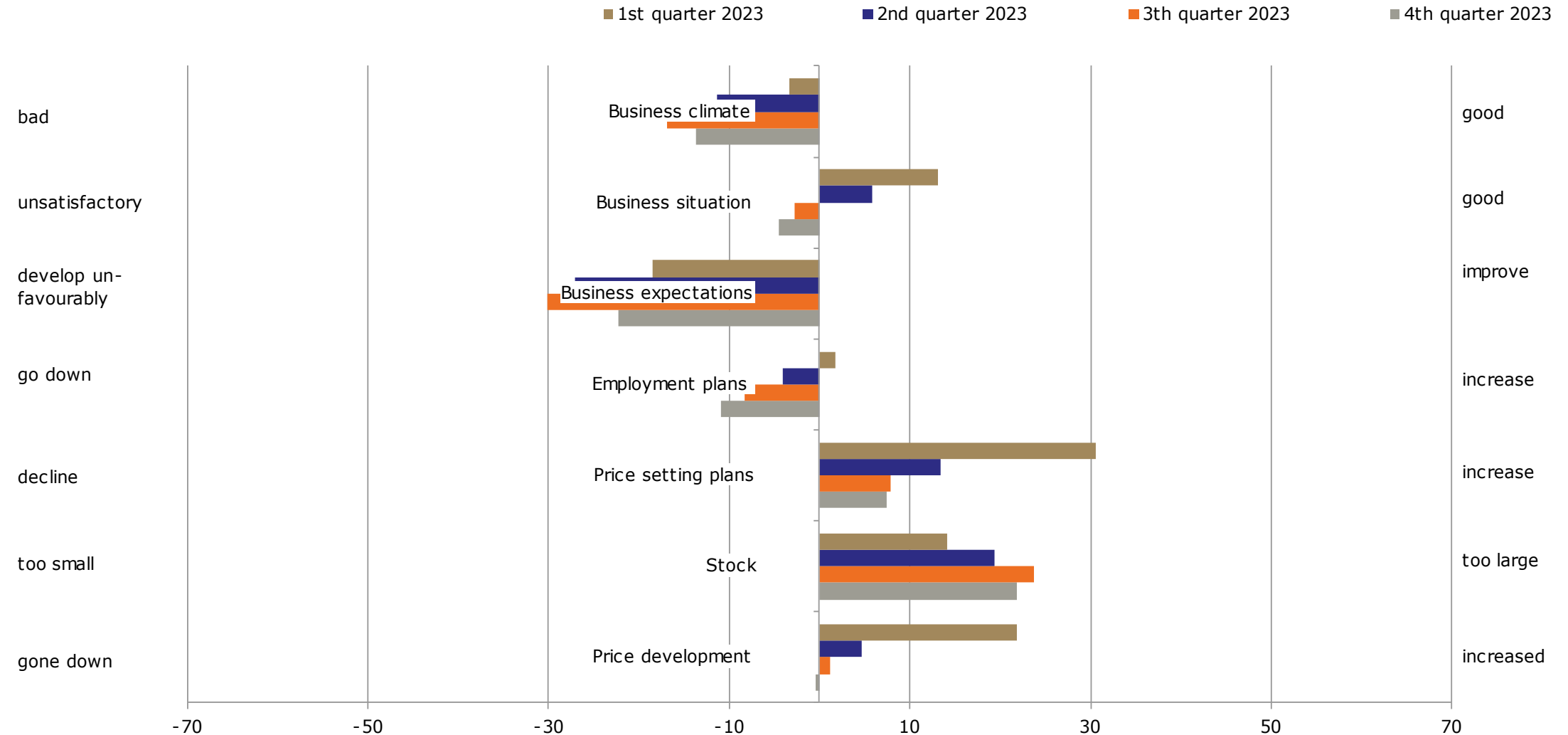
# Logistics Service Providers – quarters (part 1)



# Logistics Service Providers – quarters (part 2)



# Industry and Trade – quarters





- The Logistics Indicator is computed by the ifo Institute for the World Economy on behalf of the German Logistics Association (BVL). It is based on the monthly ifo business survey for the period from 2015 onwards. There are used more than 4,000 answers from logistics service providers (60% Freight transport (excluding air freight); 40% Warehousing and support activities for transportation) or industrial companies (66%) and trade companies (Wholesale: 17%; Retail: 17%) as users of logistics services. The composite indicator is computed in equal shares by the providers and the users of logistics services.
- For all questions, three alternative answers apply: positive/expansionary, normal/neutral, and negative/contractionary. In a first step, the balance is computed by subtracting the shares of the negative answers from shares of the positive ones. The balances can fluctuate between extreme values of -100 (i.e., all responding firms appraise their situation as poor or expect business to become worse) and +100 (i.e., all responding firms assessed their situation as good or expect an improvement in their business). A value of 0 indicates that positive and negative answers are equally represented.
- All questions on quarterly developments are designed to induce respondents to express seasonally adjusted assessments of the current situation. A standard method for seasonal adjustment (X13-ARIMA-SEATS) is additionally applied to all numbers and indicator values reported in this document in order to filter out the remaining seasonal pattern.

# Methodology

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- The business climate is a mean of the balances of the current business situation and the expectations for the next six months:

$$\text{Business Climate} = \sqrt{(\text{situation} + 200) (\text{expectations} + 200)} - 200$$

- For calculating the index values of the business climate and its components - situation and expectation - the balances are all increased by 200 and normalized to the average of a base year (currently 2015):

$$\text{Index value} = \frac{\text{balance in the current month} + 200}{\text{average balance in the base year} + 200} \times 100$$