

ifo prognosis thanks to Agenda Setting

On the relationship between the media and business climate

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agenda. With regard to the ifo Index, this assumption translates as follows: Between the first and tenth of each month, the ifo Institute asks 7000

01/26/05		GERMANY		ECONOMIST ESTIMATES			
Date/Time	Indicator	BN Survey	Actual	Prior	Revised		
1/26 10:00	GE IFO Ind. Survey (Bus. Climate)	(JAN)	96.0	96.4	96.2	--	

Economist	Firm Name	Estimate	Date
...	ACAST Linde	97.8	1/26/2005
...	...	95.0	1/21/2005

Summary	
Median	96.0
Average	96.1
High	97.0
Low	95.0
Number	41

The German ifo Business Climate Index has helped the institute to become the most frequently quoted economic research institute in the opinion forming media (daily newspapers, weeklies, business press, television). No other institute reaches a comparably high media attention with a regularly published indicator, even if some, such as the ZEW with their analyst panel, offer serious alternatives. Investors attach great importance to the ifo Index. With the help of media content analysis, the trend of the ifo Business Climate Index can be predicted in many cases. The theory of Behavioral Finance, a young, interdisciplinary branch in economics, explains why: Media information reduces insecurities about future economic developments in the short term, and entrepreneurs take it into account when asked to make predictions on future economic developments in the ifo questionnaire. This is especially true when a clear growth trend is nowhere in sight.

entrepreneurs and managers for their assessment of their current business situation as well as a projection for the future.

While it is easy to evaluate one's own order books, prognoses are highly insecure by nature. Moreover, entrepreneurs depend on external information to put their own business results into context (i.e. development of their industry sector, general condition of German companies, etc.).

The ifo Index is an important mood signal for the financial markets. In the past it has repeatedly proven its validity as a forecast instrument of real economic development. In previous years, economists tried to explain the development of different indicators primarily with the help of hard economic data. Yet, in the recent past a new research branch of economics has established itself, which increasingly examines the impact of psychological factors on the behavior and actions of people involved in economic transactions. That approach, called Behavioral Finance, systematically takes into account that investors and consumers do not always act "rationally" in the classical sense. The Agenda Setting theory of empirical social sciences offers one possibility for using the results of media content analysis in the context of Behavioral Finance.

Tests on the association between the ifo Index and media information on a) macroeconomic early indicators of the economic situation and b) information on companies and industry sectors, show that there is a correlation between the two types of information (comp. Sturm 2004, Vollbracht 2004). The goal of this article is to shed some light on the relationship of type a), that is the role of macroeconomic early indicators.

It is a core idea of the Agenda Setting theory, that the media are not very successful in directly influencing people's opinions and behavior, but that they are quite capable of affecting the presumed importance (hierarchy) of topics. The conditions for this are a minimum of media coverage as well as a clear hierarchy of topics on the media

Early indicators are mainly of a general nature. In the context of this research, all media information is classified as "early indicators" of the economic situation, that allows for statements on future economic developments. This includes figures on industry production, incoming orders from abroad, productivity, domestic incoming orders, investments, consumption and business climate. To complement those more or less "hard" figures, more general expectations in the media on the economic development have been added as early indicators. Late indicators such as the labor market are not part of the analysis, because they would be at the end of a presumed chain of effects. Statements on the federal budget are also not included, because their effects strongly depend on the use of federal expenses. The share of early indicators in relation to all information on the economic situation or on Germany as a busi-

ness location is relatively low. Between 1998 and 2004, the medium share was 9.6% of 62,660 news stories on the economic situation in FAZ, Welt, Süddeutsche Zeitung and Frankfurter Rundschau. In television news, it was only marginally higher (10.1%). The majority of statements on early indicators are of a general rather than specific nature. Statements on “growth in general”, for example, make up almost 14% and general predictions for the future another 13%. Specific information, for example on the development of incoming orders (18.9%) or investments (6%), play a comparatively minor role in media coverage, considering their importance in economic models.

Model creation: The ifo Institute normally sends out its questionnaire at the beginning of the month and has it sent back by the tenth. In order to study the correlation between media coverage on early indicators and the ifo Business Climate Index we established two timelines. The timeline Med10 analyzes the effects of coverage between the first and tenth of one month on the Business Climate Index of that same month. Med40 additionally draws on the coverage of the previous month (30 days), because the M10 line is highly

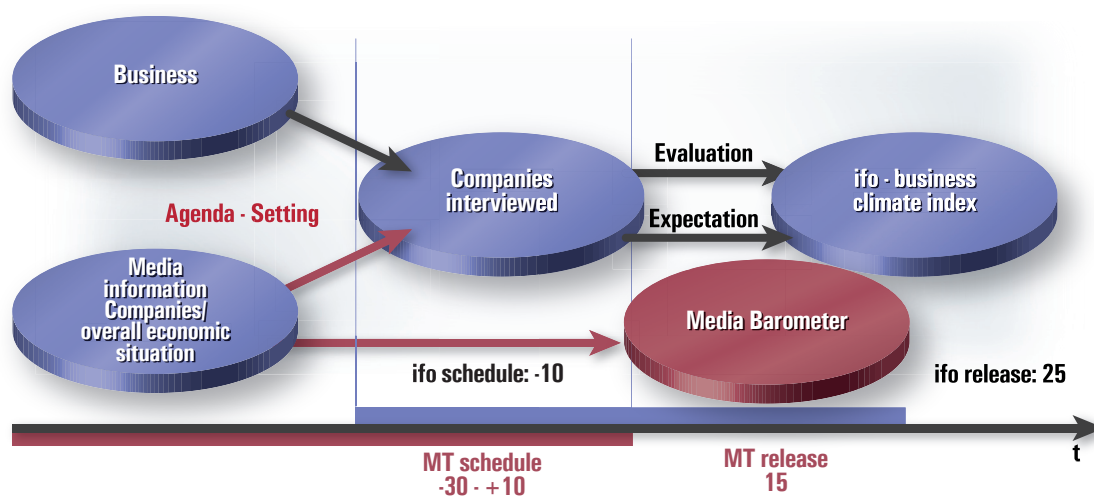
positive and negative descriptions on early indicators. A majority of positive descriptions results in a positive balance and vice versa. The trend prognosis of the ifo Business Climate Index uses the change in balance compared to the previous month (med10t1-med10to). An increasing difference between the two is a sign of a growing business climate, while a decreasing number points to a falling business climate. The same applies to the 40-day timeline (Med40).

Media trend beats analyst prognoses

The long-term analysis of Med10 and Med40 shows that the predictive accuracy has risen sharply over time. In 2004, the development of the ifo Index was foreseen correctly 10 out of 12 times with the help of the Med40-timeline. The correlation between Med40 and ifo was 0.89 during the first 10 months and that of Med10 0.79. The trend prognosis was in some cases better than the analysts’ consensus, which is decisive for the stock market’s reaction on the publication of the ifo Index.

In January and February 2005, the media trend prognoses were accurate in both cases, whereas the analysts were mostly proven wrong. Analysts

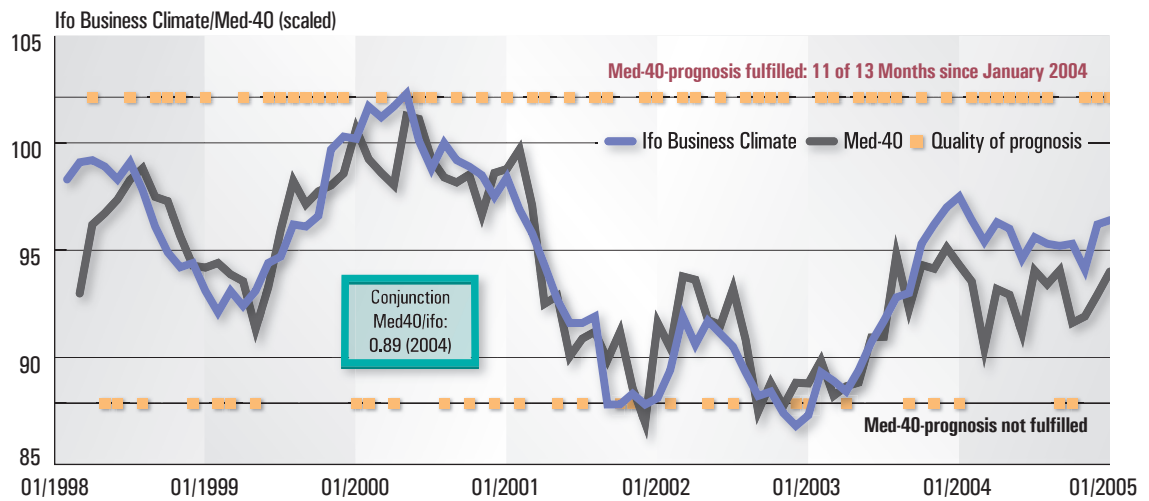
Model: News flow and ifo Business Climate Index



volatile, and the Med40 line trend is more stable. However, there is a danger that the turning points of preceding data overlap. This rests on the assumption that, to a certain extent, past coverage may increase or decrease attention for a given topic. Med10 and Med40 include the balance of

and economists interviewed by Bloomberg (n=41) in January on average expected the ifo Business Climate Index to fall from 96.2 to 96.1 points, while the media data pointed to an improvement. The business climate did in fact improve to 96.4 points. In February, the analysts interviewed pre-

Media coverage on early indicators vs. ifo Business Climate Index



Source: Media Tenor
01/01/1998 – 12/31/2004

Basis: Coverage on early indicators
in 4 media

dicted that the ifo Index would rise from X to Y, while the media analysis correctly assumed a falling index. Both in January and February, the Med10 was used.

Additional research necessary

It remains unclear why the reliability of the media trend prognosis is highly variable over time. For instance, it reached 75% in 1999 and 88% in 2004, but hovered between 50 and 67% in the years between. It is striking that accuracy has increased, as the path of growth has been no more obvious and clear-cut. But it is unclear whether this is a cause or effect of the entrepreneurs' increased insecurity. Presumably the effects are interrelated: Insecurity on future developments leads to more careful investment policies, production planning etc., which in turn cause a reduction in real economic activity and therefore more insecurity for future expectations. The media act as an amplifier, but also as a filter of information. Strong export demand, as an extraneously stabilizing variable, has made sure that no stable downward trend occurred. It says something about the influence of the unstable business climate that even companies, which are producing at full tilt because of strong export demand, are only moderately optimistic about the future. It is plausible to assume that the entrepreneurs' stability of expectations has an impact on the extent to which they are susceptible to media information when forming their opinions. After the crash of the New Economy and the terror attacks in the US, a general instability seems

to have crept up into expectations. Another open question is, when the 10-day timeline and when the 40-day timeline produces better prognosis results. The more sluggish 40-day timeline seems to hide less intensive signals under a mass of old information. Thus, the change of the ifo Index in January and February was best predicted with the 10-day timeline. All told, there continues to be much room for additional research and the coupling of data on macroeconomic forecasting and media coverage on companies and industries. vb

Open question:

Business expectations have become increasingly unstable. Are the weakness in growth and deferred investments an expression of this, or is sluggish growth, underlined by critical media coverage, the origin of more pessimistic expectations?

Basis:

Media: Bild, Die Welt, Frankfurter Allgemeine Zeitung, Frankfurter Rundschau, Süddeutsche Zeitung

Time: 01/01/1998 – 02/15/2005

Analysis: all stories referring to the economic situation in 4 media; selection of all stories in which early indicators were mentioned

Other: ifo Business Climate Index