



POLICY BRIEF 34/2002

THE THIN RED LINE: RECESSION
PROBABILITIES FOR GERMANY

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Yesterday, the Financial Times ran a headline stating that Germany is on the brink of recession. The trigger was this week's reading of the ZEW which took a nosedive once again. This, however, does not tell much about Germany's probability for slipping into recession.

We have run probit regressions between the ZEW and GDP growth to estimate recession probabilities for Germany. First, we found a substantial time lag of two quarters between the two variables. The ZEW indicator is leading the German economy by approximately half a year. Second, the recession probability (two quarters of negative GDP growth) is currently still low. According to our estimates, it does not exceed 5% until mid 2003! However, the risk of one quarter with negative GDP growth has risen substantially to 36%.

Our estimates implicitly assume an unchanged reading of the ZEW in the next months. What would happen if the sentiment drops further? A more pronounced deterioration to a level of -40 (-70) would lead to a recession probability of 60% (90%).

A further worsening of the sentiment is in the cards. We are therefore expecting the ECB to cut interest rates by 50 bp on December 5.

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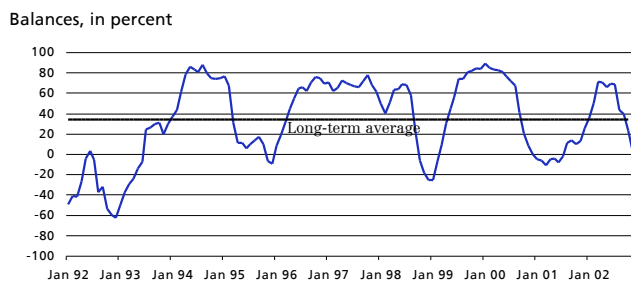
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CORPORATES & MARKETS

AFTER THE LATEST ZEW READING: IS GERMANY REALLY AT THE BRINK OF RECESSION?

This week's reading of the ZEW indicator for November took a nosedive once again. The survey which is regarded as a reliable leading indicator for the German economy plunged from 23.4 to 4.2. It was the fifth consecutive decline and the lowest level since July 2001. Seemingly, Germany is stumbling rapidly into negative GDP growth territory or even a pronounced recession¹.

ZEW INDICATOR IN REVERSE GEAR



² The last decline in the ZEW indicator, however, does not tell much about Germany's probability for slipping into recession. This question could only be answered by running a probit regression between the ZEW and GDP growth (for technical details see box below). Our procedure was twofold: First we estimated the probability for one quarter with negative GDP growth. After that we re-estimated the equation by using two quarters with negative growth which fits the technical definition of a recession.

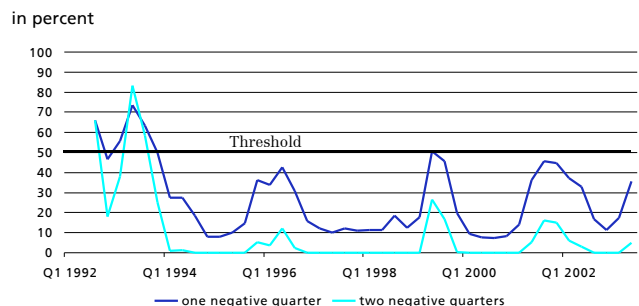
BOX: LOGIT AND PROBIT MODELS

In this class of models, the dependent variable (GDP growth), may take only two values: a recession occurs (value 1) or not (value 0). A simple linear relationship of Y (GDP growth) on X (ZEW) is not appropriate. For example, the fitted value of Y from OLS estimate is not restricted to lie between zero and one.

THE RESULTS: UNTIL NOW NO RECESSION IN THE CARDS, BUT ...

According to our estimates, the risk of one quarter of negative GDP growth until the middle of next year has risen substantially to 36% (see graph). However, the probability of a disappointing figure for IV/2002 is still quite low (12%). This may come as a surprise, but we found a time lag of two quarters between the variables. Less technically spoken: The ZEW indicator is leading the German economy by approximately half a year. The plummeting ZEW is therefore more a warning signal for the first and second quarter of 2003 – probabilities of 17% and 36%, respectively – than for IV/2002. What was even more baffling is still the low recession probability (two quarters of negative GDP growth). According to our estimates, the probability does not exceed 5% until mid 2003! How come? The answer is simple: The ZEW indicator in November was currently still positive!

ZEW INDICATOR SIGNALS RISING RECESSION PROBABILITY



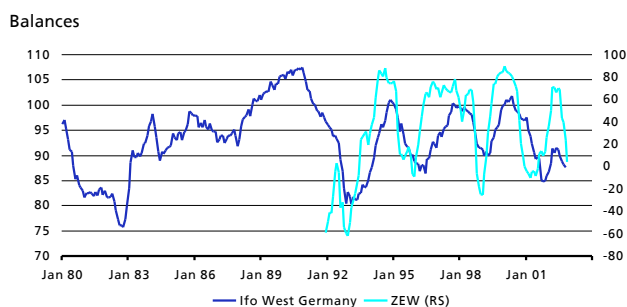
USING THE ZEW INDICATOR AS AN ALARM BELL

But what would happen if the sentiment deteriorates further? We have used our estimates to calculate thresholds for the ZEW indicator. Of course nobody can forecast how the ZEW will develop in the next months. To overcome this

¹ Cf. Financial Times, Germany on brink of recession, November 13 2002.

difficulty and to get a better feeling what might lie ahead we have developed three scenarios. The first scenario is a further drop of the ZEW within reasonable limits to levels around -10 for Q1/03 and -20 for Q2/03. In this case the recession probability would rise to a moderate 31%. The second scenario consists of a more pronounced deterioration to levels which resembles approximately the recession 1992/93. The recession probability would then mount to 60%. In the last scenario the survey is getting into a downward spiral in which the negative sentiment is feeding upon itself (see table below). With a probability of 92% the occurrence of a pronounced recession would be nearly without question.

LEADING THE LEADING INDICATOR



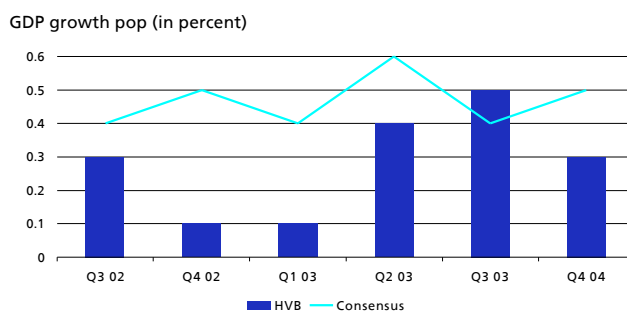
2. This week's reading of the ZEW supports our view. We are noticeably more pessimistic on the German economy than the consensus. For the third quarter 2002 we are expecting +0.3% pop (Consensus: +0.4%), for IV/02 and I/03 a meagre +0.1% (+0.5% & 0.4%). For 2003 we are forecasting only +1.0 yoy which sets us apart from the majority of economists (consensus: +1.5).

THREE SCENARIOS FOR THE ZEW AND DERIVED RECESSION PROBABILITIES

	ZEW	Recession probability*
Scenario I		
III/03	-10	19%
IV/03	-20	31%
Scenario II		
III/03	-20	31%
IV/03	-40	60%
Scenario III		
III/03	-30	46%
IV/03	-70	92%

* recession in the quarter respective and the quarter before
Source: HVB research

HVB BELOW THE CONSENSUS



3. We are expecting the ECB to cut interest rates by 50 bp on December 5.

IMPLICATIONS FOR INVESTMENT STRATEGY

1. Keeping an eye on the ZEW indicator in the next months is a must! Usually, the ZEW is not only a reliable indicator for the German economy, but he is also leading the ifo business climate (see the turning points at the graph below).

OUR INTEREST RATES FORECASTS

	3 mo	6 mo	12 mo
3 mo (EMU)	2.90	2.90	2.90
10 Y Bund	4.25	4.25	4.60

YOUR REFERENCES

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