

HOW IS NEWS ABOUT MACROECONOMIC FUNDAMENTALS INCORPORATED INTO THE EURO AREA BOND MARKET?

Central banks in general, and the ECB in particular, monitor closely the long-term segments of the bond market, as long-term interest rates contain information about both expected inflation and the economy's growth prospects as anticipated by market participants. Over the past few months long-term bond yields in the euro area have risen, despite the lower than expected GDP outcome for the last quarter of 2005. The upturn in bond yields instead seems to have mirrored more positive readings of "soft" data on economic activity, i.e. survey-based business cycle indicators, which support the view that euro area economic growth will strengthen over the course of 2006. In fact, it appears that such macroeconomic data announcements influence financial markets in general, and that the importance of these announcements can change over time. This box examines a wide range of macroeconomic indicators released in the euro area and reports upon which types of announcement have significantly influenced long-term euro area bond markets over the past six years.

One common stylised fact in the literature on announcement effects is that many US macroeconomic announcements tend to induce strong financial market reactions, across both asset classes and economies.¹ It is likely that such strong asset price sensitivity can be attributed to the view that the US economy is being perceived by investors as an engine for global growth. In addition, the sensitivity of euro area financial markets to US news may also reflect the timing of the releases. Since US news is generally released before the corresponding news for the euro area, it may function as a leading indicator for euro area financial markets. Thus, the comovements between US and euro area financial asset prices may, over time, be stronger than the real economy links would suggest.

The US releases that tend to have the greatest influence on euro area markets are those on real activity and employment, such as the advance releases on US GDP and on non-farm payroll data. In addition, more forward-looking survey-based indicators also tend to affect euro area financial market prices, as they may alter market participants' views about the future course of the economy. Among the myriad of available confidence indicators, the manufacturing confidence index released by the Institute for Supply Management (ISM) tends to receive most attention.

It is also interesting to examine, apart from the above-mentioned US releases, the question of which euro area announcements tend to move euro area long-term interest rates significantly. In theory, a better than expected announcement for economic activity or a higher than expected inflation outcome should exert upward pressure on long-term bond yields. The table shows a number of national and euro area-wide aggregated macroeconomic announcements covering real activity, unemployment, business cycle survey indicators and aggregate price and monetary indicators. The plus signs in the table indicate whether the announcements significantly influenced German long-term government

¹ See the box entitled "The impact of recent employment data releases in the United States on global bond markets" in the May 2004 issue of the Monthly Bulletin. For more empirical evidence, see, among others, T. G. Andersen, T. Bollerslev, F. X. Diebold and C. Vega, "Micro effects of macro announcements: Real-time price discovery process", *American Economic Review*, 93, 38-62, and M. Ehrmann and M. Fratscher, "Equal size, equal role? Interest rate interdependence between the euro area and the United States", *The Economic Journal*, 115 (506), pp. 928-948.

Selected euro area and national macroeconomic announcements and their impact on German long-term bond yields

Euro area activity and employment releases		National activity and employment releases	
Industrial production	+	Industrial production (DE)	+
Retail sales		Industrial production (FR)	+
Unemployment		Industrial production (IT)	
Euro area survey indicators		National survey indicators	
Business climate		ZEW ¹⁾ index (DE)	+
Consumer confidence		Ifo ²⁾ index (DE)	+
Purchasing Managers' Index		Business ³⁾ (FR)	+
		Business ⁴⁾ (IT)	+
Euro area price and monetary releases		National price releases	
Flash HICP		Consumer price index (DE)	
HICP		Consumer price index (FR)	+
Producer price index		Consumer price index (IT)	
M3			

Note: The plus signs indicate that the announcements significantly influence the prices of German long-term bond futures.

- 1) Centre for European Economic Research, Mannheim.
- 2) IFO institute, Munich.
- 3) National Institute for Statistics and Economic Studies.
- 4) Institute for Studies and Economic Analyses.

bond yields in line with theory over the sample period 1999-2005.² Given the fairly small and relatively stable spreads between government bond yields within the euro area since 1999, German bond yields can be regarded as providing a fairly sound illustration of interest rate developments for the euro area as a whole over the last couple of years.

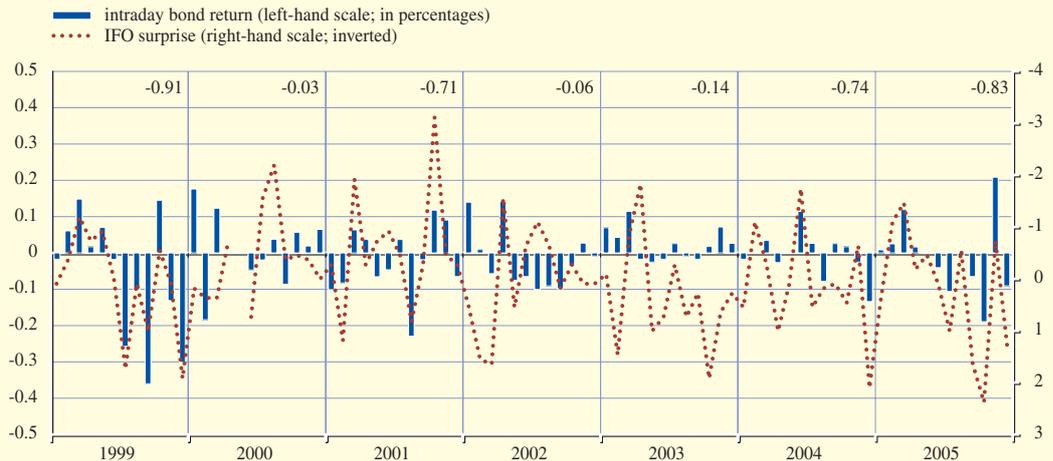
Several notable features emerge from the table. First, relatively few of the euro area aggregate announcements significantly influence German bond markets. This is probably linked to the fact that they are published after the countries participating in EMU have published their domestic data releases, with the result that the added informational value of these releases may generally be considered small. Second, the generally muted bond market reaction to German consumer price index data may be attributable to the fact that regional data have already been published, meaning that national data contain less “new news” for market participants. Third, national survey-based sentiment indicators in general have a significant impact on German long-term bond yields. In theory, asset prices are inherently forward-looking, thereby incorporating, among other things, the expected future macroeconomic environment, such as investors’ perception of the outlook for growth and inflation. Thus, it cannot be excluded that these indicators will cause investors to revise their expectations, thereby having a significant impact on bond markets.

The importance of macroeconomic announcements may change over time. Changes in news sensitivity may occur for several reasons. First, if readings of survey-based “soft” data differ significantly from the information stemming from backward-looking “hard” data, it may be the case that market participants attach more importance to the former, as they may provide more forward-looking information than macroeconomic announcements summarising past developments in economic activity. Especially in periods of uncertainty regarding the pace of growth of economic activity, the release of key forward-looking indicators of economic activity may influence the

² This is determined on the basis of regressing the intraday five-minute percentage changes of the German long-term bond future contract on the surprise components of the respective announcements, the latter calculated as the difference between actual and expected outcome. The significance threshold is set at 90%.

German intraday bond market returns and surprise component in the IFO survey

(correlation coefficient 1999-2005: -0.5)



Note: The surprise component is defined as the difference between the monthly IFO outcomes and the figures expected by market participants surveyed by Bloomberg, divided by the standard deviation. The bond return is calculated as the percentage price changes 10 minutes before to 15 minutes after the IFO releases. The horizontal line of numbers in the upper section of the chart represents the yearly correlation coefficient between the two variables. Given the inverse relationship between prices and yields, a positive intraday number means that bond yields have declined. The May 2000 figure is not included because the IFO release took place at the opening of the German bond market, meaning that a proper price change could not be calculated.

market more than in other situations. Second, policy-makers can sometimes signal a preference for one or more macroeconomic indicators as input for their policy decisions at certain periods of time, which may lead to temporarily stronger responses of financial prices to those announcements. The chart attempts to reflect occurrences of such changes in news sensitivity.

The chart shows, on the one hand, the difference between the actual and expected outcome of the closely monitored IFO business sentiment survey and, on the other, the immediate intraday percentage price change in the German ten-year government bond immediately surrounding the release (with a positive sign indicating that bond yields have declined and vice versa). The horizontal line of numbers in the upper section of the chart represents the yearly correlation coefficients between the two variables. The chart indicates that over the last two years of the sample period, a higher than expected IFO release generally triggered a significant negative (positive) reaction of German bond prices (yields), in line with what theory suggests. However, such a significantly negative relationship cannot always be observed.