Focus Germany

Sentiment indicators – another setback in spring

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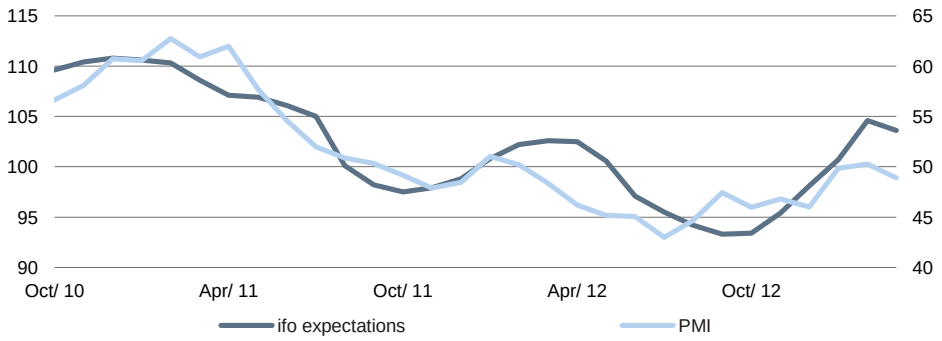
For the third year in a row now, monthly surveys such as the ifo business climate and the Purchasing Managers' Index (PMI) indicate that the economy seems to be running out of steam in spring following a significant upswing around the turn of the year. Both indicators had risen noticeably since November, but in March the ifo index registered a – relatively slight – decline and the PMI (for both manufacturing and services) showed a relatively noticeable slump. If this trend should continue, it could be seen as proof of the theory that the massive economic slump in the 2008/09 winter half is at least partly interpreted by normal seasonal adjustment methods as a seasonal effect, and thus that monthly indicators are overly positive in winter because of the seasonal adjustment. Then in the summer half there is a reversal of the trend. What argues against this theory, though, is that such a pattern is not to be observed in either the United States or in China this year – at least not to date. This suggests that the political trials and tribulations in Europe, in connection with the elections in Italy and the negotiations surrounding the Cyprus package in particular, might be the more important factor. This dovetails with the equally substantial downturn in the flash PMIs for the euro area as a whole (46.6, down from 47.9). So this will probably dash all hopes of a rapid stabilisation of the eurozone economy for the time being. In our latest World Outlook we now expect that EMU GDP will not pick up until Q3, so we have reduced our forecast for the 2013 average to -0.6% (2014: +1.0%).

Sentiment indicators decline in spring – same story every year?



Sources: Thomson Reuters, Markit

However, we have not revised down our relatively cautious growth forecast for Germany (2013: +0.3%; 2014: +1.5%). The main reasons for this are the better economic outlook for the US (our US colleagues have raised their forecast for the current year from 1.7% to 2.3%) and, in this connection, increased confidence that the Asian economy will stage a significant recovery. Moreover, our forecast of German GDP growth of 0.1% qoq in Q1 (following a 0.6% decline in Q4 2012) could be on the low side. Despite the weak March figures the confidence indicators for the first quarter have picked up considerably on average versus the last quarter of 2012. Simple regression models that are based on these figures therefore signal growth rates of between 0.2% and 0.6%.

In view of the unstable political situation in Italy, which in our opinion is also likely to weigh heavily on Italian growth (we now forecast GDP there to decline by 1.8%), it is to be feared that eurozone sentiment could be depressed for a fairly long while. All the debate about the bailout package for Cyprus has shown that the willingness to express one's solidarity not only among the public at large, but also among the political decision-makers is much less pronounced when the emergency situation is regarded as being self-inflicted or even the result of a previous lack of solidarity. Besides, the inauspicious and to a certain extent clumsy handling of the Cyprus negotiations has plainly shown that the crux of such programmes is ultimately the way the adjustment burdens are distributed – on the one hand between the country and the "troika", and on the other between the different groups within the country itself. Since there is no set of rules for such a task and, on the contrary, it transpired that the principles being established were discarded more than once by the negotiating parties, their arguments ultimately focused – as in other unregulated distribution conflicts – on morals and social justice, which – surprise, surprise – are interpreted very differently by those involved. Given an increasing degree of “Euro-fatigue” in the problem countries and the approaching elections in Germany, a renewed round of tensions could emerge in Europe before long.

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Focus Germany

Economic forecasts

	Real GDP (% growth)			Consumer Prices* (% growth)			Current Account (% of GDP)			Fiscal Balance (% of GDP)		
	2012F	2013F	2014F	2012F	2013F	2014F	2012F	2013F	2014F	2012F	2013F	2014F
Euroland	-0.6	-0.6	1.0	2.5	1.6	1.6	1.2	1.7	1.6	-3.2	-3.0	-2.6
Germany	0.7	0.3	1.5	2.0	1.6	1.6	7.0	6.3	6.1	0.2	-0.4	-0.2
France	0.0	-0.6	1.1	2.2	1.4	1.5	-2.4	-2.2	-1.9	-4.6	-3.8	-3.2
Italy	-2.4	-1.8	0.4	3.3	1.8	1.6	-0.6	0.4	0.4	-3.0	-2.6	-2.8
Spain	-1.4	-1.6	0.5	2.4	1.9	1.3	-0.8	0.5	0.3	-10.0	-6.2	-5.3
Netherlands	-0.9	-0.5	0.8	2.8	2.6	1.7	9.9	8.2	8.0	-4.0	-3.8	-3.0
Belgium	-0.2	-0.3	1.0	2.6	1.4	1.6	-0.5	0.5	1.0	-3.0	-3.2	-3.0
Austria	0.8	0.8	1.6	2.6	2.3	2.0	1.8	2.2	2.4	-3.0	-2.7	-2.4
Finland	-0.2	-0.3	1.0	3.2	2.3	2.2	-1.8	-0.8	-1.0	-1.9	-1.6	-1.4
Greece	-6.4	-4.5	0.5	1.0	-0.3	-0.1	-3.0	-2.0	-1.0	-6.8	-5.2	-4.1
Portugal	-3.2	-2.2	0.8	2.8	0.5	1.2	-1.5	1.0	1.5	-4.9	-5.0	-3.8
Ireland	0.9	0.5	1.7	1.9	1.2	1.4	2.5	3.5	4.0	-7.8	-7.9	-6.4
UK	0.3	0.5	1.8	2.8	3.0	2.6	-3.7	-3.1	-2.5	-7.8	-7.1	-6.4
Denmark	-0.6	0.3	1.5	2.4	2.0	2.0	5.2	5.0	4.5	-4.4	-2.5	-2.0
Norway	3.0	2.2	2.6	0.7	1.8	2.0	14.1	14.0	13.0	13.9	10.5	10.0
Sweden	1.2	1.3	2.3	0.9	1.0	1.5	7.2	6.5	6.0	-0.7	-0.5	0.0
Switzerland	1.0	1.0	1.5	-0.7	0.2	0.6	11.5	10.5	10.0	0.3	0.5	0.5
Czech Republic	-1.2	0.7	2.8	3.3	2.1	2.0	-2.4	-2.3	-2.3	-5.0	-3.2	-2.7
Hungary	-1.7	-0.2	1.6	5.7	2.6	3.1	1.0	1.6	0.9	-3.0	-2.9	-2.8
Poland	2.1	1.4	2.3	3.7	1.8	2.5	-3.5	-2.3	-3.0	-3.6	-3.5	-2.9
United States	2.2	2.3	3.2	2.1	2.3	2.6	-3.0	-3.1	-3.4	-6.8	-6.3	-5.3
Japan	2.0	1.4	0.6	0.0	0.0	2.0	1.0	1.2	2.3	-9.6	-9.4	-7.4
World	2.9	3.2	4.0	3.3	3.3	3.6						

*Consumer price data for European countries based on harmonized price indices except for Germany. This can lead to discrepancies compared to other DB publications.
Sources: National Authorities, Deutsche Bank

Forecasts: German GDP growth by components, % qoq, annual data % yoy

						2012				2013			
	2010	2011	2012	2013F	2014F	Q1	Q2	Q3	Q4	Q1F	Q2F	Q3F	Q4F
Real GDP	4.2	3.0	0.7	0.3	1.5	0.5	0.3	0.2	-0.6	0.1	0.4	0.4	0.3
Private consumption	0.9	1.7	0.6	0.6	1.0	0.2	0.2	0.0	0.1	0.1	0.2	0.4	0.3
Gov't expenditure	1.7	1.0	1.4	1.3	0.7	0.6	-0.3	0.7	0.4	0.3	0.5	0.1	0.1
Fixed investment	5.9	6.2	-2.5	0.2	3.1	-1.0	-1.9	-0.4	-0.7	0.7	1.0	0.6	0.6
Investment in M&E	10.3	7.0	-4.8	-1.4	4.4	-1.1	-3.0	-2.2	-2.0	0.5	0.9	1.0	1.0
Construction	3.2	5.8	-1.5	1.9	1.9	-0.8	-1.4	0.7	-0.1	0.9	1.0	0.3	0.3
Inventories, pp	0.6	0.2	-0.5	0.0	0.0	-0.2	-0.1	-0.3	0.2	0.0	0.0	0.0	0.0
Exports	13.7	7.8	3.7	3.1	5.4	0.7	3.3	1.5	-2.0	1.0	1.4	1.6	1.3
Imports	11.1	7.4	1.8	4.2	5.5	-0.7	2.3	0.6	-0.6	1.4	1.6	1.7	1.6
Net exports, pp	1.7	0.6	1.0	-0.3	0.3	0.7	0.7	0.5	-0.8	-0.1	0.0	0.1	0.0
Consumer prices*	1.1	2.1	2.0	1.6	1.6	2.1	1.9	2.0	2.0	1.6	1.6	1.6	1.5
Unemployment rate, %	7.7	7.1	6.8	6.9	6.7	6.8	6.8	6.8	6.9	6.9	6.9	6.9	6.9
Budget balance, % GDP	-4.1	-0.8	0.2	-0.4	-0.2								
Balance on current account, % GDP	6.2	6.2	7.0	6.3	6.1								

*Inflation data for Germany based on national definition. This can lead to discrepancies to other DB publications.
Sources: Federal Statistical Office, DB Research

Inflation risk in monetary policy: Is it too loose for Germany?

— Given Germany's current weak economic performance inflation is no cause for concern for the time being.

— The Taylor rate we calculated shows that the ECB's monetary policy may be appropriate for the euro area as a whole, but is considerably too expansionary for Germany.

— On a medium to long-term horizon this harbours inflationary risks for Germany.

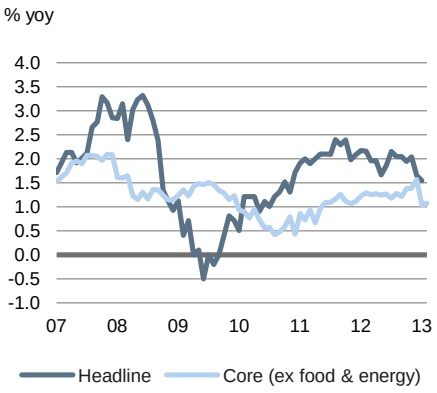
— If the ECB fails to reverse its extremely loose monetary in a timely manner, fiscal policy will be called upon to counter an acceleration of inflation in order to avoid undesirable developments as witnessed in other countries in the past.

— This could mean killing two birds with one stone. One, inflation would be kept from accelerating, and two, public debt could be reduced more quickly.

— However, it is not exactly the job of fiscal policy to keep inflation in check. Nonetheless, it could initially be the instrument of choice, given the extreme challenges facing monetary policy (banking crisis, supporting the euro).

— Furthermore, macro-prudential policy might become a way to achieve de facto regional differentiation of the homogeneous monetary policy and thus play a part to counter inflation.

Inflation 1



Source: Federal Statistical Office

In February, Germany's inflation rate stood at 1.5%; excluding energy and food it only came to a good 1% (chart 1). In light of the more sluggish economy and, as a result, increasing underutilisation of production capacities, many observers expect the rate of price increase to slow down even more. According to a recently published Bundesbank estimate, inflation looks set to slow from 2.0% to 1.5% on average in 2013 and to hover around this level in 2014. With forecasts of 1.6% for this year and next, Deutsche Bank Research expects a similar development.

Inflation risks are considered to be minor on a short-term horizon. But does this also apply on a medium and especially long-term horizon or does considerable inflationary potential loom in view of the ECB's extremely loose monetary policy? Our analysis by means of the Taylor rule shows that the ECB's current monetary policy stance can be considered appropriate on average for the euro area, but much too expansionary for Germany. This points to risks not only to longer-term price stability in Germany, but also to general risks, especially if the developments we sketch at the end of this report should manifest themselves in a changed role of monetary policy.

Monetary policy and inflation – the transmission mechanism

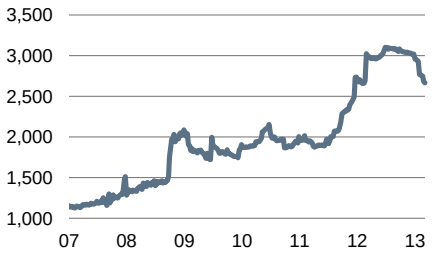
“Inflation is always and everywhere a monetary phenomenon”.[1] This often-cited remark by Milton Friedman, Nobel laureate in economics of 1976, is based on his examination of monetary developments in the US as well as his restatement of the quantity theory of money.[2] It is based on the so-called equation of exchange, first formulated mathematically by Irving Fischer in 1911. This

[1] The remark is believed to have been made in the framework of the First Wincott Memorial Lecture: "The Counter-Revolution in Monetary Theory" by Milton Friedman in 1970.

[2] See Friedman, M. (1956). The Quantity Theory of Money – A Restatement. Studies in the Quantity Theory of Money. University of Chicago Press. Friedman, M., Schwartz, A.J. (1963). A Monetary History of the United States, 1867-1960. Princeton University Press.

ECB balance sheet 2

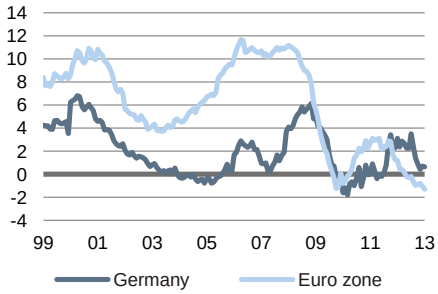
EUR bn



Source: ECB

Bank credit to the private sector 3

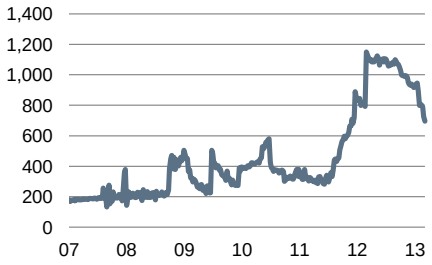
Outstanding amounts, % yoy



Source: ECB

Deposits of MFIs with the ECB 4

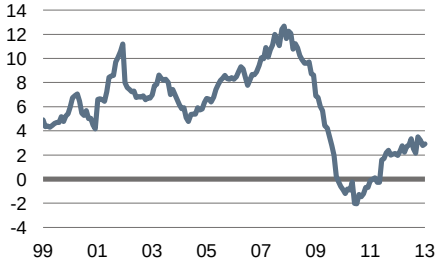
EUR bn



Source: ECB

EMU: Money supply M3 5

% gg.Vj.



Sources: ECB, DB Research

equation postulates that the sum of goods and services in an economy multiplied by their average prices equals the product of money supply and velocity:

$Y * P = M * V$

where

Y = goods and services

P = price level

M = money supply

V = velocity of money

This equation is an identity which must always be fulfilled. Based on this equation, Friedman formulated the quantity theory via assumptions about the development of the velocity of money, derived for instance from the cash balances theory, as well as the assumption of a stable demand for money. In its simplest form, Y and V are assumed to be constant so that any change in the money supply (M) will lead to an equally large change in the price level (P). If the money supply is expanded, inflation rises by the same degree. That is the theory at least.

Massive increase in liquidity has not (yet) arrived in real economy

Why has the massive ECB balance sheet expansion – since the outbreak of the financial crisis in autumn 2008, the balance sheet total has doubled to approx. EUR 3,000 bn (chart 2) – not yet translated into a noticeable acceleration of inflation? The main reason is that hardly any part of the liquidity provided by the ECB to financial institutions via two 3-year refinancing operations totalling nearly EUR 1,020 bn has actually arrived in the real economy. Lending to the private sector is declining slightly at present in the euro area, and increasing only moderately (+1/2%) in Germany (chart 3). At the same time, a large chunk of the liquidity has returned to the ECB. Since mid-2011, financial institutions' deposits with the ECB have increased by more than EUR 600 bn to temporarily over EUR 1,100 bn and currently still stand at a good EUR 700 bn (chart 4). Correspondingly, the broad monetary aggregate M3[3] is currently expanding by only just over 3% (chart 5) as the money supply concept – generally speaking – only measures liquidity arriving in the real economy (outside the financial sector) and not liquidity made available to the financial sector by the ECB.

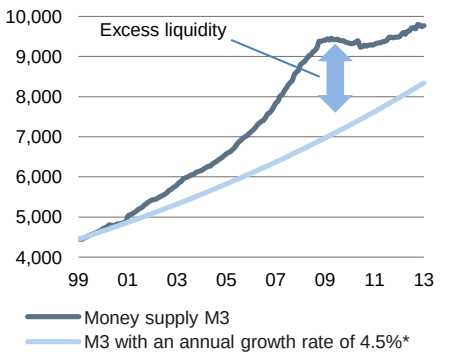
To deduct from the above that therefore there are no inflation risks would be short-sighted, however. In the years prior to the outbreak of the financial crisis, the money supply developed extremely dynamically and, at its peak, grew by more than 12%. Correspondingly, the money supply increased much more strongly from 1999 to 2008 than had been planned by the ECB. According to the reference value published by the ECB in the past it considered M3 money supply growth of 4 ½% p.a. to be appropriate.[4] Based on this measure, large-scale excess liquidity has been amassed since the launch of EMU (chart 6) so,

[3] The M3 monetary aggregate includes cash in circulation, overnight sight deposits held at banks by domestic non-banks, time deposits with agreed maturities of up to two years, savings deposits redeemable at notice of up to three months, money market fund shares and other money market instruments as well as repurchase operations and debt securities with maturities of up to two years.

[4] In order to derive the reference value, we ultimately used the quantity equation, i.e. the relation between money supply growth, inflation, real GDP growth and changes in the velocity of money. For an inflation rate of just under 2%, a trend decline in the velocity of money of 1/2% to 1% annually and growth of potential output of 2-2 1/2% per annum, it follows that the money supply would expand by approximately 4 1/2% p.a.

EMU: Money supply & excess liquidity 6

EUR bn

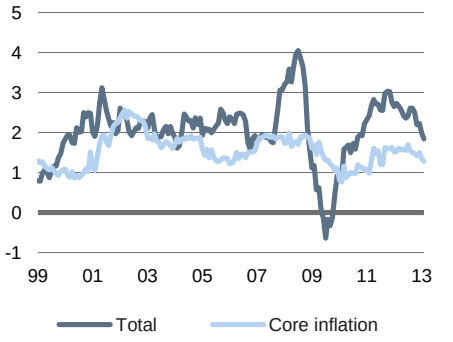


*) According to the previously published reference value for monetary growth by the ECB

Sources: ECB, DB Research

EMU: Inflation 7

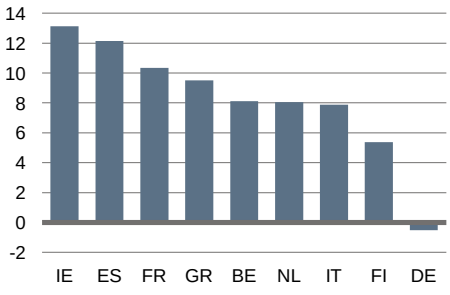
Consumer prices, % yoy



Source: Eurostat

House prices 8

1999-2007, % p.a.



Source: OECD

according to this calculation, the money supply is currently almost 20% above the level considered appropriate at present.

Which money supply aggregate is the right one?

Critics of the quantity theory claim that the measured monetary aggregate is not only transaction money used for purchasing goods and services, but also additional money held for speculation purposes which does not have an effect on demand (for goods and services) and thus does not push up prices for these categories. The question as to how money supply is defined – and, linked to this, which monetary aggregate is the right one and how the velocity of money changes – is at least as old as the quantity equation itself. If it is meant to explain consumer price developments, the aggregate used in the quantity equation must solely be the one used to buy goods and services. But as the boundaries between transaction money and speculative money are constantly in a state of flux, different aggregates are used to measure the money supply, ranging from the narrow aggregate in the form of central bank money to the broad definition of the M3 monetary aggregate.

Given these difficulties with the delineation of the relevant monetary aggregates it is understandable why inflation, i.e. the increase in consumer prices, which means the prices of the goods and services usually consumed by households, has only come to 2.1% p.a. in the euro area since 1999 despite the extremely strong money supply expansion, with temporary spikes being attributable to external factors such as oil price hikes, as reflected in the core inflation rate (i.e. excluding food and energy prices) which only amounted to 1.6% p.a. in this period (chart 7). The “excess liquidity” did not have an impact on consumer prices but rather on asset prices, particularly property prices. House prices in Ireland, Spain and France, for instance, went up annually by double-digit rates on average between 1999 and 2007, by 9 1/2% in Greece and nearly 8% in Italy (chart 8).

But what does the ECB's current monetary policy mean for Germany and its inflation risks? To answer this question we refer to the Taylor rule.

The Taylor rule

The monetary policy rule presented by John B. Taylor[5] in 1993 postulates that a central bank should base the setting of its key interest rate on the current situation with regard to inflation and the business cycle. The Taylor rule applies to a central bank's key interest rate only. Unorthodox monetary policy measures, as taken by many central banks over the last few years to fight the crisis and stimulate the economy, are only indurectly covered by this concept, which certainly limits the informative value regarding the current course of monetary policy. The unorthodox measures include for instance the ECB's former Securities Market Programme (SMP) and Covered Bond Purchase Programme (CBPP), under which it purchased government bonds with a volume of EUR 208 bn and mortgage-backed bonds totalling EUR 68.5 bn, as well as the announcement of the Outright Monetary Transactions Programme (OMT), which allows it to purchase unlimited amounts of government bonds of countries seeking support from the European rescue package (EFSF/ESM).

[5] Taylor, J.B. (1993). Discretion versus policy rules in practice. Carnegie-Rochester Conference Series on Public Policy 39. pp. 195-214. This paper was actually already published in November 1992 as Policy Paper of the Center for Economic Policy Research, CEPR Publication No. 327.

Formally, the Taylor rule can be described as follows:

Taylor interest rate = $i_r + \pi^* + \alpha\, Y_{gap} + \beta\, \pi_{gap}$

where

i_r = real equilibrium interest rate

π^* = expected inflation rate

Y_{gap} = output gap, the relative difference between the actual and the potential output level, $Y_{gap} = (Y_t - Y_{pot}) / Y_{pot} * 100$ where Y_t = output level at a point in time t and Y_{pot} = potential output

π_{gap} = inflation gap, i.e. the difference between the measured inflation rate and the rate of inflation which the central bank aims for, $\pi_{gap} = \pi_t - \pi_{target,}$ where π_t = inflation rate at a point in time t and π_{target} = central bank inflation target

α = weighting factor for the output gap

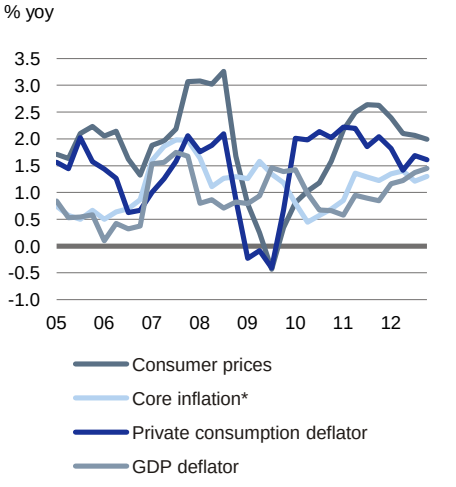
β = weighting factor for the inflation gap

Hence, the Taylor interest rate consists of three components, the nominal equilibrium interest rate (real equilibrium rate plus expected inflation) as well as the weighted output and inflation gaps. Given normal capacity utilisation levels and realisation of the envisaged rate of inflation, the real equilibrium rate is the rate of interest at which the long-term equilibrium is not changed by monetary policy. Hence, it is the rate which would stabilise an equilibrium defined by the output and inflation gaps. In case of overutilisation of capacities and an above-target inflation rate, however, looming inflation risks must be countered by higher key rates and vice versa. Taylor suggested that equal weightings be given to the output and inflation gaps, at 0.5 each.

Taylor rule as guideline for monetary policy

Taylor sees his rule as a general monetary policy guideline, which can also be applied to the euro area.[6] A comparison of the Taylor interest rate and the actual key rate reveals whether a central bank's policy is too loose or too tight. A Taylor rate markedly above the actual key interest rate suggests that monetary policy is too expansionary and vice versa.

Germany: Price measures 9



* Consumer prices excluding energy & food

Source: Federal Statistical Office

Taylor rule with practical and design weaknesses ...

At first glance the Taylor rule appears to be relatively straight forward. But the design has a number of practical and conceptual shortcomings.[7] Besides the definition of weightings for the output and inflation gaps, designed to reflect the structure of the economy, this also applies to the choice of price index to measure inflation. Here, various measures may be used such as the GDP deflator, the consumer spending deflator, the consumer price index as a whole as well as the so-called core inflation rate, i.e. the consumer price index excluding energy and food prices. The development of the various inflation measures can differ considerably (chart 9) and will thus also lead to different Taylor interest rates.

In addition, the Taylor interest rate may send false signals in certain situations such as VAT hikes, which are reflected in higher inflation rates. It can hardly be

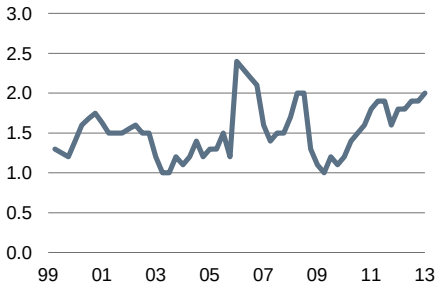
6 Gerlach, S., Schnabel, G. (1999). The Taylor Rule and Interest Rates in the EMU Area: A Note. BIS Working Papers. No. 73. Sauer, S., Sturm, J.-E. (2003). ECB Monetary Policy: How well does the Taylor Rule describe it?

7 See Deutsche Bundesbank (1999). Taylor interest rate and Monetary Conditions Index. Monthly Report April.

in the interest of a central bank, though, to counter such temporary inflationary effects by tightening monetary policy. The same applies also to external influences on inflation such as oil price hikes. First-round effects of oil price hikes are hardly a focus of central bank observation.

Germany: Inflation expectations 10

12M horizon, %



Source: Consensus Economics

Another problem is the fact that we cannot simply assume inflation expectations to remain constant for a longer period of time, which is proven by a look at consensus forecasts for Germany (chart 10). In his original essay of 1993, Taylor suggested using the average inflation rate of the prior four months. But as monetary policy is supposed to be forward-looking, inflation forecasts were added.

A weakness of Taylor's concept lies in the fact that he uses the current inflation rate in the analysis of the inflation gap. Together with the output gap, the inflation rate only has little informative value as regards future price developments, though. However, monetary policy must be geared to future prices given the considerable time lags of its measures.

Moreover, a central bank must base its key-rate decisions on real-time data, i.e. data that is available at the time of the decision. But these are subject to sometimes considerable revisions.

The inflation target, by contrast, is less of a problem. The ECB specified that its primary target, i.e. safeguarding price level stability in the euro area, is a year-over-year increase in the harmonised consumer price index (HICP) of less than but close to two per cent. However, this does not represent an explicit “inflation target”, or a monetary policy target variable, as would be the case in inflation targeting.

Establishing the output gap, i.e. the relative difference between actual and potential output, is more difficult, though. Theoretically, GDP can be divided into potential output and a cyclical component. An economy's potential output typically defines the total macroeconomic output that can be produced making use of the production factors labour and capital that are available at a given time, taking into account technological progress and assuming normal capacity utilisation. Hence, the cyclical component comprises fluctuations in the degree of capacity utilisation of the overall potential output. For monetary policy, it is important to be aware of potential growth, as it defines the maximum pace at which an economy can grow over a longer term without leading to tensions in the labour market and an acceleration of inflation.

Germany: Growth potential 11

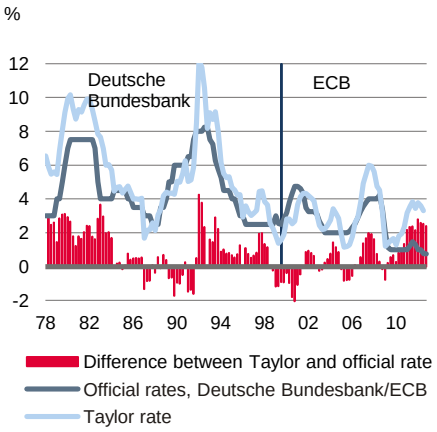
Estimates for 2012, % yoy	
Sachverständigenrat	1.1
IMF	1.3
OECD	1.5
EU Commission	1.6

Sources: Sachverständigenrat, Nov 2012, IMF World Economic Outlook, Oct 2012, OECD Economic Outlook, 92, Nov 2012, EU Commission, European Economic Forecast, Spring 2013

However, potential output cannot be measured directly but must be estimated with the help of statistical methods. These include various possibilities ranging from simple arithmetic means to trend analysis instruments, from statistical filter methods to output theory approaches such as modelling neo-classical production functions. Even though univariate filter methods are easy to use, they only make use of time-series information on output itself and therefore do not allow any conclusions to be drawn about the reasons for changes in potential output. Moreover, distortions may occur at the margin. Depending on the choice of method, the values calculated for potential growth may differ substantially (chart 11). These estimates are also subject to considerable revisions. In addition, an ECB study concludes that output-gap estimates based on real-time data can only be applied to derive inflation forecasts under very limited circumstances.[8] A related problem is the level of the “equilibrium interest rate”.

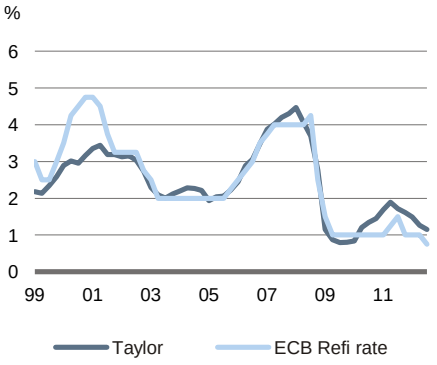
[8] See Marcellina, M., Musso, A. (2010) Real time estimates of the euro area output gap – reliability and forecasting performance. ECB Working Paper Series. No. 1157.

Germany: Taylor rate & official rate 12



Sources: Federal Statistical Office, IMF, ECB, DB Research

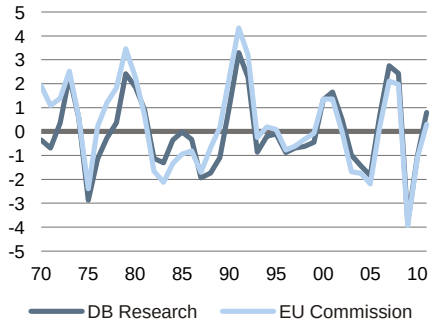
EMU: Taylor rate & official rate 13



Sources: OECD, Global Insight, Eurostat, DB Research

Germany: Output gap 14

Actual - potential GDP as % of potential GDP



Sources: EU Commission, DB Research

... but a good representation nonetheless of monetary policy over the past few decades

Despite the weaknesses of its design we resorted to the Taylor rule in assessing the ECB's monetary policy stance, as it provides a relatively good description of the Bundesbank's monetary policy in past decades as well the ECB's policies from 1999 (charts 12 and 13). At present, the Taylor rule shows a considerably higher key interest rate level for Germany – a strong indication that monetary policy is too loose for Germany. However, in absolute terms the Taylor interest rate provides no more than a rough guideline and can also lead to misinterpretations, given the problems described above. Taylor rates calculated by means of the same method for countries and groups of countries, though, will point to differences in the monetary policy course and thus allow for comparisons between countries and country groups.

How we proceeded

For the purpose of our analysis we calculated the Taylor interest rate for the euro area as a whole, for Germany, the GIIPS countries (Greece, Italy, Ireland, Portugal and Spain) and the BANFF countries (Belgium, Austria, the Netherlands, France and Finland), which basically stand for the rest of the euro area, for the period from Q1 1999 to Q3 2012.

We took a pragmatic approach, applying easy-to-use methods such as simple approximations. Hence, our calculation of the Taylor interest rate includes the average increase in the consumer price index excluding energy and food prices from Q1 1997 until Q3 2008, i.e. immediately prior to the outbreak of the crisis, as an approximation of inflation expectations. The Taylor rate calculation by means of inflation expectations in the ECB Survey of Professional Forecasters deviates somewhat noticeably from our approximation in 2009 only. As these survey data are only available for the euro area as a whole, however, we restricted our calculations to the consumer price index excl. energy and food prices, published by Eurostat for all countries of Europe.

We used the average value for the real key rate in the countries and groups of countries examined between Q1 1997 and Q3 2008 as proxy for the long-term, equilibrium real interest rate[9] and assumed a level of 1.9% for the ECB's inflation target. For the weightings of the inflation and output gaps we used the 0.5 value suggested by Taylor for all countries and groups of countries.[10]

In estimating the output gap[11] we decided to use the likely most frequently applied Hodrick-Prescott filter. In order to avoid the margin problems of such filters we supplemented and corrected the latest results by means of estimates of the growth potential provided by various institutions such as the OECD, the IMF and the European Commission. For Germany, our “simple” calculation of the output gap is by and large in line with the output gap estimated by the European Commission via a production function (chart 14). According to our calculations, the current output gap for the GIIPS countries comes to 5 ½%, and

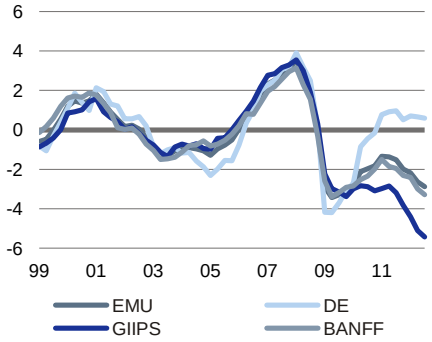
[9] The methods applied in economic literature to estimate the natural (equilibrium) real interest rate can be found at: European Central Bank. (2004). The natural real interest rate in the euro area. Monthly Bulletin May. Using the average value for the real key rate may lead to an underestimation as monetary policy has been to expansive for the GIIPS countries.

[10] As the weightings are designed to reflect the structure of an economy, they should actually be estimated by means of econometric methods. However, as we carried out the calculations for groups of countries with widely different structures, such as Italy and Greece in the group of the GIIPS countries, we decided to use the weighting suggested by Taylor in all calculations.

[11] For an overview of the methods used in estimating the output gap as well as the results, see Chagny, O., Döpke, J. (2001). Measures of the Output Gap in the Euro-Zone: An Empirical Assessment of Selected Methods. Kiel Working Paper No. 1053. Also found at: IMF (2008). Financial Stress, Downturns, and Recoveries. World Economic Outlook. October 2008.

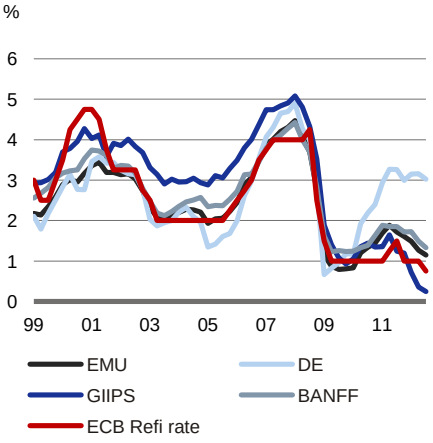
Output gaps 15

Actual - potential GDP as % of potential GDP



Sources: OECD, DB Research

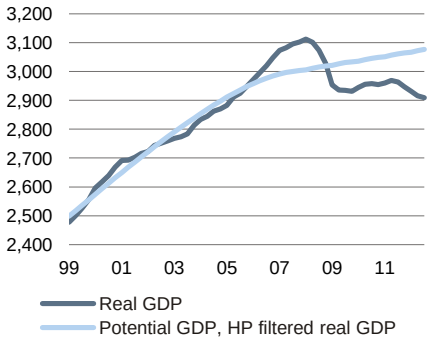
Taylor rates & official rate 16



Sources: OECD, Global Insight, Eurostat, DB Research

GIIPS: GDP & potential 17

Chain weighted EUR (2005) bn



Sources: OECD, DB Research

to just under 3% of potential GDP for EMU as a whole, while production capacities in Germany are slightly overutilised (chart 15).[12]

The results: "One size fits all" does not always fit all

Our analysis shows that the development of the ECB's refinancing rate can be described well by the Taylor rate for the euro area as a whole (chart 16). This appears logical as the ECB's monetary policy is not geared to an individual country but to average economic performance in the euro area. Even though the ECB itself claims that it does not follow any mechanistic rule, the Taylor rule has applied rather well to its decisions so far. Also, the Taylor interest rate we calculated for the BANFF countries hardly differs from the rate for the euro area as a whole.

However, if a country's inflation and growth performances differ visibly from the euro area average, the monetary policy corset which suits average developments in the euro area is not the optimum solution for this country, as reflected in our calculation of the Taylor rate for the GIIPS countries and for Germany. The ECB's current monetary policy is much too loose for Germany, while it is too restrictive particularly for the GIIPS countries. This shows that "one size" does not always fit all. [13]

GIIPS countries: ECB too loose for a long time but too tight now

Between 2001 and 2008 the Taylor interest rate was markedly higher than the ECB's key interest rate, suggesting that the ECB's monetary policy was too expansionary for this group of countries at the time, which was responsible to a large extent for the strong credit-driven boom in these countries.[14] Inflation and economic growth (and, correspondingly, utilisation of production capacities) were roughly 0.5 of a percentage point higher in the GIIPS countries than in the euro area in that period and almost 1 pp higher than in Germany. But even the GIIPS countries are not a homogeneous group. The Spanish economy, for instance, grew by 3.4% p.a. between 2001 and 2007 and the Greek economy even by 4.2% p.a., while Italy only posted real GDP growth of 1.2% p.a. Compared with Germany, the Spanish and Greek economies boasted faster growth (+2 pp and 2.8 pp, respectively). The same also applies to inflation, which came to 3.2% and 3.4% p.a. in Spain and Greece, respectively, between 2001 and 2008, and thus exceeded the German level by 1.5 pp and 1.7 pp, respectively.

At present, the Taylor rate for the GIIPs countries is markedly lower than the ECB's refinancing rate, making the ECB's monetary policy too restrictive for this group of countries, which seems plausible given the moderate inflation rates and deep recession in these countries combined with considerable under-utilisation of capacities (chart 17). Economic output of the GIIPS countries currently is 6.5% below the pre-crisis level of early 2008 and roughly 5.5%

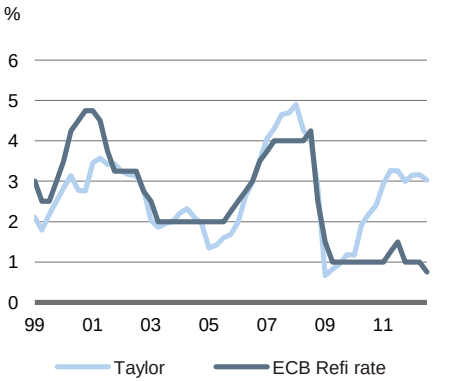
[12] The German Council of Economic Experts comes to the same conclusion, estimating positive output gaps of 0.5% and 0.2% of potential GDP for 2012 and 2013, respectively. See Council of Economic Experts (2012). Stable Architecture for Europe – Need for Action in Germany. Annual Report 2012/13. November 2012. See also: Hofmann, B., Bogdanova, B. (2012). Taylor rules and monetary policy: a global "Great Deviation"? BIS Quarterly Review. September 2012.

[13] See Nechio, F. (2011). Monetary Policy When One Size Does Not Fit All. Federal Reserve Bank of San Francisco. Economic Letter 2011-18.

[14] Citing the large-scale differences between short-term interest rates and a calculated Taylor interest rate, the Council of Economic Experts points out that the single monetary policy has intensified the divergence in real economic development in the euro area. According to its calculations, short-term interest rates in Spain, Greece and Portugal between 1999 and 2007 were on average 2 to 2 1/2 percentage points higher than the Taylor interest rate. See Council of Economic Experts (2010). Chances for a stable upturn. Annual Report 2010/11.

below potential. However, it is currently extremely difficult to assess the degree of restriction monetary policy imposes on the GIIPs countries. Inflation rates seem exaggerated to the upside because of tax hikes, which means the "actual" inflation gap seems smaller, which would also imply a lower Taylor interest rate for this group of countries. By contrast, structural breaks are making estimates of output potential and thus the output gaps of these countries very uncertain. Lower growth potential, however, would narrow the output gap and thus lead to a higher Taylor interest rate.

Germany: Taylor rate & official rate 18



Sources: OECD, Global Insight, Eurostat, DB Research

Monetary policy currently noticeably too loose for Germany

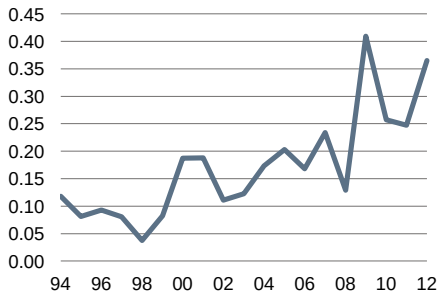
Also striking is the large-scale difference between the ECB's refinancing rate and the "German" Taylor rate that has been visible since roughly the middle of 2010 (chart 18). The Taylor rule thus signals that the ECB's monetary policy is much too expansionary for Germany at present. According to the Taylor rule, a key interest rate of just over 3% (as opposed to the current 0.75%) would be appropriate for Germany. Given the strong growth of the past years, overall capacity utilisation has since 2011 been back at a level slightly above its long-term average, according to our calculations, and headline inflation comes to approximately 2%. In light of this fundamental data, a key interest rate of 0.75% appears way too low for Germany, harbouring inflationary risks that should not be neglected.

Is the ECB's policy misguided?

Does this mean that with its current policy stance the ECB is pursuing the wrong course? Probably not. The ECB must gear its monetary policy to the euro area average. A single monetary union cannot work in any other way. Also, economic policy in general, i.e. both monetary and fiscal policy, has been finding itself in unknown territory ever since the outbreak of the financial crisis and the sovereign debt crisis in the euro area periphery, with considerable uncertainty as regards the effectiveness and time lags of respective measures.[15]

EMU: Deviation of output gaps 19

Standard deviation of the weighted output gaps of individual EMU countries, % potential GDP



Sources: OECD, DB Research

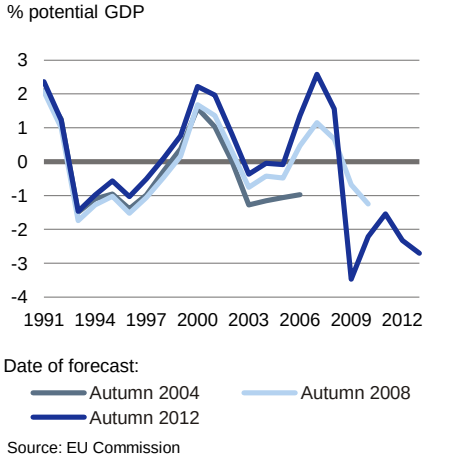
In addition, fundamental economic developments within the euro area have been diverging since 2009 to a degree unknown since EMU was founded, which is documented by the huge differences between the output gaps there. At present, the spread between the individual output gaps is almost three times as large as in the 1995-2008 period (chart 19). While there is slight overutilisation of capacities in Germany, Greece has an output gap of almost 15%, according to the OECD and the European Commission.

Of course, this harbours considerable risks for a single monetary policy which, to boot, also has asymmetrical effects in expansion and restriction phases. High interest rates have a damping effect on credit demand from the private sector, whereas the opposite effect is uncertain or may be offset by other factors, as reflected especially in current developments. Despite historically low interest rates, private-sector demand for credit is currently very weak in Germany and even declining in the euro area as a whole. To put it differently, monetary policy is like a rope: it can easily be pulled, but pushing it is another matter.

Moreover, as a central bank must not focus on current inflation levels in its monetary policy decisions but rather on medium-term inflation expectations, it is also forced to base its decisions on forecasts. The degree to which such forecasts have been subject to revision and the degree of uncertainty surrounding the key data relevant for monetary policy (such as output gaps) especially in the

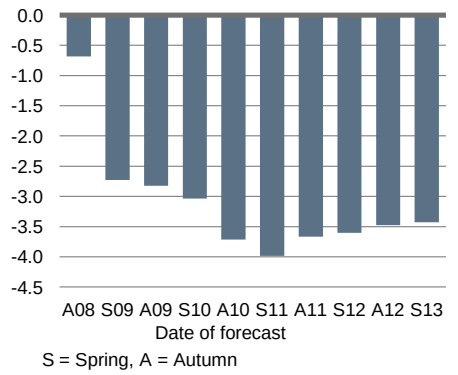
[15] See Blanchard, O., Leigh, D. (2013). Growth Forecast Errors and Fiscal Multipliers. IMF Working Paper. WP/13/1.

EMU: Output gap estimates by the EU Commission 20



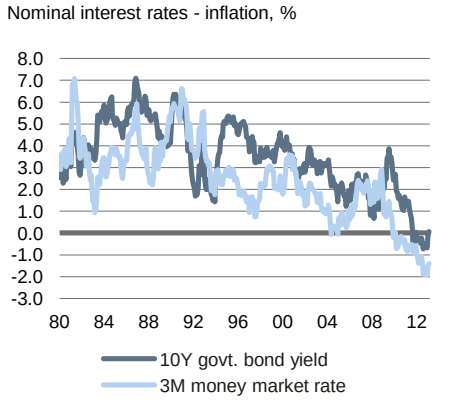
Source: EU Commission

EMU: Output gap estimates by the EU Commission for 2009 21



Source: EU Commission

Germany: Real interest rates 22



Sources: Federal Statistical Office, Global Insight

last few years is reflected in the European Commission's forecasts[16], which are compiled each spring and autumn (chart 20).

Hindsight is easier than foresight

In its autumn 2008 estimate of the euro area's output gap for 2009, the European Commission assumed underutilisation of production potential of only just under 3/4% of potential GDP (chart 21). Only six months later, in spring 2009, it already put the output gap at -2 3/4%. Had the ECB decided according to the Taylor rule and based on the Commission's forecast of spring 2009, it would have had to fix its key interest rate at 1 percentage point lower than based on the autumn 2008 forecast. In its latest forecast of autumn 2012, the Commission puts the euro area's output gap for 2009 at 3 1/2% of potential GDP, which – in hindsight – implies a 1 1/2 pp lower key interest rate, according to the Taylor rule, than the autumn 2008 forecast. This reveals the considerable degree of uncertainty under which monetary policy decisions must be taken.

Fiscal policy has its work cut out

Germany and the ECB are faced with a dilemma. In light of fundamental economic data, the ECB's key interest rates are too low, harbouring long-term inflation risks that must not be neglected. There is no room for manoeuvre at present for the ECB to react to this problem, given the strongly diverging development within the euro area. Moreover, persistently high uncertainty in the financial markets and the as yet unsolved problems of Europe's banks suggest that refinancing rates will remain at their extremely low level for some time. Hence, we do not expect any quick turnaround in the monetary policy orientation. This implies that several main factors which led to considerable asset price bubbles in the euro area periphery between 2001 and 2008, especially in the real estate sector, are also at work in Germany. Real interest rates at the long and short end of the market, for instance, are negative. The real yield on 10Y Bunds currently stands at almost 0%, and that of 3M money market instruments even at a good -1 1/2%. From 1980 to 2000, real yields for Bunds came to 4.4% on average and to 2.6% still between 2000 and 2009 (chart 22). Also there are others which are not, for example, the speculative character of property demand.

It is therefore up to fiscal policy to compensate for the excessively loose monetary policy if inflation risks become more prominent by means of a more restrictive stance in order to avoid the mistakes of the peripheral countries. Monetary policy was definitely too expansionary for the GIIPS countries between 2001 and 2008, with its well-known consequences due to the fact that it was not countered by national fiscal policies.

Macro-prudential supervision to differentiate impact of monetary policy

Macro-prudential policy might also help to achieve de facto regional differentiation of the homogeneous monetary policy in EMU and therefore help to fight against imbalances and hence inflation pressures.[17]

[16] The output-gap estimates by both the OECD and the IMF have also been subject to similarly large revisions.

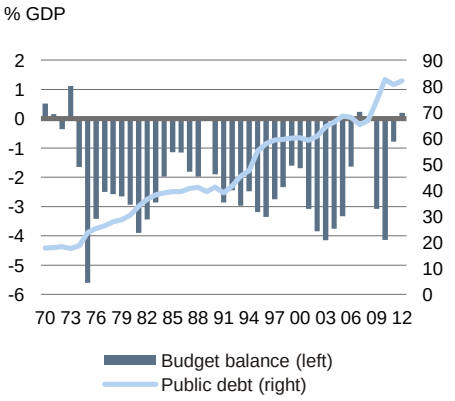
[17] See Speyer, B. (2012). Macro-prudential financial supervision and the ESRB – Underestimated potential. Deutsche Bank. Research Briefing. Global financial markets, May 3, 2012.

Obviously, this cannot be done by using the traditional instrument of monetary policy – the uniform ECB policy rates. In this respect, other supplementary instruments are needed to achieve the objective, with the arsenal of potential macro-prudential instruments offering several possibilities. The impact of monetary policy can be differentiated, for instance, by using differing monetary or supervisory measures on a regional or sectoral basis. Some conceivable options in this respect, for example, might be differing minimum reserve requirements or varied equity capital requirements. Incidentally, such use of macro-prudential instruments aimed at achieving an asymmetric monetary impact is also – and especially – conceivable in times of crises.

Two birds with one stone ...

A more restrictive fiscal policy in Germany and a macro-prudential supervision could kill two birds with one stone. For one thing, inflationary tendencies could be countered with the help of “carrot-and-stick” measures. Besides general tax increases and spending cuts these also include targeted measures to prevent price bubbles in the property market, such as regulatory measures (increasing risk weightings in banks' weightings of equity capital, formation of reserves for future corrections in the market, larger capital base for property developers, introduction or increase of fees (e.g. of notaries), cuts to subsidies for certain commercial construction activities as well as higher assessment rates for property tax.[18]

Germany: Public finances 23



Sources: Sachverständigenrat, DB Research

For another, it would help press ahead with further consolidation of public finances, and especially debt reduction. To be sure, Germany's public finances are in particularly good order at present. Following a slight surplus in 2012, this year will likely see only a very small budget deficit of less of 1/2% of GDP due above all to cyclical influences. However, further consolidation is urgently called for – especially for demographic reasons. Over the past decades, with the exception of a few years only, public finances permanently posted deficits – sometimes at high levels – and public debt rose from well below 20% of GDP in 1970 to recently more than 80% (chart 23).

The answer to the question, what should be done if, is clear. But do the politicians have the backbone to act if push comes to shove? Against this backdrop, the renewed discussion about a reduction or even an elimination of the solidarity tax should be reconsidered.

... but don't hit too hard

Nonetheless, caution is advised in light of the considerable risk of throttling growth. Especially the most recent research findings suggest that the fiscal multipliers, i.e. the effects of fiscal measures on economic growth, are more pronounced at times of crisis than at “normal” times.[19] Also, fiscal policy is not

[18] For a detailed overview of potential measures to contain property market bubbles, see Möbert, J. (2012). The German housing market: Risk of a bubble until 2020? Deutsche Bank Research. Focus Germany. September 28, 2012.

[19] In its World Economic Outlook of October 2012 the IMF pointed out that fiscal multipliers, which are usually put at 0.5, could be too low especially during the current crisis episodes. According to IMF estimates, they could come to between 0.9 and 1.7, which means that a consolidation by 1 percentage point of GDP would lead to output losses of up to 1.7%. This estimate has been called into question by numerous economists, including Bundesbank president Jens Weidmann, on the grounds that there were too few observations and that the results depended decisively on the choice of countries. Moreover, the critics claim that developments differ strongly in the individual countries, which was not sufficiently accounted for by the IMF's cross-country analysis. Nonetheless, this discussion clearly illustrates the considerable uncertainty at present regarding the effects of fiscal measures. See IMF (2012). Coping with High Debt and Sluggish Growth. World Economic Outlook. October 2012. Blanchard, O., Leigh, D. (2013). Growth Forecast Errors

the instrument of choice when it comes to fighting inflation, as this would distort the steering function of taxes and levies and lead to an unbalanced policy mix. It is not without reason that the safeguarding of price stability has been transferred to independent central banks with their own policy instruments.

Bernhard Gräf (+49 69 910-31738, bernhard.graef@db.com)

and Fiscal Multipliers. IMF Working Paper. WP/13/1. Corsetti, G., Meier, A., Müller, G.J. (2012). What Determines Government Spending Multipliers? IMF Working Paper. WP/12/150, and: Bousard, J., de Castro, F., Salto, M. (2012). Fiscal Multipliers and Public Debt Dynamics in Consolidations. European Commission. Economic Papers 460.

Disposable income: Labour market boom and euro crisis leaving their mark

— Disposable household income rose by a nominal 2.2% in Germany in 2012. This translated to a 0.6% increase in real terms because of an only slight decline in inflation.

— As in the two preceding years wage income made the most important contribution thanks to the stable situation in the labour market, whereas corporate and property income were impacted by an easing of economic activity, the euro crisis and low interest rates. These factors had a damping effect on income development.

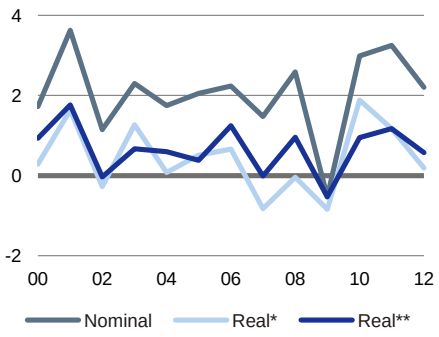
— The 2012 trend is likely to continue more or less unbroken in 2013: disposable income could increase by close to 2 ½% thanks to higher wages, lower taxes and levies, and rising pensions, although other types of income will tend to curb the uptrend. Due to falling inflation, the increase could turn out to be somewhat larger in real terms than in 2012.

— As in 2012, the wage round will probably produce an increase in collective hourly wages of over 2 ½% in 2013. This is likely to again slightly "over-exhaust" the scope for allocation-neutral increases. If this trend were to persist or perhaps even accelerate, (negative) employment effects could be the result.

Germany has been called upon to boost its domestic economy and thus its demand for imports. These calls are heard regularly – and lately they have become more strident. In a recent note[20] we warned against measures being taken to boost domestic demand via short-term stimuli, since this does not enable the domestic economy to be strengthened on a sustainable basis. On a long-term horizon, private consumption – which accounts for over 60% of domestic demand – can only be bolstered via permanently higher disposable incomes. Going by this measure, Germany is on the right track. True, disposable income was noticeably impacted by the euro crisis in 2012. Nevertheless, higher real incomes gave consumption a fillip in 2012, as in the two prior years, especially as compared with the soft patch in the mid-2000s and considering that the economic growth dynamics had decreased appreciably during 2012. On the back of the stable labour market with its pretty strong wage hikes and a taming of inflation, households will probably see significant increases in real income in 2013 and thus make consumption the key driver of GDP growth.

Disposable income 2012 only with small gain in real terms 1

Disposable household income, % yoy



*deflated with the consumer price index
**deflated with the private consumption deflator

Source: Federal Statistical Office

Disposable income: Slightly subdued growth in 2012

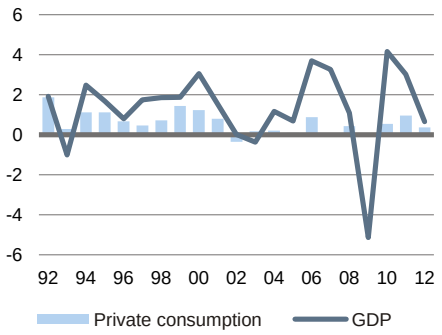
Households in Germany registered a moderate climb in their (nominal) disposable income in 2012, enjoying a 2.2% increase. This was roughly the level we had forecast at the start of 2012. In fact, it was even slightly higher than the average for the 10 previous years (1.9%). In both 2011 and 2012, the increases still came to about 3%, thanks partly to catch-up effects after the financial crisis.

Despite a somewhat lower inflation rate than one year earlier, though, 2012 saw only a very minor increase in income of 0.2% in real terms (2011: +1.2%). This is half as much as the average for the preceding 10 years, even though they included the crisis years. Yet even if one takes the price development of private consumption (national accounts definition) instead of consumer prices to

[20] Focus Germany: The worst is (probably) over. March 1, 2013.

Consumption contributed positively to growth in 2010-2012 2

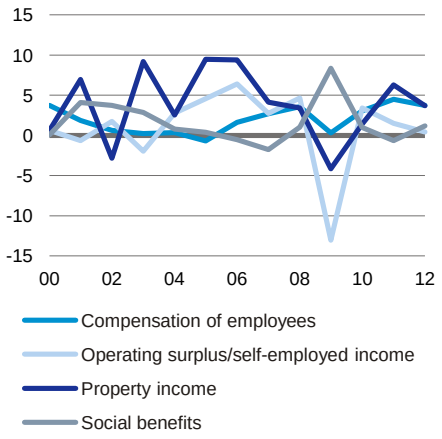
Private consumption: contribution to GDP growth, pp; GDP: growth, % yoy; real



Sources: Federal Statistical Office, DB Research

Employee pay growing faster than in previous 10 years 3

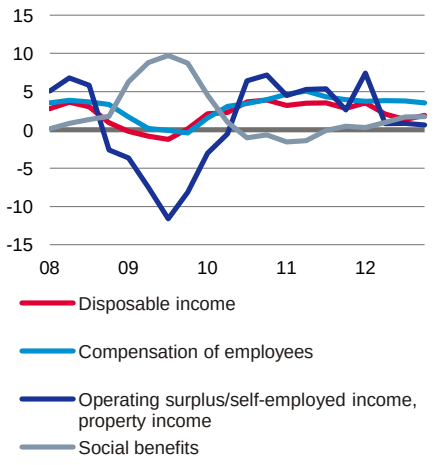
Nominal, % yoy



Source: Federal Statistical Office

Income growth dynamic slowed strongly at the end of 2012 4

Nominal, % yoy



Source: Federal Statistical Office

calculate the growth of real income, the increase remains moderate at 0.6% versus 0.5% in the 10 year before (2011: 1.2%).

Given the easing of economic growth – real GDP expanded by 0.7% in 2012, down from 3% in 2011 – this is not very surprising. Because of the weaker income growth, consumption also fell short of the positive expectations often still harboured in early 2012.[21] Private consumption showed slower growth in 2012, at 0.6% in real terms, than in 2011 (still 1.7%). With the savings rate nearly constant (10.3% versus 10.4% one year earlier) the higher wages fed through fully into consumption.

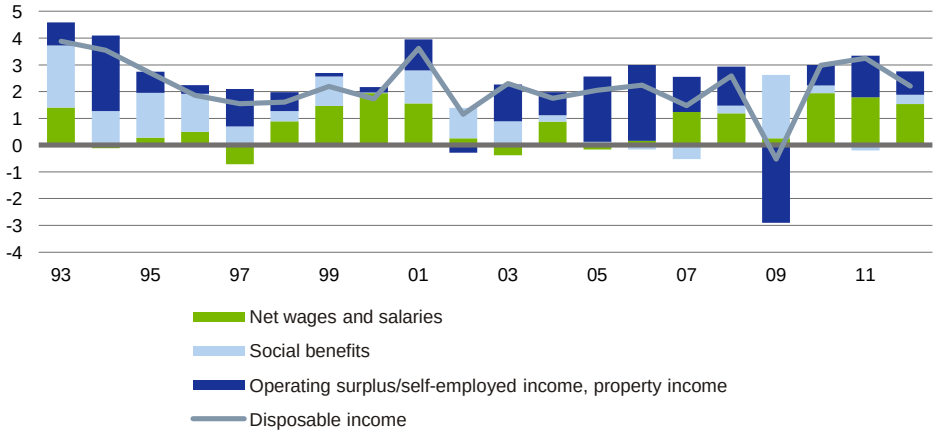
All in all, there was only a moderate increase in consumption. Nonetheless, considering the sluggishness of GDP growth, private consumption was a major driving factor alongside net exports, accounting for over half of the total increase in GDP. In the two prior years, too, consumption's growth contribution was noticeably positive. This contrasts particularly starkly with the mid-2000s during which the same contribution was close to zero, and negative in fact in 2007.

Euro crisis and labour market boom left their mark in 2012

The generally somewhat more moderate (nominal) income growth masks the fact that employees again benefited from the robust labour market in 2012. The labour market largely shrugged off the euro crisis and the slowdown in GDP growth. At the same time, corporate and property income, which grew only little, proved to be noticeably impacted by the slowdown and the crisis. This dichotomy materialised in H2 2012 in particular as wage income continued to expand strongly at nominal rates of over 3% on the year-earlier reading, while corporate and property income growth slowed materially. The reason is that when cyclical activity slows, wages and employment initially hardly react at all, with the weakening of income emerging nearly solely on the earnings and property income side – the residual value. The strong growth of employee remuneration in comparison with the other income components ensured that the wage share climbed by one percentage point to 68% in 2012 and thus returned to a level far outstripping the last low of 64% (2007). Moreover, this made wage income the most important driver of disposable income growth for the third year in a row.

Wage income major driver of disposable income growth lately 5

Contribution to nominal disposbale income growth, pp; disposable income, % yoy

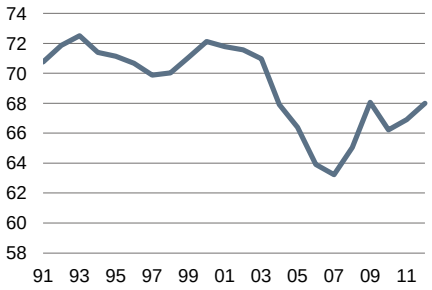


Sources: Federal Statistical Office, DB Research

[21] In January 2012, Consensus Economics predicted average consumption growth of 1% and GDP expansion of 0.5%.

Wage share on the rise again 6

Wage share*, %



*Share of employee compensation in national income

Source: Federal Statistical Office

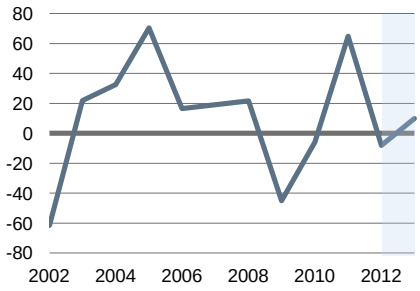
Corporate and property income: Lower growth dynamic 7

Nominal, % yoy

Source: Federal Statistical Office

Earnings of Dax companies unlikely to grow much in 2013 8

Earnings per share, % yoy



Sources: Worldscope, Datastream

Employee remuneration posted further strong expansion in 2012 at a nominal 3.6% (2011: 4.6%; 2010: 3.0%). A comparison with the early and mid-2000s, when there was a phase of high unemployment and structural reforms (2000-2006: +1.1% p.a.), clearly illustrates how good the labour situation is in Germany at present. The increase in employee remuneration in 2012 was driven by a significant rise in hourly wages (3.1%). Moreover, the continuing growth of employment (+1.1%, or 459,000) made a strong contribution to this development. The higher employment is mainly attributable to the (net) immigration of 340,000 persons, a trend increasingly being driven – albeit from a low starting level – by migrants from the periphery of the eurozone.[22] On a contrasting note, employees worked fewer hours on average (-0.7% yoy), which weighed on wage income. This was partly attributable to the slight decline in weekly working hours and to the reduction of positive balances in working time accounts. Deducting taxes and social security levies from the employee remuneration figures gives the figures for net wages and salaries. These account for roughly 40% of disposable income.

In contrast with employee remuneration, though, income from operating surpluses and self-employment as well as property income fell far short of their respective year-earlier growth rates. The decline in cyclical activity in Germany, the recession in the eurozone and the global low interest rate environment left noticeable marks on these aggregates:

— Income from operating surpluses and income from self-employment, which account for nearly 13% of total income, increased by 0.4% (2011: 1.5%). True, a slowdown vis-à-vis the year-earlier rates comes as no surprise, since they had still been enhanced by a catch-up effect following the crisis and the high GDP growth rates. Yet the weakness also manifests itself in a comparison with the average growth reading for the 10 years before 2012 (1.1% p.a.). Moreover, at EUR 211 bn, income from this source is still a far cry from the pre-crisis high of EUR 231 bn (2008).

— The rise in property income also eased sharply from 6.3% to 3.7%, though the average of the 10 prior years was only slightly higher at 3.8%. This type of income accounts for 23% of disposable income. The influence of the extremely low interest phase becomes very obvious when looking at the property income component “other interest and rental income”. After a 3.4% increase in 2011 there was a 4.3% decline last year, which weighed noticeably on property income. Payouts and profit withdrawals (for example, dividends received), which account for well over half of property income, noticed the impact of cyclical cooling. The growth of these income components nearly halved to 4.3% (2011: 8.3%), but remained higher than the average for the past decade (2001/2011: +4.0% p.a.). A good example can also be seen in the earnings growth of DAX-listed companies, which slipped into the red. The recession in the eurozone and the declining dynamics of the global economy made themselves felt not only directly in German companies' sales and profits, but also indirectly in the performance of their subsidiaries and foreign holdings. For example, well over one-third of German direct investments (worth close to EUR 380 bn) are in the other recession-stricken countries of EMU.

Another factor equally weighing on disposable income has been the weak increase in social benefits (other than in kind) of only 1.2% (share in disposable income: 28.7%). However, this is still higher than one year earlier when it was -0.7% (2011/2001: 1.5% p.a.). Again, there are two contrasting trends:

— Thanks to low unemployment, income from unemployment benefit fell slightly, by 0.4% (2011: -16.6%). There was an even sharper decline in

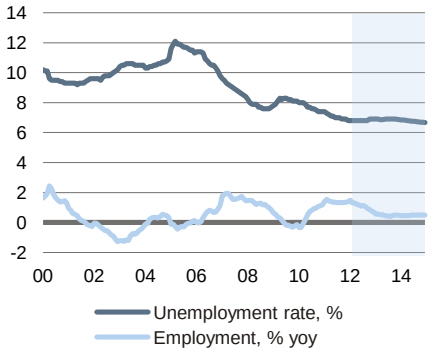
[22] Chart in focus. More and more immigrants from southern European countries. December 11, 2012.

income from unemployment assistance at -2.7% (2011: -13.5%). Combined, these two income components account for over 7% of social benefits.

— By contrast, income from statutory pensions and civil service pensions jumped quite sharply. The statutory pension accounts for well over 50% of social benefits. 2012 saw an increase of 1.7%, up from 0.7% in 2011 and 1.2% on average in the 10 years before. The over 2% pension hike did not kick in until mid-year, driving the growth rates of social security benefits towards 2% in the second half (chart 4).

Divergence in income development slows but continues in 2013

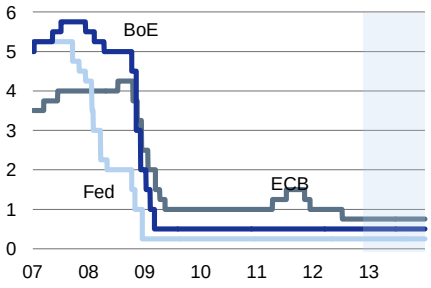
Labour market: Stable unemployment, but lower employment growth 9



Sources: Federal Statistical Office, DB Research

Global low interest rate environment 10

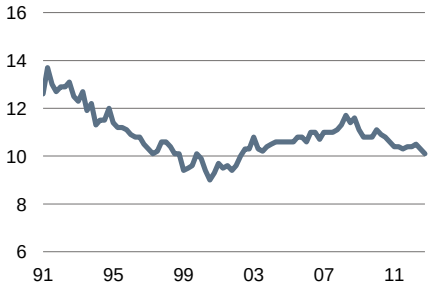
Key interest rates, %



Sources: Fed, ECB, Bank of England

Savings rate on a downtrend lately 11

Savings rate of private households, %



Source: Federal Statistical Office

At 0.3% (real), the German economy is likely to show slightly slower growth again in the current year after having already eased in 2012. Nevertheless, disposable income ought to grow at roughly the same pace as in 2012. We forecast an increase of over 2 ½% in nominal terms. In this context, the previously discussed divergence in the trends is likely to continue in 2013 to a lesser extent, since employee remuneration in particular will probably show less dynamic expansion, while the other components should grow at a similarly strong pace as before or only a tad less than in the previous year.

Employee remuneration will probably grow at a slightly slower pace (of 2.8%, previously 3.6%), but continue to make the biggest contribution to disposable income. In this context, we assume that hourly wages will increase by roughly 2 ½% as in 2012 (more on this in the next section). At the same time we expect employment, at 0.5%, to grow only half as rapidly as last year, the main reason being the low growth dynamics in the winter. Nonetheless, this would still be the eighth increase in employment in a row. Wage income is also receiving an additional boost from the 0.7 pp reduction of pension contributions effective from the start of 2013. This benefits employers and employees in equal proportions. By contrast, the contribution to long-term care insurance is to be increased by a small amount.

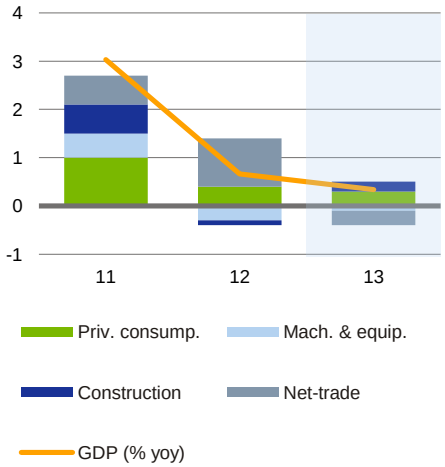
Income from operating surpluses, self-employment and property will probably pick up somewhat more slowly again in 2013 than in 2012, at about 2%. This is suggested partly by the slowdown – in nominal and real terms – in GDP growth in Germany, the continuing recession in the eurozone and the pretty low forecasts for DAX company earnings. Another major point is that there is no end to the low interest rate phase in sight. We do not expect any of the major central banks to hike their key rate before year-end.

There will probably be slightly stronger growth of income from social benefits in 2013, at close to 1.5%, than in 2012 (1.2%). This is due to the repercussions of the pension hike in the middle of 2012 and to the upcoming, renewed increase in mid-2013. The Federal Ministry of Labour and Social Affairs says pensioners in west Germany are likely to receive a much smaller increase, at 0.25%, than pensioners in east Germany (over 3%). Nevertheless, income from this source should increase by about 1 ¾% on average this year, as it did last year. As we forecast a slight uptick in unemployment, income from unemployment benefit and unemployment assistance could go up slightly.

The stable labour market and a low interest rate environment give us grounds to predict an unchanged or only slightly declining savings rate (2012: 10.3%). This suggests that the increase in income should be able to feed through fully to consumption. Our forecasts for disposable income growth (2.4%) and inflation (1.6%) thus suggest there are upside risks to our forecast for real private consumption, which is currently +0.6%. Regardless of whether private consumption should grow by 0.6% or even slightly more, it would be the chief driver of GDP growth. The reason is that the positive contributions from public-sector consumption and the construction sector are likely to be offset by the

Private consumption with positive growth contribution in 2013 12

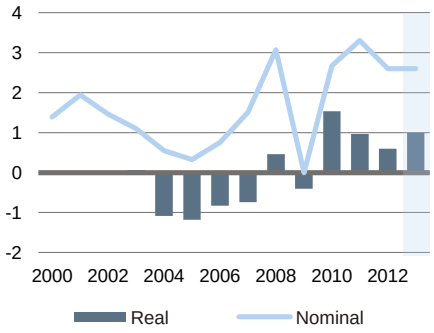
Contribution to real GDP growth, %-points



Sources: Federal Statistical Office, DB Research

2013: Real earnings set for fourth consecutive increase 13

Gross monthly earnings, % yoy



Sources: Federal Statistical Office, DB Research

negative contributions from net exports and investment in machinery and equipment.

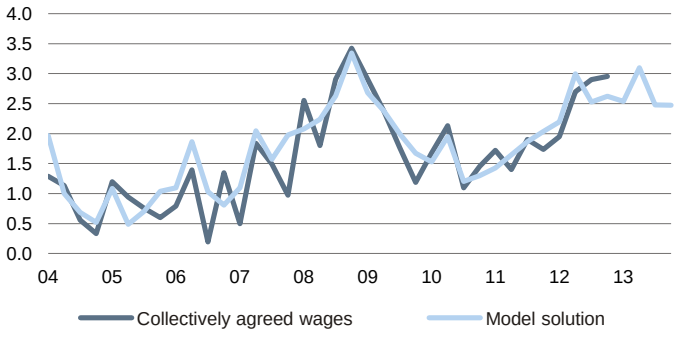
Relatively high wage settlements also in 2013

Apart from the calls discussed at the outset for Germany to boost its domestic economy, e.g. via tax measures or expenditure programmes, there are also regular calls for this to be achieved via wage hikes. This would have the advantage of improving the relative competitiveness of its European partner countries at the same time. However, this argumentation about wages also leads nowhere if the wage increases are not covered by supply and demand in the labour market and/or productivity gains. For otherwise this would only jeopardise the labour market achievements to date and block sustainable further development. Moreover, wages have already shown relatively positive growth over the past three years. For example, nominal gross monthly wages were up by over 2 ½% p.a. during this period. In 2012 the reading was 2.6%. In the 10 years previously the rate averaged 1.5%. In real terms, the difference is equally pronounced: real wages grew by 0.6% in 2012, down from 1.0% in 2011 and 1.5% in 2010. During the 10 years prior to 2012 real wages shrank by an average of 0.1% per year. Combined with the robust growth of employment over the past few years, this change of direction enabled employees, as discussed above, to enjoy substantial income growth which increasingly stimulated consumption.

The demands and initial settlements of the 2013 wage round indicate that the trade unions and employees will be able to push through fairly hefty wage hikes again this year. According to the WSI Collective Agreement Archive, the collective wage settlements hammered out so far for 2013 have ranged from over 2 ½% (Länder public services) up to 3% (iron and steel industry). In addition, wage demands are in excess of 6% in many cases and, going by a very rough rule of thumb, settlements will probably be half that rare.

Collectively agreed wages: Fairly high growth to be expected again in 2013 14

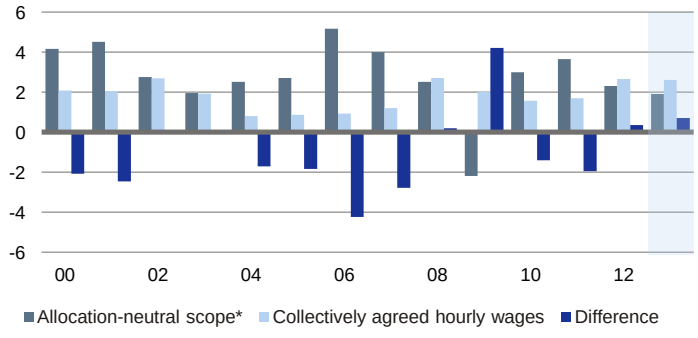
Hourly wages, % yoy



Sources: Federal Statistical Office, Deutsche Bundesbank, DB Research

Collectively agreed wages and the allocation-neutral scope 15

Hourly basis, nominal, % yoy



* Inflation rate + productivity growth

Sources: Federal Statistical Office, DB Research

According to our model[23], (nominal) collectively agreed hourly wages will rise by 2.6% in 2013 and thus by exactly as much as in 2012. The calculation takes into consideration the core inflation and the productivity growth of the last two years, as well as the unemployment rate forecast for the current year. The forecast is roughly unchanged in a year-on-year comparison because the slightly higher core inflation was offset by the fall in productivity due to the 2012 growth dip. The unemployment rate hardly has an effect since we expect it to be roughly unchanged in 2013.

Comparing the past year and our forecast for 2013 with the previous years, the improvement in the German labour market becomes visible again. For example, the 2.6% wage increase noticeably exceeded the average of the previous 10 years (1.6%). Conversely, one must not forget that wages are also operating costs. If wage increases significantly outstrip the growth of productivity and a company's selling prices, this can entail negative employment effects on a longer-term horizon because a company's competitiveness and earnings are weakened. The sum of the growth rate of productivity and of consumer prices is therefore also referred to as allocation-neutral scope.

On the basis of our forecast scenario, the allocation-neutral scope for 2013 could be slightly over-exhausted for the second year in a row, since productivity will probably increase only little and inflation is likely to decelerate, whereas wages are set to jump again. The moderate “over-exhaustion” of scope in 2012 and 2013 cannot really be compared properly with the “under-exhaustion” of previous years. These were partly marked by labour hoarding in the crisis year 2009 and the repercussions of this practice. Nevertheless, the question remains as to whether average wage increases of 2 ½%–3% and the exceeding of the allocation-neutral scope represent a risk to the German “jobs miracle” already in 2013. Given 1) the good competitive position of many German companies, 2) the shortage of skilled labour in some areas and 3) the projected (only) moderate over-exhaustion of scope, the risk aspect can probably still be ruled out for the moment. If the allocation-neutral scope is increasingly exceeded in 2013 and the coming years, though, negative employment effects will loom large.

Oliver Rakau (+49 69 910-31875, oliver.rakau@db.com)

[23] For details on the model used see Germany: No longer the island of the blessed. Current Issues. August 23, 2011.

Why did the German economy weather the recent crisis so well?

While the global economic rebound in 2009/10 took most observers by surprise[24], Germany's performance transformed the international perception of the country from the "sick man of Europe" to the new poster child, with the stellar export performance and the resilient labour market being the most salient features.

1. How does Germany compare?

Indeed, given Germany's strong reliance on exports it suffered one of the largest setbacks during the 2008/09 global economic crisis. This did not come as a complete surprise since Germany is the most sensitive economy with regard to external real and financial shocks among the G20[25]. Between the peak in Q1 2008 and the trough in Q2 2009 German GDP slumped by 6.8% (US -4.7%, UK -6.2% and Japan -9.2%, peak to trough in each case). Still, while the unemployment rate doubled in the US and the UK and rose from 3.8% to 5.4% in Japan, it only inched up by 0.7 percentage points in Germany[26]. Moreover, the German economy's recovery was the fastest among the G4 countries; GDP exceeded its pre-crisis peak already in Q1 2011, while it took the US until Q4 2011. Japan (2.4 pp) and the (UK 3.1 pp) are still below their pre-crisis level. The recovery is even more impressive when considering that the rest of EMU, Germany's largest trading partner receiving around 40% of German exports, has grown by a dismal 1.2% overall since the trough in Q4 2009. However, the negative impact was partly offset by extremely low interest rates, given the ECB policy and investors' flight-to-quality behaviour, and a – until recently – relatively low valuation of the euro.

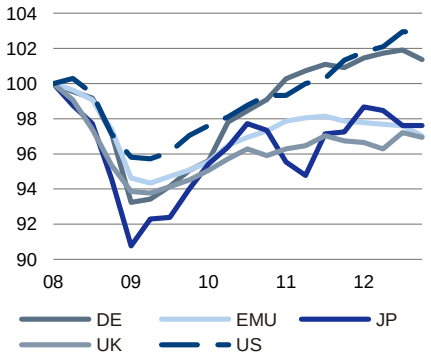
The strong rebound of the world economy can mainly be explained by the unprecedented coordinated easing of global monetary and fiscal policies. Governments worldwide embarked on anti-cyclical policies. Among the G20 countries the average size of these programmes was slightly above 2% of GDP in 2009 and 2010, falling to around 1% of GDP in 2011[27]. Central banks aggressively cut interest rates and started using their balance sheets to provide further stimulus.

2. Structural advantages in a changing global economy

Still, Germany's relative performance is based on some long-standing structural advantages, in particular the role of its innovative and export-oriented *Mittelstand*, that is small and medium-sized enterprises (SMEs), which can rely on a highly skilled labour force, courtesy of the dual educational training system. 99.5% of Germany's 3.6 m companies are SMEs, which have less than 500 employees. They account for 60% of the employment subject to social security contributions and 37% of the economy's turnover[28]. However, ultimately ownership and management are the defining features of the German Mittelstand, rather than company size. The core of the Mittelstand is family-owned companies where the risk is carried by the family management. It encompasses many of the so-called hidden champions, companies with an average size of about 2000 employees, which invest twice the average in R&D

Germany: Deep slump and strong recovery 1

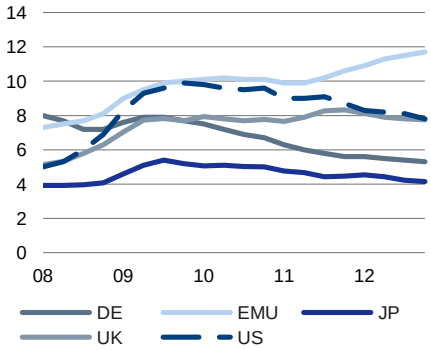
Real gross domestic product, Q1 2008=100



Source: Eurostat

Germany: Only temporary rise in unemployment 2

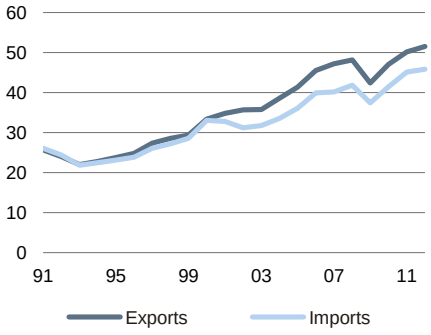
Unemployment rate, %



Source: Eurostat

Germany: Share of exports in GDP doubled since early 1990s 3

Germany, share in nominal gross domestic product, %

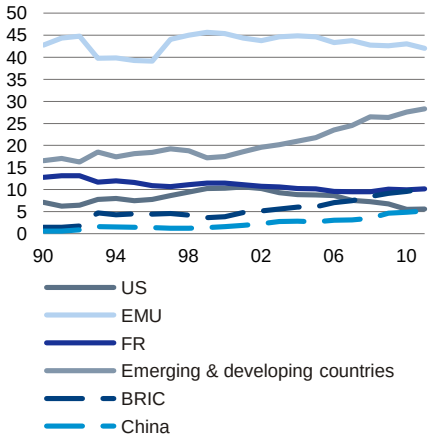


Source: Eurostat

[24] The IMF, for example, predicted a 2010 global growth rate of 1.9% in April 2009. The actual increase was 5%.
[25] Country report No 11/168, IMF July 2011.
[26] Between October 2008 (7.6%) and April 2009 (8.3%), national definition.
[27] Fiscal Monitor, Nov. 2010, IMF.
[28] Institut für Mittelstandsforschung, Bonn, http://www.ifm-bonn.org.

Emerging and developing countries gained importance 4

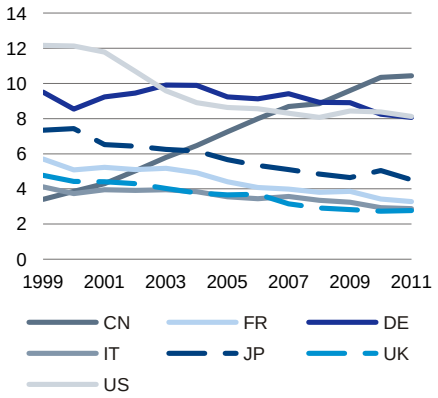
Share of German merchandise exports by region, %



Source: IMF

Germany with more or less stable share in world trade 5

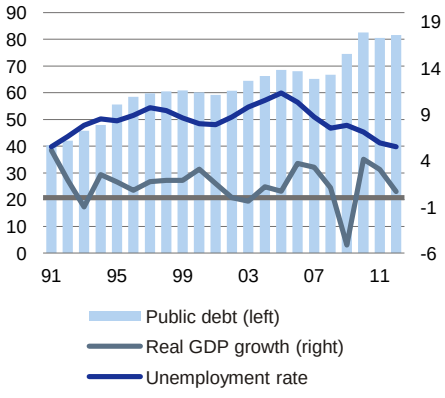
Share in world trade, volume, %



Source: UNCTAD

Germany: The '90s – Public debt and unemployment on the rise 6

% of GDP (left); % (right)



Sources: Eurostat, European Commission

and enjoy a profit-turnover ratio more than two times the German average. Many of their innovations come from their skilled work force. Here, the broad technical expertise acquired through the German system of dual training, used by 60% of the German labour force, provides together with further special training-on-the job an important resource for the companies' innovative capacities. Two-thirds of these companies are world market leaders, many of them have been holding this position for more than a decade[29]. The international drive of these companies can be traced back to the end of the 19th century when Germany consisted of many small independent states and cross-border trade was a necessity. More recently German unification and business expansion into the new states (*Länder*) in east Germany provided smaller companies in particular with useful experience, which encouraged them to take the next step and truly internationalise their business. Quite often Eastern Europe was the next destination, where the new colleagues from east Germany had intensive contacts and market knowledge.

The share of exports in German GDP more than doubled between 1992 (24%) and 2012 (51.7%). But German companies were not only more successful than their European peers in conquering export markets. Their internationalisation strategy also led to a globalisation of their value-added chains. More than one-third of Germany's exports contain imported pre-products. This allowed German companies to remain competitive and to focus on high value-added segments in the German parts of their value creation. Mittelstand companies have a strong focus on industrial products, capital goods in particular. Their product focus and their international approach enabled them to benefit strongly from the booming growth dynamics in emerging markets. Another key beneficiary especially of the emerging markets' increasing demand for high-quality products has been the German car industry, which is much more globalised than its European competitors[30]. The share of exports to emerging and developing countries has nearly doubled since the beginning of the 1990s, to 28% in 2011. In particular, Germany's export share to the BRIC countries more than doubled to 10% of total German exports[31]. As a result, Germany has been the only industrial country more or less able to maintain its world market share despite the strong increases in the market share of the emerging economies[32].

3. Lessons learned – before the 2008/09 global crisis

After the New Economy bubble burst in 2000 it became increasingly obvious that Germany had encountered severe structural imbalances as a result of the unification burden, which had been grossly underestimated. The government's Council of Economic Experts had chosen the motto "Economic policy under reform pressure" for their annual report 1999/2000. In the introduction the experts stated that it could no longer be denied that there was a need for reform in many sectors such as public finance, taxation, social security, the functioning of the labour market and education[33]. Indeed, the public debt level had risen from 40.4% of GDP in 1991 to 60.9% in 1999. In the second half of the nineties Germany's GDP growth slowed to a meagre 1.6% p.a., one percentage point below the EU average and almost at par with Italy (1.5%). The unemployment rate had risen from 5.5% (1991) to 8.6% (1999).The rate of long-term

[29] Hidden Champions – Aufbruch nach Globalia. Die Erfolgsstrategien unbekannter Weltmarktführer, Hermann Simon, Frankfurt 2012.
[30] In 2012, for example, VW and BMW sold more cars in China than in their German home market. 20 to 30% of their total profits were generated in China.
[31] Germany's exports to China rose by an average 18% yoy from 1992.
[32] Change in market share of global merchandised trade in percentage points (2000-2011): Germany -0.5, Italy -0.9, UK -1.7, France -1.8, Japan -2.9 and US -4.0.
[33] Jahresgutachten des Sachverständigenrates zur Begutachtung der gesamtwirtschaftlichen Entwicklung 1999/2000, own translation.

unemployed was on a similar rising trend from 3.2% to 4.4% in 1999[34]. In the recession following the New Economy bubble Germany's underperformance became even more pronounced. Its 2001-2003 growth rate was not only the lowest within the EU but also among the industrialised countries in general[35].

Politics: Agenda 2010

Confronted with this dismal economic performance, then Chancellor Schröder and his SPD/B-90 Greens coalition government embarked on a batch of reforms that was later labelled "Agenda 2010". The aim of these reforms was to reconstruct the mushrooming and overly expansive social security system, thereby reducing supplementary wage costs below 40%, to increase the labour market's flexibility and to consolidate public finances. Besides deregulation in some other areas (trade law) the core target of the reforms was the labour market, with a series of measures called the Hartz reforms implemented between 2003 and 2005. One key element was the merger of unemployment benefits and social assistance, thereby reducing the generosity of the unemployment system. Under the principle "Fördern und Fordern" (promote and challenge) the long-term unemployed had to accept jobs even below their qualifications and with considerable pay cuts. The attractiveness of the low-pay sector (with monthly gross salaries of EUR 400 to EUR 800) was enhanced and employment protection was lowered for workers in small companies. In addition, the federal labour agency, an administrative authority which used to "administer" the unemployed by distributing the social security system's support, was revamped and converted into a modern agency, the Federal Employment Agency, with the clear focus to get its "clients" back into employment.

In the statutory health insurance system benefits were tightened, with those not falling under the insurance principle (such as in vitro fertilisation) being abolished and co-payments introduced. However, given that the incentive structures of the major players were little changed, the health system reform has remained a work in progress.[36]

In the public pension system a sustainability factor ("*Nachhaltigkeitsfaktor*") was introduced in 2005 to offset the negative demographic effects[37]. Years spent in education no longer added to an individual's pension claims. The option to retire early – which had long been the major valve for companies to cut their work-force and charge this to the public coffers, courtesy of rather generous conditions – was made less attractive via properly calculated discounts. The legal retirement age was lifted from 65 to 67 years, with the shift being phased in gradually from 2012 until 2031.

Despite these reforms the number of unemployed continued to increase and climbed above 5 m in early 2005[38]. However, between 2006 and 2007 the number of unemployed (annual average) dropped by 724k – the biggest decline since the 1950s. In late summer 2008 – right before the global financial and economic crisis made itself felt on the German labour market – the number of

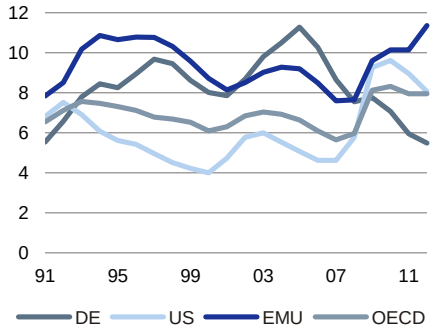
[34] Harmonised rates, EuroStat.
[35] German GDP grew by 0.4% p.a., EU1.5%, US 1.8% and Japan 0.8%.
[36] In 2009 the CDU/CSU/FDP government implemented a centralised health care fund (Gesundheitsfonds). It created an equalisation of different morbidity risks, increased the possibilities to change between different (public) providers, thereby increasing the competition within the system.
[37] Together with the so-called "Riester factor", which reduces the pension level in parallel to the government-subsidised increase in private retirement savings, this would have resulted in actual pension cuts in years with negative wage growth and increases in contributions. This was only avoided due to ad hoc government interventions.
[38] However, the merger of unemployment benefits and social assistance led to a shift out of the hidden reserve into regular unemployment, in order to remain eligible for benefits. This so-called Hartz IV effect increased the official number of unemployed by an average 380k in 2005 according to the Federal Employment Agency (Bundesagentur für Arbeit).

unemployed had fallen below 3.2 m, and the unemployment rate had dropped from 12% in spring 2005 to 7.6%.

The labour market reforms might in part be a reason for a strategic shift in trade union policy. Major unions, such as for the metal, chemical and construction industries, relinquished potential wage increases for job security, accepted higher weekly working hours without pay compensation and exercised even more flexibility in firm-based contracts. [39] Moreover, collective wage agreements introduced flexible working time arrangements, including annual working time accounts, which allowed companies to flexibly adjust their working times to demand fluctuations[40].

Germany's remarkable labour market during the crisis 7

Unemployment rate, %



Source: OECD

However, the stellar improvement of the labour market can certainly to a considerable part be traced to the strongly growing economy. In 2006 and 2007 real GDP grew by 3.7% and 3.3%, respectively. Even in H1 2008 GDP expanded by 2.6% (yoy). Although the actual effect of the Hartz reforms is difficult to estimate given the lack of counterfactual evidence, it is probably fair to say that the causality ran in both directions[41]. In addition, these structural changes allowed the German labour market to weather the effect of the financial and economic crisis much better than other major economies. The annual average unemployment rate as a percentage of the labour force (as calculated by the OECD) only inched up from 7.6% in 2008 to 7.8% in 2009 – despite the above-average decline in GDP – but already resumed its decline (to 7.2%) in the following year[42]. The unemployment rate in the OECD as a whole jumped from 6.1% to 8.3% in 2009 and continued to rise in 2010 to stand at 8.5%. There is broad consensus among major national and international economic think tanks that the outstanding performance of the German labour market can be explained by the earlier reforms. In its 2012 report on the German economy the OECD opted for the title “Past labour market reforms paid off handsomely during the crisis”[43]. The OECD estimated that based on past relationships the German unemployment rate would have jumped by 3 percentage points. In another study the IMF estimated that Germany’s steady state unemployment rate has dropped from over 8% to around 6 ¼%[44]. The OECD controlled for other factors mentioned in the literature − such as the demographically induced smaller labour force increases in Germany, the asymmetric sectoral effects of the crisis (hitting mainly the more capital but less labour-intensive manufacturing sector) and skilled-labour shortages ahead of the crisis (providing a strong incentive for companies to retain their labour force) − but found at best very small effects.

The OECD also looked into the effect of short-time work schemes and their contribution to the benign labour market response. During the crisis the government increased the generosity and the eligibility of these schemes further, reducing the costs for maintaining staff much more than in many other OECD countries running similar schemes[45]. The uptake peaked at 1.5 m in mid-2009, but fell to below 100k by mid-2011. On the basis of an average working

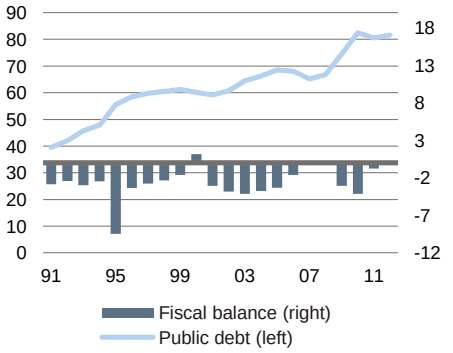
[39] Council of Economic Experts. Annual reports 2004/05 and 2005/06.
[40] According to a survey conducted by the Institut für Arbeitsmarkt- und Berufsforschung, roughly one-third of the companies reduced their working time accounts by an average 45 hours per employee in 2009 in response to the crisis. In 5% of the companies employees accrued working time debts. IAB Kurzbericht 22/2010.
[41] Actually, the government commissioned a host of evaluation studies to independent experts including the Council of Economic Experts (Annual report 2006/07). However, these studies evaluated individual measures – with mixed and in part very sobering results – but did not try to assess the overall effect of the Hartz reforms.
[42] Source: http://www.oecd-ilibrary.org/sites/unemp-table-2012-1-en/index.html
[43] OECD Economic Surveys Germany 2012.
[44] Staff report for the Article IV consultations with Germany, IMF 2011.
[45] Employees receive between 60% and 67% of their net pay for hours ”worked” in short-time schemes. Companies get reimbursed by the Federal Employment Agency. The maximum duration was extended from 6 to 24 months.

time reduction of 30%, the number of jobs saved amounted to 500k. Taking into account the extent of possible free-rider behaviour the actual effect might be only around 235k.

The IAB calculates that short-time work schemes and annual working time accounts reduced the average working hours per employee by 3.2% in 2009, which would be (arithmetically) equivalent to 1.2 m full-time jobs[46]. Burda and Hunt estimate that roughly one-third of the 3.2% reduction in working hours can be attributed to short-time work schemes. A reduction in standard weekly working hours accounted for about one-quarter followed by roughly equal contributions from reductions in overtime, reductions in working time accounts and an increase in the share of part-timers (each contributing slightly less than 20%)[47].

Public deficit quickly reigned in after stimulus in '09/'10 8

Germany, % of GDP



Source: EU Commission

Fiscal position – with room to manoeuvre

All in all, these reforms implemented under the Agenda 2010 and the dynamic economic upswing in 2006/07 contributed to a strong improvement in Germany's fiscal position until 2007/08 when the general government fiscal position was in balance. This allowed a considerable increase in the fiscal deficit to 3.1% in 2009 and 4.2% of GDP in 2010, which was not only due to the workings of fiscal stabilisers but also the result of an active pro-cyclical expenditure policy (short-time work schemes, public investment programmes, car scrapping scheme etc.). The expansionary fiscal programmes amounted to 1.7%, 2.2% and 1.7% of GDP between 2009 and 2011[48]. According to the OECD, the structural deficit rose by three-quarters of a percentage point in 2009 and another 1 ¾ points of GDP in 2010, before being reined in again by 2.3 percentage points in 2011.

Corporates – more cautious, less imbalances

Burda and Hunt argue that employment growth was unusually low in 2006 and 2007 due to corporate scepticism regarding the sustainability of the upswing. They trace that to the subdued business expectations as surveyed in the ifo business climate index. However, the expectations index peaked at 108.2 in March 2006 and enjoyed a new local peak in May 2007 (107.8), both levels being only marginally below the Pan-German series' earlier all-time high in October 1994 (109.5)[49] In addition, in 2006 hourly productivity enjoyed a record increase of 3.6% in the total economy, and in the manufacturing sector it surged by 10%. This would probably not have been possible without the structural changes in the labour market and might explain why companies were able to satisfy surging demand with a comparatively small increase in their labour force.[50]

Still, companies' behaviour had probably changed, but this can more likely be traced to the painful experiences made after the New Economy bubble burst in 2001. During the bubble German corporates had massively increased their

[46] IAB Kurzbericht 3/2010

[47] What Explains the German Labour Market Miracle in the Great Recession?, Michael Burda, Jennifer Hunt, in Brookings Papers on Economic Activity Spring 2011. The authors attribute, in contrast to many others, 40% of the "missing employment shortfall" to the employers' reluctance to hire staff in the preceding boom.

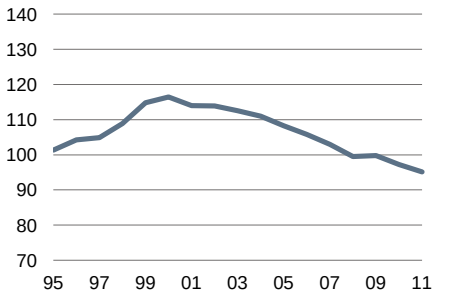
[48] Fiscal Monitor, IMF, Nov. 2010. The smaller change of the structural deficit can be explained in part by the positive effects of the fiscal measures on GDP growth.

[49] The lower turning points are usually between 85 and 95. The series hit its all-time low in December 2008 at 78.7.

[50] Another reason for the benign labour shedding might have been the expectation among German corporates that the 2008/09 economic slump might be short-lived. This, however, would have been in sharp contrast to the expectations of professional forecasters.

German households have not embarged on debt spree 9

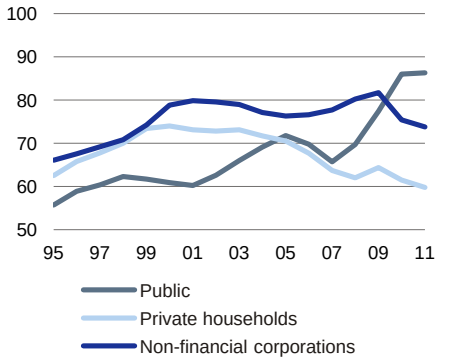
Debt as % of disposable income



Sources: Eurostat, Federal Statistical Office

Public sector experienced rising debt levels 10

Debt as % of GDP



Source: Eurostat

leverage. Buoyed by the equity bull market, companies engaged in lively M&A activity, particularly in the booming IT sector. As a result, the external funding of non-financial corporations, which averaged at around EUR 100 bn in the previous decade, jumped to EUR 292.5 bn in 2000, thereby increasing the leverage ratio to 190% of gross value added[51]. From 2001 onwards companies reconstructed their balance sheets by increasing their internal funds and deleveraged strongly. Despite accelerating investment spending between 2002 and 2008, the sum of retained earnings and depreciation created surplus funds in the non-financial corporate sector. This development stood in sharp contrast to the massive increases in corporate debt in the Anglo-American economies and the European peripheral countries.

Households: Reducing debt levels

Similarly, German households had refrained from indulging in the financial excesses of the problem countries. While households increased their liabilities from 82.5% of disposable income to 116.4% in 2000, they also embarked on deleveraging thereafter; by 2008 the liabilities had fallen below 100% of disposable income again. They continued to decline marginally during the crisis, reaching 97.2% in 2010, but owing to the solid labour market performance households had little incentive to act more aggressively. Furthermore, German house prices had been falling in real terms between 2000 and 2008, offering little encouragement for credit-financed investment. Germany had had its own housing bubble following reunification in the early 1990s that was further fuelled by massive immigration from the Balkan countries, with house prices rising by 7.1% p.a. between 1989 and 1994. However, since 1995 house prices have stagnated.[52]

Conclusion

All in all, the salient performance of the Germany economy during the crisis can be traced to three mainly structural changes:

1. The reforms implemented under Agenda 2010, the structural changes in the labour market in particular, which were a combination of the Hartz reforms and a more cooperative and flexible stance on the part of the industrial partners. The latter were partly triggered by the former as well as by increasing exposure to global competition (also via a globalisation of corporate value-added chains).
2. A refocusing of the corporate sector after the excesses of the New Economy bubble, involving products, their value creation chain, export markets and balance sheets, and the − in any case − more long-term orientation of the German Mittelstand, with its large number of hidden champions.
3. Sound balance sheets of private households in the absence of any signs of a housing bubble.

In addition to these structural factors, the government's fiscal policy is in part responsible for the success discussed above. The healthy situation before the crisis, active policy measures which provided the right incentives for the private sector and the clear commitment to rein in the deficits when the economic situation allowed helped to cushion the overall impact of the crisis. However, all

[51] Long-term developments in corporate financing in Germany – evidence based on financial accounts, Deutsche Bundesbank, Monthly Report January 2012.
[52] Only 2011 and 2012 saw more noticeable increases of 3.2% and 3.5%, respectively. Source: Bulwiengesa AG.

the factors interacted with one another; therefore, a delineation of the individual contributions is not possible.

4. Future challenges

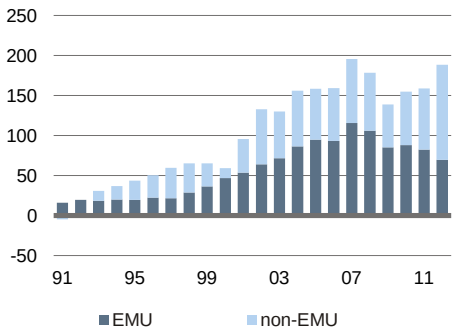
The transformation of the German economy from the sick man of Europe to the European or even global poster child (at least among the industrialised economies) within less than a decade shows that even long entrenched features and policies can change rather quickly within an economy, not even mentioning the constant changes in the global economy that challenge a country's relative position. For the German economy two challenges stand out:

i. The massive export surpluses and the economies' dependence on the global economic cycle.

ii. The demographic trends resulting in a substantial ageing of society and declining work forces.

Germany: Trade balance surplus vs. EMU countries has peaked 11

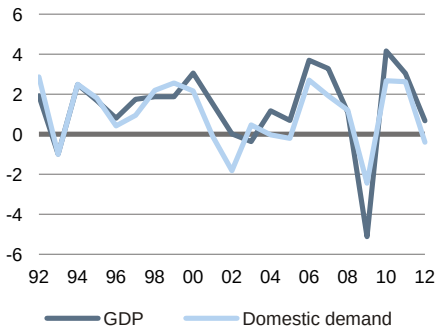
Trade balance, bn EUR



Source: Deutsche Bundesbank

Germany: Domestic demand weakness in early 2000s 12

Real, % yoy



Source: Eurostat

Export focus: The quest for re-balancing

In 2012 Germany enjoyed its second largest trade balance surplus ever at EUR 188 bn (7.1% of GDP), despite sluggish global growth of around 3% and the recession in EMU, Germany's most important trading partner. With Germany's unit labour costs stagnating between 2000 and 2008 and real domestic demand growing a meagre 0.7% p.a., Germany has been accused of growing at the expense of its trading partners. Indeed, during that period net exports contributed 0.9 percentage points or almost 2/3 of real GDP growth on average. However, this was partly a transitory phenomenon due to the structural changes taking place[53]. Since 2010 the domestic economy has expanded by 1.6% on average, which is above Germany's potential growth rate. Despite a fall in Germany's relative competitiveness due to higher unit labour costs (1.2% in 2011 and 2.7% in 2012) and declining ULCs in the peripheral EMU countries the current account surpluses should still narrow only very gradually, given the rather low price elasticity of Germany's exports and relatively strong demand from outside the euro area. One important factor for the sluggish domestic absorption in the past decade was the financing surpluses of the corporate sector. Therefore the OECD recommends reducing the tax wedge on labour income further and improving competition in the service sector in order to foster investment[54].

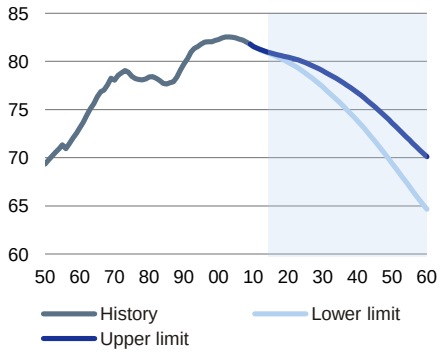
Demography: The (speed) limits of growth[55]

The shrinking of the German population which started in 2003 – but was temporarily interrupted in 2011 and 2012 due to strong immigration – is going to accelerate and will result in a roughly 20% decline, from 82 m at present to around 65 m by 2060. At the same time, the labour force will decrease by roughly 14 m or almost 35%. The contraction of the labour force should accelerate up to about 2030, peaking at around 1 ¼% per year. If Germany pulled out all the stops, by increasing the age-specific participation rates of men and women to the highest among the industrial countries, this would swell the labour force by about 6 ½ m people by 2030 and largely offset the demographically induced losses. This best-case scenario would require major

[53] See: Germany: Is something rotten in the state of the domestic economy?, in Focus Germany, Deutsche Bank, December 2010.
[54] Going for growth, Country notes Germany, OECD 2013.
[55] See: The German labour market – demographic shift poses formidable challenges, in Focus Germany, Deutsche Bank, August 2011.

German population set to shrink substantially 13

Medium population variant, m



Net immigration: lower limit 100,000 per year, upper limit 200,000 per year

Source: Federal Statistical Office

structural changes in the German labour market, clearly exceeding those under the Hartz reforms. The observable shift within Germany's major political parties away from reforms to increase the flexibility of the labour market towards more government intervention justifies some scepticism in this regard. Assuming that roughly a third of the necessary shifts will be implemented, Germany's potential growth rate would still fall to around ¾% by 2030 from its current rate of around 1 ¼%. However, it might provide at least some consolation that current accounts are largely driven by demographics. Therefore, the dis-saving of the ageing German population will almost by definition lead to a substantial decline in the current account surpluses.

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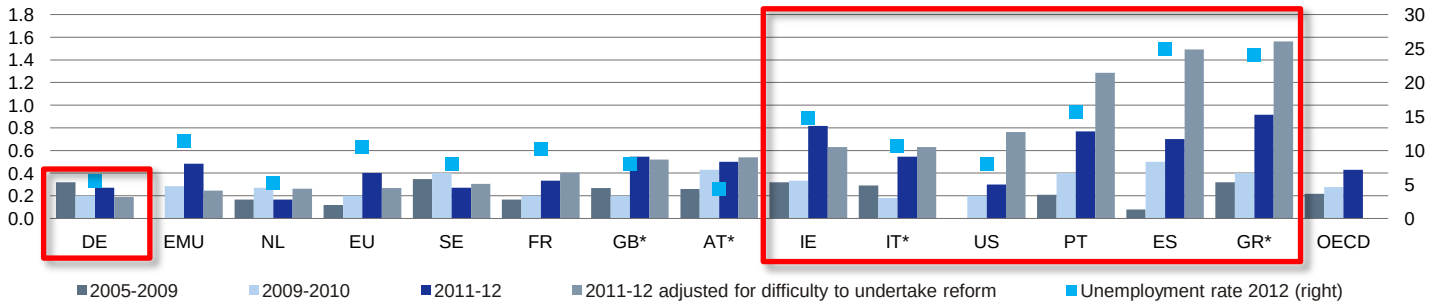
Chart of the month

Germany: Reform refusnik(?)

OECD reform activity indicator (left); %, harmonised (right)



* Data on unemplyoment for 2012 only until November or December

Sources: OECD, DB Research

Germany: Reform refusenik(?)

Germany? A reform refusenik? This at least is the conclusion that can be drawn from the annual OECD report “Going for Growth 2013”, a useful supplement to the macroeconomic data on competitiveness (e.g. unit wage costs). In this report, the OECD presents reform priorities for the member countries and assesses whether and to what extent proposals were implemented. The reform activity indicator shows in how many years reform steps were taken relative to the number of years in which the priority existed. As the difficulties in implementing the reforms may differ, there is an adjusted indicator which, for example, gives a stronger weighting to political controversial pension insurance reforms.

According to the OECD indicator, Germany has hardly implemented any reforms in the last few years, with the reform pace even tending to slow somewhat since 2009. By contrast, the reform pace in EMU has increased noticeably – especially the GIIPS countries registered a dramatic improvement, in particular according to the adjusted indicator.

Nevertheless, there are two (closely connected) reasons why Germany's “snail's pace” should not be overstated: 1) The OECD report does not indicate how great the need for reform actually is. For example, Germany implemented major structural reforms above all before 2005 which are still having positive effects. Germany's relatively strong growth over the last few years which is likely to continue for some time to come points in this direction. 2) The scale of the impact of the reforms proposed on GDP is not assessed. The labour market and product market reforms in the GIIPS countries are likely to have stronger growth effects in the short term than the less comprehensive proposals for Germany.

Nevertheless, the nagging feeling that Germany still has reform potential remains. Especially with a view to the upcoming general election campaign and the topics prevailing so far, reforms aiming at a (long-term) strengthening of domestic demand do not seem to be very high on the political agenda. True, at an unemployment rate of just below 7%, Germany is in very good shape by European standards. But can one be satisfied with that?

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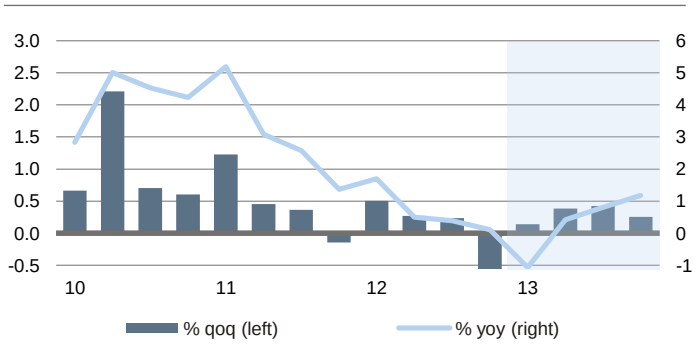
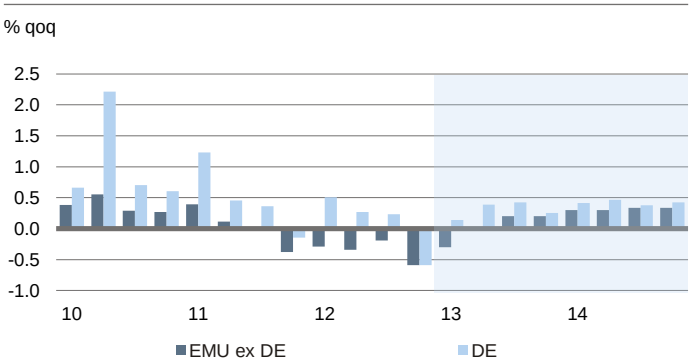
Chartbook: Business cycle (1)

Real GDP growth



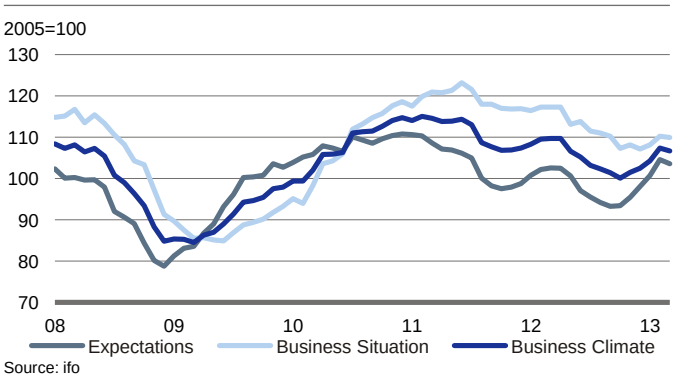
Sources: Federal Statistical Office, DB Research

GDP growth: DE vs EMU



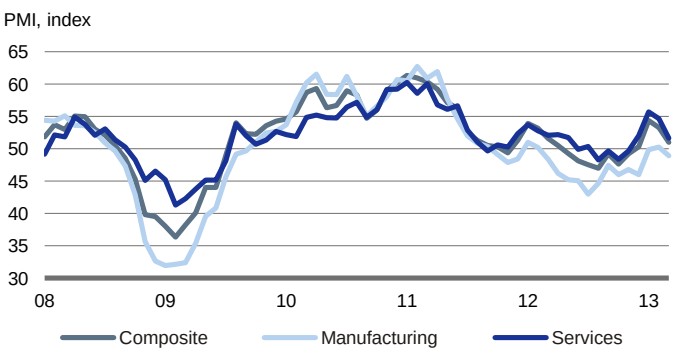
Source: Eurostat

Ifo index - total economy



Source: ifo

Purchasing manager index



Source: Markit

— At +0.7% GDP growth was much lower in 2012 compared to 2011 (+3.0%). We assume that Q4 2012 (-0.6% qoq) marked the trough and expect a small GDP increase in Q1 2013 followed by a gradual acceleration.

— Despite declines in the ifo and PMIs in March both indicators remained above their low Q4 levels and support expectations of modest growth in early 2013.

— Economic growth in 2013 is likely to be supported by consumption while net exports weigh on growth. Investment in machinery & equipment will remain negative too in 2013 although there should be a recovery over the course of the year.

— Despite weakening GDP growth during 2012 the German economy fared fairly well compared to other EMU countries which experienced stagnation or even recession.

— Considering the remaining adjustment needs in several EMU countries the EMU economy should remain in recession in H1 2013 and set out on a very low growth trajectory thereafter. Despite the recovery in H2 EMU GDP should decline by 0.6% in 2013 – the same rate as last year.

— After rising markedly for four consecutive times the ifo index recorded a moderate decline in March. Expectations fell moderately while the assessment of the current situation worsened only slightly. We perceive this as monthly gyrations (Italy) rather than a turning point.

— The business climate in manufacturing fell moderately, while the more domestically oriented sectors, construction and retail, stabilized overall business climate. In wholesales the business climate worsened materially, but this component is rather volatile.

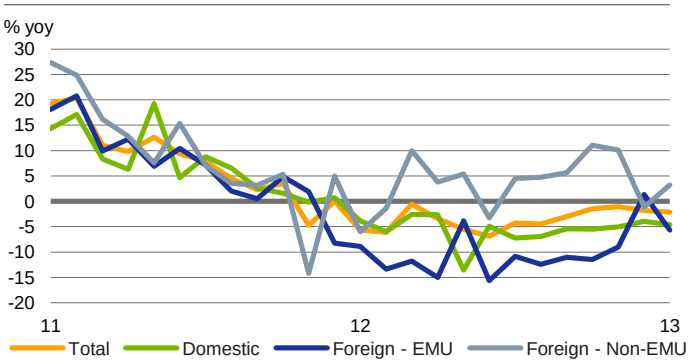
— European and German Purchasing Manager Indices (PMI) disappointed in March. The German manufacturing PMI (48.9) fell below the growth threshold again as new orders (48.6) declined. Production was only slightly negative (49.8).

— Despite falling the index remained above its Q4 average in Q1 (49.7) suggesting a production decline by at a much slower pace.

— The services PMI declined strongly (51.6 after 54.7) but remained expansionary. New orders and output prices dampened the index, while expectations remained elevated (57.5) and the employment component rose strongly (53.0).

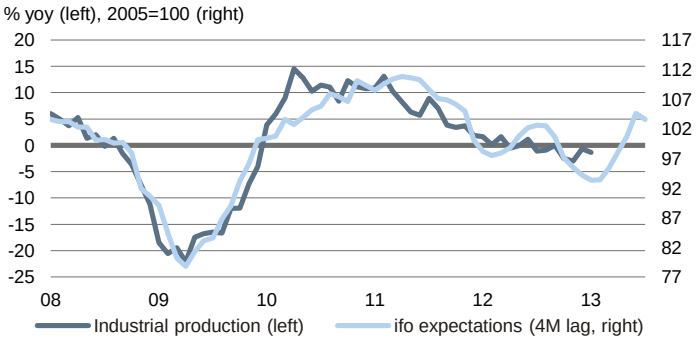
Chartbook: Business cycle (2)

New manufacturing orders



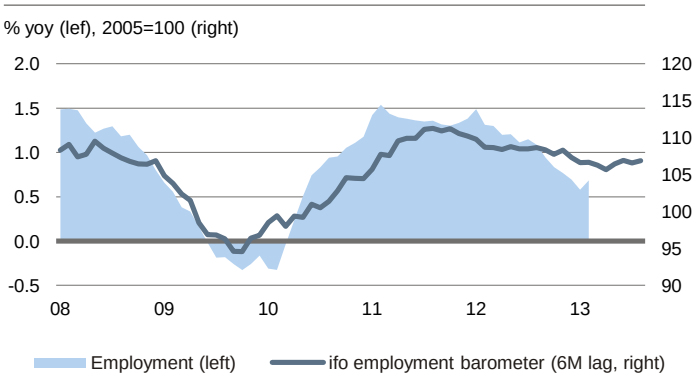
Source: Federal Statistical Office

Industrial production and ifo expectations

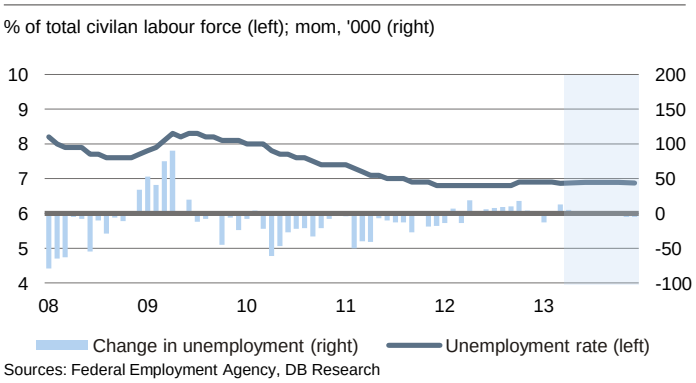


Sources: ifo, Federal Statistical Office

Employment and ifo employment baromter



Unemployment



Sources: Federal Employment Agency, DB Research

— Demand for German goods has fallen more strongly than expected in January. Compared to the previous month orders declined by 1.9% (Dec.: +1.1% mom). Compared to January 2012 orders are lower as well (-2.5% yoy after -1.9% in December).

— However, in January there were changes to the statistics and revisions. In addition, the Chinese New Year could have played a role (Foreign: -3.0%; domestic: -0.6%). Therefore, the decline should not be over played.

— Considering the much improved sentiment over the last few months not lest in important export markets orders could improve gradually going forward.

— Industrial production stagnated in January roughly in line with the PMI which stood at 49.8 in January. Output increased 0.6% mom in December.

— The manufacturing output fell slightly (-0.2% mom) as a noticeable increase in consumer goods compensated for the decline in output of investment goods. The construction output rose significantly (+3.0%), partly influenced by the (one-off) effect of including additional sub sectors into the statistic.

— Sentiment points to a more meaningful recovery of the industrial sector only in Q2.

— The number of employed persons is still 0.7% higher than a year ago in Feb and with 41.7 m it hovers near a historic high. The level of employees subject to social security payments is up 1.4% yoy.

— Employment growth tapered off in 2012. While employment grew by 1.4% yoy in Jan 2012, there was only an increase of 0.6% in Jan 2013. In Feb the yoy employment growth rate picked up to 0.7%. This might be a first indication that the temporary weaker labour market trends might have run their course.

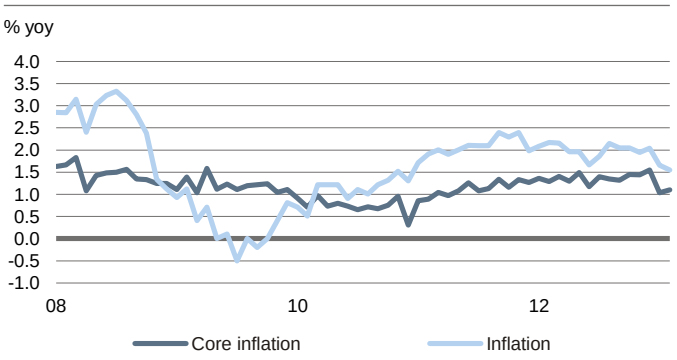
— The labour market had a good start into 2013. The number of unemployed persons remained constant in Q1 2013, after rising in H2 2012 (on average by 8,000 per month). The unemployment stayed unchanged at 6.9% in March.

— Early indicators – ifo, PMI, BA-X – point to a robust labour market in the coming months. Starting in mid-2013 the labour market should improve again.

— The unemployment rate should average 6.9% in 2013, only slightly higher than in 2012 (6.8%).

Chartbook: Business cycle (3)

Inflation rate and core inflation rate



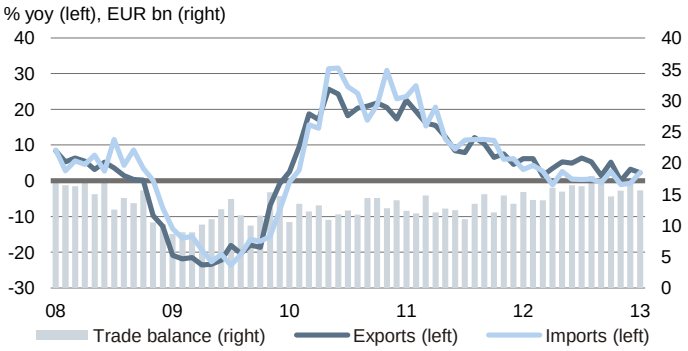
Sources: Federal Statistical Office, DB Research

— Inflation has slowed appreciably at the start of 2012. After averaging 2.0% in 2012 the inflation rate dropped to 1.7% in January and even further to 1.5% in February.

— The slowdown in energy and food inflation was the main driver of the more muted inflation in February, while the core inflation continued to hover around 1%.

— Considering falling import prices (-1.6% yoy in Feb.), low producer price inflation (+1.2% yoy in Feb.) and weak growth the inflation rate should remain well below 2% in the next months and only rise marginally in H2 on back of stronger growth. We expect it to average 1.6% in 2013.

Merchandise trade



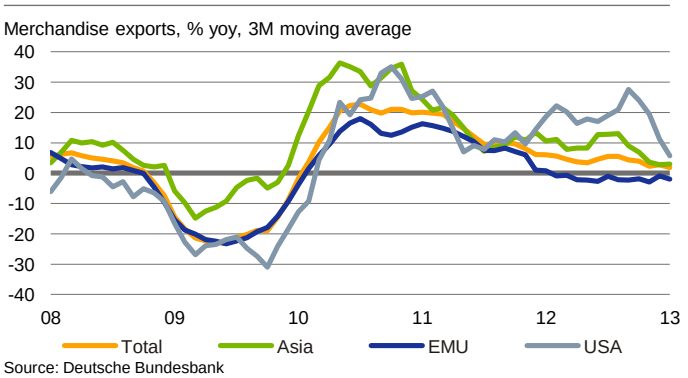
Source: Deutsche Bundesbank

— World trade growth decelerated to 2.2% in 2012 after 5.8% in 2011. German merchandise exports also slowed in 2012 (+3.4% vs. +11.5% before).

— Nevertheless, that Germany achieved the second highest trade balance surplus in 2012 after 2007 reaching EUR 188 bn or 7.1% of GDP.

— With a plus of 1.4% mom in January 2013 exports started well into the year. However, imports rose 3.1% which lowered the trade balance surplus somewhat (EUR 15.7 bn after EUR 16.9 bn before).

German merchandise exports by destination



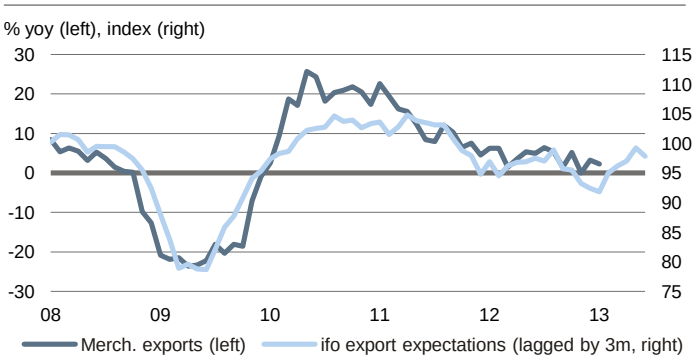
Source: Deutsche Bundesbank

— Since the onset of the euro crisis EMU's share in German exports has dropped by almost 10 percentage points to around 38% (Asia 17% and the US 8%).

— In the wake of the euro crisis and the recession in several EMU countries exports to EMU have fallen below their pre-year level.

— So far, exports to Asia and the US – automobiles in particular – have managed to compensate for the declines in exports to EMU.

Exports & ifo export expectations



Sources: Deutsche Bundesbank, ifo

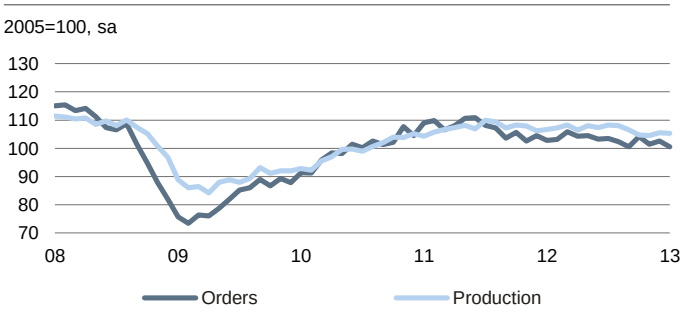
— Exports should remain weak at the start of 2013 according to ifo export expectations. Despite significant increases in the last three months the sentiment indicator only exceeded its long-term average in February only to fall back to it in March.

— Imports should remain comparably stable, by comparison, due to the high level of employment and moderate increases in real income.

— The growth contribution from net exports should become negative in the winter half. In Q4 2012 it removed 0.8pp from the quarterly growth rate.

Chartbook: Sectors

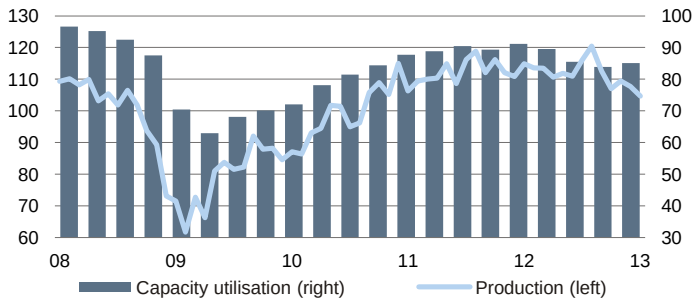
Manufacturing: Output and order intake



Source: Federal Statistical Office

- Industrial production in Germany declined by 1.1% in 2012. Output was well below the average of 2012 especially in Q4 2012. We believe that industrial output is likely to stagnate in 2013.
- Order intake in 2012 was 6% below the level 2011. Orders from other European countries, in particular, have declined markedly, while orders from outside Europe are still supportive.
- Risks to manufacturing activity stem from a continuing economic downturn in major export markets.

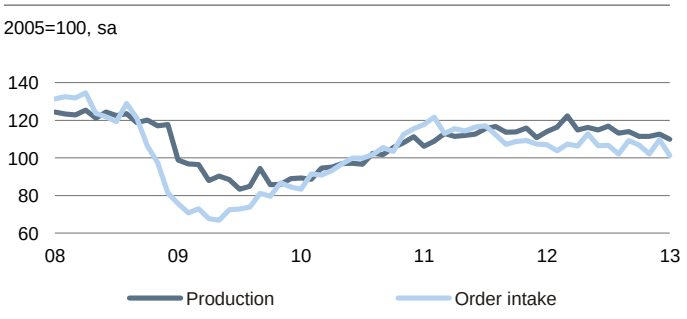
Car industry: Output and capacity utilisation



Sources: Federai Statistical Office, ifo

- In Q4 2012 production level in the automotive industry was well below the average of 2012. Output declined marginally last year.
- Business expectations declined significantly in March after having improved for three months in a row. Capacity utilisation in the automotive industry has stabilised in Q1 2013.
- Also on account of the statistical underhang we expect output in the automotive industry to fall by 2% in real terms in 2013.

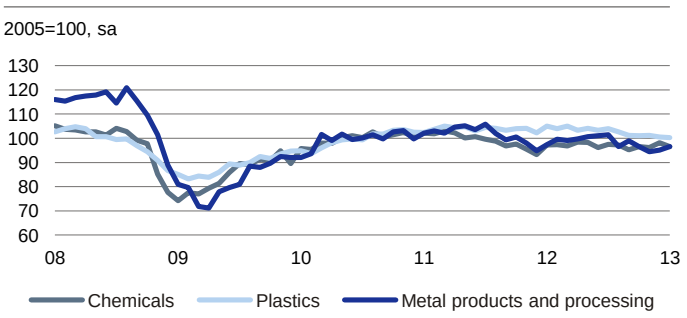
Mechanical engineering: Order intake and output



Source: Federal Statistical Office

- With the ongoing depletion of order-books in the course of 2012, production momentum in mechanical engineering has slowed. Still, full-year output rose by 1.4%.
- Order intakes in the mechanical engineering industry have sent mixed signals over the last few months. A gradual stabilisation of the euro area and accelerating growth in Asia could support foreign demand in 2013.
- For 2013 as a whole we expect mechanical engineering output to decline by roughly 1%, with output trending upwards in the course of the year as the sector will start 2013 with an underhang.

Production: Early cycle sectors

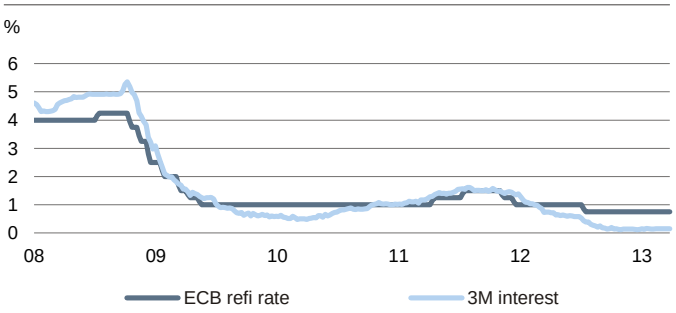


Source: Federal Statistical Office

- The early-cycle sectors currently show little signs of a major growth rebound in 2013.
- Over the last few months production in the chemical industry has stabilised. A decline was inevitable in 2012 (-2.8%). In 2013 production should increase by 1.5%.
- Plastics production has stabilised recently and business expectations have turned positive of late.
- Output in metal production contracted by 3.6% in 2012, but it could post a marginal increase in 2013.

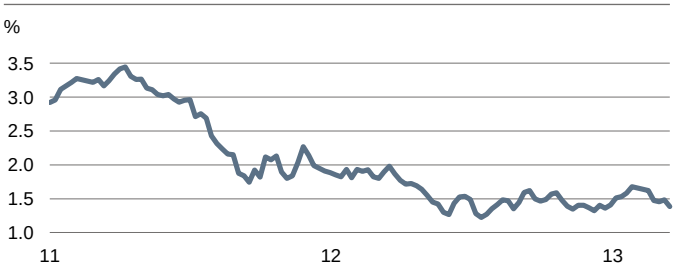
Chartbook: Financial markets (1)

EMU: Refi rate & 3M interest



Sources: ECB, Global Insight

German government bonds: 10Y yields



Source: Global Insight

— The ECB might only cut the refi rate of 0.75% further, if the economy would plummet again or if turbulences in the financial markets would emerge again. The balance sheet reduction of EUR 454bn since its peak (29 June 2012) partly due to LTRO repayments could be seen as a first sign for the beginning of the exit from unconventional policy.

— The ECB will be ready to start the program of purchasing bonds under strict conditionality (Outright Monetary Transactions, OMT) and contributed – despite Italy and Cyprus – to the reassurance of the markets.

— The costs of secured interbank refinancing are at a record low of around 0.15% p.a. (-0.6 pp yoy).

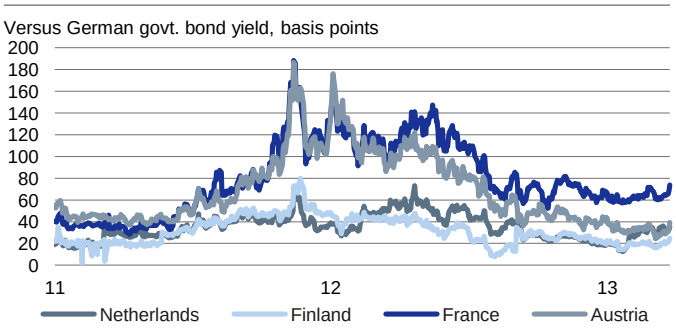
— The yields of Bunds increased from 1.32% at the beginning of the year to 1.70% at the end of January.

— Due to uncertainties regarding Italy and Cyprus the yields of Bunds fell again to currently 1.27%.

— Despite real interest rates close to zero many investors favour the “safe haven” of Germany – one of the few countries with an AAA-rating in Europe.

EMU: Bond yield spreads

Versus German govt. bond yield, basis points



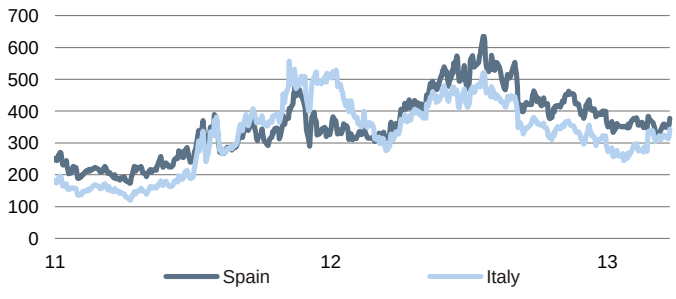
Source: Global Insight

— Intra-EMU bond yield spreads have declined markedly since the announcement by ECB president Draghi that the ECB is ready to do whatever it takes to preserve the euro (26 July) and the clear political commitment – especially by the German government – to hold the eurozone together.

— In addition Draghi highlighted the stabilisation of bank deposits in peripheral regions, private capital inflows from abroad and the reduction of Target2 imbalances as further signs for defragmentation.

EMU: Bond yield spreads

Versus German govt. bond yield, basis points



Source: Global Insight

— The yield spreads of Italian and Spanish government bonds were the most sensitive to the prospect of ECB interventions (OMT).

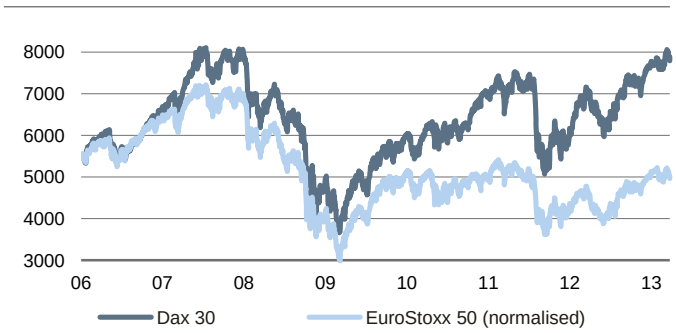
— Since the beginning of September they fell by about 180 and around 100 for Spain and Italy, respectively.

— At the short end (3Y) – the focus of the OMT – yield spreads fell by around 35% in Spain and roughly 24% in Italy.

— Recently, the political limbo in Italy after the elections and difficult negotiations of the Cyprus rescue package created mounting yield spreads.

Chartbook: Financial markets (2)

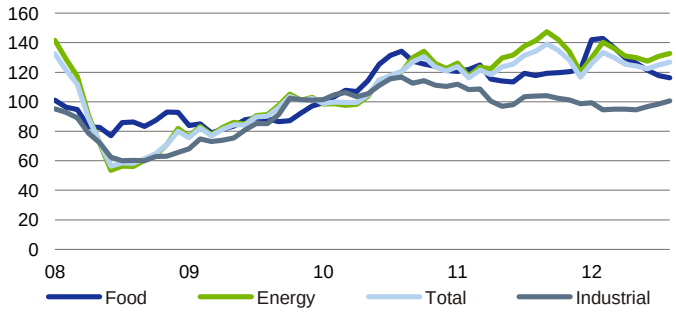
Equity indices



Sources: Global Insight, DB Research

Raw material prices

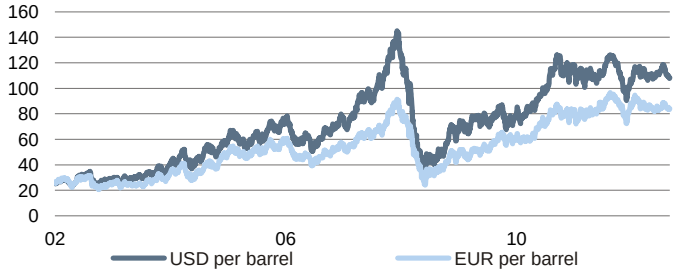
HWWI index, 2010=100, based on EUR



Source: HWWI

Oil price

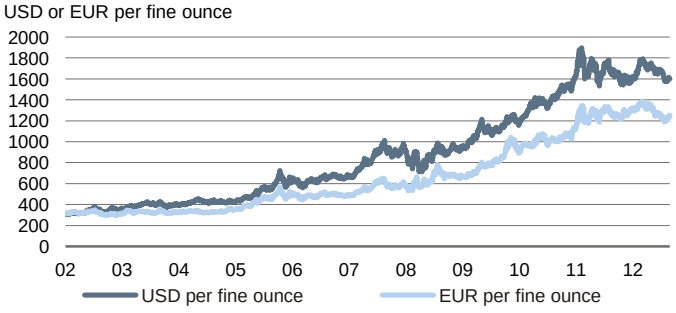
Brent Blend, USD or EUR per barrel



Sources: Global Insight, Reuters, DB Research

Gold price

USD or EUR per fine ounce



Sources: Global Insight, Reuters, DB Research

— Currently, the DAX stands at around 7,800 points. The more optimistic assessment of the euro debt crisis sent the DAX rising further, not least because of a lack of investment alternatives in the German bond market due to partly negative real interest rates. The difference between dividend and bond yields is currently at a high level. Recently, there were ups and downs especially after the election in Italy and the difficult negotiations of the Cyprus rescue package.

— Since the beginning of the debt crisis the DAX has performed considerably better than European equities. Our equity strategists have a 2013 year-end target of 8000 for the DAX and 315 for the Stoxx600.

— Raw material prices – in particular industrial and energy raw material prices – will probably increase modestly due to a stronger growth in China – the largest importer of raw materials – and a sluggish economic recovery in the industrial countries.

— Food prices increased markedly in Q3 2012 due to droughts (in the US and Eastern Europe for example) and fell markedly again, recently. In January prices are around 20% below the last year's peak.

— Following a weak winter half year, oil demand should increase in H2 2013 thanks to the recovery of the global economy. Additionally, supply-side factors (e.g. geo-political risks, Iran) provide some upside risks.

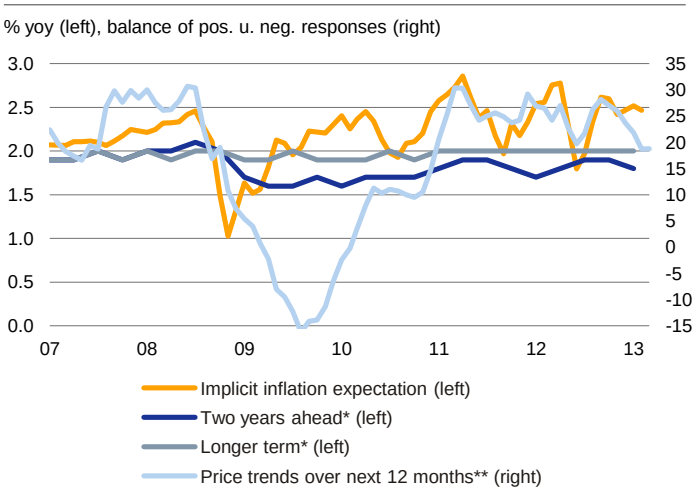
— Overall, oil prices should hover around its actual level. Our commodities analysts expect an oil price of USD 115 per barrel Brent at the end of 2013.

— The gold price should increase in the course of 2013 thanks to real interest rates close to zero, a weaker USD and gold purchases of central banks diversifying their currency reserves.

— Our commodities analysts expect a gold price of USD 2,000 per fine ounce at the end of the year. Currently, the gold price stands at around USD 1,600 per fine ounce.

Chartbook: Financial markets (3)

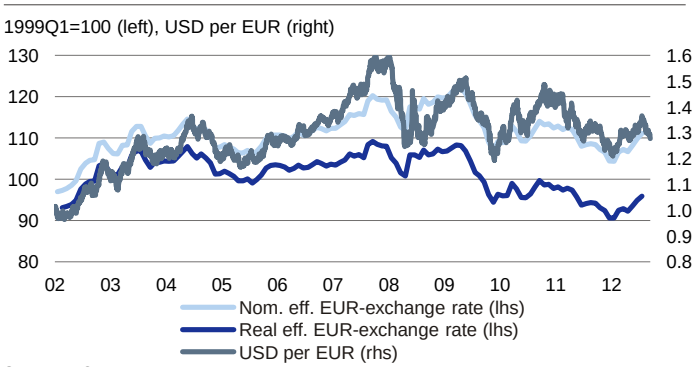
Inflation expectations eurozone



* ECB Survey of Professional Forecasters, ** EC Consumer Survey

Sources: ECB, EU Commission, Bloomberg

Exchange rate development for the EUR



Sources: ECB, Reuters

— Contrary to lingering inflation concerns in the general public the private forecasters of the ECB survey expect no increase of the EMU inflation rate. Recently, the expectation for the inflation rate in 2 years fell slightly to 1.8% and remained stable at 2.0% for the inflation rate in 5 years.

— The implied inflation rate for the next 10 years – calculated as the difference between the yield of 10-year German government bonds and the yield of inflation-protected bonds – hovers between 2 and 2 ½% since the beginning of 2011.

— However, the “implicit inflation expectation” may be biased. On the one hand the current real interest rates close to zero earned on an inflation protected bond is hard to reconcile with economic considerations. On the other hand nominal bond yields are depressed by massive purchases of several major central banks and still persistent flight to quality.

— Since the lowest level of 2012 the EUR appreciated against the USD by 13% to EUR/USD 1.37 at the beginning of February. This comes as a result of a markedly lower tail risk of an EMU break-up which reduced the capital flight from EMU, improvement of the EMU current account balance, more expansive monetary policy of the Fed relative to the ECB and the uncertainty in the USA about the solution to reduce the fiscal deficits.

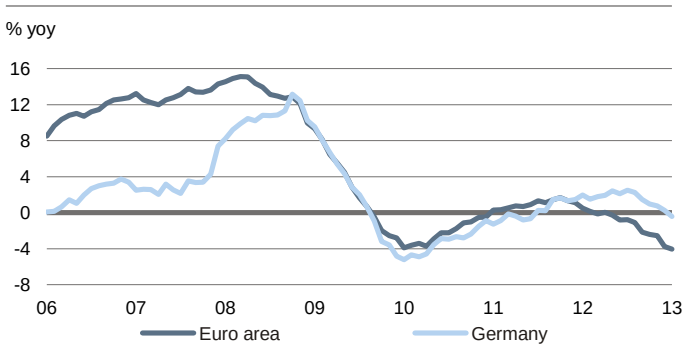
— Due to uncertainties regarding Italy and Cyprus and robust US economic data the EUR depreciated by 5% and stands currently at EUR/USD 1.28.

— Our FX strategists expect a EUR/USD exchange rate of 1.26 in 3 months.

— The USD should strengthen in H2 2013 due to the higher growth rate of the US economy of around 3%. According to our FX strategists the USD will probably appreciate to EUR/USD 1.23 in 6 month. They see the current strength of the USD as the beginning of a multiyear uptrend.

Chartbook: Financial markets (4)

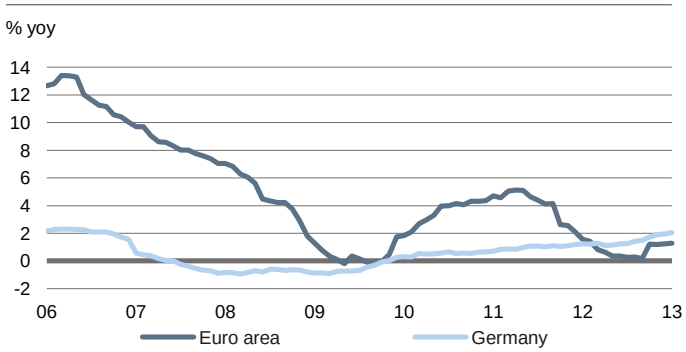
Loans to companies



Sources: ECB, DB Research

- The pace of growth in lending to German corporates lost further momentum in the last quarter of 2012 and fell to -0.4% yoy in January.
- While Germany remains more expansive than the euro area as a whole, the slowdown in investment activity clearly takes its toll on lending volumes. In addition, borrowings are partly substituted by corporate bond issuance.
- Contraction of corporate lending in the euro area (-4.1% yoy) shows a further acceleration in January – mainly reflecting the bleak macroeconomic situation and on-going deleveraging process in countries strongly affected by the crisis.

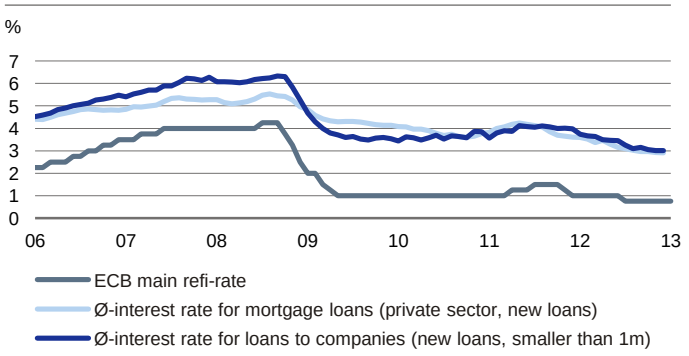
Mortgage volumes



Sources: ECB, DB Research

- The second half of 2012 saw a slight increase in mortgage lending growth in Germany; in January: mortgage growth at 2% reached almost pre-crisis period.
- Low interest rate levels and a partly buoyant housing market have so far had a limited effect on credit demand in Germany as real estate purchases are in part financed through a reallocation of existing capital.
- Still, German mortgage growth is above the euro area average; the recent spike in the euro area yoy-rate is mainly due to a drop in second half 2011 (basis effect).

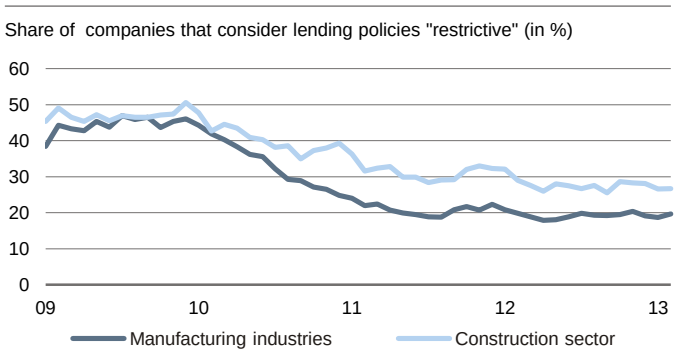
Interest rates



Sources: ECB, Bundesbank

- Interest rates for mortgages and loans to corporates remained at historic low in January.
- The generally low interest rate environment has allowed banks to refinance themselves at relatively low cost, which they partly pass on to clients.

Lending standards

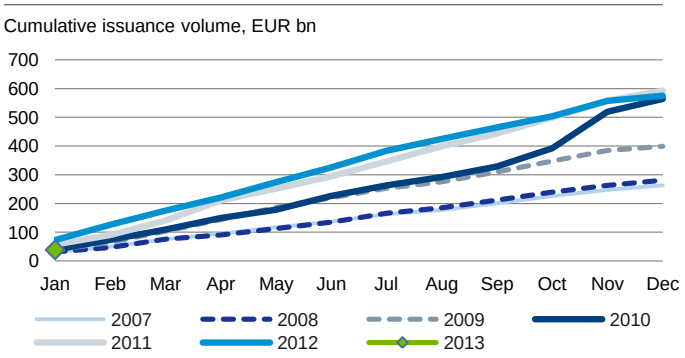


Source: ifo

- Corporates on average saw no problem with credit supply.
- Slight increase in the share of corporates that consider lending policies “restrictive” in February. For manu-facturing industries +1 ppt and construction sector +0.1 ppt compared to previous month.
- In historical comparison, rather accommodating lending standards for the construction sector as well as for the manufacturing industries.

Chartbook: Financial markets (5)

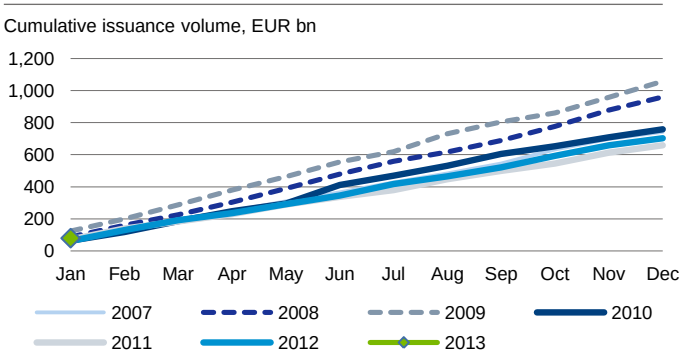
Issuance of public debt securities



Sources: Bundesbank, DB Research

- As in the previous month, weak issuance activity by Germany's Länder and the federal government: gross issuance in January 2013 at EUR 38 bn.
- A favourable cash flow situation and this year's relatively small planned budget deficit have dampened financial demand of the German public sector.
- EMU-wide regulation coming into force: Since January 2013, bonds issued by the German federal government with a maturity of one year or more are subject to collective action clauses (CAC).

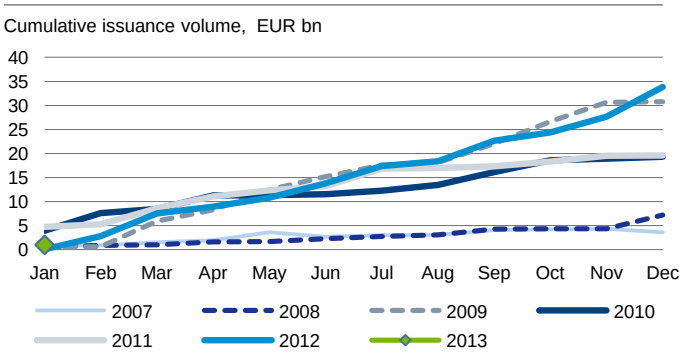
Bank debt issuance



Sources: Bundesbank, DB Research

- Following rather weak issuance activity at the end of last year, issuance of bank debt securities has picked-up again, with EUR 80 bn in January 2013 slightly above the long-term monthly average.
- Continued stable refinancing conditions of German banks compared to other euro area countries.
- Over several years, issuance volume of German covered bonds (Pfandbriefe) and traditional bank bonds declined in relative terms; overall volume growth was driven almost entirely by issuance of public sector promotional banks.

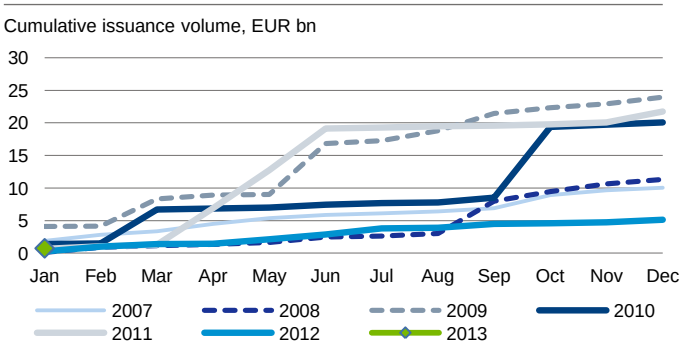
Non-bank corporate debt issuance



Sources: Bundesbank, DB Research

- Comparably weak debt issuance by non-bank corporates of EUR 1 bn in January 2013. Demand for debt financing already met in the previous months (issuance in December 2012: EUR 6.2 bn).
- However, continuously positive environment for corporate bond issuance: low interest rate levels, low risk premia and a search for yield by investors.
- The market for corporate bonds still grows faster than that for corporate lending.

Equity issuance



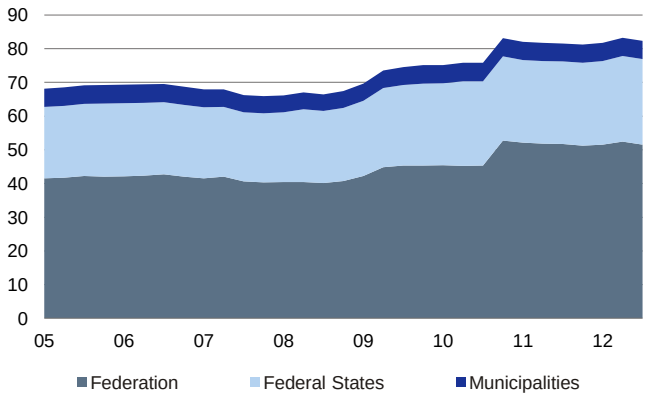
Sources: Bundesbank, DB Research

- A slight pick-up of German equity issuance: EUR 0.7 bn in January 2013 compared to 0.4 bn in December.
- Issuance activity still below long-term averages, despite the quite buoyant development of German equity markets.
- Corporates prefer using internal funds to raise capital or have a generally low demand for equity capital.

Chartbook: Economic policy

General government debt

% of GDP, Maastricht-Figures, end of quarter



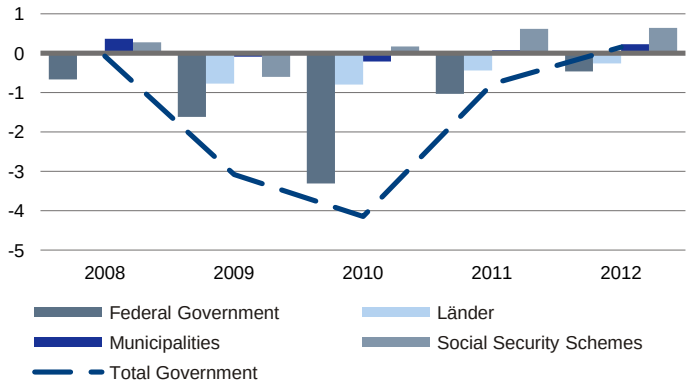
Sources: Deutsche Bundesbank, DB Research

— By the end of 2010, Germany´s overall debt-to-GDP-ratio had jumped to nearly 83% of GDP. Almost 13% of the increase can be explained by the assistance measures for financial institutions and the Euro area.

— Thanks to steadily growing GDP and redemption/sales of (financial) assets the debt-to-GDP-ratio fell back to just above 81% by the end of Q1 2012. Given the redemption/sales of assets and (at least temporarily) new assets in context of the Erste Abwicklungsanstalt (former WestLB bad bank) estimates show that the debt-to-GDP-ratio rose to around 82% by the end of 2012. Therefore, the increased debt-to-GDP ratio is primarily because of growing Länder debt. The federal government's debt ratio has slightly decreased in Q3 2012.

German financial balance: Surplus in 2012

% of GDP, Maastricht/VGR definition



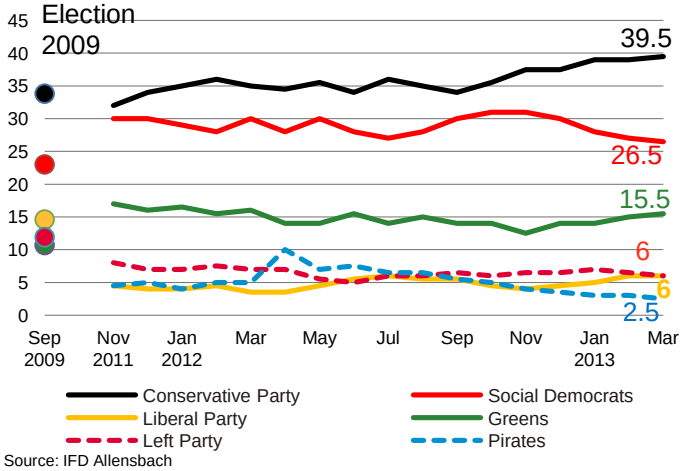
Sources: Federal Statistical Office, DB Research

— In 2012 the general government sector (according to Maastricht definition) managed to achieve a budget surplus at 0.2% of GDP. This is the first surplus since 2007, and only the third surplus since German unification. In 2012 the enhanced financial situation of the local authorities (municipalities) and of the state social insurance schemes more than offset the Länder deficit. The federal government and the Länder have nearly halved their respective deficits vis-à-vis 2011.

— According to preliminary calculations, 2012 already saw the federal government manage to comply with the legally maximum admissible structural deficit of 0.35% of GDP, as stipulated by the debt brake.

Deutscher Bundestag, if there were elections tomorrow

2009 election results, 2011 onwards survey results, %



Source: IFD Allensbach

— Most polls do not provide any explicit findings, especially not for the two biggest parties. The CDU continues to hover around the level of 40%. The SPD is fluctuating in the range of 24% to 29%. In most polling institutes' surveys the ruling coalition parties, CDU and FDP, are in a neck-and-neck race with the challengers from the opposition, SPD and Greens. Especially in the SPD/ Greens camp, there is a tendency for gains/losses by one party, e.g. the SPD, to be offset by losses/ gains of the other party, e.g. the Greens. In several polls the FDP, however, has managed to pass the 5% hurdle recently. Most Germans want Angela Merkel to stay in office as chancellor. Her high popularity ratios, however, have slightly decreased recently, and the present government coalition is not popular.

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Germany: Events of economic-, fiscal- and euro-politics

Date	Event	Remarks
4 Apr	Meeting of the ECB Council, press conference	Review of the monetary policy stance.
11/12 Apr	ECOFIN and Eurogroup in Ireland	Seventh review of Portuguese adjustment programme; ninth review of Irish adjustment programme; Stability and Growth Pact implementation for euro area countries.
14 Apr	SPD extra ordinary party convention	Adaption of the election manifesto.
18/19 Apr	G20 finance ministers and central bank governors in Washington	Debate on the situation of the international financial system.
19/21 Apr	Spring meetings of IMF and World Bank in Washington	Debate on the situation of the global economy and on the international financial markets.
26/28 Apr	Meeting of the federally elected delegates of the Greens in Berlin	Debate/decision on the party's platform for the federal election.
Early May	European Commission	GDP spring 2013 forecast.
2 May	Meeting of the ECB Council in Bratislava	Review of the monetary policy stance.
4/5 May	FDP extra ordinary party convention	Presentation of the election manifesto.
6 – 8 May	Spring meeting of the Working Group on Tax Revenue Forecasting	We expect a slight reduction of the revenue forecast for 2013 (so far +3%) and 2014/15.
10/11 May	Meeting of G7 Finance Ministers and Central Bank Governors in Buckinghamshire/London	Debate on the ongoing crisis and international economic challenges.
13/14 May	ECOFIN and Eurogroup in Brussels	Economic situation as well as financial and macroeconomic stability developments in the euro area, the Commission's spring forecasts, macro-imbalances procedures – in depth reviews of euro area countries.
22/23 May	European Council - EU leaders' summit.	Informal Summit.
End of May	Meeting of the German Stability Council	Tasks of the Council: coordination of public budgets; domestic implementation of the National Stability Pact; monitoring and analysis of the Länder finances.
6 June	Meeting of the ECB Council, press conference	Review of the monetary policy stance.
17/18 June	G8 meeting in the UK	The UK G8 will focus on global economic growth, on open economies, open governments and open societies to support free trade, and on measures to tackle tax evasion.
20/21 June	ECOFIN and Eurogroup in Luxembourg	Agenda is likely to include: tenth review of Irish adjustment programme; eighth review of Portuguese adjustment programme; third review of Spanish financial sector programme; third review of Greek adjustment programme; (poss.) Euro area enlargement.
27/28 June	European Council - EU leaders' summit in Brussels	Country-Specific recommendations on economic policy.

Source: DB Research

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Focus Germany

Germany: Data calendar

Date	Time	Data	Reporting period	DB forecast	Last value
2 Apr 2013	14:00	Consumer prices preliminary (Index, sa), pch mom (yoy)	Mar	0.5 (1.5)	0.6 (1.5)
5 Apr 2013	12:00	New orders manufacturing (Index, sa), pch mom	Feb	1.5	-1.9
8 Apr 2013	12:00	Industrial production (Index, sa), pch mom	Feb	0.5	0.0
9 Apr 2013	8:00	Trade balance (EUR bn, sa)	Feb	14.6	15.6
9 Apr 2013	8:00	Merchandise exports (EUR bn, sa), pch mom (yoy)	Feb	1.8 (3.2)	1.3 (2.2)
9 Apr 2013	8:00	Merchandise imports (EUR bn, sa), pch mom (yoy)	Feb	3.7 (3.1)	3.3 (2.3)
23 Apr 2013	9:30	Manufacturing PMI (Flash)	Apr	48.5	48.9
23 Apr 2013	9:30	Services PMI (Flash)	Apr	51.5	51.6
24 Apr 2013	10:30	ifo business climate (Index, sa)	Apr	106.5	106.7
28 Apr 2013	8:00	Import prices (Index, sa) pch mom (yoy)	Mar	0.2 (-2.0)	0.3 (-1.6)
29 Apr 2013	8:00	Retail sales (Index, sa), pch mom	Mar	-0.5	0.4
30 Apr 2013	10:00	Unemployment rate (%, sa)	Apr	6.9	6.9
15 May 2013	8:00	Real GDP (Index, sa), % qoq	Q1 2013	0.1	-0.6

Sources: DB Research, Federal Statistical Office, Federal Employment Agency, ifo, Markit

Financial forecasts

	US	JP	EMU	GB	CH	SE	DK	NO	PL	HU	CZ
Key interest rate, %											
Current	0-0.25	0-0.1	0.75	0.50	0.00	1.00	0.30	1.50	3.25	5.00	0.05
3M	0-0.25	0-0.1	0.75	0.50	0.00	1.00	0.30	1.50	3.25	4.25	0.05
6M	0-0.25	0-0.1	0.75	0.50	0.00	1.00	0.40	1.50	3.25	3.50	0.05
12M	0.10	0.10	0.75	0.50	0.00	1.25	0.50	1.75	3.25	3.50	0.05
3M interest rates, %											
Current	0.28	0.25	0.21	0.51							
3M	0.35	0.30	0.25	0.51							
6M	0.35	0.30	0.25	0.52							
12M	0.35	0.30	0.35	0.60							

10J government bonds yields

	Yields, %				Spreads vs. EMU, pp			
Current	1.83	0.53	1.24	1.73	-0.53	0.53	0.19	0.90
3M	2.25	0.70	1.65	2.25	-0.90	0.25	0.25	0.65
6M	2.50	0.80	1.75	2.45	-0.65	0.20	0.30	0.70
12M	3.00	0.90	2.00	2.90	-0.65	0.20	0.30	0.75

Exchange rates

	EUR/USD	USD/JPY	EUR/GBP	GBP/USD	EUR/CHF	EUR/SEK	EUR/DKK	EUR/NOK	EUR/PLN	EUR/HUF	EUR/CZK
Current	1.28	94.15	0.85	1.51	1.22	8.28	7.45	7.44	4.17	304.12	25.81
3M	1.26	96.00	0.87	1.45	1.25	8.20	7.46	7.30	4.10	292.00	25.20
6M	1.23	98.00	0.86	1.43	1.25	8.00	7.46	7.20	4.06	280.00	25.20
12M	1.20	100.00	0.85	1.41	1.25	7.80	7.46	7.10	4.00	280.00	25.03

Sources: Bloomberg, Deutsche Bank

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Focus Germany

German data monitor

	Q1 2012	Q2 2012	Q3 2012	Q4 2012	Q1 2013	Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013
Business surveys and output											
Aggregate											
Ifo business climate	109.2	107.2	102.3	101.4	106.1	100.1	101.5	102.5	104.3	107.4	106.7
Ifo business expectations	101.9	100.1	94.3	95.6	103.0	93.4	95.4	98.1	100.7	104.6	103.6
PMI composite	52.9	49.3	47.9	49.1	52.9	47.7	49.2	50.3	54.4	53.3	51.0
Industry											
Ifo manufacturing	104.3	102.5	96.4	95.1	101.1	94.3	94.6	96.3	99.1	102.4	101.9
PMI manufacturing	49.9	45.5	45.0	46.3	49.7	46.0	46.8	46.0	49.8	50.3	48.9
Headline IP (% pop)	-0.1	0.1	0.4	-2.4		-1.5	-0.5	0.6	0.0		
Orders (% pop)	-0.3	0.1	-1.8	0.6		3.7	-2.6	1.1	-1.9		
Capacity utilisation	85.1	84.9	83.7	82.1	82.9						
Construction											
Output (% pop)	-2.9	2.6	0.5	-2.3		-1.2	1.1	-6.5	-0.2		
Orders (% pop)	9.2	-5.6	-1.5	2.1		22.5	-20.6	0.8	9.9		
Ifo construction	123.1	120.0	118.1	117.6	125.7	115.8	118.3	118.8	122.7	127.1	127.3
Services											
PMI services	52.9	51.3	49.4	50.0	54.0	48.4	49.7	52.0	55.7	54.7	51.6
Consumer demand											
EC consumer survey	-0.3	-1.1	-7.9	-10.0	-6.5	-9.3	-10.2	-10.4	-7.6	-6.4	-5.4
Retail sales (% pop)	-0.7	1.0	-0.9			-0.9	1.0				
New car reg. (% yoy)	1.3	0.2	-7.0	-6.2		0.5	-3.5	-16.4	0.0	-10.5	
Foreign sector											
Foreign orders (% pop)	0.0	0.7	-1.2	1.8		6.3	-4.7	1.6	-3.0		
Exports (% pop)	2.1	1.5	1.3	-2.0		0.1	-2.2	0.2	1.3		
Imports (% pop)	1.1	-0.2	0.2	-0.8		2.8	-3.8	-1.5	3.3		
Net trade (sa EUR bn)	43.5	47.9	50.8	47.1		14.7	15.6	16.9	15.6		
Labour market											
Unemployment rate (%)	6.8	6.8	6.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Change in unemployment (k)	-32.3	14.7	21.7	30.3	-7.3	18.0	4.0	0.0	-13.0	0.0	13.0
Employment (% yoy)	1.4	1.2	1.1	0.8		0.9	0.8	0.7	0.6	0.7	
Ifo employment barometer	108.5	107.8	106.5	106.3		105.6	106.4	106.9	106.6	106.9	
Prices, wages and costs											
Prices											
Harmonised CPI (% yoy)	2.4	2.1	2.1	2.0		2.1	1.9	2.0	1.9	1.8	
Core HICP (% yoy)	1.3	1.4	1.2	1.3		1.2	1.2	1.5	1.1	1.3	
Harmonised PPI (% yoy)	3.3	2.0	1.4	1.5		1.5	1.4	1.5	1.7	1.2	
Commodities, ex. Energy (% yoy)	-9.6	-7.8	-4.5	0.7		-0.3	1.5	1.1	-3.7	-2.7	
Oil price (USD)	118.4	108.2	109.7	110.1		111.8	109.2	109.4	113.1	116.3	
Inflation expectations											
EC household survey	28.3	25.0	27.0	31.2	26.6	31.2	31.2	31.2	27.6	26.5	25.6
EC industrial survey	10.0	6.4	0.8	2.9	3.7	2.1	2.1	4.6	5.4	3.2	2.5
Unit labour cost (% yoy)											
Unit labour cost	2.1	2.9	3.3	3.0							
Compensation	2.3	2.4	2.5	2.7							
Hourly labour costs	1.8	3.2	3.5	4.0							
Money (% yoy)											
M3	6.9	7.0	6.8	6.0		9.2	8.2	6.0	6.1		
M3 trend (3m cma)						8.1	7.8	6.8	6.1		
Credit - private	2.1	0.7	0.6	-0.4		-0.2	-0.6	-0.4	-0.3		
Credit - public	13.5	22.0	10.4	13.5		12.1	4.3	13.5	-5.4		

% pop = % change this period over previous period.

Sources: Deutsche Bundesbank, European Commission, Eurostat, Federal Employment Agency, German Federal Statistical Office, HWWI, ifo, Markit

Deutsche Bank
DB Research

Focus Germany

Focus Germany is part of the Current Issues series and deals with macroeconomic and economic policy issues in Germany. Each issue also contains a timetable of financial and economic policy events as well as a detailed data monitor of German economic indicators. Focus Germany is a monthly publication.

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