

Research

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Euroland: Financial downgrading and monetary policy asymmetries

- In a process ignited by the financial downgrading of some European countries by the rating agencies, EMU bond yield spreads have widened recently. The countries that have been downgraded are also those with the largest imbalances and therefore where the largest deterioration in government budgets is anticipated and the perceived risk greatest.
- We present a set of striking correlations indicating that the recent financial downgrading and widening of spreads relative to German bunds relates to economic policy during the period between 2002 and 2007. Therefore, recent financial downgrading appears to be closely connected to lax economic policy and lack of structural improvements in preceding years.
- For some member countries, including Greece, Ireland and Spain in particular, monetary policy rates set to be consistent with conditions in the euro area as a whole were persistently and significantly below that prescribed by a “country-focused” Taylor rule. Large asymmetries have not been offset by a sufficiently tight fiscal policy and/or structural improvements, and have consequently been allowed to have real economic effects, for example, through the booming housing market.
- This is also a lesson for the future. Politicians in all euro countries still have an obligation to run their own country to the best of their ability. They have to secure long run sustainable growth through appropriate fiscal policy and structural improvements. The euro is not a substitute for appropriate and timely policies at national level – there is no free lunch.

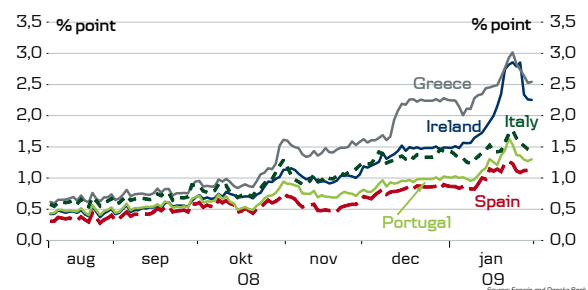
Financial downgrading

The financial market spotlight has increasingly fallen on Greece, Spain, Portugal and Ireland as credit fundamentals of euro area issuers increasingly weigh in. This process has been ignited by S&P's decision to downgrade Greece to A- (stable outlook) only one week after putting it on Creditwatch negative. Subsequently, Spain and Portugal were downgraded. Ireland was put on negative outlook in January.

Reflecting financial market concerns over individual country risk, country spreads vs. German bunds have recently gapped wider. Relative to 10yr

German bunds, such widening has in general been greatest in Greece, Spain, Portugal and Ireland.

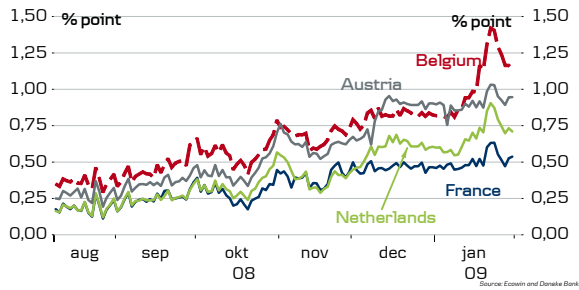
Spreads vs. 10 yr bunds have widened



Source: Danske Bank and Ecwin

Also, in countries such as Italy and Belgium, where government gross debt is very large, spreads have increased. Therefore, supply also seems to be an issue.

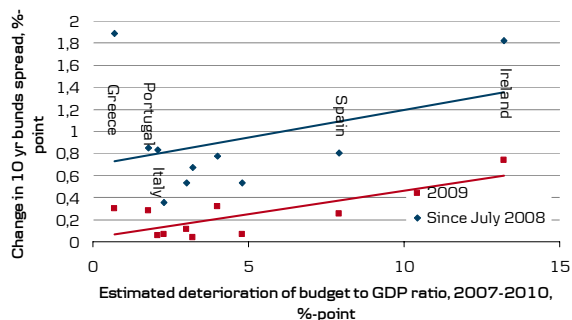
Though much less in core euro countries



Source: Danske Bank and Ecowin

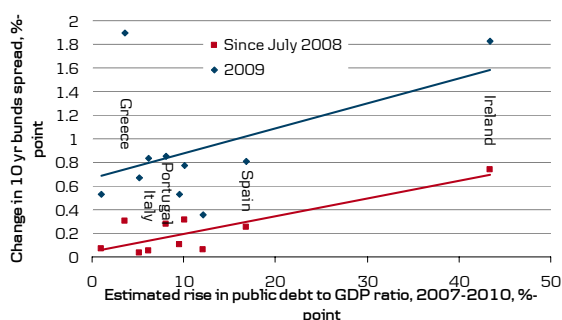
A simple cross sectional analysis across Euroland indicates that spreads have tended to widen on the back of deteriorating government budgets and increasing debt levels (with debt levels reflecting both current deficits and rescue packages for banks, etc, see [Research Euroland: Public finances shattered by crisis](#)).

Deteriorating public budgets ...



Source: Danske Bank and Ecowin

...and soaring debt levels drive spreads higher



Source: Danske Bank and Ecowin

In this paper we analyse more subtle factors driving recent financial market developments. Of course, the financial crisis is one common explanation for the deteriorating economic outlook across the euro area. But why is the financial market reaction to plummeting public finances so different in each

country? One possible explanation relies on fundamental individual country characteristics, which in turn depend on the individual country policy mix.

In economic literature, the overall findings are that the optimal policy mix is one where monetary policy deals with symmetric shocks and fiscal policies are confined to addressing their asymmetric counterparts.

In the following analysis we show that those countries that have been downgraded are also those with the largest imbalances, and therefore those where the greatest deterioration in government budgets looks likely. National government budgets are highly sensitive to the business cycle in individual Euroland countries; see our research paper [Research Euroland: Public finances shattered by crisis](#).

In this paper we focus on why these imbalances have materialised. Our analysis centres on asymmetries in economic policy. Our point of departure is that in a monetary union like the EMU the central bank must focus on the area as a whole when setting interest rates, even if this could have asymmetric effects on individual member countries. In an ideal world such possible asymmetries could be countered by a combination of:

- Fiscal policy initiatives,
- Structural policy initiatives, or
- Real exchange rate corrections through differences in inflation.

In the following discussion we first define a measure of monetary policy asymmetries. Then we concentrate on discretionary policy initiatives and on the structural economic environment. We move on to market-based effects focusing on developments in unit labour cost. Finally, we target (other) imbalances in the economy indicated by housing investments and current account developments - two of the usual suspects when it comes to assessing the extent to which the economy is overheating.

Measuring monetary policy asymmetries

Our starting point for the analysis is the famous Taylor rule, which states that changes in central bank key interest rates are based on inflation and growth objectives.

For each of the 11 original Euroland countries (with the exception of Luxembourg) and Greece we calculate a hypothetical central bank rate according to the Taylor rule, assuming an inflation target of 2% (the target all have agreed for the euro area as a whole); see the box below for details.

Box The Taylor rule – a rule of thumb

In 1993, Taylor proposed a rule of thumb where changes in central bank key interest rates are a function of target values of both inflation and growth. Formally, the rule may be expressed as:

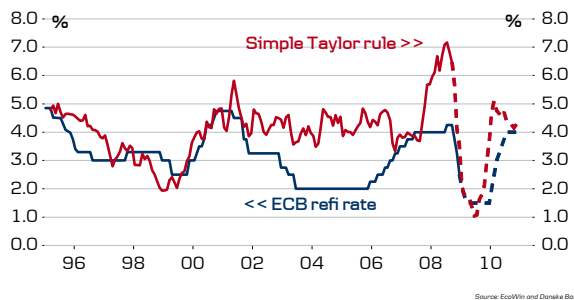
$$i = r^* + \pi + \beta(\pi - \pi^*) + \gamma(y - y^*)$$

where “i” is the nominal fed funds rate, $(\pi - \pi^*)$ represents the deviation of actual inflation relative to target and $(y - y^*)$ is the output gap, i.e. the deviation in actual GDP relative to potential. Accordingly “r*” is the equilibrium (or neutral) real interest rate, where inflation is at target and output equals potential output. The rule therefore states that key interest rates vary according to the neutral real interest rate, inflation, the gap between inflation and its target value and the gap between production and its potential (the “output gap”).

Taylor fixed both of the parameters β and γ arbitrarily at $\frac{1}{2}$, meaning that, all other things being equal, a 1 percentage point gap between the inflation rate and its target should produce a 0.5-point increase in the central bank real interest rate. In addition, both the inflation target and the neutral real interest rate were set at 2%. This means that the Taylor rule simplifies to

$$i = 1 + \frac{3}{2} \pi + \frac{1}{2}(y - y^*)$$

Compared to a simple Taylor rule the ECB policy rate has been relatively low



Source: Ecowin and Danske Bank

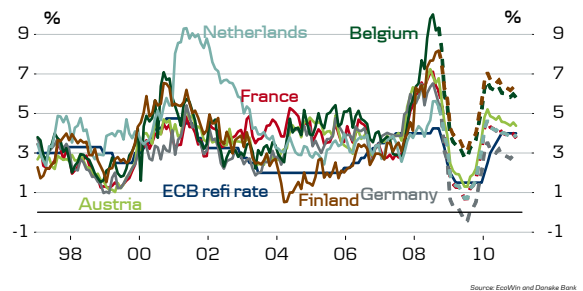
There are some potential difficulties in calculating Taylor rates. For example, the output gap and the neutral rate are not observable, and estimates for these variables can be challenged. We follow widely used method of measuring the output gap as actual GDP relative to HP-trend GDP. Inflation is measured by year-on-year HICP inflation for the euro area, i.e. the price index used by the ECB to measure price stability. The analysis in this paper assumes that the same weighting scheme is appropriate for all countries.

For all Euroland countries, Taylor rates are higher than the actual ECB refi rate seen in recent years and markedly so for a period of 1½ years ending autumn 2006: see the charts below. The notable exception is Finland where the ECB rate has been very close to the Taylor rate.

Based on the distance between the ECB refi rate and individual country Taylor rates, we separate countries into two groups: (1) “core” countries - Germany, Austria, France, Belgium, Netherlands and Finland; (2) “periphery” countries - Spain, Italy, Portugal, Greece and Ireland. For “core” countries, Taylor rates are considerably closer to the ECB refi rate than for the “periphery”. Accordingly, individual country Taylor rules suggest that policy rates should have been markedly tighter in “periphery” countries than “core” counterparts.

For “core” countries, the Taylor rate was clearly higher than the ECB rate between early 2004 and autumn 2006. Significantly, the lowering of the refi rate to 2% by June 2003 is apparently consistent with economic developments in most core economies, France being the notable exception.

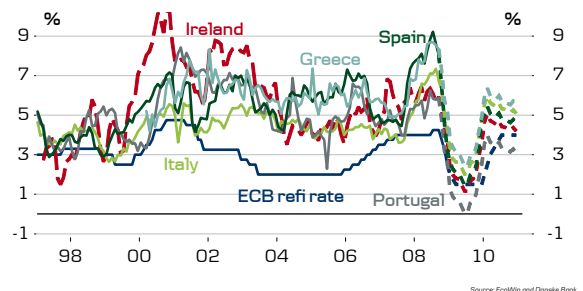
ECB rate has been low relative to core countries’ Taylor rates ...



Source: Danske Bank and Ecowin

For “periphery” countries, Taylor rates have in general been above the ECB policy rate since 2000, particularly since 2002.

... and even lower relative to “periphery” Taylor rates

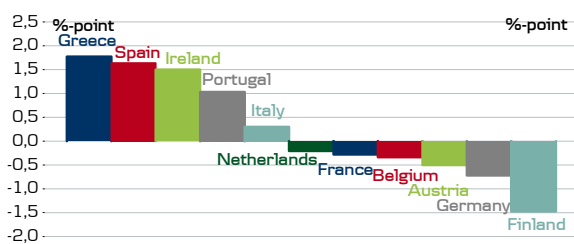


Source: Danske Bank and Ecowin

These observations are in general consistent with comments made by ECB council members that the ECB policy rate was held relatively low for too long. The effects of this have been magnified, as long-term rates have failed to rise when policy rates finally increased (as a corollary of the bond market “conundrum”), meaning that financial conditions remained extremely accommodative while risk premiums and volatility were artificially low. Furthermore, low interest rates were occurring against a background of strong financial innovation and off-balance sheet expansion, which meant that the influence of monetary policy on the overall creation of liquidity was fading. Our analysis may of course be hampered by individual country differences concerning these matters.

To simplify the following analysis we ask by how much individual country Taylor rates have on average deviated from a common rule-based central bank rate in the six year period between 2002-2007 (in fact, this is nothing other than a normalisation of previously discussed individual country Taylor rates using the Euroland Taylor rate as a baseline). Our conclusion is clear. Countries such as Ireland, Spain, Greece and Portugal should have had a much higher central bank rate than countries like Germany, Austria and Belgium, if all countries had followed their individual Taylor rule. The maximum spread between the average Taylor rate during this period is fairly substantial at around 3.25%-points (the difference between the average Finnish and Greek Taylor rates).

Large deviations in Taylor rule based rates



Source: Ecowin and Danske Bank

Source: Danske Bank and Ecowin

These calculated average deviations from the common Taylor rate form the basis of the following analysis, although for example financial liberalisation and the introduction of new financial products should also be taken into consideration when judging the monetary policy of individual countries.

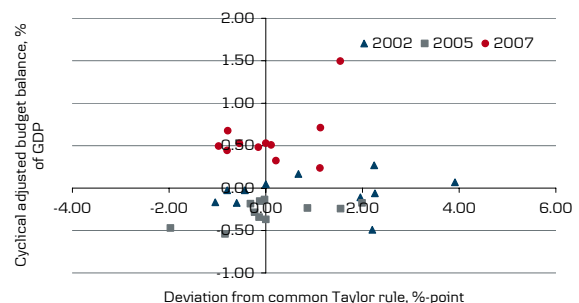
Asymmetries may be countered by policy

Given that countries have fixed their exchange rate, economic stabilisation must, as discussed earlier, take place through fiscal policy, via structural policies. If these policies do not succeed in balancing demand and supply, the forces securing equilibrium are real exchange rates (through relative inflation or unit labour cost) and, ultimately, the real trade balance.

No sign of fiscal policy countering

In the short run, fiscal policy may be especially important for economic stabilisation. Data reveal however, that the cyclically-adjusted budget balance is fairly uncorrelated to the deviation between the individual country Taylor rate and the Euroland Taylor rate. Consequently, fiscal policy has in general not been specifically tight in countries where the individual country Taylor rule prescribes a relatively high central bank rate (i.e. countries where the common rate may be considered relatively low). Nor does the opposite seem to be the case.

Fiscal policy has not compensated for monetary policy asymmetries



Note: The cyclical adjusted budget balance is in fact highly sensitive to the business cycle, see [Research Euroland: Public finances shattered by crisis](#). Therefore, although a time series analysis would reveal that the cyclically adjusted fiscal balance has improved during the cyclical upturn (also shown in the chart by the gradual upward drift in balances), this does not indicate a fiscal tightening.

Source: Danske Bank and Ecowin.

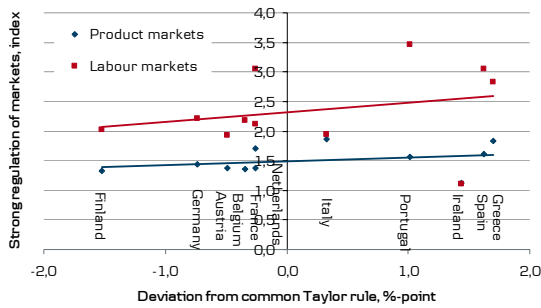
Essentially, this lack of correlation may of course show the absence of a strong link between Taylor rule deviations and economic development or relative to this that governments have not perceived that their economies were developing too fast. This suggestion is analysed in greater detail below. Firstly, however, we focus on structural policies.

Inflexible structures relate to Taylor rates

The OECD has constructed measures of structural restrictions for the functioning of labour and product markets - the so-called Employment Protection Legislation (EPL) and Product Market Regulation (PMR) index. The most recent release refers to 2003. However, even though countries have undoubtedly made progress since then, we believe the overall pattern remains unchanged.

In general, regulation of labour and product markets is relatively high in countries where the calculated individual country Taylor rates also tend to be relatively high. Therefore, interest rates have been relatively low in countries most exposed to strong upward pressure on wages and prices due to inflexible labour markets and the lack of competition on product markets.

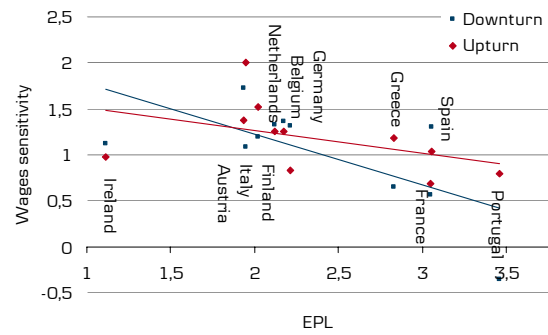
Heavy regulation of markets where monetary policy rates have been low



Source: OECD and Danske Bank.

Furthermore, the regulation of labour markets correlates with estimated wage flexibility. In particular, downward flexibility in an economic downturn is curbed while wage sensitivity is largely the same in all Euroland countries when the economy is booming; see chart below. The implication of this is that those countries that have experienced the strongest and most prolonged upturn, have also seen the largest increase in unit labour costs. Furthermore, in the current situation in which the economic climate is rapidly deteriorating, strong downward rigidity is particularly important as wages are held relatively high. Consequently, a larger part of the adjustment must be made through lower employment.

Regulation reflected in wage flexibility

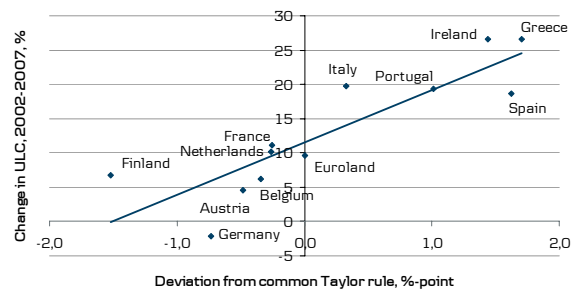


Note: Wage sensitivity is defined as the output-gap elasticity of unit labour costs. Source: Arpaia and Pichelmann: Nominal and real wage flexibility in EMU, European Economy, Economic Papers 281, June 2007, European Commission.

Labour market adjustments show strong correlation to policy

Developments in unit labour costs (ULC) are an indicator of labour markets forces where wages are driven upward relative to productivity whenever the economy is growing too rapidly. The correlation between ULC and our measure of monetary policy is certainly striking for the period between 2002 and 2007. ULC have tended to develop fairly dynamically in countries where (monetary) policy has been relatively lax. By contrast, ULC have declined in those countries where policy has been relatively tight. Therefore, in countries like Greece, Spain, Ireland and Portugal, macroeconomic adjustment has been promoted by the demand-mitigating influence of Balassa-Samuelson effects.

Unit labour cost - a demand mitigating factor



Source: Danske Bank and Ecwin.

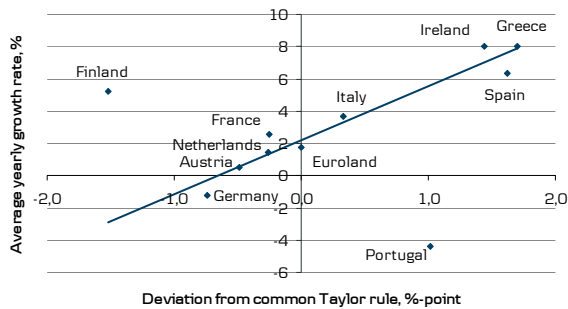
Some evidence on real economy effects

Usually the housing market and the current account are reliable indicators of the economic climate. If the housing sector is booming it shows that household income is growing rapidly and that households feel economic uncertainty (like unemployment risk) is low. Also a deteriorating current account suggests that demand is growing faster than production.

Again the correlation between these indicators and deviations from the Taylor rule is fairly strong, with Portugal and Finland the main outliers. Portugal has undergone a period of slow economic growth due to underlying structural problems, while the Finnish economy has been booming.

The electronics and electro-technical industries were the main drivers behind this growth.

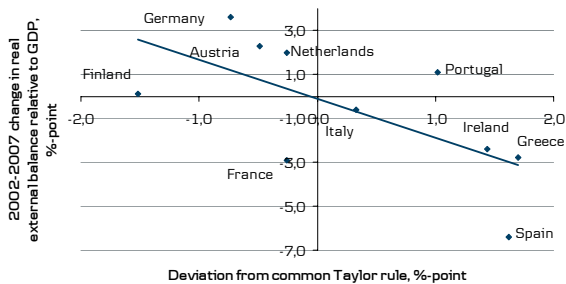
Housing investments and Taylor rule deviation correlate strongly



Note: Trendline estimated without Finland and Portugal.

Source: Danske Bank and Ecwin.

In addition, real trade balance developments correlate with monetary policy stance

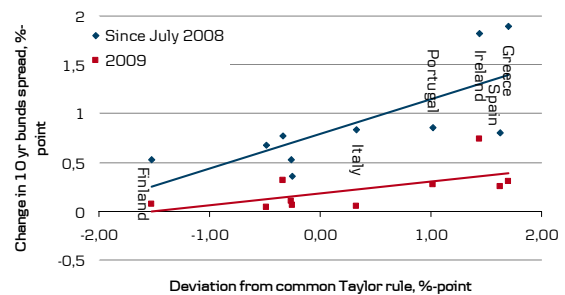


Source: Danske Bank and Ecwin.

These charts suggest that significant macroeconomic imbalances in countries like Ireland, Spain and Greece may be linked by general economic policy, i.e. individual country fiscal and structural policies and monetary asymmetries in the euro area.

Given these observations, it is perhaps not surprising that recent financial market developments correlate strongly with Taylor rule deviations.

Widening spreads correlated with 2002-2007 economic policy



Source: Danske Bank and Ecwin.

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