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The low interest rate environment

Causes, effects and a way out

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Summary¹

The very expansive and unconventional monetary policy of the ECB reduced the tensions of the Euro debt crisis at the price of persistently very low interest rates. While the ECB was right to act at the peak of the crisis, the risks of the low-interest rate environment become increasingly obvious. Private savings suffer from very low yields, which is particularly detrimental for long-term retirement savings. Moreover, financial stability risks could arise, as ultra-low interest rates can cause a search for yield among investors. Banks and life insurance companies are exposed to reduced interest profits respectively lower yields. While life insurance companies can cope with a shorter period of low interest rates, a longer period, however, poses challenges, as contracts with guaranteed interest rates have to be served.

Therefore, it is a positive sign that the economic conditions for an interest rate turnaround have improved significantly since 2012 and are expected to improve further. Economic activity is clearly on an upward trend which is expected to continue despite current uncertainties. Significant structural reforms have been implemented in most stressed Euro countries which will most likely increase growth potentials soon (as already appears to be the case in Spain). Due to a stronger economy fears of deflation should only be a temporary phenomenon. Stress indicators and fundamentals in the banking sector have also improved on the back of (late but eventually decisive) policy measures and will continue to do so in the course of the ECB's pending stress test. Public and private indebtedness should be manageable in an environment where a sustainable moderate economic growth and more normal inflation are present. These are the conditions which characterize the baseline scenario assumed here.

Despite remaining uncertainties, e.g. geopolitical risks or a lack of reform implementation, in our baseline scenario an interest rate turnaround appears possible in the second half of 2015. As an exit from the long low interest rate period poses significant challenges to financial markets, the ECB should institute a smooth interest rate turnaround and communicate its preconditions very actively. More concretely, the ECB should raise interest rates initially only in very small monthly steps to allow financial actors to better adapt to the changing interest rate environment.

¹ This IW policy paper is based on a study of the Institut der deutschen Wirtschaft Köln (Demary/Matthes, 2014) for the Gesamtverband der deutschen Versicherungswirtschaft (GDV). Both reflect the status of May 2014.

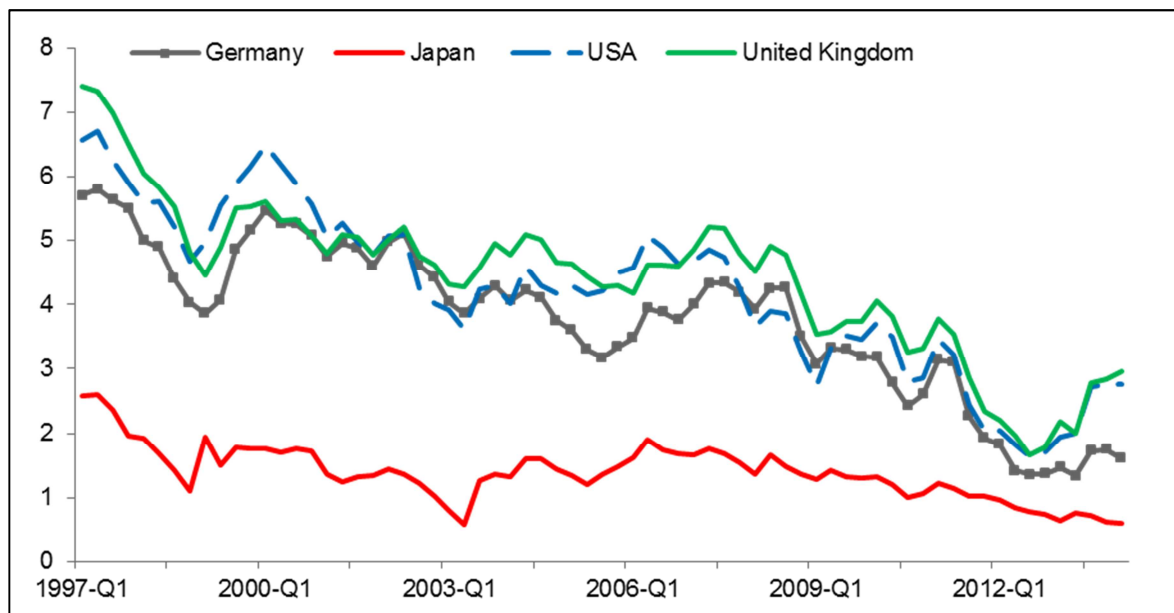
1. The low interest rate environment and its background

1.1 Global perspective

Unusually low interest rates have been a widespread phenomenon in developed countries for several years now. After the financial crisis, central banks in the US, UK and the Eurozone lowered short-term policy rates to historically low levels. The aim was to provide anti-cyclical impulses against deep recessions and to prop up the banking sector which suffered from a deep crisis in the aftermath of the Lehman Brothers' collapse. The Bank of Japan had lowered interest rates long before as a reaction to the continuous sluggishness of the Japanese economy and deflationary tendencies.

Long-term interest rates also dropped due to weak economic growth perspectives, falling inflation expectations and high public and private debt. While there had already been a downward trend since the end of the 1990s (as inflation was considered increasingly under control), after 2008 interest rates sank to levels not seen for decades (Figure 1-1).

Figure 1-1: Long-term interest rates in major OECD countries
in per cent



Source: OECD

The run-up to the financial crisis (which was triggered in the US real estate sector) was also characterized by rather low central bank policy rates. Inflation targeting was the prevailing paradigm for many central banks at that time so that financial stability risks were not (or only hardly) targeted (Bernanke/Mihov, 1997; Bayoumi et al., 2014). Thus, an overly expansive monetary policy in the US contributed to the build-

up of the imbalances in the financial sector which eventually led to the financial crisis after 2008.

1.2 Multiple crises in the Eurozone

In Europe, the Euro debt crisis came on top of the global financial crisis. More specifically, multiple crises reinforced each other (Schema 1-1):

- The financial crisis and the Great Recession that followed significantly weakened banks in many Euro-area countries and also involved a temporary breakdown of the interbank markets. As governments had to finance bank bailouts and fiscal stimulus programmes, public debt increased significantly.
- In the course of the euro debt crisis, doubts about fiscal sustainability worsened the risk assessment of several Euro countries. A fatal nexus between banks and governments emerged, because banks in these countries held government bonds (that lost value). At the same time, these banks were subject to the weakened ability of their respective governments for a bailout.
- In several southern Eurozone countries, a current account crisis flared up after large foreign debt had accumulated in the course of high and chronic current account deficits. Panic among investors even culminated in expectations that certain stressed countries could exit the Eurozone. The resulting capital outflows from these countries led to fragmentation of the financial market in the Eurozone. On top of this, highly indebted corporations and households in the stressed countries suffered from credit restrictions, as their banking sector was in a process of balance sheet restructuring. As a result, the transmission of the European Central Bank's (ECB) monetary policy was disturbed.

Schema 1-1: Multiple crises and reactions of the ECB

Types of crisis	Challenges for the ECB	Reactions of the EZB
Global financial crisis Macroeconomic crisis Banking and sovereign debt crises Current account crisis	Deep double-dip-recession Bank-Sovereign-Nexus Fragmentation of the eurozone financial market Collapse of the interbank market Transmission of monetary policy impeded Credit crunch Euro-exit expectations	Very low interest rates Full allotment Lower collateral standards for ECB refinancing credits Emergency Liquidity Assistance Long-term refinancing operations (LTROs) Securities Markets Programme (SMP) Outright Monetary Transactions (OMT)

Source: Institut der deutschen Wirtschaft Köln

The culmination of these extraordinary events forced the ECB to lower its policy rates in several steps to all-time lows. Moreover, it had to resort to a variety of unconventional monetary policy instruments:

- **Provision of liquidity to banks:** Since the global financial crisis, banks in the Eurozone are able to obtain full allotment in their refinancing operations and thus liquidity in much higher amounts than usual. This measure was supported by a lowering of collateral standards and the Emergency Liquidity Assistance (ELA), which is designed for national central banks to provide liquidity to troubled banks on even more generous terms at their own risk. Moreover, the ECB provided long-term refinancing operations (LTRO) for much longer durations (up to three years) than usual.
- **Government bond purchases and re-establishment of confidence:** The ECB went even further into unknown territory by setting up two consecutive programmes to buy government bonds of stressed countries (SMP and OMT, see Schema 1-1). However, under the SMP (which lasted from May 2010 to September 2012), the ECB bought government bonds of these countries to the amount of more than € 200 billion, which calmed financial markets only temporarily. With the OMT (which started in September 2012 and is conditioned, but unlimited in shorter durations), the ECB eventually succeeded in re-establishing confidence among financial actors – even without buying a single government bond up to now.²

Overall, the ECB rightly acted as a lender of last resort particularly to troubled banks in the Eurozone. It could thus contribute to prevent the financial system from collapsing and the real economy from suffering a deep crisis. These achievements, however, came at the cost of a long lasting low interest rate environment that burdens savers and poses increasing risks for financial stability (Chapter 2.2).

1.3 Interest rates in Germany

The ECB's very expansive monetary policy also contributed to very low interest rates in Germany. The most direct effect is visible on very short-term interest rates which are usually very close to the interest rate set by the ECB. Also, interest rates on longer horizons are influenced by the ECB, because its expansive monetary policy tends to shift down the yield curve for all durations.³ Overall, the ECB's uniform

² For a discussion about the OMT see Matthes/Demary (2013).

³ The forward guidance – the ECB's promise to keep its interest rates low for an extended period – is particularly targeted at interest rates of longer maturities on the yield curve as these are determined by the expectations for future short-term interest rates.

monetary policy is currently too expansive for Germany, if the current business cycle status is considered.

Other important factors also influence long-term German interest rates. These could be rising inflation expectations in Germany, which, however, are not prevalent currently. Capital flows to Germany have been more important. In particular, risk averse investors withdrew capital from southern European countries and other more risky assets and invested it in German government bonds which are considered a “safe haven” due to their AAA rating status. This raised prices and lowered yields of German government bonds which serve as benchmarks for other interest rates.

2. Impact of a long period of low interest rates

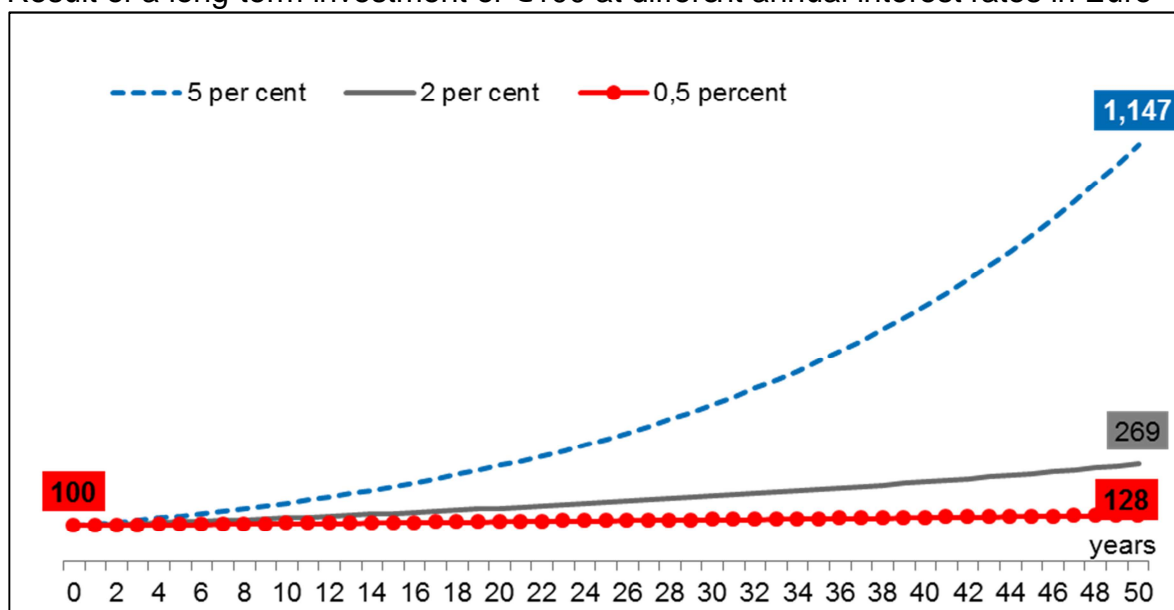
2.1 Different impact on creditors and debtors

Creditors and savers

The interest rate has an important function in an economy. It decides not only about the allocation of capital across various available investments according to diverging risk premiums, but also about the allocation of consumption over time. The interest rate is a premium for foregoing current consumption in favour of future consumption by means of savings. As lower interest rates reduce the benefit of savings, they do not only reduce the current income of savers, but they also decrease the incentive to save.

Figure 2-1: The effect of compound interest rates

Result of a long-term investment of €100 at different annual interest rates in Euro



Source: Institut der deutschen Wirtschaft Köln

Lower saving yields are particularly relevant for long-term savings because of compound interest rates. Figure 2-1 illustrates how substantial this effect is: €100 of savings today yield €1,148 after 50 years at a constant annual interest rate of 5 per cent (including interest on interest). However, at an annual interest rate of 2 per cent (0.5 per cent) only €269 (€128) are obtained from the initial €100. This effect is of high relevance for retirement provisions, which constitute an important savings motive in Germany. Popular long-term savings instruments are endowment insurances and annuities.

However, the effect of lower interest rates on savings is not as straightforward as it might appear. If savers have fixed savings targets, they have an incentive to increase their savings as interest rates decrease. Eventually, the reaction of private households' savings to lower interest rates has to be determined empirically. In effect, the savings rate of private households has decreased in Germany in recent years from close to 11 per cent in 2010 to 10 per cent of disposable income in 2013. Moreover, surveys suggest that Germans' propensity to consume is currently relatively high.

Debtors

While savers are disadvantaged, debtors profit from lower interest rates. This applies, for example, to companies taking out loans for investment projects, to households' mortgages and to government debt.⁴ Lower interest rates thus support the sustainability of high debt and facilitate the repair of balance sheets of indebted governments and private actors.

However, there is also the risk that debtors will not make sufficient efforts to deleverage. They can fall under the illusion that debt service would also be possible at higher interest rates. Moreover, if risk premiums fell regardless of the risk associated to the underlying asset, interest rates would lose their allocation function.

An example of detrimental effects of low interest rates is the so-called "evergreening" of credits by banks. If a bank is burdened with non-performing loans (NPL), low interest rates create the illusion that companies can service their debt also at higher interest rates. Low interest rates also keep ECB refinancing credit cheap and decrease the opportunity costs of new loans. If banks thus continue to hold NPL despite a significant probability of default, they postpone losses to the future and sustain their own fragility. What is more, banks keep their balance sheets burdened with NPL for questionable investments instead of recognizing certain losses and

⁴ The Bundesbank has calculated that the interest expenditure of the German government was by some €120 billion since 2007 lower due to lower interest rates in recent years compared to the interest rate in 2007.

making room for new credits to viable companies and profitable investments. This “evergreening” can thus lead to a misallocation of capital. In addition, a crisis can be prolonged, because an economic upswing is hampered when credit availability is restricted. This has recently been relevant in several stressed Euro countries.⁵ Japan is another prominent case where banks avoided writing down NPL for a long time (Watanabe, 2010).

2.2 Danger of asset price bubbles and to financial stability

Low interest rates can tempt investors to go on a „search for yield“. As higher yields are mostly associated with higher risks, this strategy usually goes hand in hand with a greater appetite for risk. In addition, the large volume of liquidity provided by the ECB allows for more speculative behavior. This poses the danger that asset price bubbles arise or that capital is misallocated. As real interest rates for shorter maturities have already been negative for some time in Germany, the incentive for a “search for yield” appears to be considerable. However, asset price bubbles are difficult to identify with certainty. In the following, the equity and real estate market are briefly analyzed in this respect.

Equity markets

The concern that ample liquidity and low interest rates lead to an excessive rise of equity market valuations (Melloy, 2013) appears well-founded, when the recent increase in stock prices in the US and Europe is considered. Whether equity valuations have already reached problematic and overvalued levels, is more difficult to decide. In the US – with the Dow Jones and the S&P 500 reaching all-time highs – the evidence appears more troubling than for Germany’s DAX.

On the one hand, positive and rising profit expectations have supported the DAX increase from levels which were probably depressed by the risk aversion during the heights of the crisis. Moreover, the DAX is a performance index and includes also dividend payments which have been substantial in recent years. While the DAX performance index recently climbed to an all-time high temporarily, the DAX price index (without dividends) still ranges considerably below its peak in 2007. On the other hand, the price earnings ratio of the DAX has recently been in the area of 18. This level considerably exceeds the long-term average of around 15 and could provide a hint for a certain overvaluation.

⁵ High NPL ratios are prevalent in Cyprus (19.5 per cent), Greece (17.8 per cent), Italy (11.0 per cent), Latvia (7.9 per cent) and Spain (6.4 per cent).

Real estate markets

The global financial crisis had its origin in the US subprime real estate market. Low interest rates had made mortgages cheap and banks had lent irresponsibly even to households without a sound income basis. This tendency had been supported by the government (Affordable Home Act). Financial innovations had allowed banks to distribute excessive risks to the market in the form of structured and collateralized securities. Overall, a credit boom emerged and real estate prices continued to rise to excessive levels (Demary/Schuster, 2013). Unsustainable credit and real estate bubbles had also built up in some European countries, particularly in Ireland and Spain.

This experience has once again shown that real estate bubbles can be self-reinforcing and also tend to have strong repercussions for the economy. The development usually starts to get out of hand in relation to economic fundamentals, when expectations about continuously rising prices take hold. Then, economic actors tend to buy real estate only to resell the assets relatively soon in order to make a profit from higher prices. In this course, the economy is temporarily propped up by strong construction investment and higher perceived wealth which supports consumption expenditure (possibly credit-financed). However, large imbalances can build up which are associated with severe and long lasting adjustment processes, if they unravel:

- High indebtedness of households requires future deleveraging which dampens future consumption growth.
- Banks balance sheets also deteriorate when real estate loans turn non-performing and have to be written down, so that credit and investment suffer.
- Misallocations of capital and labour (e.g. a larger construction sector and high residential investment) have to be corrected which also significantly dampens economic activity for a longer period.

Currently, real estate markets in larger economies perform differently in reaction to the low interest rate environment. In the US, the market has recently started a recovery. In the UK, however, concerns are rising particularly in view of rapid house price increases in London which led the Bank of England to start restricting credit supply. In Germany, real estate market valuations have also increased significantly (particularly in larger cities). However, prices rose from a rather low level and there is no indication of rapid mortgage credit growth. While fears of real estate bubbles seem relatively unfounded currently, the development of prices and credit needs to be closely monitored.

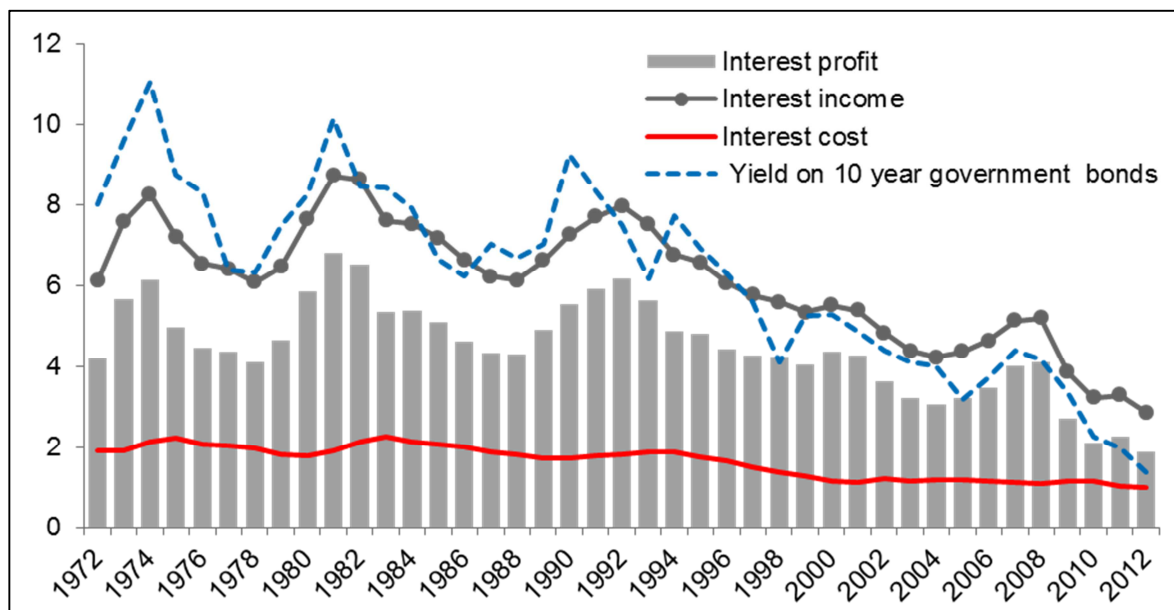
2.3 Impact on banks and insurance companies

Banks and insurance companies play an important role in the intermediation of private households' savings. About 86 per cent of their financial wealth is channeled through financial intermediaries. This ratio has been rising since the mid-1990s. Therefore, the effects of a long lasting low interest rate environment have to be considered not only from the view point of financial stability of banks and insurers, but also from the perspective of private households' savings.

Banks

Banks are affected by low interest rates in their core business of intermediation. They take in deposits from customers mostly on shorter durations and lend to other private and public actors (corporations, households, government) with longer maturities (maturity transformation). As interest on deposits is smaller than interest on lending, banks benefit from the interest spread and generate an important part of their profits from interest income. However, with a sustained low interest rate environment the interest spread tends to be reduced, because interest on lending is likely to fall more than interest on deposits which is very unlikely to fall below the zero bound. Banks are affected gradually, however, depending on the intensity of maturity transformation, because the reduction of interest on lending feeds through only over time.

Figure 2-2: Bank profitability in Germany
in per cent



Source: Deutsche Bundesbank

Figure 2-2 shows that interest income of German banks has fallen already since the mid-1990s when high interest rates prevailed.⁶ The falling trend is in line with the decreasing yield of government bonds. However, after 2008 the decline of banks' interest income accelerated further. As interest cost hardly sank, interest profit also declined significantly after 2008. In 2013, however, saving banks and local cooperative banks were able to increase their total profit (Handelsblatt, 2014).

Banks can react to the threat of lower profits along several lines. They can retain (reduced) profits to build up capital buffers, reduce operational costs and increase non-interest rate business to a certain degree.

Insurance companies

Saving in the form of life insurance⁷ is quite popular in Germany. According to GDV (2013) on average every German person owns at least one life insurance policy, as there are 92 million policies (of which 77 million with the objective of retirement provision). The total assets of German life insurers amount to nearly €800 billion.

Thus, the low interest rate environment poses challenges not only to life insurers themselves but also to their policy holders. Before we move on to the impact of low interest rates for an extended period, some remarks are made about the characteristics of German life insurance products. In Germany, most life insurance policies entail substantial long-term benefit guarantees for policy holders. In addition to the guaranteed interest, policy holders receive a participation in surplus which is also highly regulated. Corresponding to their commitments, German life insurers invest the largest part of their assets in long-term assets quoted on the capital market, mostly in fixed income securities with a high rating which are typically held until maturity.

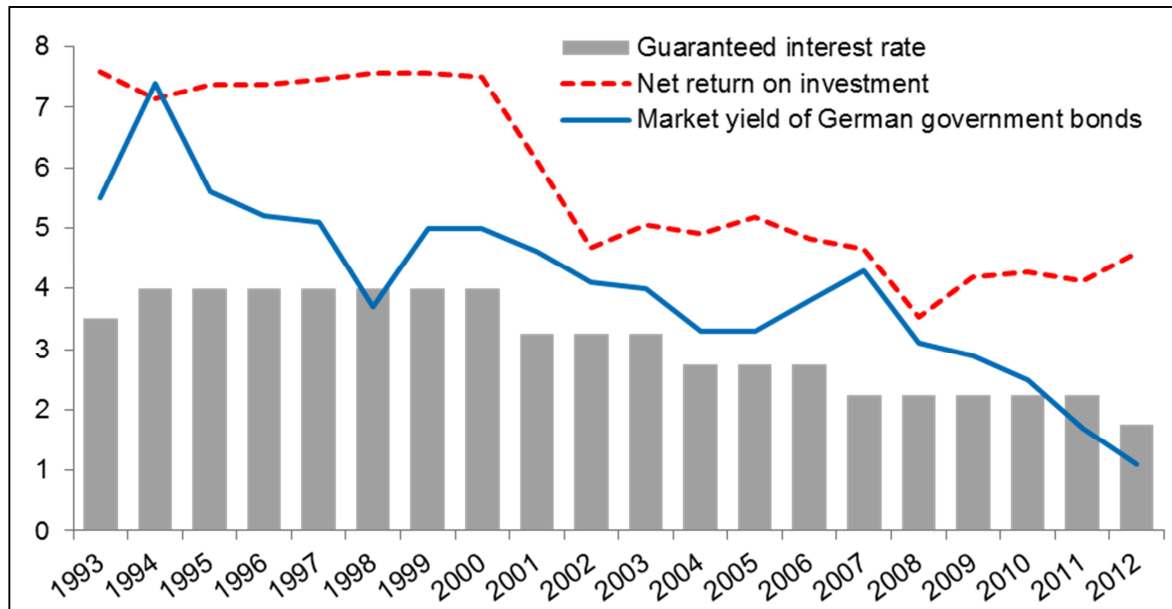
Due to these specific characteristics, life insurers as long-term investors are well prepared to weather a certain period of low interest rates. As their assets still include securities issued at higher interest rates in the past, the average yield of German life insurers is still relatively attractive compared to other products (Figure 2-3). However, the guaranteed interest rate that has to be paid on policies is determined at the start of the contract. The guaranteed interest rate for policies taken out between 1994 and 2000 was 4 per cent. It was reduced in several steps to 1.75 in 2012. Therefore, the average guaranteed interest rate in the insurance portfolio of German life insurers is currently still at 3.15 per cent. In the current environment of enduring low interest rates it is a challenge to meet this requirement. Significant steps have already been

⁶ However, the declining trend in interest rate income is also ascribed to overcapacities in the German banking sector and a high intensity of competition (Engerer/Schrooten, 2004).

⁷ E.g. as endowment insurance products or increasingly in the form of annuities.

taken to strengthen the risk bearing capacity of insurers. For example, risk management systems were further improved and new regulatory requirements have been introduced.

Figure 2-3: Guaranteed interest rate on German life insurances
in per cent



In the last years, the net return on assets was distorted by special effects.
Sources: BaFin; GDV; Deutsche Bundesbank

Moreover, life insurers can tackle these challenges in several ways. Apart from reducing costs they can change their product portfolio and offer policies that are less sensitive to low interest rates (e.g. unit linked products or products containing reduced guarantees). In addition, they can strive for higher returns in their asset management strategy. Moreover, investments in real estate and infrastructure projects which offer higher yields, but are usually not liquid, could be increased. However, a greater focus on higher yield riskier assets (e.g. equities, corporate bonds) would lead to higher capital requirements due to the new regulation framework Solvency II.⁸

Overall, banks and insurance companies are well able to withstand the current period of low interest rates. However, the exit from the low interest rate environment would be helpful in securing the business strategies that aim at providing reliable intermediation for the savings of private households.

⁸ Nevertheless, life insurers have increased the share of corporate bonds in total assets from 2.3 per cent in 2009 to 4.3 per cent in 2013 (Deutsche Bundesbank, 2013, 48).

3. Economic preconditions for an interest rate turnaround

The very expansive and unconventional monetary policy of the ECB has been largely justified as a reaction to multiple economic crises (Chapter 1). Thus, an exit from the low interest rate period will not take place until the economic framework conditions have improved and normalized sufficiently. Schema 3-1 provides an overview of the relevant problem areas which will be briefly analyzed in this chapter. Furthermore, an outline will be given about the progress and the remaining reform needs in view of the suggested economic policy options. Overall, it will be shown that the economic framework conditions for an interest rate turnaround have improved significantly and that reforms tackle the relevant problem areas (see also IMF, 2014).

Schema 3-1: Economic environment and policy options

	Recession / Deflation	Banking sector problems	High public debt	High private debt
Impact of the economic environment on monetary policy	Low inflation due to weak economy and low capacity utilisation Price adjustment in stressed Euro countries, possible risk of deflation	Interest rate increase could threaten fragile banks Liquidity problems and credit supply restriction Fragmentation of financial market and disturbed monetary transmission	Risk of fiscal dominance: political pressure possible, as interest rate increases could threaten sovereign debt sustainability	Political pressure possible, as interest rate increases could threaten solvency of corporations and households
Objectives of economic policy reforms	Supporting upswing and strengthening of growth potentials	Strengthening of banking sector and improving credit supply conditions	Securing debt solvency in the long-term Reducing procyclical impact of (needed) fiscal consolidation	Debt reduction with limited impact on economic activity
Preferred economic policy options	Structural reforms of labour and product markets Improving international competitiveness	Recapitalisation (or resolution) of fragile banks Ultima ratio: ECB could buy structured credit portfolios (ABS)	Well-timed fiscal consolidation Privatisation	Well-timed private deleveraging Simplification of private insolvency regimes

Source: Institut der deutschen Wirtschaft Köln

3.1.1 Economic activity and structural reforms

Economic activity

It is a precondition for the interest rate turnaround that the upswing becomes broader and more sustained. In fact, the Eurozone's business cycle showed a clear upward trend. The recession ended in 2013 and growth should gradually continue to pick up and reach about 1.5 per cent in 2015. This expectation is supported by early indicators for economic activity (such as the OECD Leading Indicator), which have been trending upwards continuously since 2012.

The current low inflation rates – together with fears of a possible deflation – are regarded as another barrier for an early exit from the low interest rate period. In fact, Eurozone consumer prices rose by only 0.7 per cent (year on year) in April 2014 and (relatively small) price declines are prevalent in several stressed Euro countries. However, several arguments suggest that the current situation is only temporary. Declining prices for energy and food reduce the average inflation rate – the core inflation rate rose considerably faster (1.0 per cent) than the average. Moreover, price declines in stressed countries should be largely seen as a transitory normalization, because wages and prices increased considerably before the crisis and led to a deterioration of international competitiveness. While it is not very likely that falling prices induce consumers and investors to postpone purchases (which could lead to a deflationary spiral), the future development needs to be closely watched.

Structural reforms

Sustained economic growth is essential for several reasons: for the Eurozone to recover, for inflation to return close to 2 per cent and for governments and private actors to reduce indebtedness (see problem areas in Schema 3-1). Therefore, structural reforms are the most important policy requirement, as they can substantially increase the growth potential of Eurozone countries.

In fact, a wide array of research shows that structural reforms of labour and product market (including business regulation) foster productivity and employment – and thus growth and competitiveness (Nicoletti/Scarpetta, 2003; Djankov et al., 2006; Bassanini et al., 2013; Varga et al., 2014; for an overview see Kolev/Matthes, 2013, 82 ff.).⁹ In addition, the experience of many countries shows that structural reforms considerably improve economic performance (however, often only after an initial phase of consolidation). This applies, for example, to the US, the UK and the

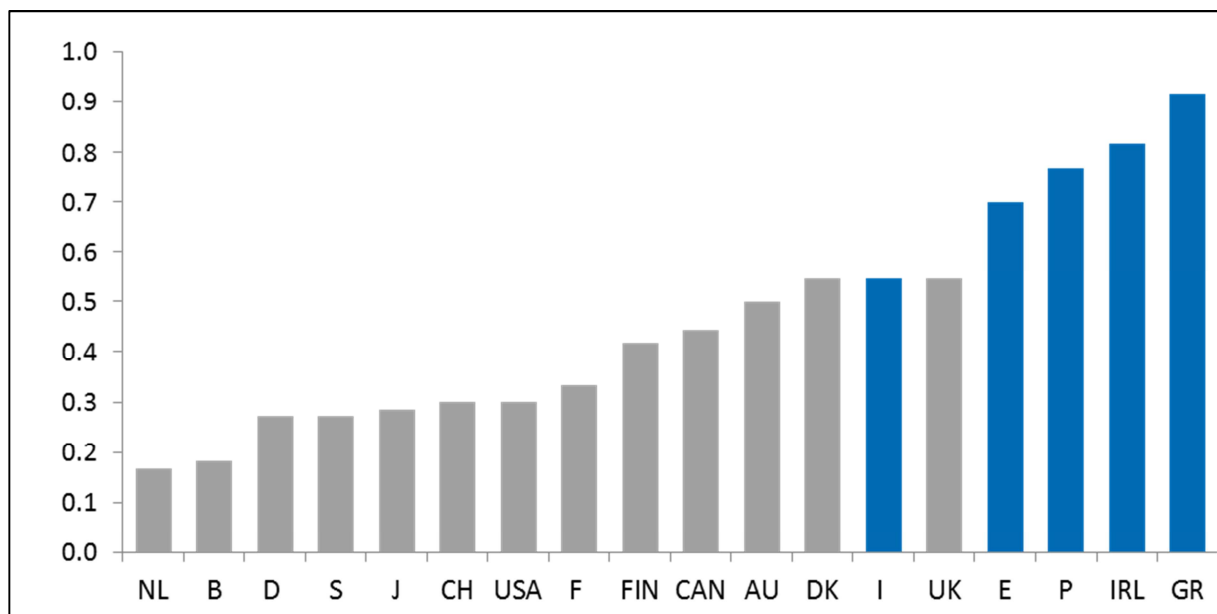
⁹ The main levers to achieve these aims are an increased intensity of competition and more open markets.

Netherlands in the 1980s as well as to Denmark, Sweden and Finland in the 1990s. More recently, Germany is a valid case in point. The bundle of reforms taken some ten years ago has had an enormous pay-off, particularly in terms of labour market dynamics.

Currently, Spain and Portugal have good chances to become the next poster childs illustrating the benefits of substantial structural reforms. Particularly, the Spanish economy is gaining momentum. The opposite is true mainly for France and also for Italy. Here, a lack of reforms has recently contributed to a weak growth performance.

Figure 3-1: Reforms in selected countries

Reform intensity*



*Reform Intensity: ratio of reforms taken in 2011 und 2012 in different policy fields in relation to the reform recommendations of the OECD in the respective policy fields in 2011.

Source: OECD

Figure 3-1 shows that significant structural reforms have been taken on particularly in the stressed Eurozone countries, partly with the involvement of the Troika. While reforms have to be thoroughly implemented and continued, the reform efforts should substantially increase the growth potential in the medium term.

Overall, the considerable reform record in the stressed Euro countries shows that economic policy is on the right track and that the conditions for an interest rate turnaround can be expected to continue improving.¹⁰

¹⁰ Recent developments also show that low growth and very high unemployment have also raised the pressure for reforms in France and Italy. It remains to be seen, what the new governments can deliver in terms of additional structural reforms.

3.1.2 Banking sector, recapitalization and banking union

A sufficiently healthy banking sector is another precondition for an exit from the low-interest rate environment. The weak banking sector particularly in the stressed Euro countries resulted in a fragmented financial markets and disturbed monetary transmission channel (Schema 3-1). This prompted the ECB to intervene with unconventional measures.

Since the peak of the crisis, the situation has significantly improved in many areas of the financial sector and particularly in the stressed Euro countries (Demary/Matthes, 2013; EZB, 2013; IMF, 2014) – even though several problems remain. On the positive side, indicators for systemic risks have fallen, the interbank market is open to most banks again, bank equity indices have considerably risen and ELA credits and Target2 deficits have been reduced. However, banks in the stressed countries still suffer from a large number of non-performing loans and, as a result, access to credit is still restricted particularly to SME in these countries.

The improvements are not only due to the ECB which acted as a lender of last resort (as sometimes claimed). Instead, they mainly result from an improvement in fundamentals that has been supported by strong (though belated) policy action in the right direction:

- The EBA forced banks to increase their risk weighted capital by requiring an early implementation of Basel III (and CRD-IV- und CRR). According to the IW-Bankmonitor (Demary, 2014) the core capital ratio of the large systemically important banks in the Eurozone increased from 8 per cent in 2007 to 13 per cent in 2013 (for the median).
- The banking systems of Spain, Portugal and Greece have been thoroughly reformed in the course of an intervention of the Troika in connection with financial support packages.
- The centralization of financial supervision in the hands of the ECB in the context of the banking union is a very important step for the Eurozone, because national supervisors all too often turned a blind eye on problems with domestic banks. What is more, before the establishment of the SSM (Single Supervisory Mechanism) the ECB is conducting a Comprehensive Assessment of the large systemically important banks. As part of this exercise, particularly the solid stress test has put banks under pressure to further improve their capital positions.

While the effectiveness of the banking union, which also includes a Single Resolution Mechanism and Fund (SRM, SRF), still has to be confirmed in practice, there can be no doubt that significant weaknesses of the Eurozone banking sector have been tackled rather effectively and that the policy course is clearly going into the right direction. Thus, there is still some way to go. But the environment for an interest rate turnaround has improved also in this field.

3.1.3 Public debt and fiscal consolidation

High and persistent public indebtedness of important Euro-area countries could restrict the discretion of the ECB to raise interest rates and pose dangers for its independence. In the course of so-called fiscal dominance, monetary policy could be misused to guarantee debt sustainability instead of price stability (Schema 3-1). How likely is such a fatal development?

On the positive side, there is considerable progress in fiscal consolidation, as structural deficits¹¹ have been reduced considerably – for example by about 6 percentage points in Spain and Portugal respectively, and by even more than 16 percentage points in Greece (if the figure for 2013 is compared with the worst structural deficit between 2005 and 2012). It is sometimes criticized that the EU has allowed the pace of consolidation to slow down recently, but this appears justified in most cases.¹² In fact, consolidation measures during the euro debt crisis had more negative effects on short-term growth than expected (Kolev/Matthes, 2013).

Despite fiscal consolidation being broadly on the right track, the stock of public debt has continued to rise up to now in many Euro countries. The debt level is forecast to stabilize and to come down gradually soon. But it will remain high for an extended period. Thus, the danger of fiscal dominance cannot be ruled out. However, several arguments can qualify this fear:

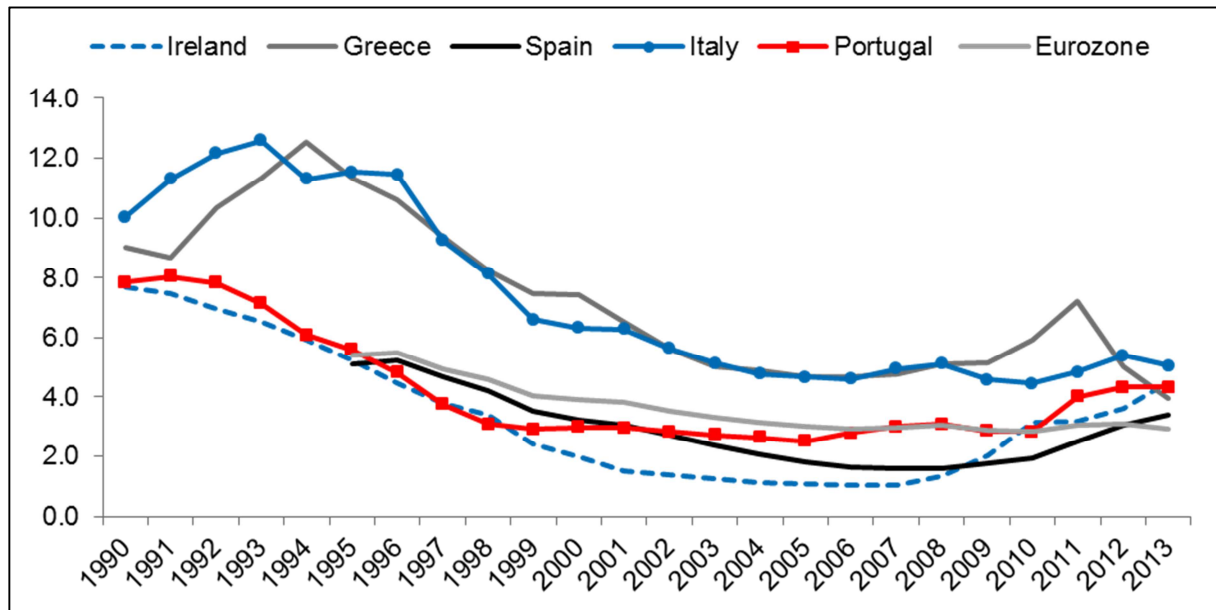
- The ECB is bound by its statute to give a clear priority to price stability. Its unconventional policies in recent years are interpreted by some as an indication that this stability orientation can no longer be relied upon. However, some evidence to the contrary can be seen in the ECB's two interest rate increases in spring 2011 from 1.0 to 1.5 per cent, when the euro debt crisis appeared to cool down. The ECB took these unpopular steps despite already high and further rising public debt and facing considerable criticism because it intended to act preemptively against inflation pressures.
- The current public debt levels appear manageable in most cases. Due to higher public debt levels, the public interest expenditure quotas have recently increased (Figure 3-2). However, they are still relatively low compared to the early 1990s, because interest rates for government bonds have been relatively low in the period before the euro debt crisis and more recently.¹³

¹¹ Cyclically adjusted and corrected for one-off fiscal measures.

¹² France is a special case as a two year extension to meet the 3 per cent criterion (for the fiscal deficit in relation to GDP) has not been met by the structural reform effort required by the EU upon the extension. Currently, even the extended target date 2015 is put into question.

¹³ Particularly in Greece, but also in Portugal and Ireland, the public interest expenditure quota is low, because of rather low interest rates provided by the Euro rescue funds. However, as current interest rates are very low for 10-year government bonds of Ireland and Portugal, market financing of current

Figure 3-2: Public interest expenditure ratio
in per cent of GDP



Source: European Commission, 2014

- Taking the public debt situation of most stressed Euro countries as a benchmark, there is room for the ECB to raise interest rates by 1 to 2 percentage points, if public debt sustainability is estimated on the basis of current forecasts for 2015 (Demary/Matthes, 2014). Higher nominal growth, low long-term interest rates on government bonds and an improved fiscal performance (primary balances) are the key drivers for this result.

Overall, high public debt levels surely increase the vulnerability of Euro countries and will keep discussions about fiscal dominance alive. However, concerns are only limited, if fiscal consolidation is continued and economic growth returns as expected.

3.1.4 Private debt, deleveraging and reform of insolvency regimes

As high private indebtedness leads to a process of deleveraging¹⁴, economic activity tends to be dampened. Even a so-called balance sheet recession can arise. This constellation influences the leeway of monetary policy (Eggertson/Krugman, 2012; Koo, 2013) and can become an impediment to an exit from a low interest rate period (Schema 3-1). It is difficult for economic policy to achieve the optimal pace of deleveraging (IMF, 2014). On the one hand, deleveraging dampens current

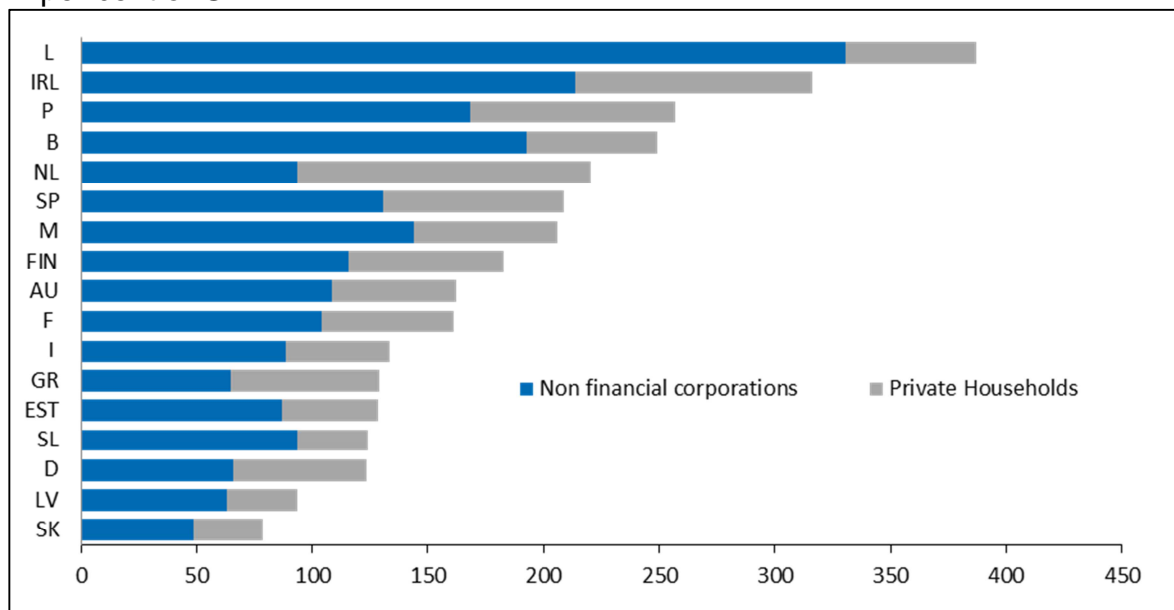
fiscal deficits is unlikely to significantly raise the average public interest expenditure quotas. This does not pertain to Greek 10-year government bonds whose yield is considerably higher.

¹⁴ In the process of deleveraging, a part of future income has to be devoted to debt reduction and is no longer available for consumption or investment.

economic performance and further burdens banks' balance sheets. On the other hand, deleveraging is a precondition for a sustained upswing to take hold in the medium term (Bech et al., 2012).

Private sector debt is still high in several Euro countries (Figure 3-3) and could so far be reduced only in a few countries (Bornhorst/Ruiz Arranz, 2014; Deutsche Bundesbank, 2014a; IMF, 2014). In many stressed Euro countries, including Italy, particularly corporations are burdened by high debt levels.

Figure 3-3: Private sector debt in the Euro area
in per cent of GDP



Sources: Eurostat; EZB; Institut der deutschen Wirtschaft Köln

Therefore, private insolvency regimes are paramount in facilitating corporate deleveraging. Ideally, firms with considerable debt problems should be able to access a restructuring procedure relatively early to keep them viable.¹⁵ Non-viable firms should be rapidly liquidated in order to set resources free for a more productive allocation. Therefore, insolvency regimes should have clear and reliable rules and should strive to minimize time and transaction costs, e.g. by using out-of-court institutions.¹⁶

In practice, private insolvency regimes were traditionally often cumbersome and time consuming, particularly in the stressed Euro countries. Progress in reform is uneven.

¹⁵ However, care has to be taken that the rules do not create problematic incentives to the detriment of creditors, i.e. moral hazard on the side of the debtors.

¹⁶ Moreover, financial supervisors should strive to prevent banks from "evergreening" non-performing loans. The Comprehensive Assessment of the ECB is an important step in this direction.

While particularly Spain, but also Portugal have made decisive steps into the right direction, Italy and Greece still lag behind (for more details see Liu/Rosenberg, 2013; Demary/Matthes, 2014). Overall, more progress is needed in this policy area to support the conditions required for an interest rate turnaround.

3.1.5 Interim conclusion

The economic framework conditions for an exit from the low interest rate phase have improved considerably. Economic activity is clearly on an upward trend which is expected to continue despite of continuing uncertainties. Significant structural reforms have been implemented in most stressed Euro countries which will most likely increase growth potentials soon (as already appears to be the case in Spain). A stronger economy should reduce fears of deflation to a temporary phenomenon. Stress indicators and fundamentals in the banking sector have also improved on the back of (late, but eventually decisive) policy measures and will continue to do so in the course of the pending stress test. Public and private indebtedness should be manageable in an environment of moderate economic growth and more normal inflation. Also, reforms of insolvency regimes are in part encouraging. These are the conditions which characterize the baseline scenario assumed here.

However, certain risks remain. The relatively optimistic economic outlook could be endangered, if geopolitical uncertainties depress business and consumer sentiment permanently or if credit restrictions in stressed Euro countries remain too grave. Moreover, reforms in the banking sector and those regarding insolvency regimes have to be continued. Particularly in Italy and France, the lack of reforms needs to be tackled soon and decisively. In fact, in both countries reform pressures have been increasing despite low interest rates, because unemployment remains too high and economic activity continues to be stagnant. Overall, there are encouraging signs that the risks mentioned here can be contained.

Under the baseline scenario, economic and financial conditions should have improved sufficiently to start an exit from the low interest rate environment in the second half of 2015 (see also OECD, 2014).

4. Recommendations for the ECB

Challenges of an exit

An interest rate turnaround after such a long period of very low interest rates poses certain challenges: First, interest rate increases generally have stronger effects on the economy than decreases (Ravn/Sola, 2004). Second, fixed income and particularly longer term securities will lose value. This loss is proportional to the

interest rate increase and could be larger, as interest rates are currently very low. Third, financial actors using maturity transformation strategies face the additional pressure that higher interest rates will raise costs for short-term financing faster than income from long-term assets. Fourth, the expectation of rising interest rates will cause investors to adjust their portfolios. As part of the adjustment process, an overreaction and financial turbulences are possible (Kohn, 2013), as investors could be tempted into a “run for exit” in order to minimize losses. In this respect, the experience in May 2013 was telling, when financial markets in many emerging countries tumbled after Ben Bernanke only vaguely announced that the FED would start reducing its asset purchases. Similar turbulences occurred following the interest rate turnaround in 1994 and even culminated in the Mexico crisis (IIF, 2013).

Considering these risks, the ECB should carefully frame the exit from the low interest rate environment in order to minimize detrimental effects for the economy and for financial markets.

A critical view on ECB actions

In this respect, the interest rate cuts and the announcement to keep interest rates at a very low level can be questioned on several grounds:

- Forward guidance could create problematic incentives, because financial actors will become more vulnerable to future interest rate increases, when they allocate their assets based on the expectation of a lasting low interest rate phase.
- The ECB should not only focus on short-term risks to economic activity and low inflation, but should pay more attention to the rising risks to financial stability in the medium term.
- In order to prevent future risks to price stability, interest rates have to increase way before inflation gets back to the target rate of close to 2 per cent.
- Additional interest rate cuts will deepen the low interest rate environment without having major effects on the economy.

Recommendations for a smooth interest rate turnaround

In order to minimize the potential negative impact of an interest rate turnaround the Institut der deutschen Wirtschaft Köln recommends a smooth and intensively communicated exit. In particular, interest rate increases should be much smaller but more frequent than usual; when the upswing becomes broader, the interest rate hikes need to become larger (see box).¹⁷ With such a smooth interest rate turnaround financial actors receive a clear signal of the changing interest rate trend, but can adjust more gradually to an environment with slowly increasing interest rates.

¹⁷ This proposal is based on a more vague suggestion by Goodhart (2013).

This strategy could also allow the ECB to initiate the interest rate turnaround earlier and to be more flexible with regard to the path of interest rate increases.

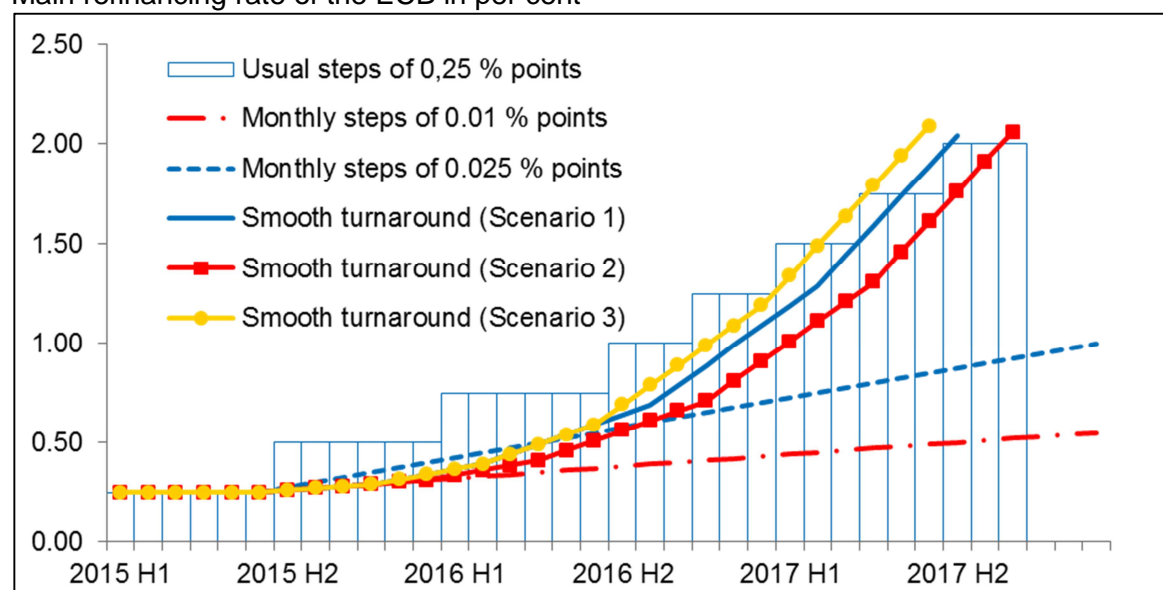
Box: Schematic example for a smooth interest turnaround

Figure 4-1 displays an example of a possible interest rate turnaround in a schematic and simplified way. In the reference scenario, the ECB acts as usual and raises interest rates by 0.25 percentage points in a rhythm of three or six months. For example, the ECB increased its main refinancing rate between the end of 2005 and mid-2007 from 2 to 4 per cent mostly by means of quarterly rate hikes. Starting in mid-2015, the reference scenario assumes two initial rate hikes after six months respectively – and the following hikes on a quarterly basis. The target rate is assumed to be 2 per cent by mid-2017. This level can be regarded as an approach to a normal interest rate level, considering that inflation rates in 2017 are currently expected to be much closer to, but still considerably below 2 per cent.

Three scenarios of a smooth interest rate turnaround are displayed in comparison to the reference scenario. Scenario 1 starts with interest rate hikes of 0.01 percentage points on a monthly basis. Over time, the monthly steps gradually increase to 0.15 percentage points. In scenarios 2 (3) the 2-per cent level is reached later (earlier) according to the assumption that economic activity is weaker (stronger) than in the baseline scenario.

Figure 4-1: Hypothetical exit scenario

Main refinancing rate of the ECB in per cent



Scenario 1: The baseline scenario reaches the 2-per-cent-level at the same time than the reference scenario of usual interest rate hikes of 0.25 per cent. Scenarios 2 (3) show a path for interest rate increases in case of a weaker (stronger) economic activity compared to the baseline scenario.

Source: Institut der deutschen Wirtschaft Köln

A smooth exit from the low interest rate environment poses challenges to the ECB, however, because financial actors do not have sufficient experience with this strategy. Therefore, the ECB needs to communicate intensely with the financial market with regard to the timing and path of the interest rate turnaround. It should publish also qualitative (rather than only quantitative) criteria and indicate its current and expected evaluation of these criteria in its regular communications.

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