



## ECB objectives and tasks

March 26, 2008

Price stability vs. lender of last resort



**A conflict between the objective of price stability and the lender-of-last-resort function is ruled out ex definitione in the case of the ECB,** as the ECB is not mandated to perform the role of a lender of last resort in the strict sense of the word.

**The ECB's operations in the money markets and interest decisions do not conflict with the objective of price stability.** As forecasts for economic growth have been revised downward since mid-2007, a smaller-than-expected output gap points to less inflation pressure and lower interest rates.

**The ECB has not expanded its balance sheet in an unusual way except for a brief period in December 2007.** Lending by banks to non-financial corporations continued to expand at strong rates in late 2007 indicating that this market remained open throughout the year.

**The provision of emergency liquidity may, in principle, undermine private-sector discipline, which is needed for financial stability.** This in turn may ultimately threaten the ECB's ability to achieve its primary objective, i.e. price stability. However, it is unlikely that the ECB's action will cause substantial moral hazard, as long as the exceptional character of such actions is clear and as long as misbehaviour is effectively sanctioned.

**Independently of the discussion on a potential conflict of objectives at the level of the ECB,** recent events have highlighted well-known deficiencies in the EU's arrangements for effective crisis management. While the August 2007 Economic and Financial Committee (EFC) report addresses some of the necessary actions, it is unlikely that these will prove sufficient.

### Authors

Norbert Walter  
+49 69 910-31810  
norbert.walter@db.com

Stefan Bergheim  
+49 69 910-31727  
stefan.bergheim@db.com

### Editor

Bernhard Speyer

### Technical Assistance

Martina Ebling  
Sabine Kaiser

Deutsche Bank Research  
Frankfurt am Main  
Germany  
**Internet:** [www.dbresearch.com](http://www.dbresearch.com)  
**E-mail:** [marketing.dbr@db.com](mailto:marketing.dbr@db.com)  
**Fax:** +49 69 910-31877

### Managing Director

Norbert Walter

\* This publication is based on a briefing paper prepared for the Committee on Economic and Monetary Affairs of the European Parliament in March 2008.

## Introduction

### Conflict between ECB objectives?

When, in the wake of the US subprime crisis, liquidity dried up in money markets in the summer of 2007, the ECB provided massive amounts of liquidity outside of its normal monetary policy operations in an effort to keep money markets rates close to official interest rates. As dislocations in money market continued over the remainder of 2007 and into 2008, the ECB, along with other major central banks, continued to provide liquidity to the system. The decisiveness, the professionalism and the speed with which the ECB acted, has been welcomed by market participants and most commentators alike. Nonetheless, as exceptional monetary operations continue, the question is being asked whether these might ultimately stand in contradiction to the ECB's primary objective, i.e. the preservation of price level stability.

A number of different hypotheses have been advanced on why there might be a conflict of interest for the ECB, which may threaten the attainment of its primary objective:

### Lender of last resort function not a problem

— *Hypothesis 1: There is a conflict between the objective of price stability and the lender of last resort function.* This hypothesis can clearly be rejected: As the ECB is not mandated to perform the role of a lender of last resort (i.e. to provide liquidity, at a penalty rate, to a solvent, but temporarily illiquid bank), there can, ex definitione, be no conflict of interest.

### Liquidity provision unlikely to be problem for price stability

— *Hypothesis 2: Providing exceptional amounts of liquidity to the system can compromise the objective of price stability.* This hypothesis cannot be rejected in principle, but whether or not the primary objective is violated depends on the actual execution of emergency liquidity provision. The operations performed by the ECB have, so far, been structured and executed in a way that is fully compatible with the objective of price stability (i.e. emergency liquidity has been provided without creating excess liquidity) and we argue that there is little probability of a violation of price stability.

### Moral hazard can be prevented

— *Hypothesis 3: Emergency liquidity operations threaten to undermine the credibility of the ECB and to create moral hazard, which would increase the likelihood of financial instability, which in turn would endanger price stability indirectly and in the long-run.* Again, while this hypothesis contains a grain of truth in principle, its relevance depends on a number of assumptions which in our view are unlikely to be satisfied.

## 1. The ECB is not a lender of last resort sensu stricto

There is a frequent misunderstanding about the difference between, on the one hand, "lender of last resort" operations, as understood sensu stricto, and, on the other hand, the provision of (emergency) liquidity to the system.

### ECB is not the lender of last resort

The "lender of last resort" function of a central bank refers to the temporary provision of liquidity at a penalty rate to an **individual** bank which is illiquid, but solvent. In the Eurosystem, this lender of last resort function does **not** reside with the ECB, but with the national central banks. The NCBs decide autonomously whether or not to exercise this function (see "Emergency Liquidity Assistance in the Eurosystem" box p. 3). Given the fact that the provision of

### Emergency Liquidity Assistance within the Eurosystem

“Co-ordination mechanisms are primarily called for within the Eurosystem. This is the case for emergency liquidity assistance (ELA), which embraces the support given by central banks in exceptional circumstances and on a case-by-case basis to temporarily illiquid institutions and markets. At the outset, it is necessary to stress that the importance of ELA should not be overemphasised. Central bank support should not be seen as a primary means for ensuring financial stability, since it bears the risk of moral hazard. Preventive measures aimed at fostering the adoption of sound risk management practices on the part of financial institutions, and the effectiveness of prudential regulation and supervision in achieving this goal, are the first line of defence against excessive risk-taking behaviour and financial distress. Furthermore, the provision of ELA has been a very rare event in industrial countries over the past few decades, while other elements of the safety net have gained importance in the management of crises. However, if and when appropriate, the necessary mechanisms to tackle a financial crisis are in place.

**The main guiding principle is that the competent NCB takes the decision concerning the provision of ELA to an institution operating in its jurisdiction. This would take place under the responsibility and at the cost of the NCB in question.**

Mechanisms ensuring an adequate flow of information are in place in order that any potential liquidity impact can be managed in a manner consistent with the maintenance of the appropriate single monetary policy stance. The agreement on ELA is internal to the Eurosystem and therefore does not affect the existing arrangements between central banks and supervisors at the national level or bilateral and multilateral co-operation among supervisors and between the latter and the Eurosystem. However, their smooth functioning assumes an ability to implement, swiftly and efficiently, co-ordination mechanisms aimed at dealing with the cross-border implications of financial crises and at preventing contagion.”

Source: ECB (2000). Annual Report 1999, p.98.

liquidity to an individual bank can, in principle, affect the monetary base (viz. when the amount forwarded is large and the assistance given over an extensive period of time), the NCBs must inform the Eurosystem about lender of last resort operations. However, considering the size of the monetary base in the euro area – with M1 amounting to some EUR 3.8 tr – it is clear that any individual lender of last resort operation will not be sizeable enough so as to endanger monetary stability.<sup>1</sup>

Therefore, it holds true: as the ECB is not endowed with the lender of last resort function, ex definitione there cannot be a conflict of objectives between the ECB’s mandate to preserve price level stability and the lender of last resort function.

As regards the provision of (emergency) liquidity to the overall system, this clearly is a task that can only be performed at ECB level. Whether the provision of liquidity to the system (i.e. to the benefit of all banks in the euro area, rather than just one bank as under the lender of last resort function) is in contradiction to the primary mandate of preserving price level stability is an open issue: Theoretically it may or may not be, depending on (1) whether the operations run counter to the course of monetary policy as warranted by the state of the economy; (2) whether liquidity operations lead to an excessive increase in the money supply and in bank lending, and (3) the credibility of the ECB.

## 2. Liquidity provision to the system vs. price stability

### The objective of price stability

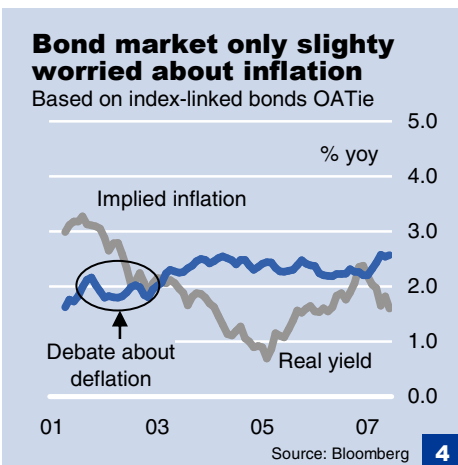
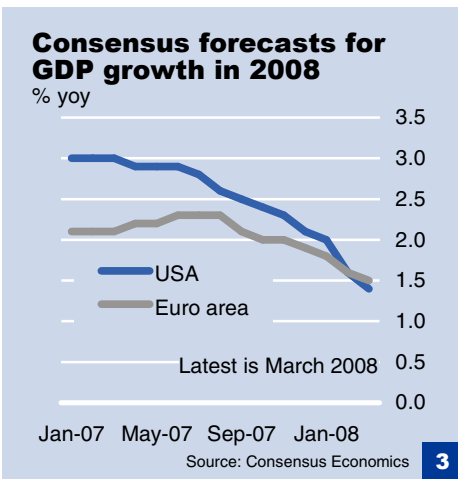
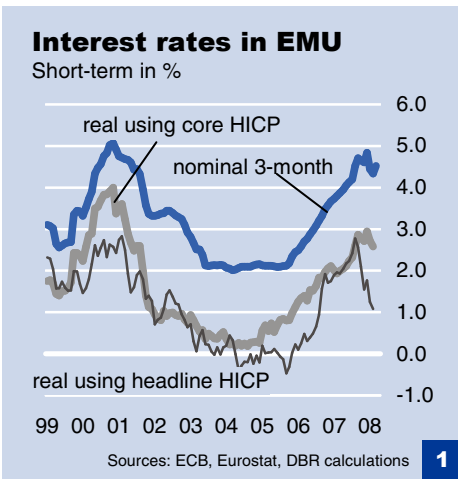
The primary objective of the Eurosystem is to maintain price stability as laid out in Article 105 (1) in the Treaty establishing the European Community. The ECB has defined price stability as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below, but close to 2% over the medium term.

While this definition is clear and unambiguous, the relationships between inflation and its multiple determinants are far from straightforward. Economic growth, output gaps, money supply growth, currency movements, commodity price changes and other variables are difficult to evaluate and their links to inflation may involve considerable lags of possibly varying duration. The most widely used approach to condense some of these many variables is the Taylor Rule which links the central bank interest rate to inflation and the output gap: higher (expected) inflation and a smaller (expected) output gap lead to higher central bank rates.

### ECB rate decisions during the recent turbulence

The ECB’s decision not to raise interest rates further after the situation on global financial markets deteriorated in the summer of 2007 is in line with considerations derived from the Taylor rule. First of all, real interest rates had reached a level of 2 ¼% by mid-2007 (chart 1) that could be seen as neutral or close to neutral in the long term given the euro area’s trend rate of GDP growth of just below 2%.

<sup>1</sup> Quite apart from monetary policy concerns, it may, of course, be asked whether there is a need to align lender of last resort policies by EU central banks on the basis that differences in such policies may cause competitive distortions between banks based in different member states.



The ECB had been aiming at raising interest rates above the neutral level because GDP growth was surprisingly strong during 2007. But the financial upheaval significantly dented growth expectations on both sides of the Atlantic and increased uncertainty about the outlook. Consensus forecasts for US GDP growth in 2008 had been revised down from 2.9% in June 2007 to 2.3% by November and fell further to 1.4% by March 2008. The strengthening of the euro to new record highs contributed to lower growth forecasts in the euro area (chart 2 shows the broad trade-weighted exchange rate indices). Consensus forecasts for euro area 2008 GDP growth fell from 2.3% in June to 2.0% in November and further to 1.5% in March 2008 (chart 3). Therefore, the euro area output gap will not shrink – as forecast in June – but rather widen in 2008.

The jump in current inflation rates has to be seen as a temporary phenomenon driven by external forces (energy and food). The ECB will monitor closely whether this will lead to home-grown price pressures. So far, there are few signs of increasing wage inflation and the accompanying higher unit labour costs. Euro area unit labour costs were up just 1.3% yoy in Q3. While there is likely to be some cyclical rise in ULCs as the economy slows, this should not be a major concern for the central bank. In fact, the bond markets have only slightly raised the implied euro area inflation rate over the past weeks (chart 4).

### Conflicts between objectives unlikely at the moment

As of March 2008 there does not appear to be a conflict between ECB actions to ensure liquidity in the money markets and the ECB's primary objective of price stability. A possible linkage would run from the ECB's liquidity injection via bank lending to stronger demand for goods and therefore to consumer prices. This linkage does not appear to be operating at the moment for a number of reasons. First, the ECB's lending operations do not seem to have led to a permanent lengthening of its balance sheet. While its lending to euro area credit institutions clearly expanded at the end of 2007 because of its larger monetary policy operations (chart 5 on the next page), this effect had completely disappeared by the end of January. What the ECB has done is to keep market interest rates close to the minimum bid rate of its main refinancing operations. It has not expanded its balance sheet in an unusual way (unlike the Bank of Japan under its "quantitative easing" policy begun in 2001). Dealing with the money market liquidity issues prevented the economy's financing costs from exceeding those indicated by the Taylor Rule.

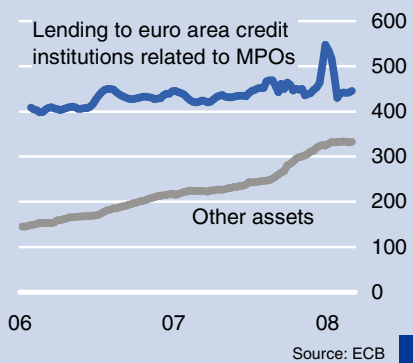
### Bank lending continues to do fine

Bank lending has also not shown unusual or inflation-fuelling trends following the ECB's actions in the money markets. Overall loans to private euro area residents have been expanding at annual rates of around 11% since early 2006 and were up by 11.1% yoy in January (solid blue lines in charts 6 and 7). The growth rates of loans to consumers and for house purchases have slowed since mid-2006 probably because the residential construction booms in some euro area member states have eased (chart 6).

At the same time, lending to non-financial corporations – the largest component of total bank lending – kept rising at ever stronger rates even after the onset of the financial market turbulence. This may be because companies had to seek alternatives to the corporate bond market and it shows that banks were able to continue to provide the economy with loans even as some financial markets were closed.

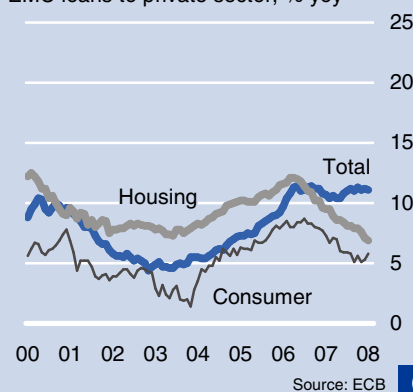
### A look at the Eurosystem's financial statement

In billion euro, 4Q mavg



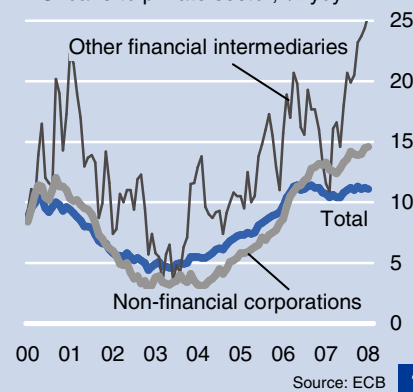
### Housing loans slow

EMU loans to private sector, % yoy



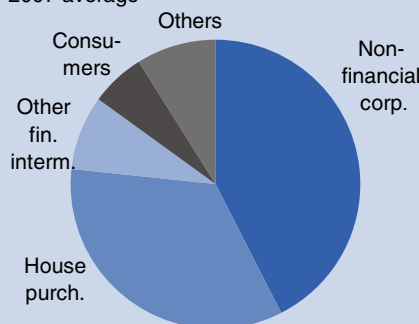
### Corporate loans rise

EMU loans to private sector, % yoy



### Composition of loans by MFIs to private sector

2007 average



Lending to other financial intermediaries (a small part of overall lending) expanded rapidly in late 2007. The ECB's actions probably contributed to this favourable outcome. While we cannot fully rule out that these additional loans may some day turn out to be inflationary, the continuous smooth functioning of bank lending rightly had to take first priority. A careful monitoring of lending developments remains important.

### A scenario with an ECB loss of credibility

Summing up: Is the provision of emergency liquidity likely to threaten the credibility of the ECB? This note has argued throughout that the ECB's actions during the recent period of financial market challenges were reasonable and did not interfere with the primary objective of price stability. Therefore, the ECB's credibility is not at threat.

However, it is not impossible for a central bank's credibility for maintaining price stability to be damaged. A possible scenario – clearly not a forecast or a likely outcome because it involves the ECB misjudging several issues – might look like this: The world economy recovers surprisingly strongly, commodity prices continue to rise rapidly and euro area companies agree to wage increases of 5% or more. In this scenario, the central bank would have to remain preoccupied with liquidity in the money markets: it does not raise interest rates but expands its balance sheet. Consumers would go on a spending spree and bid up prices across a broad range of products. HICP inflation would then remain at 3% or even higher for an extended period of time. German 10-year government bond yields would surge to 6% (last seen in 1996) as inflation expectations settle above 3%. The ECB's credibility would be damaged. Again: this is a hypothetical scenario to illustrate some of the assumptions and misjudgements that would have to be made as well as the consequences.

## 3. Emergency liquidity, moral hazard and financial instability

Could the provision of emergency liquidity create moral hazard in the financial industry, thereby threatening, in the medium-term, to undermine the discipline needed for financial stability. And given that it is difficult to preserve price stability in the long-term in the absence of financial stability, would this ultimately threaten the ECB's ability to achieve its primary objective of price stability? Again, while theoretically possible, such a scenario is unlikely for the following reasons:

1. Since price stability ultimately cannot be ensured without financial stability, economic actors will recognise that the ECB may, at times and in an appropriate way, need to provide emergency liquidity in order to reach its ultimate policy objective. As long as economic agents understand that these two policy objectives<sup>2</sup> are not mutually exclusive, appropriate (as discussed in section 2 of this paper) action to provide emergency liquidity will therefore not damage the ECB's credibility.

<sup>2</sup> It should be noted, of course, that price level stability is the ultimate policy objective of a central bank, whereas financial stability is merely an intermediate policy objective.

**Financial supervision to prevent moral hazard**

2. Moral hazard will only be caused when those banks or structures (i.e. products and processes) that were the cause of a financial crisis are not held accountable and are not sanctioned. It is the task of financial supervisors and, if need be, of regulators / legislators to ensure that this sanction is being executed.<sup>3</sup> This, in turn, highlights the fact that the provision of emergency assistance must always be part of a more comprehensive effort aimed at restoring financial stability, an effort that involves central banks, supervisors, ministries of finance and, if necessary, legislators (see box page 7).

**Emergency liquidity must remain exceptional**

3. Moral hazard would be caused if emergency liquidity provision to the system did not remain the exception, but became a recurrent and / or enduring event. Therefore, care must be taken by the ECB to make sure that ECB lending facilities do not become a major source of funding for the banking system. For instance, there have been reports that Spanish banks have securitised pools of mortgage loans with the explicit intention of not selling them into the capital market, but to pledge them to the ECB in exchange for funding.

Access to large, exceptional liquidity facilities should therefore be reduced gradually, once markets recover. It should be noted that this is obviously difficult because recourse to special lending facilities is endogenous to some extent: As long as banks can satisfy their liquidity needs using central bank facilities, they will not raise money in normal markets where costs will be higher. But when no bank taps the market for funding, markets appear to be dysfunctional still, justifying the keeping open of central bank facilities.

Summing up, while, theoretically, there are transmission channels through which the provision of emergency liquidity assistance by the ECB may ultimately compromise the ECB's primary objective, the coming about of such a scenario depends on the materialisation of assumptions which are unlikely to be satisfied.

#### **4. Deficiencies in EU crisis management**

**Deficiencies in EU arrangements for crisis management**

Quite independently of the discussion about the potential impact of emergency liquidity operations on monetary policy objectives, recent events have clearly pointed to deficiencies in the institutional structure of financial supervision in the EU, in general, and crisis management specifically.<sup>4</sup>

- When central banks decide to provide emergency liquidity to the system, they need to have as comprehensive information as possible on the financial health of the system as a whole as well as of systemically important banks, in order to determine the appropriate size of intervention as diligently as possible. For the ECB, this assessment is difficult, as, due to the nation-based system of financial supervision, there is no central data warehouse where information about the financial health of

<sup>3</sup> This was discussed in our briefing of December 2007 already.

<sup>4</sup> We have discussed these deficiencies in an earlier submission to ECON in August 2007 already. In addition, it needs pointing out that crisis prevention should obviously be considered the first line of defense. Crisis prevention requires, first and foremost, action by the private sector, including effective risk management, transparency on risks, exposures and risk management processes, and the right incentive structures, including compensation arrangements.

### Some general considerations on crisis management

It is well understood that the resolution of financial crises is more of an art than a mechanistic application of pre-determined rules. This holds true both in case of difficulties of an individual institution and, a fortiori, in case of a system-wide crisis. In addition, it should be noted that crisis resolution does not only rest on (semi-)official institutional frameworks, such as deposit insurance / insurance guarantee and lender of last resort. Private sector involvement has always been another important element for three reasons. First, it enlarges the pool of available resources. Second, it is often indispensable for the orderly wind-down of a failed institution in order to provide for the continuity of outstanding contracts in financial markets, so that chaos is prevented (LTCM is a case in point). Third, it is assumed that private sector involvement has a positive impact in terms of market discipline and limits the costs of crisis resolution to the general taxpayer. While, therefore, a good case can be made for private sector involvement, its limits must also be acknowledged. For instance, private sector engagement can never fully substitute for the lender-of-last-resort function as private actors cannot create ultimate liquidity on their own. Also, there are obvious and well-acknowledged limits to private sector involvement, viz. when doing so threatens to endanger the viability of the hitherto healthy part of a financial system.

It is an equally open question whether an exclusively private sector solution would in fact provide a sufficient amount of funds for the rescue or at least the orderly winding down of a systemically relevant institution, let alone in case of a large-scale banking crisis. Experience with banking crises in industrial countries over the last two decades suggest that the answer to this question is "no". Consequently, in these cases some combination of official money (fiscal funds and central bank money), private funds and deposit insurance / insurance guarantee funds will be necessary.

Source: EFR (2005)

systemically important financial institutions and the system as a whole is instantly available. In fact, as a consequence, the ECB reportedly decided to provide an abundance of liquidity in its first emergency operation in August 2007 in order to err on the side of caution.<sup>5</sup>

- Similarly, as financial supervision in the EU is still nation-based, there is an insufficient flow of information and, even more so, little cooperation between financial supervisors in times of market stress. This fragmentation in the structure of financial supervision enhances the risk that disruptions in one market will spill over into other markets.
- The EU has not established coherent processes that would ensure consistent communication by authorities to financial markets and to the wider public in case of a crisis of a pan-European financial institution. This is likely to exacerbate uncertainty in times of crisis.
- Effective crisis management depends on the smooth interplay of various authorities involved in crisis management (central banks, financial supervisors, finance ministries, deposit insurance schemes and market participants). While this interplay functions more or less at the member state level<sup>6</sup>, a similar interplay has not been tested at the EU level.
- In the absence of pan-European structures for crisis management and due to the accountability of national authorities to their respective jurisdictions only, national authorities have an incentive to ring-fence the respective national operations of a financial institution in crisis.

These and other deficiencies have been noted by EU member states and EU authorities. In August 2007, the Economic and Financial Committee (EFC) agreed on principles for crisis management in the EU, setting out basic principles for crisis management, calling for a common analytical framework for the assessment of crisis situations and committing member states to the conclusion of a new memorandum of understanding between all the authorities involved across the EU. The report commits all member states to view the crisis of a pan-European financial institution as a "matter of common interest". It also defines a number of practical measures, including a work plan, to address the above-mentioned deficiencies in the current institutional set-up. Essentially, the EFC report goes as far as is possible under current arrangements in trying to ensure that the crisis of a pan-European financial institution will be dealt with appropriately. It remains to be seen, though, whether these arrangements will prove sufficient – especially since they do not fundamentally change the incentive patterns for the authorities in member states.

Norbert Walter (+49 69 910-31810, [norbert.walter@db.com](mailto:norbert.walter@db.com))

Stefan Bergheim (+49 69 910-31727, [stefan.bergheim@db.com](mailto:stefan.bergheim@db.com))

<sup>5</sup> Note that this does not necessarily nor logically mean that the ECB become the banking supervisor (for large EU banks). It merely means that there must be a supervisory structure that centralises the supervision of systemically important financial institutions in the EU.

<sup>6</sup> For instance, in recent months, the processes have proven to work well in Germany (Sachsen LB, IKB), less so in the UK (Northern Rock), where the tripartite agreement between BoE, FSA and HMT was found wanting and is due to be revised.

The real estate sector in relation to monetary policy Reports on European integration, No. 51 .....	December 20, 2007
Treaty reform: Consequences for monetary policy Reports on European integration, No. 50 .....	October 10, 2007
One Europe, one tax? Plans for a Common Consolidated Corporate Tax Base Reports on European integration, No. 49 .....	September 25, 2007
Towards a new structure for EU financial supervision Financial Market Special, No. 48 .....	August 22, 2007
Better Regulation in Germany and the EU – Time to see results Reports on European integration, No. 47 .....	August 30, 2007
Euro riding high as an international reserve currency Reports on European integration, No. 46 .....	May 4, 2007
From free trade to deep integration: Outlook on economic relations between the EU and US Reports on European integration, No. 45 .....	April 18, 2007
EU energy policy: High time for action! Reports on European integration, No. 44 .....	April 17, 2007

All our publications can be accessed, free of charge, on our website [www.dbresearch.com](http://www.dbresearch.com)  
You can also register there to receive our publications regularly by e-mail.

#### Ordering address for the print version:

Deutsche Bank Research  
Marketing  
60262 Frankfurt am Main  
Fax: +49 69 910-31877  
E-mail: [marketing.dbr@db.com](mailto:marketing.dbr@db.com)

© Copyright 2008. Deutsche Bank AG, DB Research, D-60262 Frankfurt am Main, Germany. All rights reserved. When quoting please cite "Deutsche Bank Research".

The above information does not constitute the provision of investment, legal or tax advice. Any views expressed reflect the current views of the author, which do not necessarily correspond to the opinions of Deutsche Bank AG or its affiliates. Opinions expressed may change without notice. Opinions expressed may differ from views set out in other documents, including research, published by Deutsche Bank. The above information is provided for informational purposes only and without any obligation, whether contractual or otherwise. No warranty or representation is made as to the correctness, completeness and accuracy of the information given or the assessments made.

In Germany this information is approved and/or communicated by Deutsche Bank AG Frankfurt, authorised by Bundesanstalt für Finanzdienstleistungsaufsicht. In the United Kingdom this information is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange regulated by the Financial Services Authority for the conduct of investment business in the UK. This information is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. and in Singapore by Deutsche Bank AG, Singapore Branch. In Japan this information is approved and/or distributed by Deutsche Securities Limited, Tokyo Branch. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product.

Printed by: HST Offsetdruck Schadt & Tetzlaff GbR, Dieburg