Sabine Lautenschläger and Andreas Dombret: Deutsche Bundesbank's 2011 Financial Stability Review

Presentation by Ms Sabine Lautenschläger, Vice-President of the Deutsche Bundesbank, and Dr Andreas Dombret, Member of the Executive Board of the Deutsche Bundesbank, of the Deutsche Bundesbank's 2011 Financial Stability Review, Frankfurt am Main, 10 November 2011.

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Part I (Dr Andreas Dombret)

I am pleased to present, together with Ms Lautenschläger, this year's edition of the Bundesbank's *Financial Stability Review*. The environment for our report could hardly have presented a greater challenge. Near the end, the flow of events had swollen to a cascade. At the European and international level, policymakers took decisions of major import in Brussels and Cannes. At the same time, the news from Athens, in particular, was keeping Europe on edge.

On the one hand, this environment made things difficult, for we want our report to be absolutely on top of current events.

On the other hand, it is precisely in such times that we need to stop for a second, take stock and ask: What is actually the current state of financial stability? And what should be the key criteria informing a smart financial stability policy and a smart regulatory regime? After all, our *Financial Stability Review* seeks not just to analyse current events but also to find answers to longer-term questions as well.

The current situation

What is our assessment of financial stability in 2011? Our main diagnosis is that the risks to the German financial system have increased perceptibly this year. High sovereign debt is certainty the greatest risk factor, and is likely to remain so for some time to come.

Among the positives: the German financial system has responded to the increased risk by improving its resilience. Our review recognises and praises the fact that German banks and insurers have made good use of the tailwind created by the rapid recovery of the German economy which began in spring 2009. However, new strains are looming on the horizon. The improved resilience will probably be increasingly put to the test.

A look at the factors affecting financial stability this year shows that the situation has changed. The positives have to do, in particular, with progress in Germany's financial system. Capitalisation has improved, while the earnings situation has remained stable. Funding vulnerabilities have been further reduced. In addition, Europe's policymakers have taken measures to counter the crisis of confidence plaguing Europe's banking system. I shall say more about that later on.

However, the negatives form a longer list. Heading this list is the sovereign debt crisis, along with its widening and its contagion effects. Developments in the financial markets should also be mentioned here. Current tensions, such as impaired funding liquidity and market liquidity, but also new structural risks such as exchange-traded funds (ETFs) and high frequency trading (HFT), are at the centre of attention. Let us now take a closer look at these negatives.

The current setting: high sovereign debt is the biggest risk

The sovereign debt crisis has widened and worsened. After Greece and Ireland in 2010, Portugal was forced to accept financial assistance from the international community in May

of this year. In the summer, the two large euro-area countries Spain and Italy were sucked into the sovereign debt crisis.

The high levels of sovereign debt have generated massive contagion effects within the banking sector. The first casualties were the banking systems of the Troika programme countries – Greece, Ireland and Portugal. Their access to the money and capital markets is meanwhile very limited. However, large European banks with an international focus are now likewise threatened with contagion. For example, the severe reactions in the equity markets and CDS markets have hit the financial sector particularly hard (Chart 1).

The Bundesbank believes that the German financial system's exposure to Greece, Ireland and Portugal is, on the whole, manageable – not least because German banks have been doing better since 2009. As at end-June 2011, German banks' exposure to *all* Greek debtors – by this I mean the public sector, the financial sector, corporates and households – totalled just under €28 billion, while German insurers' outstanding claims on Greece totalled around €2 billion (Chart 2). Balance sheet exposure to all borrowers from the two other Troika programme countries – Ireland and Portugal – stands at €63 billion for German banks and a little over €10 billion for German insurance companies.

Exposure to borrowers in the major euro-area countries Italy and Spain is larger. German banks' exposure to the Italian government sector is €42 billion, and that of German insurers €9 billion. Exposure to the government sector of Spain is €23 billion for German banks and nearly €6 billion for German insurers.

The crisis of confidence in the European banking system is currently leaving its mark on financial stability in Germany and Europe. Three additional factors are playing a role. First, procyclicality in the financial system itself is amplifying the crisis. Second, problematic legacy portfolios have not yet been fully dealt with. Third, the persistent low-interest rate environment continues to harbour potential dangers.

The financial system has in-built procyclicality, which is itself amplifying the crisis. Financial markets display a considerable degree of co-movement. There are high correlations between various asset classes such as equities, commodities and selected currencies (Chart 3). This comes as little surprise if we look at the many possible shock-amplifying factors. Credit conditions such as automatic margins and haircuts on posted collateral can trigger liquidity spirals. Automatic pegs to ratings, such as in the investment rules of mutual funds, can intensify pressure to sell when prices are falling. In fact, the growing number of passive investment strategies is narrowing the range of sentiment in the financial markets.

Other trading strategies reinforce such automatic triggers, such as high frequency trading (HFT), which is predicated on advantages of speed by extremely rapid computer-operated trading in order to make profits. HFT is estimated to make up 70% of all equities trading in New York and 40% in Frankfurt. It should be noted, however, that HFT primarily focuses on the most liquid 5% to 10% of shares as well as on the most liquid currency pairs. For one thing, HFT is a concern in terms of market integrity. Extremely fast software routines can be misused to manipulate the market. For another, HFT raises a host of financial stability issues. HFT can create "ghost liquidity" which vanishes precisely when it is needed most urgently.

Exchange-traded funds (ETFs) also pursue passive trading strategies. They try to track the yield movement of a portfolio, usually an index. The attendant counterparty risks, such as are created by swap agreements, give cause for concern. Banks must not be permitted to create ETFs in order to refinance illiquid portfolios; otherwise, liquidity risk could potentially arise if investors suddenly pull out of these ETFs.

However, we need to keep an eye not only on new trends but also on legacy problems from the first stage of the financial crisis. For they have not yet been completely overcome. Our attention remains focused on two asset classes: commercial real estate and structured securities.

It is particularly in the international commercial real estate markets that pressure could resurge, especially as a lot of commercial real estate is up for refinancing. The major German banks with an international focus have a current commercial real estate portfolio of €274 billion. Half of this portfolio is accounted for by foreign business: 13% by the United States and 7% by the United Kingdom.

These banks are still holding a considerable volume – €150 billion as at the end of June – of exposure to structured products (Chart 4). €67 billion of this relates to residential mortgage-backed securities (RMBS) and €16 billion to commercial mortgage-backed securities (CMBS), whereas around €33 billion is in collateralised debt obligations (CDOs). The portfolios of structured securities, however, have declined by €55 billion from last year – some €20 billion owing to maturities and redemptions, but also around €21 billion due to transfers to resolution agencies.

The low-interest rate environment is still impacting on our financial system behind the scenes, entailing sizeable medium-term risks. This was discussed at length in last year's *Financial Stability Review.* However, risks contained in banks' balance sheet structure, such as overleveraging or excessive maturity transformation, are not so much at the current focus of our attention. Our main worry at the moment relates to imbalances in a very short-term-oriented financial system that can divert funds quickly between asset classes and thus contribute to market volatility. Over the course of the year, this has become apparent particularly in the asset classes emerging market economies and commodities (Chart 5).

Part II (Sabine Lautenschläger)

Germany's financial system facing challenges

Germany's banks are better equipped to tackle the crisis today than in 2008. The key drivers are: higher capital levels, stable earnings thus far and stabler funding through increased customer deposits. Contrary to fears held in 2008 and 2009, German banks have lived up to their responsibility as financial intermediaries. There has not been a credit crunch in Germany, nor do we see any signs at present of one occurring.

One of the interesting details of the in-depth analysis is the medium-term comparison between the spring of 2008 and the summer of 2011. For a group of 13 major German banks with an international focus, the tier 1 capital ratio under the currently applicable Basel II rules rose from 8.1% to 13.1% (see Chart 6 for the sources of capital formation). Leverage – measured as total assets to tier 1 capital – dropped from 43 to 33. Risk-weighted assets have also declined further, reducing capital requirements by almost 30%.

The earnings situation of the major German banks with an international focus has been stable for a relatively long time. Earnings have remained within a narrow corridor in the last 10 quarters (Chart 7). In the second quarter of 2011, the interest margin – defined as interest income divided by total assets – was, at 0.83% on an annualised basis, well above its long-term average of 0.72%.

The third key finding is that funding has become more stable. The rising trend in customer deposits is continuing. Customer deposits now make up 44% of liabilities (Chart 8). It must be noted, however, that the competition for deposits is pushing down margins. Also, the rolling-over of the, in some cases short-term, wholesale liabilities is a major challenge depending on the market situation.

Vulnerability is visibly falling with regard to US dollar funding, too. At a current level of US$61 billion, the US dollar refinancing gap is at roughly its pre-crisis level. However, the share of short-term wholesale liabilities, such as via US money market funds, remains a key feature of US dollar funding.

Although, on the whole, the tension in the European interbank market merits a critical assessment, since October "the German institutions" have been, on average, investing much more money in the deposit facility than they have been taking out through the ESCB tender operations.

However, painting an overly positive picture would not be the right thing, either. Germany's banks, too, are operating in a setting that is fraught with major uncertainty. Banking business thrives on mutual trust, on borrowers' confidence in lenders and vice versa. This mutual trust and confidence has been disrupted. For one thing, of course, because the crisis was triggered by the banking system. For another – and this is specific to Europe – because the markets see the public finances of many Eurosystem countries as being unsustainable.

The difficulties some countries are having with their public finances are having a direct knock-on effect on institutions. This notably includes the need to write down government bond portfolios and volatile financial markets. However, it is our impression that Germany's banks are well prepared for this challenge.

A more serious issue is that, in the long run, the real sector cannot completely decouple from the uncertainty of the overall situation. The German economy has weathered the crisis very well thus far. The leading indicators, however, are pointing to a certain cyclical downturn – which will also tend to squeeze banks' earnings.

Yet the factor I see as being the biggest problem, in terms of its potential impact, is the loss of confidence. We believe the correlation is monotonic: the sounder the state of public finances, the more confidence people have in that country's banks, and vice versa.

Europe's policymakers have responded to this loss of confidence and have initiated a recapitalisation of major European banks. In this process, 70 European credit institutions, including 13 German banks, marked to market their entire holdings of bonds issued by and loans granted to EEA countries as at end-September. After marking the bonds to market, each institution is required to have a core tier 1 capital ratio of 9%. According to provisional calculations by the EBA – largely on the basis of half-year figures – European credit institutions currently have a combined capital shortfall of €106.4 billion, of which German institutions account for €5.2 billion. Taking into consideration earnings performance in the third quarter of 2011 and the impact of the introduction of the Capital Requirements Directive CRD III on individual institutions, this capital requirement figure of German banks is likely to increase. The modest size of the German banking system's capital requirements in comparison with other European countries is chiefly due to the fact that German institutions have recently raised their capital ratio. In addition, banks generally hold government bonds issued by their own sovereign, and German government bonds enjoy a top credit rating.

I am convinced that the EU package is a key step towards restoring confidence in the banking system. However, I am also convinced that it cannot be the sole approach to solving the problem.

Instead, this crisis will also have long-run consequences for the banking system. The attractiveness of government financing business has been diminishing because it has turned out to be appreciably riskier than the available returns. Rating downgrades and wider bank CDS spreads are making funding more expensive and could lead to a revision of business models.

The sovereign debt crisis will require not only policymakers, but also the financial industry itself, to implement far-reaching reforms.

Part III (Dr Andreas Dombret)

What needs to be done now?

Our *Financial Stability Review* provides not only analysis but also evaluations and recommendations. What advice can the Bundesbank give to market participants, policymakers and the interested public?

Our recommendations to market participants rest, at the core, on two fundamental messages. One is: take a more long-term view in your business! The requirements of the markets are changing constantly. Provisioning and smart risk management are necessary for sustainable business – not least in the financial sector. The second message is that regulators and policymakers are not the only parties responsible for giving the markets a proper framework. Market participants themselves are primarily responsible for making the markets work.

Our recommendations are aimed at encouraging a longer-term business policy focus. Specifically, banks must further strengthen their capital base in response to the loss of confidence in the banking sector; and the salaries and bonuses paid by banks have to go down if banks earn less – this applies especially to investment banking.

The second plank of our recommendations addresses market participants' self-responsibility for the organisation of the markets. This means that even systemically important financial institutions (SIFIs) must be able to exit the market without the financial system collapsing. It is therefore necessary to develop recovery and resolution plans (RRPs) for SIFIs. We also think that it is appropriate to propose the establishment of a code of conduct for HFT in order to preclude the use of potentially unfair practices. Enhancing the transparency of ETFs would also help improve the markets' ability to handle the risks.

Last but not least, I wish to turn to our recommendations for policymakers. We can distinguish between two sorts of policymakers. Our first set of recommendations is addressed to those responsible for financial stability policy itself. It seems important to me that financial stability policymakers, with all the fires that need to be put out, should not lose sight of the ultimate objective: the goal is *not* to push the markets back as far as possible. On the contrary: the goal is to create an intelligent framework for markets that work.

Enhancing transparency and strengthening the financial infrastructure are essential ingredients of a sustainable market framework. Our recommendations are therefore directed at making the shadow banking system more transparent. This means, above all, the rigorous implementation of new internationally harmonised reporting requirements for the shadow banking system. Another key requirement is to obtain a clearer picture of what risks are being assumed by hedge funds. It is therefore important to stipulate the use of central counterparties (CCPs) for over-the-counter (OTC) derivatives trading and set up trade repositories – also for commodity markets.

A further pillar of a sustainable market framework involves giving banking regulation and supervision a stronger macroprudential focus. Our recommendation in this respect is aimed at achieving internationally harmonised insolvency regimes for banks.

In addition, it is necessary to ensure that decisions on the use and dosage of macroprudential tools remain the prerogative of national supervisors. The goal here is that macroprudential instruments such as the anti-cyclical capital buffer should be set by national authorities, including German authorities; for these instruments must be able to respond to the situation in the respective country – for instance, to that country's credit and real-estate markets.

In addition, we also have recommendations for fiscal policymakers. This is self-explanatory at a time when high government debt is the most pressing problem. Because of this high level of government debt, it is particularly important to pursue a sustainable fiscal policy and

to implement supportive structural reforms. In Germany, too, the task of consolidating public finances must continue. The incentives for pursuing sound national fiscal policies must be restored in Europe. It is imperative that policymakers respect the boundary between monetary and fiscal policy. Which brings us back to the topic that is currently concentrating our minds most – the sovereign debt crisis in Europe.

Chart 1

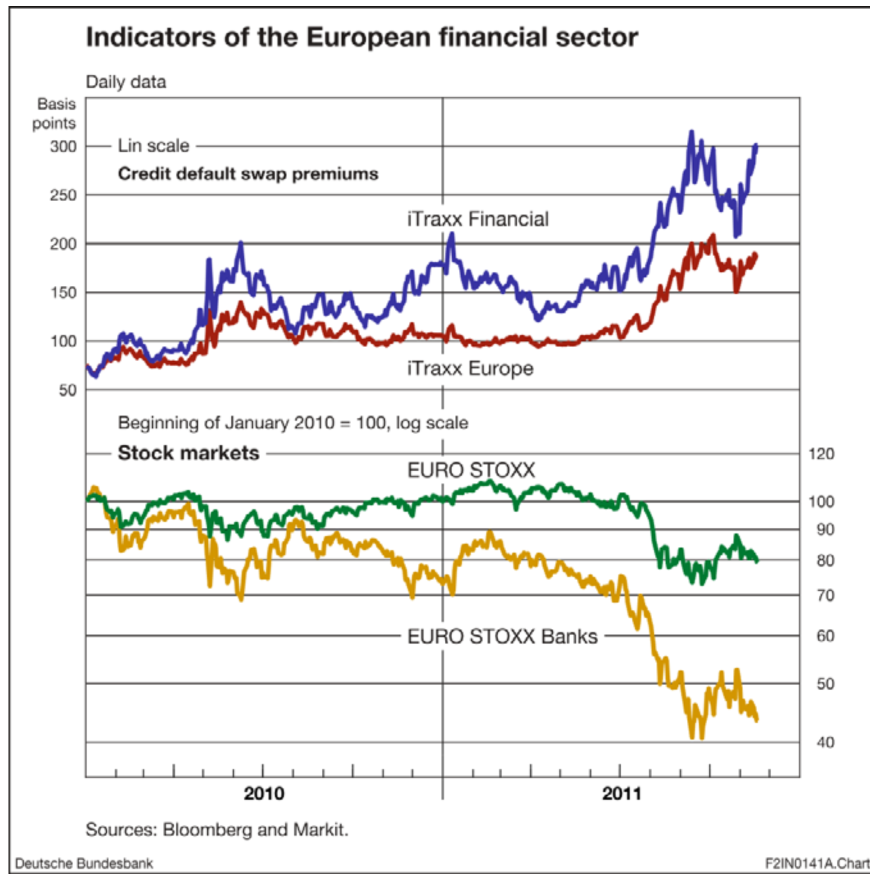

Chart 2

BALANCE SHEET EXPOSURE OF GERMAN BANKING SYSTEM[*] AND INSURERS TO SELECTED COUNTRIES

€ bn; as at June 2011

	Borrowers									
	Government sector		Banks and money market funds		Other financial sector		Enterprises/ households		Total	
Country	Banks	Insurers	Banks	Insurers	Banks	Insurers	Banks	Insurers	Banks	Insurers
Belgium	8,6	4,1	15,5	24,0	1,7	0,1	6,4	0,4	32,3	28,7
France	23,7	7,9	49,8	20,2	7,8	6,2	33,4	2,7	114,7	37,0
Greece	17,5	2,1	0,7	0,0	0,5	0,0	9,2	0,0	27,8	2,1
Ireland	5,9	2,9	4,0	1,0	26,5	3,5	5,6	0,1	42,0	7,3
Italy	42,2	9,0	54,4	29,4	5,0	1,1	16,1	0,7	117,7	40,3
Portugal	6,2	2,1	7,3	0,6	1,2	0,2	6,2	0,2	20,9	3,1
Spain	22,6	5,7	47,4	9,1	20,2	3,2	29,2	0,3	119,5	18,3
United States	80,0	4,8	26,3	4,1	169,5	7,1	107,4	1,4	383,1	17,4

Source: The Deutsche Bundesbank's credit register of loans of €1.5 million or more. — * Definitions based on BIS banking statistics.

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Chart 3

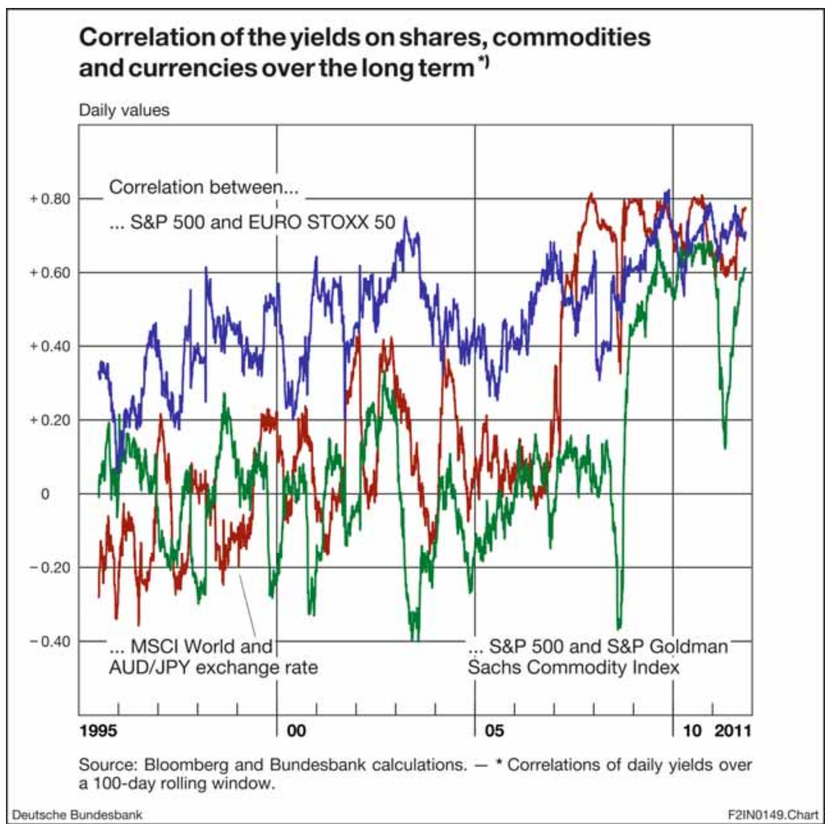

Chart 4

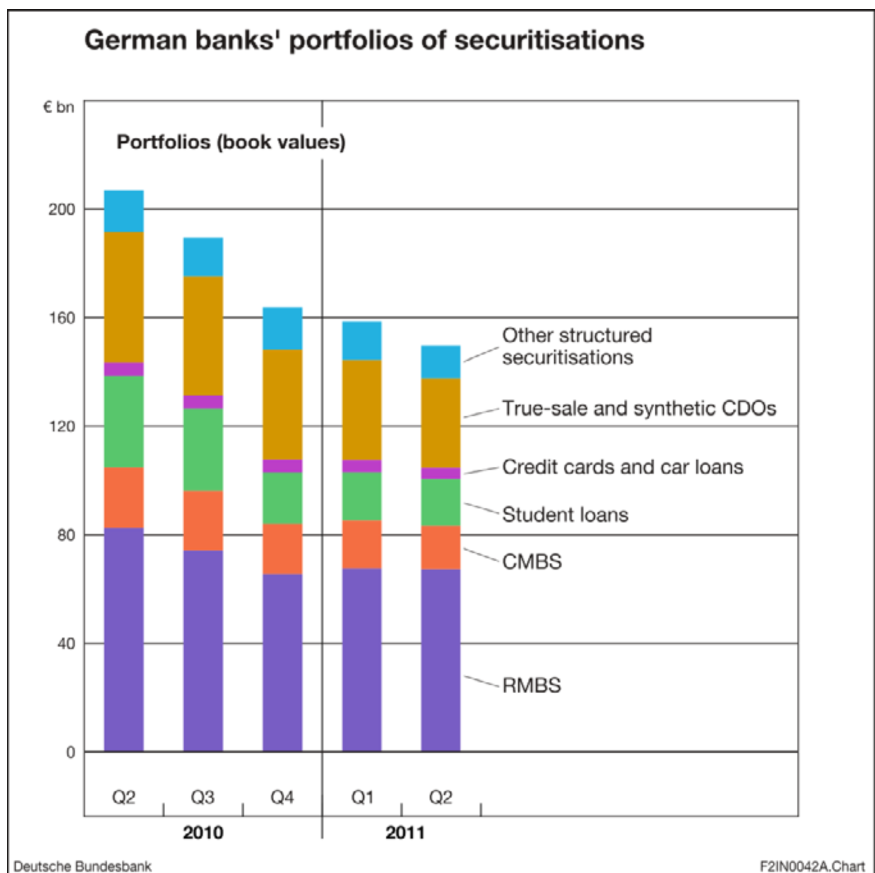

Chart 5

EMERGING MARKET ECONOMIES: SELECTED INDICATORS FOR RISKS ASSOCIATED WITH CAPITAL INFLOWS[*)]

Country	Net capital inflows as % of GDP [1)]	Credit growth (real) [2)]		Equity valuation [3)]		
	z score	Year-on-year change (%)	Average of the last three years (%)	z score P/E ratio [4)]	z score of the estimated P/E ratio [4)]	z score P/B ratio [5)]
Argentina [6)]	0,4	35,3	15,2	-0,2	0,1	0,3
Brazil	1,3	19,6	14,8	-0,7	-0,5	-0,2
China	1,3	10,1	18,7	-1,4	-1,2	-1,0
India	-0,6	11,8	8,8	-0,3	-0,7	-0,3
Indonesia	2,0	17,5	12,8	-0,1	0,5	0,6
Mexico	0,5	11,8	2,3	0,5	0,5	0,3
Russia	0,0	7,8	8,0	-1,3	-1,4	-0,7
Saudi Arabia	-1,0	3,1	5,2	-1,2	-0,8	-0,8
South Africa	0,1	-0,7	-0,6	-0,7	-0,8	-0,4
South Korea	-0,5	-1,4	3,4	-0,2	-0,5	0,0
Turkey	1,3	34,6	18,2	0,0	0,0	-0,3

Sources: Bloomberg, Datastream, IMF, SAMA and Bundesbank calculations. — * The z score is the distance, expressed as the number of standard deviations, between the last data point and the mean of the dataset. — **1** The IMF regards a z score > 1 as problematic (values shaded in red). — **2** The IMF defines a period of strong credit growth as a period in which average real credit growth over a three-year timeframe exceeds 17% (values shaded in red). — **3** The IMF regards z scores > 1.5 as requiring observation and > 2 as problematic. Bloomberg uses the current-year profits to calculate the price-to-earnings (P/E) ratio. In order to calculate the estimated P/E ratio, Bloomberg surveys market watchers on their profit expectations for the coming 12 months. — **4** Price-to-earnings ratio. — **5** Price-to-book value ratio. — **6** Argentina's real credit growth was calculated using official inflation statistics and may therefore potentially be overstated.

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Chart 6

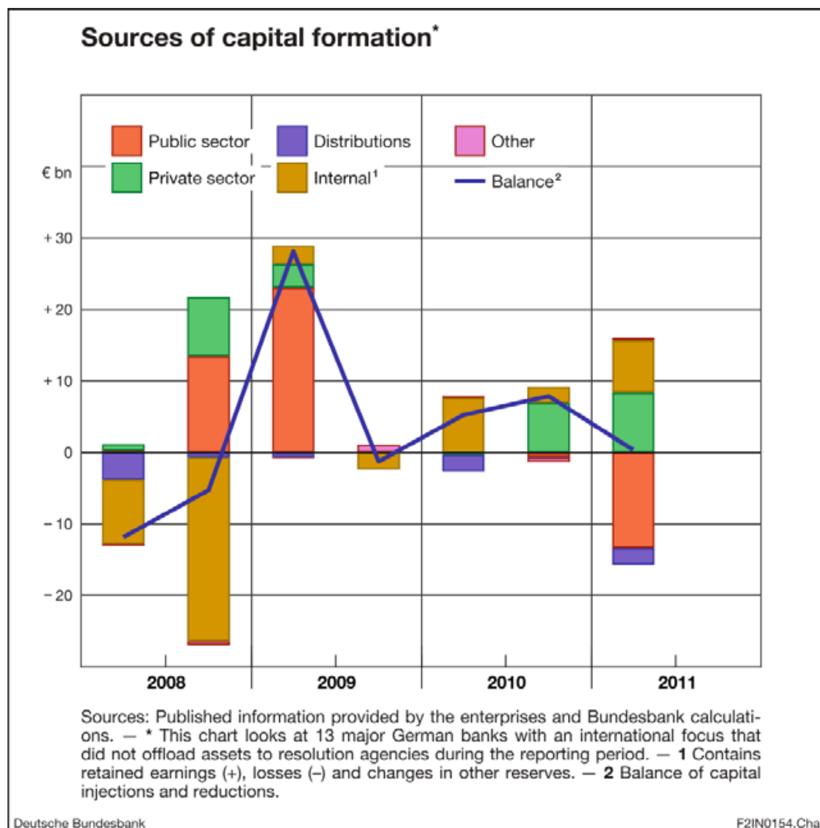

Chart 7

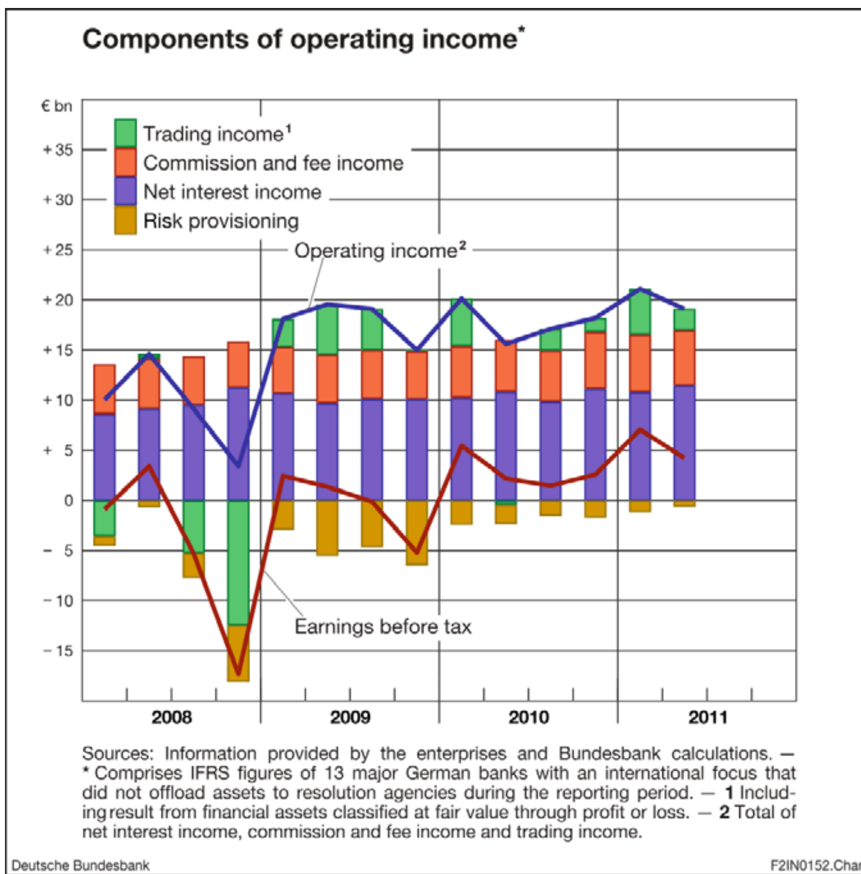

Chart 8