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Euro and Greek Bond Spread



Source: EcoWin, ING

Output drop on EMU Break-up



Greece			
lre lan d		_	-
Spain		_	-
Italy		-	-
Portugal			
Belgium			
Netherlands			
France			
Germany			
-15	- 10	-5	0
Greek exit	Tota	l break-up	Ū

Source: EcoWin, ING

New currencies would plunge



Source: EcoWin

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EMU Break-up

Quantifying the Unthinkable

Suddenly the unthinkable is thinkable. The possibility that one or more of the members of European Monetary Union (EMU) might leave is no longer being dismissed, even by Eurozone politicians. In this report, we discuss not the probability of this – readers will doubtless have their own views – but rather its potential economic and financial market impact. Complete break-up would have effects that dwarf the post Lehman Brothers collapse.

EMU was designed to be irreversible. The sovereign debt crisis has set the markets thinking that this may no longer be so. German politicians are talking openly of EMU exit being an option. But given the political dimension of decisions to leave EMU, there is no definitive way of assessing their probability, although this does not stop commentators debating it endlessly.

Our purpose in this report is rather different; we assess not the probability of EMU breakup, but its impact. Calibrating the impact is especially challenging, given the unprecedented scale and ambition of EMU. Indeed, it might be said that this is trying to "quantify the unquantifiable". Nevertheless, faced with this risk, investors need to take a view.

We evaluate two boundary cases: a Greek exit and a complete break-up. Although there are many permutations in between, our results should give some indication of their potential impact as well.

While the initial economic damage of a Greek exit is naturally focused on Greece itself, the effects elsewhere are non-trivial. While Greek output falls by 7½% relative to our base case, the remaining Eurozone economies could see their output fall by as much as 1%. Losses on Greek assets spread the pain across Europe and beyond.

By comparison, the impact of complete break-up is dramatic and traumatic. In the first year, output falls by between 5% and 9% across the various former member states, and asset prices plummet. With their new currencies falling by 50% or more, the peripheral economies such as Spain and Portugal see their inflation rates soar towards double-digits. Meanwhile, Germany and other core countries suffer a deflationary shock. Indeed, with the US dollar surging on safe haven flows to the equivalent of 0.85 EUR/USD, the US also suffers a bout of deflation.

As a result, the break-up scenario leads to massive divergence in both interest rates and bond yields. Ten year bond yields in Germany fall below 1% while those in the peripheral markets might soar into a 7-12% range.

Some argue that the current sovereign debt crisis has exposed EMU as not being what economists would call an optimal currency area. We do not address the potential long-term pros and cons of dismantling EMU here. However, the initial trauma outlined in this report is sufficiently grave to give pause for thought to those who blithely propose EMU exit as policy option.

Contents

Thinking the Unthinkable	3
Quantifying the Unquantifiable	5
Quantifying the Unthinkable	6
Conclusion – Thinkable, but Unpalatable	16
Appendix - Scenario Tables	17
EMU Greek exit scenario	
– Absolute numbers	
- Differences to base	21
EMU Complete euro break up	
– Absolute numbers	24
- Differences to base	27
Disclosures Appendix	31

Disclosures Appendix

2



The sovereign debt crisis has cast doubt on the sustainability of EMU

German politicians are openly talking of EMU exit as a policy option

Is this populist rhetoric?

Or shock tactics?

The stakes are high

Thinking the Unthinkable

Suddenly the unthinkable is thinkable. European Monetary Union (EMU) was designed to be irreversible. Until this year, it was treated as such by the financial markets. But with the emergence of the sovereign debt crisis in the Eurozone, the possibility of members leaving EMU is being taken seriously by the financial markets. Even the complete breakup of EMU is talked about.

Crucially, this is no longer just a figment of fevered Anglo-Saxon imaginations. There has been a distinct change of tone from Eurozone policy-makers. They no longer rule out the possibility that some members may have to leave. Crucially, German politicians, responding to the popular anger of voters appalled at the prospect of bailing-out Greece and other struggling EMU members, suggest that departure of the profligate should be an option. Failing that, Germany itself may consider leaving, which would surely be the death knell of EMU in anything like its current form.

But should we take German politicians' talk of EMU exits literally? It might be dismissed as populist rhetoric designed to reassure the electorate that continued fiscal ill-discipline will not be tolerated. Or it could be portrayed as shock tactics designed to scare the Southern Europeans into accepting the harsh medicine of fiscal austerity being prescribed, and practiced, by Germany. In the end, Germany is committed to the survival of EMU, isn't it? After all, Chancellor Merkel herself said in May, "If the euro fails, it is not only the currency that fails. Then Europe fails. The idea of European unity fails."





Source: EcoWin

EMU exit would not, in itself, help fiscal solvency...

Meanwhile, politics aside, it could be argued that the economics of EMU break-up do not stack up. After all, if Greece or other Southern European members were to leave, the ensuing currency depreciation would not directly help improve their fiscal solvency problems. In fact, unless they re-denominated their existing debts into their newly-depreciating currencies, their debt-to-GDP ratios would soar. Moreover, even if they did re-denominate, this would, in the first instance, merely leave their debt-to-GDP ratio unchanged.

... the real story is about how

to boost growth

Box 1: The Mechanics of Sovereign Debt Sustainability

Following the Greek government's difficulties in financing its debt, the financial markets have become sensitive to the ability of all governments to put their finances on a sustainable footing. Countries with outstanding public debts in excess of annual GDP have come in for particular scrutiny. In the long term, markets want to see the public debt to GDP ratios stabilise and then fall from the elevated levels sparked by the financial crisis.

The key drivers of the change in Public Debt (as %GDP) over time can be derived from the following equation:

Change in Debt = Primary Budget Deficit + [(Interest rate – GDP growth) x Debt] Note: public debt and deficits expressed as %GDP, primary budget deficit excludes debt interest

Accordingly, the growth in public debt can be reduced in the following ways:

- 1. Improved primary budget balance = either lower expenditure or higher taxes
- 2. Lower interest rates
- 3. Faster nominal GDP growth = either faster real growth or higher inflation
- 4. Reduce existing debt = either sell-off assets or restructure/default on existing debt

For the peripheral Eurozone economies that are struggling with their government debts, departure from EMU is not a straightforward solution. Indeed, in the short term, it would make matters worse. The immediate depreciation in the new domestic currency would increase the cost of servicing their euro-denominated debts. Even if, as we believe most likely, they chose to address this by re-denominating these debts into their new currency, their solvency would be challenged initially by higher interest rates and higher primary deficits. The calculation is that currency depreciation would in the longer term fuel stronger nominal growth and, as result, lower primary deficits. This combination would allow them to reduce their debt to GDP ratios.

However, this story is not just about fiscal solvency. It's also about growth. While a post-EMU depreciation would not in itself lower the leaving country's debt-to-GDP ratio, it would give it a chance to grow more rapidly by regaining price competitiveness (see Fig 2). Faster nominal growth would, over time, reduce the country's budget deficits and raise its GDP, thereby lowering the debt-to-GDP ratio.



Fig 2 Competitiveness needs to be restored

Source: EcoWin

Depreciation is seen as an alternative to grinding fiscal austerity

Even Europhiles have to concede that the probability of exits is <u>not</u> zero

Given the politics, putting a probability on exit is tricky

Thus EMU break-up is being viewed as an alternative to the years of sluggish growth that is threatened by the fiscal austerity that is now being seen as the price of continued EMU membership. The hope that EMU would be an engine of prosperity and of a 'levelling-up' convergence is now looking distinctly tarnished.

Quantifying the Unquantifiable

The events of the past few months mean that even the most ardent Europhiles have to concede that the probability of EMU departures or break-up is no longer zero. It may not be imminent, but the political and economic climate is such that the possibility that the membership will fall from its current level of 16 (or 17 as it is set to be in January 2011 with Estonia's entry) in coming years is clear.

However, the very fact that the fate of EMU is as much a political as an economic question means that there is no definitive way of putting a probability on EMU departures or break-up. Readers will doubtless have opinions of their own on this. Indeed, given its political dimension, this is a topic that rouses understandable passions on all sides of the debate.





Source: EcoWin

We can get some clues as to the financial markets' opinions on the probability of EMU break-up. The rise in intra-Eurozone government bond yield spreads and the general decline in the value of the euro itself are both indicative of the declining confidence in the sustainability of EMU. But they are hardly definitive: rising spreads could straightforwardly reflect the rising risk of sovereign restructuring or default. Meanwhile, the decline in the euro could also reflect the Eurozone's fiscal woes and the relatively lacklustre performance of the Eurozone economy: neither necessarily implies that EMU will fall apart.

Another way of assessing the probability of EMU break-up is via polls and surveys of professional and popular opinion. One such survey, conducted by the Economist Intelligence Unit commissioned by RBC Capital Markets, found that half of the 440 chief executives and heads of banks questioned believe that by 2013 there is a greater than 50% chance of one or more countries exiting EMU, while 36% see at least a 25% chance of a complete breakup.¹

BUT our focus is on the *impact* NOT the probability...

Bond spreads and the euro

do not give clear signals...

...although surveys show

expectations of exits are high

However, our main purpose here is not to debate the *probability* of EMU break-up. We will confine ourselves merely to the observation that it is not zero, and that it has risen.

¹ Reported in the Financial Times, June 28th 2010 http://www.ft.com/cms/s/0/27a86056-8216-11df-938f-00144feabdc0,dwp_uuid=79cadde4-5c1b-11df-95f9-00144feab49a.html



Our purpose is rather to attempt to *quantify the impact*. As any good scenario or credit analyst will tell you, the importance of an event depends not just on its likelihood, but also its impact.

...unlike other commentators Remarkably, commentators are still obsessed with debating the 'will they, won't they' question of whether EMU will break up, rather than examining its implications. Yet with the EMU at serious risk, investors need to give careful consideration to calibrating the impact.

Quantifying the unquantifiable?

EMU is a monetary union like no other in its scale and ambition

Past break ups probably don't give us much guidance

What's the story?

Who? When? How?

We outline two boundary cases

Timing at end 2010 is a simplifying assumption, NOT a forecast! That said, quantifying the impact is a massive challenge. Indeed, it could be said that we are moving from 'thinking the unthinkable' to 'quantifying the unquantifiable'. True, there is a case history of failed monetary unions to work from. But EMU is a monetary union like no other in terms of its scale and ambition. It has pulled together 16 nations, the world's largest trading bloc. It has done so without political or fiscal union, indeed, for some, its express aim was to push the members in that direction. Its designers hoped too that it would become a currency to rival the US dollar, a goal that it looked well on the way to achieving, at least until a few months ago.

So while monetary unions have broken up before, the consequences of even a partial break-up of EMU would be unprecedented. Throw in heavy doses of political friction and recrimination, and it is easy to see that any quantification of the economic and financial market consequences is fraught with uncertainty. The margins of uncertainty around what follows are unavoidably huge. However, while this is dirty work, someone has got to do it.

Quantifying the Unthinkable

1. Setting the boundaries

The first problem that we face in contemplating the possibility of existing members leaving EMU is to specify the story. Would just one member leave, a group, or would it break up completely? When would it happen? How would it happen? There are clearly a wide range of possible scenarios.

In order to cut through the innumerable possibilities, our economists and strategists decided to focus on two boundary cases. The idea is simply to give to some sense of the range of possible economic and financial market impacts.

Further, since forecasting beyond the near term is difficult enough, we chose to assume that break-up would happen just before the end of this year. This is not so much because we believe that this is the most likely scenario (indeed, our feeling is that exit or break-up is arguably more likely later in 2011 or beyond), but rather because this simplifies matters. In any case, since our main purpose is to examine what *difference* EMU exits would make, the precise timing does not make a material difference to our analysis. Within reasonable bounds, the resulting differences can be overlaid on alternative baseline forecasts².

² For more details on our Eurozone forecasts, please see Eurozone Economics Update: 3Q10 - Saving the euro?

The mild option: 1. Scenario I: a 'stage-managed' exit of Greece At the mild end of the spectrum, the most plausible scenario is that Greece is the only Greek exit country to exit the Eurozone. Greece is the most challenged from a solvency and a competitiveness perspective, and it is most observers' favourite candidate for leaving EMU. The modest size of the Greek economy means that its departure would be far less disruptive than if one of the bigger economies were to leave. • Our assumption is that Greece's exit does not happen in a chaotic manner. The Eurozone and IMF would provide medium-term funding to ease the pain of Greece's exit The Greek exit gives further impetus for reforms in other highly-indebted countries such as Spain and Portugal The extreme option: 2. Scenario II: a complete break up of the Eurozone At the extreme end of the spectrum, Eurozone countries and the financial markets conclude that the monetary union has failed. Members decide to revert to national currencies and monetary policy. · Clearly, there are many intermediate cases involving a variety of periphery or core countries leaving. However, in these cases, there would be protracted economic, political and financial tensions that would leave open the possibility of further departures or a complete break-up at a later date. The complete break-up scenario also has the analytical advantage of allowing us to

Our two boundary cases are as follows:

- specify where each member might stand in terms of the economic and market impact of their exit from EMU. Readers might want to use our results as a rough guide to the potential viability of intermediate scenarios involving either weaker or stronger members trying to stick together either with the euro or some new successor currency. For example, one might envisage a German-led core group wishing to persevere with the euro, or alternatively a 'two-tier' euro whereby the core group uses a 'strong euro' and the peripheral group a 'weak euro'.
- In our complete break-up scenario, governments decide to convert all assets and liabilities into their new national currencies. Capital controls are temporarily introduced in an effort to stem capital flight from the weaker members. New notes and coins are reintroduced as quickly as possible.
- As a very extreme case, as we shall describe in the next section, the macroeconomic and financial market consequences of scenario II are a multiple of those of scenario I.
- As described earlier, EMU exit and reversion to national currencies does not directly improve fiscal solvency. Indeed, we assume the conversion of all existing debt into local currencies in order to prevent an immediate deterioration in debt-to-GDP ratios. Debt restructuring in some highly-indebted countries would remain a key risk: the calculation is that currency depreciation would eventually help these countries 'grow out of their problems'. However, as we shall see, the initial impact on output is severely negative.
- Even in the absence of restructuring, foreign investors will still bear huge losses as a result of leavers' currencies depreciating and asset prices plummeting. Liquidity problems are addressed through quantitative easing, and IMF and EU support. Clearly, it is possible to conceive of even gloomier versions of this scenario in which such support is not forthcoming, causing even greater systemic dislocation.

complete breakup

Intermediate permutations can be inferred from our results



The margins for error are huge	For each scenario, we have assessed the potential impact on the economy and financial markets, both inside and outside the Eurozone. As noted earlier, the unprecedented nature of these scenarios means that the margins of error on our calibrations are necessarily wide; they involve a larger than usual element of art rather than science. Nevertheless, we believe that what follows gives some guidance of the broad orders of magnitude of the economic and market consequences that would ensue were our scenarios to play out.
but hopefully the broad orders of magnitude are	The detailed results are contained at the end of this report. The following sections will briefly summarise the impact through to 2012 on:
plausible	The real economy
	The financial sector
	Interest rates and government bonds
	Exchange rates
	Corporate bond spreads and ABS
	Real estate and stock market
Five blows to activity:	2a. The real economy – a hammer blow Both scenarios would depress economy activity. There are several factors that would hurt economic activity:
Logistical and legal problems would be severe	 Even with some advance planning, the logistical and legal problems of reintroducing national currencies, while transitional, would be severe and protracted.
Capital flight and financial systematic distress	2) Given the likelihood of sharp currency movements, capital flight and distress in the financial system would disrupt trade and investment. The dive in the global economy that followed the collapse of Lehman Brothers in September 2008 gives us a taste of how damaging this could be.
Plunging consumer and business confidence	3) A plunge in business and consumer confidence would likely be accompanied by a renewed dive in asset prices inside and outside the Eurozone. Indeed, since it is unlikely that EMU exit or break-up would be entirely unexpected, these effects might begin to build up in advance of the event itself.
Further fiscal tightening	4) The challenge of maintaining fiscal credibility and securing government funding would be intensified. This would call for yet more fiscal tightening measures, particularly for the weaker peripheral Eurozone countries.
Non-Eurozone economies hit also by currency appreciation	5) While non-Eurozone economies would be spared the worst of the disruption of the creation of one or more new currencies, they would suffer more in one respect: their currencies would appreciate strongly, compounding the damage to their export growth.
Greek exit might slice 7½% off GDP in 2011	Although in scenario 1, Greek exit, the impact is clearly heaviest in Greece itself, there would be non-trivial effects on the rest of Europe. Greece suffers a deeper recession in 2011 than in our baseline, with GDP 7½% lower. Other Eurozone countries suffer falls in output of up to 1% (see Fig 4).

2. Assessing the impact



Fig 4 Output losses exceed 10% after break-up



Fig 5 Impact on GDP exceeds that of the credit crisis



Source: ING

Break-up could depress GDP by between 4% and 9%

Neighbours such as the UK would be hard hit, too

US could flirt with recession

Fig 6 Global impact: "Beggar the neighbours"

However, the broader impact under scenario II, the complete break-up of EMU, is much larger. In 2011 a deep recession across the Eurozone emerges, dragging down the global economy. In the Eurozone output falls range from -4% in Germany to -9% in Greece. Elsewhere the impact is particularly large in neighbouring European economies. Thus GDP falls 3% in the UK and 5% in Central and Eastern Europe. While the US would be less adversely affected, the combination of lower global growth and a strongly appreciating US dollar would see it flirting with outright recession in 2011.



Source: ING

Source: ING

Markets will seek a new equilibrium. A weaker exchange rate will benefit exports to the rest the world. However, this will not compensate for the domestic demand collapse.

Weaker leavers could see inflation hit double digits as their currencies plunge

Core Euope and the US have a deflationary shock

While the impact on activity would be negative across the board, the impact on inflation would be more varied (see Fig 7). In scenario I the drop in activity depresses inflation in general, apart from Greece where currency depreciation will push up inflation into doubledigit numbers. In scenario II, the currency depreciation effect would extend to all the peripheral countries, in some cases pushing inflation rates to double digits. By contrast, the massive drop in activity might lead core European countries to suffer from deflation. A soaring US dollar would also impart a deflationary shock to the US economy.

Fig 7 Deflation for the core, inflation for the periphery



The financial sector will suffer from plummeting asset prices

The Netherlands and UK would suffer big losses on their pension schemes

2b. Financial sector – fresh systemic distress The financial sector suffers in both scenarios. In scenario I, the effects are clearly smaller,

although the fact that a high proportion of Greek assets are held outside Greece spreads the pain. In both scenarios, asset prices initially plummet (all the more so to the extent that the event is unexpected). Aside from stock prices, house prices will drop sharply in markets where mortgage debt was already high and rates go up relatively sharply. The plunge in economic activity and corporate profitability also leads to a sharp rise in defaults on corporate bonds and loans, compounding the problems for the banks and other financial institutions. Banks and pension funds in surplus countries and/or countries with mature funded pension schemes, such as the Netherlands and the UK, face immediate currency losses on their assets in deficit countries. In all, governments would find themselves having to bail out banks again, worsening already fragile government finances.



Fig 8 Banks' Eurozone exposure: core vs periphery

Source: BIS, ING calculations

Especially in the break-up scenario, severe balance sheet problems in the financial sector will arise depending on cross-border imbalances between assets and liabilities. Indeed, the same will apply to the corporate sector. In general the core countries are creditors to the peripheral countries, leaving them exposed to serious losses. As a result, adjustment to a new equilibrium will be bumpier for core countries than for peripheral countries which will benefit from currency devaluation. However, the ability of peripheral countries to benefit from a break up will depend partly on their ability to convince market participants that they are implementing credible and sustainable policies to both contain inflation and restore fiscal solvency.

2c. Interest rates and bond yields – dramatic divergence

The restoration of national control over monetary policy will turn the responsibility of dealing with the economic and financial consequences of EMU exit back to the national central banks. For Greece, and in the break up scenario, the other peripheral economies, this means dealing with the inflationary consequences of sharp currency depreciation (see section 2d below). At the same time, this will have to be balanced against the pressures arising from economic and financial dislocation, not to mention a new wave of fiscal austerity. For the core countries, the main threat is deflation, albeit partially offset by a currency depreciation against non-Eurozone currencies.

In the Greek exit scenario, money market rates will, with the exception of Greece, generally decline. We see Greek market rates quickly heading to the 10-15% area (see Fig 9). Yield curves in general steepen but most notably in Greece and – although to a lesser extent – in the other peripheral countries.

Core countries, as creditors, will suffer big losses

Peripheral economies will eventually benefit from depreciation, if credible policies are put in place

Nominal central banks of weak leaders would have to tackle inflation

Greek interest rates might hit the mid-teens

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Fig 9 Greek exit = sharply higher Greek interest rates



Fig 10 Break-up...general interest rate divergence



Source: EcoWin, ING projections

Source: EcoWin, ING projections

Core bond yields could fall below 1%

In the EMU break up scenario, interest rates in the core countries will fall even more than in scenario I. Ten-year government bond yields in Germany and the Netherlands may even fall below 1%. This reflects not just the massive deflationary shock, but also a significant capital flight from the periphery, capital controls notwithstanding. Peripheral long-dated yields will by contrast rise sharply to levels in a range between 7-12% (see Fig 10).

Fig 11 Spread widening in the Greek exit scenario



Fig 12 Break up leads bond spreads to explode



Source: EcoWin, ING projections

Massive divergences would subside once the periphery rebuilds credibility Source: EcoWin, ING projections

Overall, significant interest rate differentials between the core and the peripheral countries emerge. These may diminish after 2011 as peripheral central banks seek to rebuild credibility and the initial currency depreciation and inflation impulse fades.



Greek exit alone would permanently change perceptions of the euro

EUR/USD could test the previous low of 0.85

The departure of Greece alone would be a major blow to the financial markets' confidence in the sustainability of EMU. In establishing the principle that members could exit, the notion of the irreversibility of EMU would be shattered forever. Add to that the economic and financial hiatus that would ensue, and it is easy to see the euro plunging in both scenarios. Indeed, we see EUR/USD slumping to 0.85, close to its previous low in 2001 (see Fig 14). In scenario II, there might be a temporary overshoot to the 0.70/75 area. This compares with a current low of 1.10 in our baseline forecast.

2d. Exchange rates – reality bites





Fig 14 EUR/USD long-term fair value



Source: EcoWin, ING calculations

High volatility and

'overshooting' would be likely On top of this, we would expect huge volatility in the successor currencies. The markets would face enormous uncertainty about the consequences of departure, as well as the policy responses of domestic policy-makers. Until the credibility of the latter was established, currencies would be liable to overshoot.



Fig 15 Current account positions and changes 1998-2007

Source: EcoWin, ING calculations

In assessing the scale of the currency movements, we have examined a number of considerations. Aside from immediate cyclical consequences and the policy responses, we have examined structural issues. These include the members' fiscal solvency, their international competitiveness and external balance sheet positions. Given the divergent performance of different asset classes, we have taken into account the members' gross as well as net foreign asset and liability positions.

Movements would be structural, not just cyclical

Fiscal and external solvency as well as competitiveness would be in focus

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Fig 16 Eurozone trade exposure highest for Benelux





High exposure to global assets for Ireland, the

Source: Eurostat, ING calculations

New Greek Drachma could

fall as much as 80%

Source: European Commission

Fig 17

Our scenarios assume the initial movements:

Scenario I – Greek exit

Given Greece's large twin deficits we see the new Greek Drachma falling 80% against the EUR.

Fig 18 Devaluations ranging from 7.5% to 50%



Source: ING

Scenario II – Complete break up

• Spain, Portugal and Ireland devalue 50% against the new Deutschmark (DEM)

50% vs DEM

Peseta, Escudo and Punt by

Lira by 25%

F. Franc by 15%

Other core by 71/2%

- Italy devalues 25% against the DEMFrance devalues 15% against the DEM
- Benelux, Austria, Finland devalue 7.5% against the DEM

Fig 19 New Greek Drachma may fall 80% against EUR



Fig 20 New D-mark stronger than old euro



Source: EcoWin, ING projections

2012 could see partial recovery as credibility is rebuilt

Corporate defaults and

credit spreads balloon

distress selling could see

Following the initial dramatic divergence, we assume that there would be some retracement going into 2012 (see Fig 20). This reflects the weaker former EMU members re-establishing policy credibility as well as expectations that the initial economic and financial shock will be wearing off. However, given the need for these economies to restore growth, this retracement would only be partial.

2e. Credit spreads - revisiting the peaks

Our scenarios would also lead to substantial volatility in credit spreads on corporate bonds and asset-backed securities (ABS). Lower economic activity, coupled with financial system distress could well force distress selling, which might again lead to credit prices to fall disproportionately.

We assume the following effects:

Scenario I - Greek exit

- Credit spreads in core countries widen but less than their periphery counterparts. General spread widening is muted in comparison to the credit crisis of 2008.
- Nonetheless, even core German corporate credit spreads widen by 90bp in 2010.
- Contagion sees spreads rise by some 130bp in other peripheral markets for A rated corporate debt. In terms of BBB ABS the periphery sees spreads blow but by 200bp in RMBS, 400bp in credit cards and 700bp in auto loans.
- But none get close to credit crisis peaks. Later in 2011 there is some retracement, but not towards current levels.

Scenario II - Complete break up

- Spreads re-target credit crisis peaks with A rated corporate debt hitting a massive 230bp widening for the core. A rated spreads move above 400bp, a widening of some 300bp.
- ABS credit crisis peaks revisited with spreads at least twice as high as they would be now, eg all BBB auto loan ABS to trade above 3000bp.

2f. Real estate and stock markets – further downside

Although the real estate and stock markets have already fallen significantly in recent months, our scenarios call for further substantial declines. In the case of the peripheral economies, apparently modest declines in nominal prices on leaving EMU conceal sharper falls in real terms, given the general surge in inflation resulting from currency

Break up would likely see spreads target 2008 peaks

depreciation. For example, Spanish house prices in 2011 are only 4% lower than in our base case in the break up scenario, but given that consumer price inflation is nearly 9% higher, this implies a much sharper fall of 12% in real terms.





Source: ING

Real estate developments

- Although residential real estate markets already corrected in the 2007- 2009 period, a further decline still looks likely.
- With a deflationary climate prevailing in core countries, real estate prices are expected to remain depressed over the 2010-2012 period. Given the rise in general (CPI) inflation in the peripheral economies, house prices fall substantially further in real terms (see Fig 21)
- In peripheral countries, nominal real estate prices might recover earlier on the back of higher inflation, though in real terms no recovery is expected before 2013.

Stock market developments

- The EMU break up will lead to a strong stock market correction in 2010, with the peripheral countries suffering most, as capital flight will be hard to contain.
- However, as central banks try reflate their economies in core countries some recovery might be expected later in 2011.
- The rebound will be much stronger in peripheral countries benefitting from currency depreciation. However, initial huge currency losses will only be partially recouped.



The numbers are debatable, but the impact would undoubtedly be traumatic

Some argue that leaving EMU behind would have long-term benefits...

...but these have to be weighed against the huge initial damage

Conclusion – Thinkable, but Unpalatable

Assessing the consequences of Greece leaving EMU, let alone EMU breaking up completely, is fraught with uncertainty. However, while there is ample scope to debate the precise numbers presented in this report, the essential message is clear: the impact would be traumatic. Indeed, without extended preparations for EMU exit, the risk of at least a temporary breakdown in payments systems would be enormous. In our complete EMU break up scenario, the cumulative loss of output in the first two years is close to 10%, dwarfing the loss that followed the collapse after the demise of Lehman Brothers in September 2008.

Recent events have made it more fashionable to argue that the Eurozone is not what economists call an 'optimal currency area'. In other words, its membership is not ideal for a sustainable monetary union. The implication is that Europe – at least economically - would be better off without EMU. Interesting though this debate may be, it is not the purpose of this report to address the long term potential pros and cons of EMU being partly or wholly dismantled. Rather, we seek to point out that the initial impact would be enormously painful. Indeed, the scale of the economic damage in the first two years would weigh heavily against any supposed long-run benefits. This is perhaps something that policy-makers may care to reflect upon when they blithely talk of exit from EMU as being a policy option.

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Appendix -Scenario Tables

Contents

Greek exit scenario – absolute numbers 2010	.page 18
Greek exit scenario – absolute numbers 2011	.page 19
Greek exit scenario – absolute numbers 2012	page 20
Greek exit scenario – differences to base 2010	page 21
Greek exit scenario – differences to base 2011	page 22
Greek exit scenario – differences to base 2012	page 23
Complete euro break up - absolute numbers 2010	page 24
Complete euro break up - absolute numbers 2011	. page 25
Complete euro break up - absolute numbers 2012	page 26
Complete euro break up - difference to base 2010	page 27
Complete euro break up - difference to base 2011	page 28
Complete euro break up - difference to base 2012	page 29

Absolute numbers (financial market variables all year-end)

Fig 22 EMU break up scenarios - Greek exit 2010

	EA16	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA	Asia ex Japan	Japan
Macro economic drivers																		
GDP, %YoY	0.8	1.7	1.1	0.9	1.1	1.8	1.5	1.2	-4.8	-1.2	0.6	0.3	-0.5	0.8	1.5	2.9	8.7	3.2
Unemployment, %	10.2	8.2	10.3	4.6	8.6	6.3	5.5	9.7	14.5	14.1	9.1	10.6	19.8	8.3	11.0	10.0		4.8
CPI, %YoY	1.5	1.1	1.8	1.0	1.8	2.5	1.3	1.7	4.9	-1.3	1.5	0.7	1.6	3.1	3.3	1.9	2.5	-0.7
Interest rates - SWAP (%)																		
3M		0.4	0.4	0.4	0.4	0.4	0.4	0.4	5.9	0.4	0.4	0.4	0.4	0.4	0.4	0.2		0.2
2Y		1.0	1.0	1.0	1.0	1.0	1.0	1.0	8.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0		0.3
10Y		3.1	3.1	3.1	3.1	3.1	3.1	3.1	13.3	3.1	3.1	3.1	3.1	3.4	3.1	3.2		1.6
30Y		3.6	3.6	3.6	3.6	3.6	3.6	3.6	12.7	3.6	3.6	3.6	3.6	3.9	3.6	4.3		2.3
Equity, %YoY	-20													5	3	4		4
FX (local currencies per USD)	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	5.88	1.18	1.18	1.18	1.18	0.73				98.046
Local currency/USD (USD per local currency)	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.17	0.85	0.85	0.85	0.85	1.37				0.01
(local currencies per DEM)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	1.00	1.00	1.00	1.00	0.61				81
Government bond yields (%)																		
2Y		0.30	0.65	0.40	0.90	0.65	0.65	0.60	9.80	3.50	2.50	4.25	3.50	0.60	3.50	0.50		0.30
5Y		1.55	1.90	1.80	2.85	1.90	2.10	1.90	12.90	4.50	3.75	6.00	4.75	2.05	4.50	1.75		1.00
10Y		2.60	3.05	2.95	3.70	3.00	3.25	3.05	15.30	6.30	4.80	7.05	5.55	3.20	6.30	2.80		1.50
Credit spreads corporate bonds (bp)																		
AAA		40	42	41	40	40	42	40	60	50	45	50	50	35	50	30	30	30
AA		120	125	125	120	120	125	120	220	170	145	170	170	110	170	100	100	100
A		180	190	185	180	180	190	180	300	240	210	240	240	170	240	150	150	150
BBB		300	340	320	300	300	340	300	500	400	350	400	400	270	400	250	250	250
BB		800	860	830	800	800	860	800	1,300	1,050	925	1,050	1,050	750	1,050	700	650	650
В		1,200	1,300	1,250	1,200	1,200	1,300	1,200	1,900	1,550	1,375	1,550	1,550	1,100	1,550	1,000	1,000	1,000
Credit spreads ABS (bp)																		
BBB RMBS		800	840	820	800	800	840	800	1,200	1,000	900	1,000	1,000	1,700	1,000	750	750	750
BBB Credit Cards		900	938	938	900	900	938	900	1,650	1,275	1,088	1,275	1,275	900	1,275	850	850	850
BBB Auto loans		2,000	2,111	2,056	2,000	2,000	2,111	2,000	3,333	2,667	2,333	2,667	2,667	2,000	2,667	1,800	1,800	1,800
BBB CMBS		2,500	2,833	2,667	2,500	2,500	2,833	2,500	4,167	3,333	2,917	3,333	3,333	3,500	3,333	2,300	2,300	2,300
Real estate																		
Residential, %YoY		0.0	0.0	-3.0	3.0	0.5	0.0	-2.0	-3.5	-7.0	-1.0	2.0	-7.0	5.0		1.4		-1.5
Commercial, %YoY		1.0	5.5	3.0	0.0	2.9	3.0	4.5	-28.0	1.5	0.0	2.0	-1.0	7.0		2.0		-16.0

Absolute numbers (financial market variables all year-end)

Fig 23 EMU break up scenarios - Greek exit 2011

	EA17	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																		
GDP, %YoY	0.3	0.7	0.5	0.4	0.4	1.2	0.5	0.8	-7.6	-1.0	-0.6	-0.7	-1.1	0.6	1.3	1.6	6.4	1.7
Unemployment, %	10.5	8.4	10.6	5.2	9.3	6.8	5.8	9.9	18.5	14.5	9.7	11.3	20.5	9.0	11.5	9.4		4.6
CPI, %YoY	1.2	1.6	1.9	0.9	1.8	1.8	1.4	1.8	20.2	0.0	1.5	-0.2	0.5	1.9	2.5	0.9	2.0	0.3
Interest rates - SWAP (%)																		
3M		0.6	0.6	0.6	0.6	0.6	0.6	0.6	9.6	0.6	0.6	0.6	0.6	0.9	0.6	0.8		0.2
2Y		1.2	1.2	1.2	1.2	1.2	1.2	1.2	11.1	1.2	1.2	1.2	1.2	2.1	1.2	1.6		0.3
10Y		2.9	2.9	2.9	2.9	2.9	2.9	2.9	13.6	2.9	2.9	2.9	2.9	4.3	2.9	3.8		2.1
30Y		3.4	3.4	3.4	3.4	3.4	3.4	3.4	13.0	3.4	3.4	3.4	3.4	4.4	3.4	4.6		2.6
Equity, %YoY	20													17	30	12		12
FX (local currencies per USD)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	1.00	1.00	1.00	1.00	0.71				90
Local currency/USD (USD per local currency)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20	1.00	1.00	1.00	1.00	1.42				0.01
(local currencies per DEM)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.60	1.00	1.00	1.00	1.00	0.7				88
Government bond vields (%)																		
2Y		0.70	1.10	0.80	1.25	1.10	1.10	1.05	11.90	4.25	3.30	4.50	4.10	1.70	4.25	1.20		0.30
5Y		1.60	2.00	1.85	2.70	2.00	2.10	2.00	13.20	5.00	4.10	5.40	4.75	2.85	5.00	2.25		1.20
10Y		2.30	2.80	2.65	3.20	2.75	2.85	2.80	14.30	6.35	4.85	6.05	5.35	3.90	6.35	3.20		1.90
Credit spreads corporate bonds (bp)																		
AAA		30	32	31	30	30	32	30	45	38	34	38	38	26	38	23	23	23
AA		90	94	94	90	90	94	90	165	128	109	128	128	83	128	75	75	75
A		135	143	139	135	135	143	135	225	180	158	180	180	128	180	113	113	113
BBB		225	255	240	225	225	255	225	375	300	263	300	300	203	300	188	188	188
BB		600	645	623	600	600	645	600	975	788	694	788	788	563	788	525	488	488
В		900	975	938	900	900	975	900	1,425	1,163	1,031	1,163	1,163	825	1,163	750	750	750
Credit spreads ABS (bp)																		
BBB RMBS		600	630	615	600	600	630	600	900	750	675	750	850	1,275	750	563	563	563
BBB Credit Cards		675	703	703	675	675	703	675	1,238	956	816	956	956	675	956	638	638	638
BBB Auto loans		1,500	1,583	1,542	1,500	1,500	1,583	1,500	2,500	2,000	1,750	2,000	2,000	1,500	2,000	1,350	1,350	1,350
BBB CMBS		1,875	2,125	2,000	1,875	1,875	2,125	1,875	3,125	2,500	2,188	2,500	2,500	2,625	2,500	1,725	1,725	1,725
Real estate																		
Residential, %YoY		-0.5	2.0	-2.0	2.0	1.5	-0.5	-1.0	-10.0	-3.0	-2.5	-0.5	-7.0	-3.0		2.5		-1.0

Absolute numbers (financial market variables all year-end)

Fig 24 EMU break up scenarios - Greek exit 2012

E	A17	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA	Asia ex Japan	Japan
Macro economic drivers																		
GDP, %YoY	1.5	1.8	1.6	1.4	1.7	2.5	1.7	2.3	-2.1	2.0	0.5	1.0	1.3	1.4	2.5	1.7	10.5	2.4
Unemployment, %	10.3	8.1	9.7	5.2	9.1	6.6	5.4	9.6	17.0	14.0	9.2	11.2	20.3	8.8	11.0	8.6		4.2
CPI, %YoY	1.3	1.7	2.0	1.1	2.0	2.2	1.5	1.8	7.2	1.1	1.3	0.6	1.3	1.5	2.5	1.8	2.5	0.0
Interest rates - SWAP (%)																		
3M		0.9	0.9	0.9	0.9	0.9	0.9	0.9	10.9	0.9	0.9	0.9	0.9	2.0	0.9	1.2		0.2
2Y		1.5	1.5	1.5	1.5	1.5	1.5	1.5	11.4	1.5	1.5	1.5	1.5	3.0	1.5	2.1		0.4
10Y		3.2	3.2	3.2	3.2	3.2	3.2	3.2	11.9	3.2	3.2	3.2	3.2	4.7	3.2	4.0		2.3
30Y		3.6	3.6	3.6	3.6	3.6	3.6	3.6	11.7	3.6	3.6	3.6	3.6	4.6	3.6	4.7		2.7
Equity, %YoY	11													10	12	9		6
FX (local currencies per USD)	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	3.82	0.91	0.91	0.91	0.91	0.73				95.3848
Local Currency/USD (USD per local currency)	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	0.26	1.10	1.10	1.10	1.10	1.38				
(local currencies per DEM)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.20	1.00	1.00	1.00	1.00	0.8				104
Government bond yields (%)																		
2Y		0.80	1.40	1.00	1.55	1.40	1.40	1.25	11.20	4.55	3.60	4.80	4.40	2.70	4.55	1.70		0.30
5Y		1.70	2.30	2.05	3.00	2.30	2.40	2.20	12.00	5.30	4.40	5.70	5.05	3.55	5.30	2.65		1.30
10Y		2.40	3.10	2.85	3.50	3.05	3.15	3.00	11.60	6.65	5.15	6.35	5.65	4.30	6.65	3.40		2.10
Credit spreads corporate bonds (bp)																		
AAA		24	25	25	24	24	25	24	36	30	27	30	30	21	30	18	18	18
AA		72	75	75	72	72	75	72	132	102	87	102	102	66	102	60	60	60
A		108	114	111	108	108	114	108	180	144	126	144	144	102	144	90	90	90
BBB		180	204	192	180	180	204	180	300	240	210	240	240	162	240	150	150	150
BB		480	516	498	480	480	516	480	780	630	555	630	630	450	630	420	390	390
В		720	780	750	720	720	780	720	1,140	930	825	930	930	660	930	600	600	600
Credit spreads ABS (bp)																		
BBB RMBS		480	504	492	480	480	504	480	720	600	540	600	750	1,020	600	450	450	450
BBB Credit Cards		540	563	563	540	540	563	540	990	765	653	765	765	540	765	510	510	510
BBB Auto loans		1,200	1,267	1,233	1,200	1,200	1,267	1,200	2,000	1,600	1,400	1,600	1,600	1,200	1,600	1,080	1,080	1,080
BBB CMBS		1,500	1,700	1,600	1,500	1,500	1,700	1,500	2,500	2,000	1,750	2,000	2,000	2,100	2,000	1,380	1,380	1,380
Real estate																		
Residential, %YoY		0.5	3.0	2.0	4.0	4.0	0.5	1.0	-5.0	1.5	0.8	1.0	-0.5	-1.0		2.5		0.0
Commercial, %YoY		3.0	4.0	2.8	5.0	4.0	4.0	4.5	9.0	3.0	3.0	3.0	3.0	1.0		5.0		2.0

Differences to base (financial market variables all year-end)

Fig 25 EMU break up scenarios - Greek exit 2010

	EA16	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																		
GDP, %YoY	-0.4	-0.2	-0.2	-0.4	-0.2	-0.2	-0.1	-0.2	-1.1	-0.3	-0.4	-0.4	-0.4	-0.2	-0.2	-0.1	-0.5	-0.2
Unemployment, %	0.2	0.2	0.3	0.3	0.3	0.2	0.4	0.2	2.0	0.3	0.2	0.3	0.3	0.1	0.3	0.0		0.1
CPI, %YoY	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.5	-0.3	-0.1	0.0	0.0	-0.1	0.0	-0.1	0.0	-0.1
Interest rates - SWAP (%)																		
3M		-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	5.0	-0.5	-0.5	-0.5	-0.5	-0.3	-0.5	-0.2		-0.1
2Y		-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	7.0	-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2		-0.1
10Y		-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	10.0	-0.2	-0.2	-0.2	-0.2	-0.1	-0.2	-0.1		-0.1
30Y		-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	9.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		-0.1
Equity, %YoY	-12.0													-10.0	-11.0	-2.0		-3.0
FX (local currencies per USD)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	5.0	0.3	0.3	0.3	0.3	0.0				5.8
Local Currency/USD (USD per local currency)	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-1.0	-0.3	-0.3	-0.3	-0.3	0.0				0.0
(local currencies per DEM)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	-0.2				-25.0
Government bond vields (%)																		
2Y		-0.50	-0.35	-0.40	-0.30	-0.35	-0.35	-0.35	0.00	0.70	0.20	0.95	0.45	-0.30	0.70	-0.40		0.00
5Y		-0.45	-0.30	-0.35	-0.25	-0.30	-0.30	-0.30	2.40	0.75	0.25	1.00	0.50	-0.25	0.75	-0.35		0.00
10Y		-0.40	-0.25	-0.30	-0.20	-0.25	-0.25	-0.25	4.80	0.80	0.30	1.05	0.55	-0.20	0.80	-0.30		0.00
Credit spreads corporate bonds (bp)																		
AAA		25	27	26	25	25	27	25	45	35	30	35	35	20	35	15	15	15
AA		52	57	57	52	52	57	52	152	102	77	102	102	42	102	32	32	32
Α		91	101	96	91	91	101	91	211	151	121	151	151	81	151	61	61	61
BBB		139	179	159	139	139	179	139	339	239	189	239	239	109	239	89	89	89
BB		341	401	371	341	341	401	341	841	591	466	591	591	291	591	241	191	191
В		563	663	613	563	563	663	563	1,263	913	738	913	913	463	913	363	363	363
Credit spreads ABS (bp)																		
BBB RMBS		275	315	295	275	275	315	275	675	475	375	475	100	850	475	225	225	225
BBB Credit Cards		600	638	638	600	600	638	600	1.350	975	788	975	975	600	975	550	550	550
BBB Auto loans		800	911	856	800	800	911	800	2,133	1.467	1.133	1.467	1.467	800	1.467	600	600	600
BBB CMBS		625	958	792	625	625	958	625	2,292	1,458	1,042	1,458	1,458	1,625	1,458	425	425	425
Real estate																		
Residential, %YoY		0.0	0.0	-1.0	-1.0	-0.5	0.0	0.0	-0.5	0.0	0.0	-2.0	-1.0	-3.0		0.0		0.0
Commencial 0/MaN																		

Differences to base (financial market variables all year-end)

Fig 26 EMU break up scenarios - Greek exit 2011

	EA17	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																		
GDP, %YoY	-1.2	-1.2	-1.2	-1.3	-1.2	-1.2	-1.2	-1.3	-6.2	-2.8	-1.5	-1.5	-2.1	-0.9	-1.6	-0.4	-2.0	-0.3
Unemployment, %	1.0	0.6	0.8	0.5	0.9	0.4	0.8	0.7	4.8	1.1	1.3	1.1	1.0	0.3	1.5	0.4		0.1
CPI, %YoY	-0.3	-0.1	-0.2	-0.5	-0.1	-0.2	-0.1	-0.1	17.9	-0.8	-0.4	-0.7	-0.9	-0.4	-0.7	-0.9	-1.0	-0.4
Interest rates - SWAP (%)																		
3M		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-0.7	-1.0	-0.5		-0.1
2Y		-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	9.0	-0.9	-0.9	-0.9	-0.9	-0.4	-0.9	-0.3		-0.1
10Y		-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	10.0	-0.7	-0.7	-0.7	-0.7	-0.3	-0.7	-0.2		-0.1
30Y		-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	9.0	-0.6	-0.6	-0.6	-0.6	-0.3	-0.6	-0.2		-0.1
Equity, %YoY	5.0													5.0	12.0	4.0		5.0
FX (local currencies per USD)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4.2	0.2	0.2	0.2	0.2	0.0				-15.0
Local Currency/USD (USD per local currency)	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-1.0	-0.2	-0.2	-0.2	-0.2	-0.1				0.0
(local currencies per DEM)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	-0.1				-38.0
Government bond yields (%)																		
2Y		-1.20	-1.00	-1.10	-0.90	-1.00	-1.00	-1.00	2.00	0.60	-0.15	0.35	0.10	-0.50	0.60	-0.50		0.00
5Y		-1.10	-0.90	-1.00	-0.80	-0.90	-0.90	-0.90	3.50	0.70	-0.05	0.45	0.20	-0.45	0.70	-0.45		0.00
10Y		-1.00	-0.80	-0.90	-0.70	-0.80	-0.80	-0.80	5.00	0.80	0.05	0.55	0.30	-0.40	0.80	-0.40		0.00
Credit spreads corporate bonds (bp)																		
AAA		17	18	17	17	17	18	17	32	24	20	24	24	13	24	9	9	9
AA		30	34	34	30	30	34	30	105	68	49	68	68	23	68	15	15	15
A		56	64	60	56	56	64	56	146	101	79	101	101	49	101	34	34	34
BBB		83	113	98	83	83	113	83	233	158	120	158	158	60	158	45	45	45
BB		195	240	218	195	195	240	195	570	383	289	383	383	158	383	120	83	83
В		338	413	375	338	338	413	338	863	600	469	600	600	263	600	188	188	188
Credit spreads ABS (bp)																		
BBB RMBS		180	210	195	180	180	210	180	480	330	255	330	50	575	330	143	143	143
BBB Credit Cards		435	463	463	435	435	463	435	998	716	576	716	716	475	716	438	438	438
BBB Auto loans		540	623	582	540	540	623	540	1,540	1,040	790	1,040	1,040	600	1,040	450	450	450
BBB CMBS		375	625	500	375	375	625	375	1,625	1,000	688	1,000	1,000	1,325	1,000	425	425	425
Real estate																		
Residential, %YoY		-1.0	-1.0	-2.0	-2.0	-0.5	-1.0	-1.0	-7.5	-3.0	-2.5	-2.5	-4.0	-6.7		-0.8		0.0
Commercial %YoY		-10	-10	-10	-10	-10	-10	-20	-28 0	-20	20	10	60	20		30	20	10

Differences to base (financial market variables all year-end)

Fig 27 EMU break up scenarios - Greek exit 2012

	EA17	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ΙΤΑ	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																		
GDP, %YoY	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.3	-2.5	-0.5	-0.5	0.0	0.0	-0.1	-1.8	-0.1	2.0	-0.1
Unemployment, %	1.3	0.5	0.8	0.9	0.9	0.6	0.5	0.9	3.8	1.0	1.4	1.3	1.3	0.4	2.5	0.6		0.0
CPI, %YoY	-0.5	0.0	0.0	-0.2	0.0	-0.1	0.0	-0.3	5.2	-0.2	-0.5	-0.1	-0.1	-0.1	-0.5	-0.3	-0.5	-1.0
Interest rates - SWAP (%)																		
3M		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-0.7	-1.0	-0.5		-0.1
2Y		-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	9.0	-0.9	-0.9	-0.9	-0.9	-0.4	-0.9	-0.3		-0.1
10Y		-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	8.0	-0.7	-0.7	-0.7	-0.7	-0.3	-0.7	-0.2		-0.1
30Y		-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	7.5	-0.6	-0.6	-0.6	-0.6	-0.3	-0.6	-0.2		-0.1
Equity, %YoY	3.0													1.0	0.0	-1.0		0.0
FX (local currencies per USD)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.0	0.1	0.1	0.1	0.1	0.1				-10.0
Local Currency/USD (USD per local currency)	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-1.0	-0.2	-0.2	-0.2	-0.2	-0.2				
(local currencies per DEM)	•	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0				-33.0
Government bond vields (%)																		
2Y		-1.40	-1.00	-1.20	-0.90	-1.00	-1.00	-1.10	2.00	0.60	-0.15	0.35	0.10	-0.50	0.60	-0.50		0.00
5Y		-1.30	-0.90	-1.10	-0.80	-0.90	-0.90	-1.00	2.50	0.70	-0.05	0.45	0.20	-0.45	0.70	-0.45		0.00
10Y		-1.20	-0.80	-1.00	-0.70	-0.80	-0.80	-0.90	3.00	0.80	0.05	0.55	0.30	-0.40	0.80	-0.40		0.00
Credit spreads corporate bonds (bp)																		
AAA		11	13	12	11	11	13	11	23	17	14	17	17	8	17	5	5	5
AA		16	19	19	16	16	19	16	76	46	31	46	46	10	46	4	4	4
А		35	41	38	35	35	41	35	107	71	53	71	71	29	71	17	17	17
BBB		47	71	59	47	47	71	47	167	107	77	107	107	29	107	17	17	17
BB		102	138	120	102	102	138	102	402	252	177	252	252	72	252	42	12	12
В		195	255	225	195	195	255	195	615	405	300	405	405	135	405	75	75	75
Credit spreads ABS (bp)																		
BBB RMBS		95	119	107	95	95	119	95	335	215	155	215	150	420	215	65	65	65
BBB Credit Cards		320	343	343	320	320	343	320	770	545	433	545	545	320	545	290	290	290
BBB Auto loans		320	387	353	320	320	387	320	1,120	720	520	720	720	320	720	200	200	200
BBB CMBS		125	325	225	125	125	325	125	1,125	625	375	625	625	725	625	5	5	5
Real estate																		
Residential, %YoY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.0	-0.5	0.0	-1.0	-0.5	-1.0		-0.5		0.0
Commercial, %YoY		0.0	0.0	-0.2	0.0	0.0	0.0	-0.5	6.0	0.0	-1.0	-2.0	-1.0	-2.0		-2.0	0.0	0.0

Absolute numbers (financial market variables all year-end)

Fig 28 Break up scenarios - Total break up 2010

EA1	6 DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																	
GDP, %YoY	1.6	0.9	0.5	0.8	1.6	1.4	1.0	-5.8	-1.5	-0.1	-0.2	-1.0	0.6	1.0	2.7	8.2	2.6
Unemployment, %	8.3	10.4	4.7	8.8	6.5	5.4	9.9	15.5	14.4	9.4	10.9	20.3	8.4	11.5	10.0		5.2
CPI, %YoY	1.1	1.8	0.9	1.8	2.6	1.3	1.7	5.4	4.0	2.4	1.0	1.8	2.9	3.3	1.8	2.0	-2.0
Interest rates - SWAP (%)																	
3M	0.1	0.4	0.2	0.1	0.2	0.4	0.2	4.9	3.9	2.9	4.4	3.9	0.2	3.9	-1.6		0.0
2Y	0.3	0.6	0.4	0.3	0.4	0.6	0.4	6.3	4.3	3.3	4.8	4.3	0.7	4.3	-1.0		0.1
10Y	0.8	1.1	0.9	1.3	0.9	1.1	0.9	10.3	7.3	5.8	7.3	7.3	2.8	7.3	1.0		1.4
30Y	1.7	2.0	1.5	2.2	2.0	2.0	2.0	9.7	7.7	6.7	8.2	7.7	3.2	7.7	1.9		2.1
Equity, %YoY -3	3												-19	-28	-13		-10
FX (local currencies per USD) 1.1	8 0.95	1.12	1.03	1.03	1.03	1.03	1.03	4.76	1.92	1.28	1.92	1.92	0.73				98.046
Local Currency/USD (USD per local currency) 0.8	5 1.05	0.89	0.97	0.97	0.97	0.97	0.97	0.21	0.52	0.78	0.52	0.52	1.37				0.01
(local currencies per DEM)	1.00	1.18	1.08	1.08	1.08	1.08	1.08	5.00	2.00	1.33	2.00	2.00	0.61				81
Government bond vields (%)																	
2Y	-0.20	0.10	-0.10	-0.05	-0.15	0.10	-0.15	7.80	4.05	2.75	4.55	3.95	0.30	4.05	-1.55		0.10
5Y	0.25	0.50	0.38	1.18	0.28	0.68	0.28	10.40	5.25	4.23	6.53	5.88	1.60	5.25	-0.40		0.80
10Y	0.50	0.80	0.60	1.30	0.55	0.95	0.55	12.30	7.25	5.50	7.80	7.35	2.60	7.25	0.55		1.30
Credit spreads corporate bonds (bp)																	
AAA	72	76	74	72	72	76	72	108	90	81	90	90	63	90	56	53	53
AA	216	225	225	216	216	225	216	396	306	261	306	306	198	306	168	160	160
A	324	342	333	324	324	342	324	540	432	378	432	432	306	432	253	240	240
BBB	540	612	576	540	540	612	540	900	720	630	720	720	486	720	421	400	400
BB	1,440	1,548	1,494	1,440	1,440	1,548	1,440	2,340	1,890	1,665	1,890	1,890	1,350	1,890	1,123	1,067	1,067
В	2,160	2,340	2,250	2,160	2,160	2,340	2,160	3,420	2,790	2,475	2,790	2,790	1,980	2,790	1,685	1,601	1,601
Credit spreads ABS (bp)																	
BBB RMBS	1,200	1,260	1,230	1,200	1,200	1,260	1,200	1,800	1,500	1,350	1,500	1,500	2,550	1,500	1,125	1,125	1,125
BBB Credit Cards	1,350	1,406	1,406	1,350	1,350	1,406	1,350	2,475	1,913	1,631	1,913	1,913	1,350	1,913	1,275	1,275	1,275
BBB Auto loans	3.000	3,167	3.083	3.000	3.000	3,167	3.000	5.000	4.000	3.500	4.000	4.000	3.000	4.000	2,700	2,700	2,700
BBB CMBS	3,750	4,250	4,000	3,750	3,750	4,250	3,750	6,250	5,000	4,375	5,000	5,000	5,250	5,000	3,450	3,450	3,450
Real estate																	
Residential, %YoY	0.0	0.0	-3.0	3.0	0.5	0.0	-2.0	-3.5	-7.0	-1.0	2.0	-7.0	5.0		1.4		-1.5
			~ ~														

Absolute numbers (financial market variables all year-end)

Fig 29 Break up scenarios - Total break up 2011

EA	17 DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																	
GDP, %YoY	-3.8	-4.0	-4.5	-4.5	-4.0	-4.0	-4.3	-9.1	-6.0	-6.6	-6.5	-6.5	-3.0	-5.0	0.0	5.4	1.4
Unemployment, %	11.0	13.5	7.0	12.5	8.5	7.5	12.5	19.5	18.0	13.5	14.5	23.5	10.7	14.0	10.5		4.7
CPI, %YoY	-1.0	1.5	0.5	0.5	0.6	0.4	0.7	19.2	11.0	8.1	12.0	10.0	1.5	2.0	-2.1	1.0	-0.1
Interest rates - SWAP (%)																	
3M	0.1	0.4	0.2	0.1	0.2	0.4	0.2	8.6	6.1	4.6	6.1	5.6	1.1	6.1	-0.7		0.0
2Y	0.4	0.7	0.5	0.4	0.5	0.7	0.5	10.1	7.1	5.1	6.6	6.1	2.0	7.1	-0.3		0.1
10Y	0.4	0.7	0.5	0.9	0.5	0.7	0.5	11.6	9.1	7.1	8.6	8.1	3.9	9.1	1.7		1.9
30Y	1.3	1.6	1.1	1.8	1.6	1.6	1.6	11.0	9.5	8.0	9.5	9.0	3.9	9.5	2.3		2.4
Equity, %YoY (in local currency)	23												25	54	24		13
FX (local currencies per USD) 1	18 0.98	1.14	1.05	1.05	1.05	1.05	1.05	3.45	1.79	1.27	1.79	1.79	0.72				95.876
Local Currency/USD (USD per local currency) 0	85 1.02	0.88	0.95	0.95	0.95	0.95	0.95	0.29	0.56	0.79	0.56	0.56	1.40				0.01
(local currencies per DEM)	1.00	1.16	1.07	1.07	1.07	1.07	1.07	4.60	1.90	1.30	1.90	1.90	0.6				78
Government bond vields (%)																	
2Y	0.20	0.50	0.30	0.20	0.25	0.50	0.25	10.90	6.90	4.90	6.40	5.90	1.60	6.90	-0.75		0.10
5Y	0.25	0.50	0.38	0.88	0.28	0.58	0.28	11.70	7.55	5.88	7.48	6.88	2.60	7.55	0.20		1.00
10Y	0.10	0.40	0.20	0.60	0.15	0.40	0.15	12.30	8.80	6.80	8.30	7.80	3.50	8.80	1.05		1.70
Credit spreads corporate bonds (bp)																	
AAA	36	38	37	36	36	38	36	54	45	41	45	45	32	45	28	27	27
AA	108	113	113	108	108	113	108	198	153	131	153	153	99	153	84	80	80
Α	162	171	167	162	162	171	162	270	216	189	216	216	153	216	126	120	120
BBB	270	306	288	270	270	306	270	450	360	315	360	360	243	360	211	200	200
BB	720	774	747	720	720	774	720	1,170	945	833	945	945	675	945	562	534	534
В	1,080	1,170	1,125	1,080	1,080	1,170	1,080	1,710	1,395	1,238	1,395	1,395	990	1,395	842	800	800
Credit spreads ABS (bp)																	
BBB RMBS	900	945	923	900	900	945	900	1,350	1,125	1,013	1,125	1,125	1,913	1,125	844	844	844
BBB Credit Cards	1.013	1.055	1.055	1.013	1.013	1.055	1.013	1.856	1.434	1.223	1.434	1.434	1.013	1.434	956	956	956
BBB Auto loans	2.250	2.375	2.313	2.250	2.250	2.375	2.250	3,750	3.000	2.625	3.000	3.000	2.250	3.000	2.025	2.025	2.025
BBB CMBS	2,813	3,188	3,000	2,813	2,813	3,188	2,813	4,688	3,750	3,281	3,750	3,750	3,938	3,750	2,588	2,588	2,588
Real estate																	
Residential, %YoY	-0.5	2.0	-2.0	2.0	1.5	-0.5	-1.0	-10.0	-3.0	-2.5	-0.5	-7.0	-3.0		2.5		-1.0
Commercial %YoY	2.0	3.0	3.0	40	3.0	3.0	3.0	-25.0	10	20	0.0	-20	_10.0		11 0		-5.0

Absolute numbers (financial market variables all year-end)

Fig 30 EMU break up scenarios - Total break up 2012

Name Second	EA17	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
GDP, %Yory -1.8 -2.5 -3.1 -2.5 -2.0 -3.6 -3.0 -3.0 -3.0 -1.5 -2.7 0.8 11.5 1.6 Unemployment, % -1.0 0.3 -0.5 -0.6 0.0 -0.3 -0.5 8.2 6.5 3.9 6.0 5.0 1.0 1.5 1.0 2.5 0.0 Interest rates - SWAP (%)	Macro economic drivers																	
Underspringent, % 12.5 13.8 8.5 14.0 10.0 9.0 14.0 21.0 15.0 15.5 25.5 11.4 15.5 10.5 2.5 0.0 Interest rates - SWAP (%)	GDP, %YoY	-1.8	-2.5	-2.5	-3.1	-2.5	-2.0	-2.3	-3.6	-3.0	-3.7	-3.0	-3.0	-1.5	-2.7	0.8	11.5	1.8
CPI, W/OY -1.0 0.3 -0.5 0.6 0.0 -0.3 -0.5 8.2 6.5 3.9 6.0 5.0 1.0 1.5 1.0 2.5 0.0 Interest rates - SWAP (%) <td>Unemployment, %</td> <td>12.5</td> <td>13.8</td> <td>8.5</td> <td>14.0</td> <td>10.0</td> <td>9.0</td> <td>14.0</td> <td>21.0</td> <td>19.0</td> <td>15.0</td> <td>15.5</td> <td>25.5</td> <td>11.4</td> <td>15.5</td> <td>10.5</td> <td></td> <td>4.5</td>	Unemployment, %	12.5	13.8	8.5	14.0	10.0	9.0	14.0	21.0	19.0	15.0	15.5	25.5	11.4	15.5	10.5		4.5
Interest rates - SWAP (%) M 0.6 0.9 0.7 0.6 0.7 0.9 0.7 8.4 5.9 4.4 5.9 5.4 2.2 5.9 0.0 0.0 0.9 1.2 1.0 0.9 1.2 1.0 0.9 6.9 4.9 6.4 5.9 5.4 2.2 5.9 0.0 0.0 10Y 0.9 1.2 1.0 1.4 1.0 1.2 1.0 1.4 8.9 6.9 8.4 7.9 4.3 8.9 2.3 2.1 Equity, %YOY (In local currency) 4 2.2 2.0 2.0 2.0 1.0 1.4 1.0 1.4 1.0 1.3 8.9 2.3 2.1 Local currency 4 2.2 2.0 1.0 1.1 1.1 1.1 1.1 1.1 1.4 1.06 1.4 1.41 1.4 1.4 1.4 1.4 1.4 1.41 1.4 1.6 0.7<	CPI, %YoY	-1.0	0.3	-0.5	-0.6	0.0	-0.3	-0.5	8.2	6.5	3.9	6.0	5.0	1.0	1.5	1.0	2.5	0.0
3M 0.6 0.9 0.7 0.6 0.7 0.9 0.7 0.84 5.9 4.4 5.9 5.4 2.2 5.9 0.0 0.0 10Y 0.9 1.2 1.0 0.4 1.0 1.2 1.0 1.4 1.0 1.2 1.0 1.4 1.0 1.2 1.0 1.4 1.0 1.2 1.0 1.4 1.0 1.2 1.0 1.4 1.0 1.2 1.0 1.4 1.0 1.1 8.9 6.9 8.4 7.9 4.3 8.9 2.3 2.1 30Y 1.7 2.0 1.5 2.2 2.0 2.0 1.0 1.4	Interest rates - SWAP (%)																	
2Y 0.9 1.2 1.0 0.9 1.0 1.2 1.0 9.9 6.9 4.9 6.4 5.9 2.9 6.0 0.6 0.2 30Y 1.7 2.0 1.5 2.2 2.0 2.0 1.0 1.4 8.9 6.9 8.4 7.9 6.9 8.4 7.9 4.3 8.9 2.3 2.1 30Y 1.7 2.0 1.5 2.2 2.0 2.0 1.0 1.4 8.9 6.9 8.4 7.9 8.7 4.1 9.2 2.9 2.5 Equity, %YOY (in local currency) 4 7 9.2 8.7 4.1 9.2 2.9 8.7 4.1 9.2 2.9 2.5 2.9 2.5 3.0 3.0 3.0	3M	0.6	0.9	0.7	0.6	0.7	0.9	0.7	8.4	5.9	4.4	5.9	5.4	2.2	5.9	0.0		0.0
10Y 0.9 1.2 1.0 1.4 1.0 1.2 1.0 1.14 8.9 6.9 8.4 7.9 4.3 8.9 2.3 2.1 Equity. %YOY (n local currency) 4	2Y	0.9	1.2	1.0	0.9	1.0	1.2	1.0	9.9	6.9	4.9	6.4	5.9	2.9	6.9	0.6		0.2
39Y 1.7 2.0 1.5 2.2 2.0 2.0 1.0.7 9.2 7.7 9.2 8.7 4.1 9.2 2.9 2.5 Equity, %YOY (in local currency) 4	10Y	0.9	1.2	1.0	1.4	1.0	1.2	1.0	11.4	8.9	6.9	8.4	7.9	4.3	8.9	2.3		2.1
Equity, %YoY (in local currency) 4 22 20 10 6 FX (local currencies per USD) 1.00 0.85 0.96 0.90 0.90 0.90 2.38 1.41 1.06 1.41 1.41 0.75 95.3848 Local Currency/USD (USD per local currency) 1.00 1.18 1.04 1.11 1.11 1.11 1.11 0.42 0.71 0.94 0.71 0.71 1.33 0.01 Government bond yields (%) 2 0.75 1.00 0.88 1.38 0.75 1.00 0.75 9.70 6.70 4.70 6.20 5.70 2.60 6.70 0.15 0.10 Credit spreads corporate bonds (bp) 0.60 0.90 0.70 1.10 0.65 0.90 0.65 1.10 8.60 6.60 8.10 7.60 3.90 8.60 1.65 1.90 Credit spreads 0.70 1.00 0.65 0.90 0.65 1.10 8.60 6.60 8.10 7.60 3.9	30Y	1.7	2.0	1.5	2.2	2.0	2.0	2.0	10.7	9.2	7.7	9.2	8.7	4.1	9.2	2.9		2.5
FX (local currencies per USD) 1.00 0.85 0.96 0.90 0.90 0.90 2.38 1.41 1.06 1.41 1.41 0.75 95.3848 Local Currency/USD (USD per local currency) 1.00 1.18 1.04 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 0.71 0.71 0.71 0.73 0.75 0.94 Government bond yields (%) 2 0.70 1.00 0.80 0.70 1.00 0.75 1.00 1.80 1.80 1.80 1.80 0.76 0.76 0.10 1.10 0.75 0.70 1.00 0.88 1.88 0.78 11.00 7.35 5.68 7.28 6.68 3.30 7.35 1.00 1.10 DY 0.60 0.90 0.70 1.10 0.85 0.96 1.10 1.60 1.60 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Equity, %YoY (in local currency) 4													22	20	10		6
Local Currency/USD (USD per local currency) 1.00 1.18 1.04 1.11 <th< td=""><td>FX (local currencies per USD) 1.00</td><td>0.85</td><td>0.96</td><td>0.90</td><td>0.90</td><td>0.90</td><td>0.90</td><td>0.90</td><td>2.38</td><td>1.41</td><td>1.06</td><td>1.41</td><td>1.41</td><td>0.75</td><td></td><td></td><td></td><td>95.3848</td></th<>	FX (local currencies per USD) 1.00	0.85	0.96	0.90	0.90	0.90	0.90	0.90	2.38	1.41	1.06	1.41	1.41	0.75				95.3848
(local currencies per DEM) 1.00 1.14 1.06 1.06 1.06 1.06 4.20 1.80 1.26 1.80 1.80 0.75 94 Government bond yields (%) 2Y 0.70 1.00 0.80 0.70 0.75 1.00 0.75 9.70 6.70 4.70 6.20 5.70 2.60 6.70 0.15 1.00 1.10 1.10 0.75 9.70 6.70 4.70 6.20 5.70 2.60 6.70 0.15 1.00 1.10 1.10 0.65 0.90 0.76 1.10 0.75 5.68 7.28 6.88 3.30 7.35 1.00 1.16 1.06 1.06 1.06 1.00 7.35 5.68 7.28 6.88 3.30 8.60 1.65 1.90 Credit spreads corporate bonds (bp) AA 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40	Local Currency/USD (USD per local currency) 1.00	1.18	1.04	1.11	1.11	1.11	1.11	1.11	0.42	0.71	0.94	0.71	0.71	1.33				0.01
Government bond yields (%) 2Y 0.70 1.00 0.80 0.70 0.75 1.00 0.75 9.70 6.70 4.70 6.20 5.70 2.60 6.70 0.15 0.10 5Y 0.60 0.90 0.70 1.10 0.65 0.90 0.65 1.10 7.35 5.68 7.28 6.68 3.30 7.35 1.00 1.10 Credit spreads corporate bonds (bp) AAA 40 4	(local currencies per DEM)	1.00	1.14	1.06	1.06	1.06	1.06	1.06	4.20	1.80	1.26	1.80	1.80	0.75				94
2Y 0.70 1.00 0.80 0.70 0.75 1.00 0.75 9.70 6.70 4.70 6.20 5.70 2.60 6.70 0.15 0.10 5Y 0.75 1.00 0.88 0.78 1.18 0.78 1.10 7.35 5.68 7.28 6.68 3.30 7.35 1.00 1.10 10Y 0.60 0.90 0.70 1.10 0.65 0.90 0.65 11.10 8.60 6.60 8.10 7.28 6.68 3.30 7.35 1.00 1.10 Credit spreads corporate bonds (bp) AA 40 40 40 40 40 40 40 40 40 40 40 60 50 45 50 50 35 50 30 30 30 30 AA 120	Government bond vields (%)																	
5Y 0.75 1.00 0.88 1.38 0.78 1.00 0.78 11.00 7.35 5.68 7.28 6.68 3.30 7.35 1.00 1.10 10Y 0.60 0.90 0.70 1.10 0.85 0.90 0.65 11.10 8.60 6.60 8.10 7.60 3.90 8.60 1.65 1.90 Credit spreads corporate bonds (bp) AA 40 <td>2Y</td> <td>0.70</td> <td>1.00</td> <td>0.80</td> <td>0.70</td> <td>0.75</td> <td>1.00</td> <td>0.75</td> <td>9.70</td> <td>6.70</td> <td>4.70</td> <td>6.20</td> <td>5.70</td> <td>2.60</td> <td>6.70</td> <td>0.15</td> <td></td> <td>0.10</td>	2Y	0.70	1.00	0.80	0.70	0.75	1.00	0.75	9.70	6.70	4.70	6.20	5.70	2.60	6.70	0.15		0.10
10Y 0.60 0.90 0.70 1.10 0.65 0.90 0.65 11.10 8.60 6.60 8.10 7.60 3.90 8.60 1.65 1.90 Credit spreads corporate bonds (bp) AAA 40 40 40 40 40 40 40 40 40 60 50 45 50 50 35 50 30 30 30 30 AA 120 <td>5Y</td> <td>0.75</td> <td>1.00</td> <td>0.88</td> <td>1.38</td> <td>0.78</td> <td>1.08</td> <td>0.78</td> <td>11.00</td> <td>7.35</td> <td>5.68</td> <td>7.28</td> <td>6.68</td> <td>3.30</td> <td>7.35</td> <td>1.00</td> <td></td> <td>1.10</td>	5Y	0.75	1.00	0.88	1.38	0.78	1.08	0.78	11.00	7.35	5.68	7.28	6.68	3.30	7.35	1.00		1.10
Credit spreads corporate bonds (bp) AAA 40 30 20 <t< td=""><td>10Y</td><td>0.60</td><td>0.90</td><td>0.70</td><td>1.10</td><td>0.65</td><td>0.90</td><td>0.65</td><td>11.10</td><td>8.60</td><td>6.60</td><td>8.10</td><td>7.60</td><td>3.90</td><td>8.60</td><td>1.65</td><td></td><td>1.90</td></t<>	10Y	0.60	0.90	0.70	1.10	0.65	0.90	0.65	11.10	8.60	6.60	8.10	7.60	3.90	8.60	1.65		1.90
AAA 40 40 40 40 40 40 40 40 60 50 45 50 50 35 50 30 30 30 AAA 120	Credit spreads corporate bonds (bp)																	
AA 120 120 120 120 120 120 120 120 180 160 140 160 110 160 100 100 100 100 A 180 180 180 180 180 180 180 180 180 180 180 180 250 230 200 230 230 170 230 150 150 150 BBB 300<	AAA	40	40	40	40	40	40	40	60	50	45	50	50	35	50	30	30	30
A 180 180 180 180 180 180 180 180 180 250 230 200 230 230 170 230 150 150 150 BBB 300 1,180 1,180 1,180 1,180 1,180 1,180 1,180 1,180 <td>AA</td> <td>120</td> <td>120</td> <td>120</td> <td>120</td> <td>120</td> <td>120</td> <td>120</td> <td>180</td> <td>160</td> <td>140</td> <td>160</td> <td>160</td> <td>110</td> <td>160</td> <td>100</td> <td>100</td> <td>100</td>	AA	120	120	120	120	120	120	120	180	160	140	160	160	110	160	100	100	100
BBB 300 3	A	180	180	180	180	180	180	180	250	230	200	230	230	170	230	150	150	150
BB 700 700 700 700 700 700 700 700 700 700 700 700 700 700 700 700 700 700 700 850 800 740 800 800 600 800 58	BBB	300	300	300	300	300	300	300	400	360	320	360	360	270	360	250	250	250
B 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,250 1,180 1,100 1,180 900 1,180 850 850 850 Credit spreads ABS (bp) BBB RMBS 720 756 738 720 756 720 756 720 1,080 900 810 900 1,530 900 675 675 675 BBB RMBS 810 844 844 810 844 810 844 810 1,485 1,148 979 1,148 1,148 810 1,148 765 <	BB	700	700	700	700	700	700	700	850	800	740	800	800	600	800	580	580	580
Credit spreads ABS (bp) BBB RMBS 720 756 738 720 756 720 1,080 900 810 900 1,050 1,530 900 675 675 675 675 675 675 765 <td< td=""><td>В</td><td>1,000</td><td>1,000</td><td>1,000</td><td>1,000</td><td>1,000</td><td>1,000</td><td>1,000</td><td>1,250</td><td>1,180</td><td>1,100</td><td>1,180</td><td>1,180</td><td>900</td><td>1,180</td><td>850</td><td>850</td><td>850</td></td<>	В	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,250	1,180	1,100	1,180	1,180	900	1,180	850	850	850
BBB RMBS 720 756 738 720 756 720 756 720 1,080 900 810 900 1,050 1,530 900 675 675 675 BBB Credit Cards 810 844 844 810 844 810 1,485 1,148 979 1,148 1,148 810 1,148 765 765 765 765 BBB Auto loans 1,800 1,900 1,850 1,800 1,900 1,800 1,900 1,800 3,000 2,400 2,400 2,400 1,620 1,020 1,020 1,020	Credit spreads ABS (bp)																	
BBB Credit Cards 810 844 844 810 844 810 1,485 1,148 979 1,148 1,148 810 1,148 765 765 765 BBB Auto loans 1,800 1,900 1,850 1,800 1,900 1,800 2,400 2,400 1,800 1,620 1,620 1,620 1,620 1,620 1,620 1,620 1,620 1,620 1,620 2,070 2,070 2,070 2,070 2,070 2,070 2,070 2,070 2,0	BBB RMBS	720	756	738	720	720	756	720	1,080	900	810	900	1,050	1,530	900	675	675	675
BBB Auto loans 1,800 1,900 1,850 1,800 1,800 1,900 1,800 1,900 1,800 1,900 1,800 1,900 1,800 1,900 1,800 1,900 1,800 2,400 2,400 2,400 1,800 2,400 1,620	BBB Credit Cards	810	844	844	810	810	844	810	1,485	1,148	979	1,148	1,148	810	1,148	765	765	765
BBB CMBS 2,250 2,550 2,400 2,250 2,250 2,550 2,250 3,750 3,000 2,625 3,000 3,150 3,000 2,070	BBB Auto loans	1,800	1,900	1,850	1,800	1,800	1,900	1,800	3,000	2,400	2,100	2,400	2,400	1,800	2,400	1,620	1,620	1,620
Real estate Residential, %YoY 0.5 3.0 2.0 4.0 0.5 1.0 -5.0 1.5 0.8 1.0 -0.5 -1.0 2.5 0.0 Commercial, %YoY 3.0 4.0 2.8 5.0 4.0 4.5 9.0 3.0 3.0 -3.0 3.0 2.0	BBB CMBS	2,250	2,550	2,400	2,250	2,250	2,550	2,250	3,750	3,000	2,625	3,000	3,000	3,150	3,000	2,070	2,070	2,070
Residential, %YoY 0.5 3.0 2.0 4.0 4.0 0.5 1.0 -5.0 1.5 0.8 1.0 -0.5 -1.0 2.5 0.0 Commercial, %YoY 3.0 4.0 2.8 5.0 4.0 4.5 9.0 3.0 3.0 3.0 -3.0 3.0 2.5 0.0	Real estate																	
Commercial, %YoY 3.0 4.0 2.8 5.0 4.0 4.5 9.0 3.0 3.0 3.0 -3.0 3.0 2.0	Residential, %YoY	0.5	3.0	2.0	4.0	4.0	0.5	1.0	-5.0	1.5	0.8	1.0	-0.5	-1.0		2.5		0.0
	Commercial, %YoY	3.0	4.0	2.8	5.0	4.0	4.0	4.5	9.0	3.0	3.0	3.0	3.0	-3.0		3.0		2.0

Differences to base (financial market variables all year-end)

Fig 31 EMU break up scenarios - Total break up 2010

I	EA16	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																		
GDP, %YoY		-0.3	-0.4	-0.8	-0.5	-0.4	-0.2	-0.4	-2.1	-0.6	-1.1	-0.9	-0.9	-0.4	-0.7	-0.3	-1.0	-0.8
Unemployment, %		0.3	0.4	0.4	0.5	0.4	0.3	0.4	3.0	0.6	0.5	0.6	0.8	0.2	0.8	0.0		0.5
CPI, %YoY		0.0	0.0	-0.1	0.0	0.0	0.0	0.0	1.0	5.0	0.8	0.3	0.2	-0.3	0.0	-0.2	-0.5	-1.4
Interest rates - SWAP (%)																		
3M		-0.8	-0.5	-0.7	-0.8	-0.8	-0.5	-0.8	4.0	3.0	2.0	3.5	3.0	-0.5	3.0	-2.0		-0.3
2Y		-1.0	-0.7	-0.9	-1.0	-1.0	-0.7	-1.0	5.0	3.0	2.0	3.5	3.0	-0.5	3.0	-2.2		-0.3
10Y		-2.5	-2.2	-2.4	-2.0	-2.5	-2.2	-2.5	7.0	4.0	2.5	4.0	4.0	-0.7	4.0	-2.3		-0.3
30Y		-2.0	-1.7	-2.2	-1.5	-1.7	-1.7	-1.7	6.0	4.0	3.0	4.5	4.0	-0.8	4.0	-2.5		-0.3
Equity, %YoY (in local currency)	-25.0													-34.0	-42.0	-19.0		-17.0
FX (local currencies per USD)	0.3	0.1	0.3	0.2	0.2	0.2	0.2	0.2	3.9	1.1	0.4	1.1	1.1	0.0				5.8
Local Currency/USD (USD per local currency)	-0.3	-0.1	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.9	-0.6	-0.4	-0.6	-0.6	0.0				0.0
(local currencies per DEM)		0.0	0.2	0.1	0.1	0.1	0.1	0.1	4.0	1.0	0.3	1.0	1.0	-0.2				-25.0
Government bond yields (%)																		
2Y		-1.00	-0.90	-0.90	-1.25	-1.15	-0.90	-1.10	-2.00	1.25	0.45	1.25	0.90	-0.60	1.25	-2.45		-0.20
5Y		-1.75	-1.70	-1.78	-1.93	-1.93	-1.73	-1.93	-0.10	1.50	0.73	1.53	1.63	-0.70	1.50	-2.50		-0.20
10Y		-2.50	-2.50	-2.65	-2.60	-2.70	-2.55	-2.75	1.80	1.75	1.00	1.80	2.35	-0.80	1.75	-2.55		-0.20
Credit spreads corporate bonds (bp)																		
AAA		57	60	59	57	57	60	57	93	75	66	75	75	48	75	41	38	38
AA		148	157	157	148	148	157	148	328	238	193	238	238	130	238	100	92	92
A		235	253	244	235	235	253	235	451	343	289	343	343	217	343	163	151	151
BBB		379	451	415	379	379	451	379	739	559	469	559	559	325	559	260	239	239
BB		981	1,089	1,035	981	981	1,089	981	1,881	1,431	1,206	1,431	1,431	891	1,431	664	608	608
В		1,523	1,703	1,613	1,523	1,523	1,703	1,523	2,783	2,153	1,838	2,153	2,153	1,343	2,153	1,047	963	963
Credit spreads ABS (bp)																		
BBB RMBS		675	735	705	675	675	735	675	1,275	975	825	975	600	1,700	975	600	600	600
BBB Credit Cards		1,050	1,106	1,106	1,050	1,050	1,106	1,050	2,175	1,613	1,331	1,613	1,613	1,050	1,613	975	975	975
BBB Auto loans		1,800	1,967	1,883	1,800	1,800	1,967	1,800	3,800	2,800	2,300	2,800	2,800	1,800	2,800	1,500	1,500	1,500
BBB CMBS		1,875	2,375	2,125	1,875	1,875	2,375	1,875	4,375	3,125	2,500	3,125	3,125	3,375	3,125	1,575	1,575	1,575
Real estate																		
Residential, %YoY		0.0	0.0	-1.0	-1.0	-0.5	0.0	0.0	-0.5	0.0	0.0	-2.0	-1.0	-3.0		0.0		0.0
Commercial, %YoY		-1.0	-1.5	-1.0	0.0	-0.1	0.0	-0.5	-30.0	-0.5	-1.0	0.0	-3.0	-12.0		4.0	-5.0	-4.0

Differences to base (financial market variables all year-end)

Fig 32 EMU break up scenarios - Total break up 2011

	EA17	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA e	Asia x Japan	Japan
Macro economic drivers																		
GDP, %YoY		-5.7	-5.7	-6.2	-6.1	-6.4	-5.7	-6.4	-7.7	-7.8	-7.5	-7.3	-7.5	-4.5	-7.9	-2.0	-3.0	-0.6
Unemployment, %		3.2	3.7	2.3	4.1	2.1	2.5	3.3	5.8	4.6	5.1	4.3	4.0	2.0	4.0	1.5		0.2
CPI, %YoY		-2.7	-0.6	-0.9	-1.4	-1.4	-1.1	-1.2	16.9	10.2	6.2	11.5	8.6	-0.8	-1.2	-3.9	-2.0	-0.8
Interest rates - SWAP (%)																		
3M		-1.5	-1.2	-1.4	-1.5	-1.5	-1.2	-1.5	7.0	4.5	3.0	4.5	4.0	-0.5	4.5	-2.0		-0.3
2Y		-1.7	-1.4	-1.6	-1.7	-1.7	-1.4	-1.7	8.0	5.0	3.0	4.5	4.0	-0.5	5.0	-2.2		-0.3
10Y		-3.2	-2.9	-3.1	-2.7	-3.2	-2.9	-3.2	8.0	5.5	3.5	5.0	4.5	-0.7	5.5	-2.3		-0.3
30Y		-2.7	-2.4	-2.9	-2.2	-2.4	-2.4	-2.4	7.0	5.5	4.0	5.5	5.0	-0.8	5.5	-2.5		-0.3
Equity, %YoY (in local currency)	8.0													13.0	36.0	16.0		6.0
FX (local currencies per USD)	0.3	0.1	0.3	0.2	0.2	0.2	0.2	0.2	2.6	1.0	0.4	1.0	1.0	0.1				-9.1
Local Currency/USD (USD per local currency)	-0.3	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.9	-0.6	-0.4	-0.6	-0.6	-0.1				0.0
(local currencies per DEM)		0.0	0.2	0.1	0.1	0.1	0.1	0.1	3.6	0.9	0.3	0.9	0.9	-0.2				-48.0
Government bond vields (%)																		
2Y		-1.70	-1.60	-1.60	-1.95	-1.85	-1.60	-1.80	1.00	3.25	1.45	2.25	1.90	-0.60	3.25	-2.45		-0.20
5Y		-2.45	-2.40	-2.48	-2.63	-2.63	-2.43	-2.63	2.00	3.25	1.73	2.53	2.33	-0.70	3.25	-2.50		-0.20
10Y		-3.20	-3.20	-3.35	-3.30	-3.40	-3.25	-3.45	3.00	3.25	2.00	2.80	2.75	-0.80	3.25	-2.55		-0.20
Credit spreads corporate bonds (bp)																		
AAA		23	24	23	23	23	24	23	41	32	27	32	32	18	32	15	13	13
AA		48	53	53	48	48	53	48	138	93	71	93	93	39	93	24	20	20
Α		83	92	88	83	83	92	83	191	137	110	137	137	74	137	48	41	41
BBB		128	164	146	128	128	164	128	308	218	173	218	218	101	218	68	58	58
BB		315	369	342	315	315	369	315	765	540	428	540	540	270	540	157	129	129
В		518	608	563	518	518	608	518	1,148	833	675	833	833	428	833	280	238	238
Credit spreads ABS (bp)																		
BBB RMBS		480	525	503	480	480	525	480	930	705	593	705	325	1.213	705	424	424	424
BBB Credit Cards		773	815	815	773	773	815	773	1.616	1.194	983	1.194	1.194	813	1,194	756	756	756
BBB Auto loans		1.290	1.415	1.353	1.290	1.290	1.415	1.290	2,790	2.040	1.665	2.040	2.040	1.350	2.040	1.125	1.125	1.125
BBB CMBS		1,313	1,688	1,500	1,313	1,313	1,688	1,313	3,188	2,250	1,781	2,250	2,250	2,638	2,250	1,288	1,288	1,288
Real estate																		
Residential, %YoY		-1.0	-1.0	-2.0	-2.0	-0.5	-1.0	-1.0	-7.5	-3.0	-2.5	-2.5	-4.0	-6.7		-0.8		0.0
		10	10	10														

Differences to base (financial market variables all year-end)

Fig 33 EMU break up scenarios - Total break up 2012

	EA17	DEU	FRA	NLD	BEL	LUX	AUT	FIN	GRC	IRL	ITA	PRT	ESP	UK	Central Europe	USA	Asia ex Japan	Japan
Macro economic drivers																		
GDP, %YoY		-3.6	-4.1	-3.9	-4.8	-5.1	-3.7	-4.9	-4.0	-5.5	-4.7	-4.0	-4.3	-3.0	-7.0	-1.0	3.0	-0.7
Unemployment, %		4.9	4.9	4.2	5.8	4.0	4.1	5.3	7.8	6.0	7.2	5.6	6.5	3.0	7.0	2.5		0.3
CPI, %YoY		-2.7	-1.7	-1.8	-2.6	-2.3	-1.8	-2.6	6.2	5.2	2.1	5.3	3.6	-0.6	-1.5	-1.1	-0.5	-1.0
Interest rates - SWAP (%)																		
3M		-1.3	-1.0	-1.2	-1.3	-1.3	-1.0	-1.3	6.5	4.0	2.5	4.0	3.5	-0.5	4.0	-1.7		-0.3
2Y		-1.5	-1.2	-1.4	-1.5	-1.5	-1.2	-1.5	7.5	4.5	2.5	4.0	3.5	-0.5	4.5	-1.8		-0.3
10Y		-3.0	-2.7	-2.9	-2.5	-3.0	-2.7	-3.0	7.5	5.0	3.0	4.5	4.0	-0.7	5.0	-1.9		-0.3
30Y		-2.5	-2.2	-2.7	-2.0	-2.2	-2.2	-2.2	6.5	5.0	3.5	5.0	4.5	-0.8	5.0	-2.0		-0.3
Equity, %YoY (in local currency)	-4.0													13.0	8.0	0.0		0.0
FX (local currencies per USD)	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	1.6	0.6	0.3	0.6	0.6	0.1				-10.0
Local Currency/USD (USD per local currency	() -0.3	-0.1	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.9	-0.6	-0.4	-0.6	-0.6	-0.2				0.0
(local currencies per DEM)	,	0.0	0.1	0.1	0.1	0.1	0.1	0.1	3.2	0.8	0.3	0.8	0.8	-0.1				-43.0
Government bond yields (%)																		
2Y		-1.50	-1.40	-1.40	-1.75	-1.65	-1.40	-1.60	0.50	2.75	0.95	1.75	1.40	-0.60	2.75	-2.05		-0.20
5Y		-2.25	-2.20	-2.28	-2.43	-2.43	-2.23	-2.43	1.50	2.75	1.23	2.03	1.83	-0.70	2.75	-2.10		-0.20
10Y		-3.00	-3.00	-3.15	-3.10	-3.20	-3.05	-3.25	2.50	2.75	1.50	2.30	2.25	-0.80	2.75	-2.15		-0.20
Credit spreads corporate bonds (bp)																		
AAA		27	27	27	27	27	27	27	47	37	32	37	37	22	37	17	17	17
AA		64	64	64	64	64	64	64	124	104	84	104	104	54	104	44	44	44
A		107	107	107	107	107	107	107	177	157	127	157	157	97	157	77	77	77
BBB		167	167	167	167	167	167	167	267	227	187	227	227	137	227	117	117	117
BB		322	322	322	322	322	322	322	472	422	362	422	422	222	422	202	202	202
В		475	475	475	475	475	475	475	725	655	575	655	655	375	655	325	325	325
Credit spreads ABS (bp)																		
BBB RMBS		335	371	353	335	335	371	335	695	515	425	515	450	930	515	290	290	290
BBB Credit Cards		590	624	624	590	590	624	590	1,265	928	759	928	928	590	928	545	545	545
BBB Auto loans		920	1,020	970	920	920	1,020	920	2,120	1,520	1,220	1,520	1,520	920	1,520	740	740	740
BBB CMBS		875	1,175	1,025	875	875	1,175	875	2,375	1,625	1,250	1,625	1,625	1,775	1,625	695	695	695
Real estate																		
Residential, %YoY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.0	-0.5	0.0	-1.0	-0.5	-1.0		-0.5		0.0
Commercial, %YoY		0.0	0.0	-0.2	0.0	0.0	0.0	-0.5	6.0	0.0	-1.0	-2.0	-1.0	-6.0		-4.0	0.0	0.0



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