X-ASSET NEWSLETTER

04 DEC 2012

#1

Rawhide*

Movin', movin', movin',
Though they're disapprovin',
Keep them dogies movin', rawhide.
Don't try to understand 'em,
Just rope an' throw an' brand 'em.
Soon we'll be living high and wide.
My heart's calculatin',
My true love will be waitin':
Waitin' at the end of my ride.

Dr. Jochen Felsenheimer
Tel: +49 89 589275-120

RAWHIDE

What really awaits at the end of the ride is, in our view, much less clear than the majority of market participants currently think. Reading the outlooks for 2013, there appears to be widespread consensus regarding the development of the markets in the medium term. The acute danger of the euro zone breaking apart has been averted, at least since the unorthodox intervention of the ECB. Although the fundamental picture in Europe seems anything but rosy, most analysts assume that technical analysis will prevail and that risky asset classes will continue to be seen as "the place to be" given the excessive levels of liquidity in a long-term low interest rate environment. Even the risk of financial repression as an elegant way out of the debt crisis would benefit precisely the credit markets and alternative asset classes. Although we certainly believe that the euro zone will survive longer than might appear possible at the moment, we come to different conclusions, as we will explain in the following. We cannot avoid starting with a short detour to Greece.

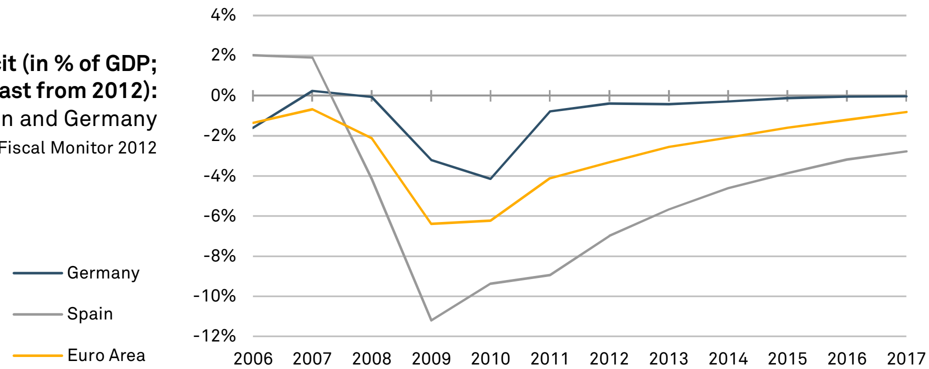
The entirely logical development in Greece

The ever louder protests against the austerity measures dictated by Europe in the southern peripheral countries have made it clear that hopes of a quick solution to Europe's debt problems are unrealistic. The economic background of Europe's turmoil is well known and we do not want to repeat it here. Nevertheless, we can certainly be amazed at Greece's development. Not because the consolidation targets agreed cannot be met and another haircut looms, but because some politicians seem surprised at this outcome. Many mistakes were made in "rescuing" Greece, which have led to the current situation. There was a window of opportunity in 2010 in which a Greek exit would have had far less fatal consequences than would now be the case. However, this solution was rejected in order to protect the European banking system. Initially rather half-hearted aid packages were made available, which generated only short-term relief on the markets before having detrimental effects on the euro zone as a whole. They contributed to driving up refinancing costs for all peripheral countries. A bailout has to be pushed through more decisively, otherwise it generates uncertainty.

The greatest mistake by far was in the implementation of the Greek government bond restructuring through the PSI. This was in violation of the main clause of every lending agreement – the pari passu status of the creditors. Greece continues to service its bonds issued under international law (and will in all likelihood continue to do so). Meanwhile, the fact that the official sector (ECB, EIB) was exempted is now attracting a great deal of criticism. Removing this exemption is a topic of open debate in the discussions about a future haircut. The rescue strategy ultimately failed in economic terms (as did the political dimension). As it seems completely out of the question that Greece can reduce its debt under its own (economic) steam, the situation cannot improve in the foreseeable future. Thus far we agree with the consensus. The problem here is not an idiosyncratic one – the entire euro zone is likely to have to deal with a primary deficit for many years to come. In relative terms this will become less of a burden as the years go by – but in absolute terms the main problem remains unresolved:

governments are spending more money than they are collecting.

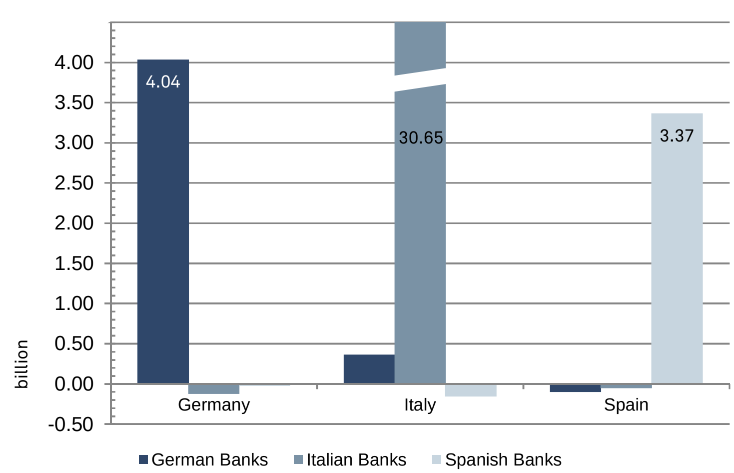
Primary deficit (in % of GDP; forecast from 2012):
Euro zone, Spain and Germany
Source: IMF Fiscal Monitor 2012



However, in terms of the economic alternatives, we disagree with the consensus. A Greek exit is not an option in the current situation. Although the creditor nations face further expenses, this must be compared to the costs of Greece leaving the euro – which are considerably higher. The increase in refinancing costs on the capital markets alone, which would make further aid measures necessary at least for Spain and Portugal, would be more expensive than making further transfer payments to Greece (or foregoing debt claims). Having missed the window of opportunity in which a Greek exit would have been possible, Europe's dominant strategy remains to provide further aid, even though it looks highly probable that the necessary bailout volume will gradually increase.

The main point for criticism in our view remains the ignorance of European authorities as to the workings of the capital market. The only logical reaction in the last three years, as uncoordinated rescue efforts were repeatedly implemented, was that of the financial markets. These may appear morally questionable in many eyes, but it is an economic fact that, given the high level of debt, the extensive refinancing challenges of the next decade in Europe cannot be mastered without access to capital from outside Europe. Against this backdrop it seems unhelpful to restrict the functioning of the markets, as this is diametrically opposed to overcoming the refinancing problems.
The current state of crisis management can be seen as a "pseudo nationalisation" of government debt, as illustrated in the following graph. This represents a simple shift of debt and makes absolutely no contribution at all to solving the European dilemma!

Change in holdings of domestic government bonds
Germany, Italy and Spain (31 Dec 2011 vs. 30 June 2012)
Source: EBA



It might sound as if we are promoting crude liberal fundamentalism, but this is far from the case. In fact, the only realistic alternative to raising money from the capital market is to turn private assets into state assets – for example by introducing wealth taxes. Even this option, however, can only be used as a complementary measure, as global interaction of goods markets requires global interaction of capital markets. There is ultimately no way around a budgetary consolidation combined with further transfer payments. The voices proclaiming a break-up of the euro zone will thus not be silenced too quickly – as we will show in the following.

Is the euro zone in a prisoner's dilemma?

An increasingly popular method for analysing the financial markets is based on game theory. We do not want to buck this trend and will demonstrate by example of the prisoner's dilemma – the most well known “game” in economics – why, despite all structural problems, the euro zone will continue to exist longer than the current situation indicates. We are aware that what actually characterises this world is its transitoriness (as Franz Kafka said).

It appears we have averted a break-up of the euro zone for the time being, with the often repeated argument that each country weighs the costs and advantages of remaining in the euro zone against each other. It can be argued that there is a certain parallel between the euro countries and protagonists of the prisoner dilemma. The concept of the prisoner dilemma, developed by A.W. Tucker to show the problem of individual vs. collective rationality, dates back more than 60 years. In it, there are two prisoners who are suspected of having jointly committed a crime. Held in separate rooms, each has the opportunity to admit to the deed or to remain silent. The maximum prison sentence is seven years. If they both remain silent, both will be sentenced to three years in prison; if both confess to the crime, they will each receive a five-year sentence. If only one confesses while the other remains silent, the former will receive the maximum sentence and the latter as a key witness will only receive one year. These are the cumulative prison sentences based on the different strategies that the one accomplice follows in this symmetrical and unique game without knowing what strategy the other is following:

	B remains silent			B confesses		
A remains silent	–6	A: –3	B: –3	–8	A: –7	B: –1
A confesses	–8	A: –1	B: –7	–10	A: –5	B: –5

The collective rational plan would be for both players to remain silent since this would yield the lowest possible cumulative prison sentence (6 years total). However acting rationally as individuals, both players should confess since regardless of the strategy the other follows, they would each still receive a reduced sentence. So confession is the dominant strategy. Consequently the individually rational strategy results in a less than ideal collective result – referred to as the Nash equilibrium – in this case not a Pareto-efficient state.
Applied to the euro zone, we refer to the much cited study by the foundation Bertelsmannstiftung (www.bertelsmannstiftung.de), which in turn is based on the 2012 World Report by Prognos (www.prognos.com) and in which the costs to the world economy of a Greek exit scenario were computed. Although the direct economic costs of a Greek exit (government bankruptcy and resulting bad debt loss) would “only” amount to around €400 billion, potential transfer effects to Portugal, Spain and Italy may result in far higher costs. The

aforementioned studies calculated the negative effect on growth and the loss of confidence on the financial markets. Losses could range from just under €1,200 billion (Greece and Portugal exit), to over €3.6 trillion (Greece, Portugal, and Spain), to as high as €7.7 trillion (including Italy). We consider this estimate credible, at least relative to the costs of rescuing Greece and establishing a long-term transfer mechanism as considered below, and thus assume that the costs of an exit for all countries would be higher than if said countries remain in the euro zone.

This assumption can be applied to the prisoner's dilemma scenario as follows. Let us take two countries that are part of a greater currency union. The costs of a joint exit in view of the above-described effects on both countries (each -5) are accompanied by the highest cumulative costs (-10). If both countries remain in the currency union, the total costs would be -6 (-3 each), which would also be justifiable in economic terms. One country is a donor country and has to offer transfer payments so that the other country can remain in the currency union. The latter is a recipient country and thus remaining in the currency union also results in costs, as essential fiscal measures (including consolidation of the national budget) accompanying adjustment costs (raising taxes, declines in growth, unemployment) have to be borne. The analogy of this example with the situation of Germany and Greece was a conscious choice. If, however one country exits while the other remains, it would only have to bear low costs (-1) while the remaining one would be hit with very high costs of -7. In reference to the EMU, it could be argued that the country exiting could purchase the option of a currency devaluation at a low price, which would ultimately help to avoid the necessary structural adjustments, leaving the other country stuck with the collective costs of the currency union. Just think of the potential claims under Target II. The payment matrix would appear as follows:

	Country B remains			Country B exits		
Country A remains	−6	A: −3	B: −3	−8	A: −7	B: −1
Country A exits	−8	A: −1	B: −7	−10	A: −5	B: −5

If we were in a classic prisoner dilemma, both countries would act on an individually rational basis and both select the exit scenario, as they would each be better off regardless of the decision that the other country took. We have thus updated the classic prisoner dilemma phenomenon with the result of both countries exiting the currency union. As this argument could be applied to all euro zone members, the currency union would inevitably break up, leaving the extremely high costs addressed above for all involved. Is the exit of euro countries then the dominant strategy?

The prisoner's dilemma is naturally dependent on the payout parameter determined. Even if we accept the argument as credible, the economic costs only make up part of the total costs that the exiting state would incur. The country in question would also face very high political costs. In the case of the European Union, the country exiting could be expected to encounter political isolation. Ultimately, just because a country exits does not mean that it can act fully independently of the other countries remaining in the union, meaning it would be economically "cut off" in the future. This then leads to what game theory calls a tit for tat situation. In other words, the exiting country is then "punished" by the other countries in its economic interaction with them, so the situation of the EMU countries resembles a series of endless prisoner dilemmas. Additionally, cooperative behaviour is triggered by just that; it no longer makes individual sense to exit, but rather to remain in the union in view of the game situation otherwise repeating itself. For this reason, the currency union negotiates solutions, which implicitly ensures the union's own existence!

The European Union is much more than an alliance of economically rational individual countries, a fact often ignored by euro critics and exit advocates. Following this line of argumentation, the EMU will continue to exist for much longer than currently proclaimed by many sides, despite all of its problems. It does so however with all the economic consequences for member countries. One of these potential dangers could be the inflation of government debts as an elegant way out of the debt despair, which is why we shall now proceed to this topic.

The fairy tale of financial repression

Everyone has been talking about the phenomenon of "financial repression" – at least since the publication of the paper entitled *"The Liquidation of Government Debt"* by Reinhart and Sbrancia (NBER Working Paper No. 16893, March 2011). Many experts (especially fans of "real" assets) view this as the last option for combating the debt crisis and the requirements for doing so appear conceivably logical and feasible:

1. The government has the opportunity to control interest rates.
2. The government has the power to control its own banking system (through actual participation or regulation).
3. It can force domestic financial institutions to hold government bonds (we refer here to the analysis of "collateral bottlenecks" later in this newsletter, for example, via the liquidity requirements of Basel III or the collateral requirements resulting from the implementation of the *European Market Infrastructure Regulation* (EMIR)).
4. The government has the option of implementing capital controls to prevent a capital flight.

If these requirements are met, the government has the option of issuing bonds at low nominal interest rates, gradually reducing government debt on account of the negative real interest rate (assuming an inflationary trend). In the past, this "political measure" could be empirically proved in many emerging markets, though the most frequently cited example is still post-WWII US politics. Because of the simplicity of this solution and the increasing tendency (for many years now) of seeing conspiracy in all government actions, the number of people who expect precisely this to happen in the euro zone is rising. There also exist some economic facts that contradict financial suppression upon closer inspection.

The weakest argument in this scenario is that in reality the European governments have no way to in which to influence interest rates – that the ECB has a monopoly on this. Nevertheless, the announcement of the unlimited purchasing of government bonds from crisis countries cast some doubt on its independence (requirement 2). And it cannot currently be denied that interest rates are extremely low, which is why some countries are able to refinance at very favourable conditions. Germany, for example, has been repeatedly paid for lending money by issuing government bonds with negative yields in recent months. The second requirement has thus practically been fulfilled. European financial institutions are either in the hands of the government or subject to extensive regulatory measures, thus enabling the government to make banks hold government bonds also (requirement 3).

Fulfilment of the fourth requirement is not that easy. There are obviously no (direct) capital controls in Europe and also the planned implementation of the European financial transaction tax (beginning of 2014) cannot be viewed as a barrier to prevent European capital from migrating into non-European countries (the case is quite to the contrary). If we cannot prevent capital from moving to where it earns the highest return then financial repression doesn't work! At least not for the part of the financial industry that can sidestep direct government intervention, for example, the fund industry, which seeks higher-

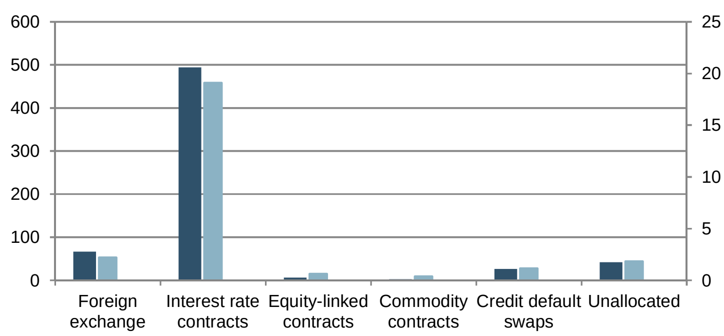
yielding investment opportunities abroad. The first three requirements have now been met in the major economies (Europe, USA and Japan), which means that de facto control of capital by means of financial repression is also possible with total mobility of capital.
However, global system competition must be taken into account in this context. There are some countries that represent an interesting alternative for those potentially seeking an elegant way out of the debt trap via financial repression. This explains, for example, the strong inflow into emerging markets, where China might also play a role by further opening its financial markets just at the point in which "flight capital" of the financially repressed seeks a new home. The economic reality of fully mobile capital is also a strong argument against the success of a financial repression policy. But it also indicates that interest rates will remain low for the long term, which leads us to the next topic.

Where's the money, Lebowski?

The reaction of the regulatory authorities to the crisis of recent years is completely understandable, but sometimes good will outweighs efficiency in implementing regulatory measures. We have often described the diametrically opposed effects of different regulatory approaches and will thus limit ourselves to an extremely interesting phenomenon at this point – the economic fact that the collateral demanded by regulators is creating a bottleneck in the financial system as it is unable to provide it!

One main tenet of this line of reasoning is seen in the aim of Basel III to create more efficient liquidity management at banks as a result of findings in recent years. The dominant figure is the liquidity coverage ratio, which expresses just that for a financial institution. In maintaining positive ratios, banks avoid sudden insolvency and potential liquidity gaps in stress scenarios by ensuring a sufficient liquidity buffer. Such liquidity buffers can only be generated with high-quality assets, or those that can be liquidated at any time, even in stressed markets, and at moderate bid-ask spreads. This narrow definition of liquidity comprises central bank reserves, cash and government bonds. In a broader definition Pfandbriefe and corporate equities can also be included with a 20-40% haircut. That is, exactly those asset classes for which creation of a speculative bubble due to extremely low yields should not be ruled out. As a result of the liquidity requirements prescribed by the Basel III regime, there is additional demand for just such financial instruments.

Globally outstanding volume of OTC derivates
(in USD 1,000 billion):
Source: BIS

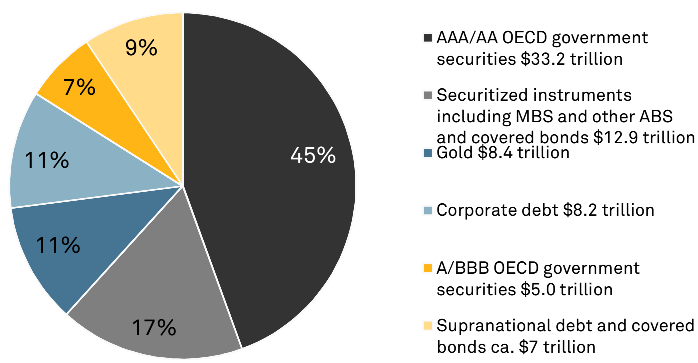


But this additional demand has yet another – even if regulatory – driver: the desired "elimination" of the OTC market, or the collateral requirements in clearing house regimes.

Clearing credit derivatives in the USA via the ICE started the movement in 2009 – EMIR will become the main regulatory instrument in Europe for settling OTC derivatives via clearing houses effective from 1 January 2013. Even if it takes some time until the majority of OTC derivatives have been transferred to clearing houses under EMIR, a problem is already emerging – the lack of collateral available! The background to this is that the regulatory authorities want a clearing house for just that purpose – to minimise counterparty risks (the logical consequence of paranoia over another Lehman case). To this end, collateral is required, which must be pledged by transaction partners. This in turn raises the question of what collateral that should be and that definition is also the same as the Basel III regime, which leaves us again with the question of where the material for pledging collateral is supposed to come from.
The above figure shows the global volume of outstanding OTC contracts, which at just under USD 640 trillion is several times that of global output (just to be on the safe side: We use the European definition of trillion and will hereinafter refer to USD 640,000 billion). The market value (for which collateral must ultimately be pledged) currently amounts to USD 25 trillion, but naturally fluctuates with the volatility of the assets underlying the derivatives. For example, a drastic rise in the interest rate would bring about a dramatic increase in collateral requirements.

Global outstanding volume of potential collateral
(total USD 74,400 billion):

Source: IMF GFSR 04/12



Comparing the volume of outstanding OTC derivatives with that of outstanding financial assets currently pledged as collateral, one thing becomes very clear. There is a lack of original collateral. Based on an estimate by Morgan Stanley, the need for collateral for interest rate derivatives alone (outstanding volume = USD 462 trillion) and assuming that 75% of transactions are cleared, stands at around 1.1%, or around USD 1,300 billion. According to the IMF, this in turn could result in increased demand for safe haven assets of USD 2,000-4,000 billion. Even though we have become accustomed to seeing some zeros in recent years, these amounts seem beyond what is currently feasible, i.e. the market influence of regulatory collateral requirements is not to be underestimated.
In light of this, there is another phenomenon that the supervisory authorities are already focusing on – the trend towards collateral transformation. In this phenomenon, safe havens are put to their best use. Money market funds, for example – which have large portfolios of collateral, e.g. government bonds – make these available to banks by swapping them with the banks for other assets (even including Rus-

sian equities) and ensuring a cash compensation for this in the event of market-to-market fluctuations. The increase in this type of transaction in recent years clearly shows the scarcity of financial instruments adequate for collateral, and with the current rating trend (see France's loss of its AAA Moody's rating) likely to even make this scarce resource more pronounced in the next few years! At the end of the day, eliminating the OTC market is intended to reduce systemic risks of the financial market, but in reality it is only creating new systemic risks in a different place. For this reason, it comes as no surprise that regulation trends also play a key role in our 2013 outlook.

Cross-asset view:
In the long run, we are all debt!
(loosely based on J.M. Keynes)

In a low interest phase à la Japan, there is only one winner and according to the majority of analysts the winner for 2013 will be: credits. Obviously there are several good arguments in favour of credit markets, though this has less to do with fundamental reasons and more to do with technical ones. We fondly recall the phenomenon of 2005-2007 known as the "technical bid", in which credit markets benefited from the extensive activity on the structured credit market, so credit spreads hit an historic low despite deteriorating fundamental data. We are now in a similar situation – although most market participants rate the dangers concerning the trend of the world economy as high, credit markets benefit from the lack of attractive alternatives. And there really are some technical but also fundamental reasons that speak in favour of credit in 2013:

1. The persisting high level of liquidity supply (LTROs will not become due until the end of 2013/end of 2014), is evidence of continued strong demand for fixed income markets above all.
2. The quest for additional collateral (see above) will require fresh demand from "new" investors (those in search of "cheap" collateral), which will be especially beneficial to the higher quality segment (up to single A).
3. The level of debt in the current credit cycle remains relatively low – also in view of the fact that, in absolute terms, refinancing costs are at a historically low level. This is also the case for investment in the high quality segment in particular.

There are however some dangers that we see as the main risks of the current low risk aversion in the markets. The low interest phase holds tremendous risks for asset/liability-driven investors, above all insurance companies. The longer this phase lasts the more likely that we will see a systemic shock in this segment and the related negative transfer effects. Precisely this factor, to which the most support from the markets has been committed for 2013, also represents the biggest risk.

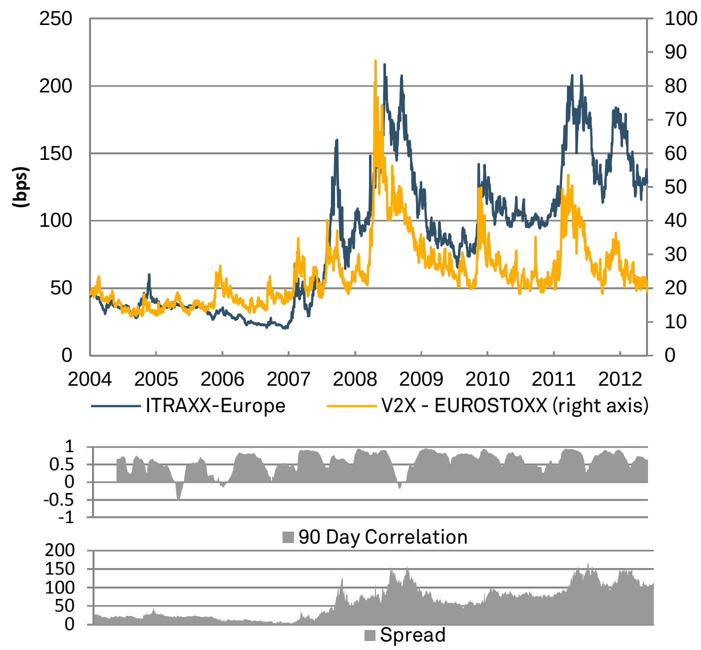
Something we see as a key point is largely ignored. Although most investors consider financial repression a risk to themselves, real economic consequences are largely ignored. When the financial repression on investors has a lesser impact for the above-stated reasons in our opinion, the government naturally has another option of evening out the unequal debt distribution between the economic sectors – by having companies shoulder a higher tax burden.

Ultimately, the generous liquidity supply provided by the central banks should not disguise the fact that of course not all companies benefit from it. The economic slowdown in Europe and the USA will put especially cyclical companies that have no access to cheaper refinancing (HY) in a difficult situation. Especially given the dramatic runs on HY bonds as the last option for many fixed-income investors to increase their return in 2012, the segment became relatively more expensive. As the first sign, we can consequently expect to see a cyclical spread widening, and this may well be the case as early as 2013. Although "yield hunters" are continuing to jump on the HY bandwagon, the first warning signs are there – especially in the US HY market. While implied volatility on equity markets remains extremely low (VIX @ 15% compared to the long-term average of around 20%), the volatility on

US HY markets rose dramatically in autumn.
In view of the fact that credits are considered the asset class to be in for 2013 as well, traditional alternatives such as government bonds and equities are under pressure. Because of the liquidity supply, equities are getting much less technical support than credit markets, and companies can expect to see profits decline in a slightly recessive environment. The following chart shows the implied volatility compared to the iTraxx Main and clearly shows that we currently find ourselves in a phase of historically attractive spread levels compared to equity volatilities.

Implicit volatility EuroStoxx (%) and iTraxx Europe in bp

Source: Mark-IT, Bloomberg



We do not believe that the government bond bubble will burst in 2013. Low interest rates are a fundamental component of euro-zone rescue efforts as well as for US refinancing – the basic problem of the "formerly known as safe haven" government bonds asset class simply lies in its extremely limited performance potential. Bearing this in mind, it makes a lot more sense to think about the spread divergences between the euro-zone countries – even without believing in a repetition of the excessive convergence trades between the countries that occurred in 2008, maintaining the status quo would mean that the "southern countries' " yield premiums will decline compared to those of the "northern countries".
We will be focusing less on the risk of a fiscal cliff at the beginning of 2013, as we assume that a political agreement will be reached. It is not only followers of the Austrian school that perhaps see the bigger danger in a union in the long term, as the US debt problem was ultimately only shifted, thus making it worse rather than solving it. We think instead that for European investors, the possible impact of the introduction of EMIR should not be underestimated. It is indeed likely that there will be declining liquidity on the derivative markets right at the beginning of the year, so we can expect to see increasing volatility.

Another idea that can also be traced to regulatory intervention concerns the relative attractiveness of financials over government bonds. After the introduction of the ban on short-selling European government bonds, investors can no longer enter any short positions on government CDS – all shorts are thus entered into via the instrument that bears the most correlation. And that is now the iTraxx Financials Senior & Subordinated Indicies. This backs up the idea that a return of risk aversion concerning the development in Europe will cause additional pressure, particularly on financials, through the purchase of indirect protection on Europe. Ultimately, 2013 will also see a continuing trend towards alternative asset classes with several factors involved: the return of traditional portfolio theory, the lacking attractiveness of traditional asset classes and regulatory changes that favour certain investment strategies over traditional asset classes. But the danger of alternative investment plans is found in precisely this point. As was often addressed in previous publications, continuing regulation puts some concepts to the test – in particular the implementation of EMIR at the beginning of 2013 and the planned introduction of a European transaction tax for 2014.

On this note, the whole XAIA team wishes you a successful 2013 and warmly recommends you to take some of "the Godfather's" wisdom to heart:
"Go your own way and nobody can overtake you." (**Marlon Brando**)

2013 Forecast table

	Q1	Q2	Q3	Q4
Credit				
IG Cash	+	+/o	o	o
IG CDS	+	+	+/o	+/o
HY Cash	+	o	-	--
HY CDS	+	+/o	o	-
Fin Cash	o	o	o	o
Fin CDS	-	-	-	-
Government bonds				
Northern	o	o	o	O
Southern	+	+	+	+
iTraxx SovX WE	+/o	+/o	+/o	+/o
Volatility (long)	o	+	+	++
Euro equities	o	-	-	--

++ = "It must be love" (Madness)
+ = "Ace of Spades" (Motörhead)
o = "I Don't Care" (Ramones)
- = "This party sucks" (The Slickee Boys)
-- = "Straight to Hell" (The Clash)

*** Sung by Frankie Lane (1958) as the title song of the Western TV series of the same name and covered by the Blues Brothers (1980) for reasons of pure self-preservation without really even liking the sound – perhaps the preferred strategy of the majority of investors in 2013.**

Special thanks go to Nadja Ferger, Benjamin Pfister and Lars Kelpien, who have once again done a great job in avoiding making any mistakes and correcting those that did appear. The remaining mistakes are of course chalked up to the author.

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