The Return of the Bond Vigilantes
– Overview of the sovereign bond market and negotiations around the Greek debt restructuring

Working Paper

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Executive summary and key messages

Bond Vigilantes are those speculators that make a short term profit out of threatening governments that are highly vulnerable to the bond markets. And as the global economic crisis has turned into a sovereign debt crisis in Europe, they are more dangerous than ever.

Total OECD public debt has increased by almost 50% since 2007, and stands at USD36tr which is twice the amount held by pension funds worldwide. The annual net increase in sovereign bond issuance has exceeded USD2tr since 2009; this is equivalent to the combined value of the Dutch and Australian pension fund industries. The cost of borrowing has increased significantly for governments as a result. But financial speculation has played its part. Loaded with public debt and with massive "contingent liabilities" arising from guarantees to the banking sector, governments have come under pressure from the bond markets and the credit rating agencies to engage in draconian austerity measures.

It would be too simplistic to portray OECD governments solely as innocent bystanders and victims, however. It is they who failed to take decisive action on the financial regulatory front. It is they who turned abruptly away from fiscal stimulus in 2010, killing the few remaining sources of growth. Meanwhile the European Central Bank (ECB) made every possible wrong choice throughout the development of the sovereign debt crisis. While it has provided unlimited lending to private banks, the ECB has denied that right to governments. And it has only reluctantly accepted that private bondholders share the burden of the debt restructuring of Greece.

The largest bond fund in the world is run by US fund manager Pimco with some USD144bn assets under management. There are thousands of bond funds worldwide, however. The largest asset managers also include US fund managers BlackRock, Vanguard and Franklin Templeton. But the majority of top asset managers are subsidiaries of international banking groups that are considered as "too-big-to-fail" by the G20 and the Financial Stability Board (Goldman Sachs, Morgan Stanley, JPMorgan, Société Générale, Deutsche Bank, UBS, HSBC, etc.) and of global insurance companies (Allianz, Prudential, AXA). Little is known however on the governance of the bond managers and their remuneration schemes, because most of them are established as private companies.

The "shadow banking" system also plays a key role in the bond market. Being excessively averse to market and credit risks, money market funds are particular exposed to herding behaviour and to the "rush to safety" which can destabilise bond markets. Hedge funds constitute a smaller group but one that is far more active. Hedge funds are reported to have intervened massively in the Greek bond market in the past year, buying bonds at a 50% discount or more. Securities lending and speculative short selling trading are also on the rise in the EU.

Hedge funds have moved in because other investors have been offloading their debt in the wake of the decisions of credit rating agencies (CRAs) to downgrade countries' debt ratings. The speed at which the rating agencies have downgraded the debt of Southern and Peripheral Europe cannot be explained by fundamentals. And in the process the agencies have accelerated and deepened tensions and speculation, thereby worsening the economic outlook for those economies in a vicious self-fulfilling circle. Greece fell by 15 notches in just 18 months, from 'high quality' rated issuer to 'near bankruptcy'. Public concern over rating agencies goes beyond the opacity of the rating methodologies. Conflicts of interest and, in the case of the bond market, collusion with bond managers are of concern.

After lengthy negotiations the €130bn EU-IMF rescue plan for Greece first announced in October 2011 was finally agreed and settled on 20th February 2012. The deal includes a 'voluntary' Private Sector Involvement (PSI) entailing a 55.5% 'haircut' on the net present value of Greek bonds. Negotiations with private bondholders (represented by the Institute of International Finance) have been tense "with stormy exchanges" with the IMF managing director Christine Lagarde. By contrast the ECB has been reportedly siding with bondholders to protect the Euro's "credibility" and make sure that the PSI is not replicated elsewhere while refusing to include its own bond holdings in the haircut deal.

The PSI deal needed to remain voluntary. The alternative solution of a 'disorderly' default of Greece would have activated billions of payouts in Greek CDS contracts. That is precisely what governments did not want to happen because it could put the entire Euro system in jeopardy. Formal default would also reward the hedge funds that have been building up massive positions in both the Greek bonds and the Greek CDS markets in the hope of winning the game no matter what happens.

So who are the new bond vigilantes? They are the hedge funds that are piling up Greek bonds at a heavy discount (as well as Portuguese, Italian, and Irish bonds) as the banks have offloaded their holdings to clean up their balance sheets. They are betting on a continuation of the EU bail outs and, if not, on the payouts they would get on the Credit Default Swap (CDS) market in case of a formal default of Greece.

What are the policy implications?

The findings of the present paper support several policy positions adopted by Global Unions in recent statements to the G20 and its Financial Stability Board.

Financial conglomerates that have become "too-big-to-fail" and are listed as such by the G20 – the "Global Systemically Important Banks" – hold excessive market power in the bond management business and in the "shadow banking" sector. That power extends to policy forums and lobbying groups which are influential in the bond market. These findings bear clear relevance to the Global Unions call for restructuring those conglomerates and shielding retail commercial banking from the speculative and volatile investment and trading activities.

Market transparency is an issue. Publicly available information on the trading houses that manage the bond funds is lacking, to say the least. This is particularly true for those investment vehicles and trading practices that are prone to short term speculation, hedge funds, derivatives trading and ownership and reporting on security lending. This paper validates trade union concerns about lax reporting and disclosure requirements that benefit private investment companies that manage the bond fund market.

Speculative trading needs to be curbed. The paper also confirms the need to substantially increase transparency in derivatives trading and to ban the ultra-speculative 'naked CDS' trading (i.e. buying long on a sovereign CDS and at the same time selling short on the underlying sovereign bond). In that regard, a financial transactions tax on OTC derivatives, in line with what the OECD is suggesting, would go a long way increasing transparency, lengthen the holding period of derivatives and prevent short term socially useless trading behaviour.

Regulating credit rating agencies. The European bond market is a case in point of the pro-cyclicality of credit rating agencies (flawed ratings prior to the crisis, abrupt series of downgrading afterwards) and the excessive concentration of the sector (three agencies dominate the sector). Agencies should be subject to far more transparency and reporting requirements regarding their methodologies and the way they are financed and governed.

Table of contents

Charts, tables and inboxes:

Introduction: The return of the Vigilantes

Each phase of the current crisis has been associated with specific financial buzzwords: 'subprime' and 'toxic assets' in 2007 and 2008 when the crisis was just about another credit crunch, 'too-big-to-fail' in 2009 and onwards when it turned out that global financial conglomerates had a major responsibility in causing the crisis. As the crisis has transformed into a sovereign debt crisis, particularly within the Eurozone, the upcoming buzzword is becoming 'the bond vigilantes' to judge from the headlines in Europe: "*The bond market vigilantes are back*"[1],"*Bond vigilantes may target France as Italy approaches point of no return*"[2], "*Bond vigilantes make their votes known in Europe*"[3].

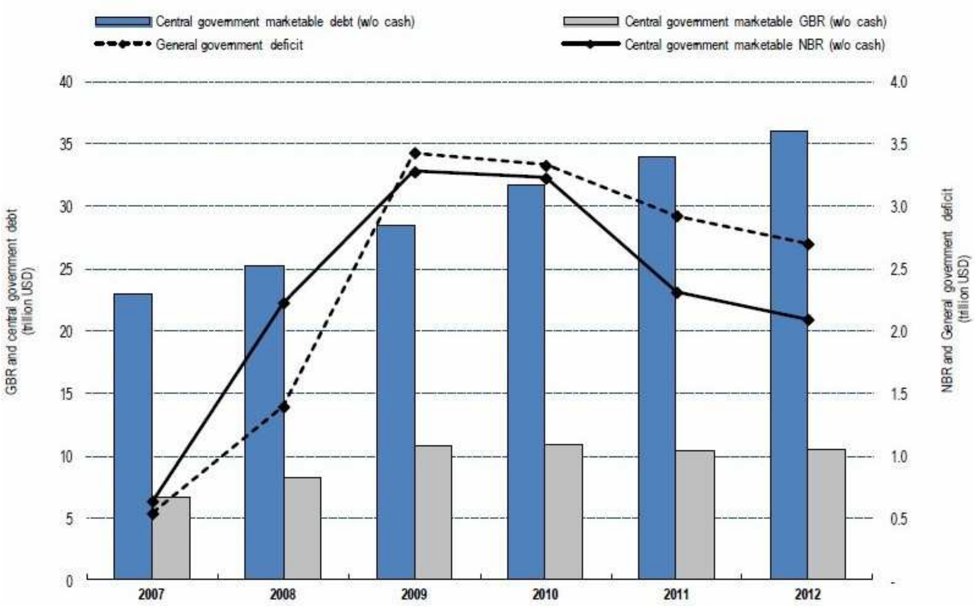
The term first appeared in the 1980s when the US government came under pressure of bond markets in the context of rising federal budget deficits. It describes the speculative behaviour of government bondholders seeking short term opportunities from rising public debt, budget deficits and/or on retail price inflation. They will react to government policy decisions positively by buying or retaining bonds, or negatively by selling or not participating in new issuance. Governments will typically engage in austerity measures or in privatisation, to cut down on public spending to win back bond markets' "confidence". The vigilantes are making a profit of that fear. In 1992 they tried – unsuccessfully - to force the French Franc out of the coordinated European exchange rate mechanism that predated the Euro. They were more successful later when they forced the British Pound to exist the same exchange rate system. It is in the developing countries however that the speculative behaviour of the vigilantes was most damaging in the 1990s.

Not all countries are exposed to the threats of bond vigilantes. The more a government relies on external financial markets to finance its operations, the more it will be receptive to the bond markets. That political power was coined by James Carville, advisor to the then US President Bill Clinton in 1993: "*I used to think if there was reincarnation, I wanted to come back as the president or the pope or a .400 baseball hitter. But now I want to come back as the bond market. You can intimidate everybody*."

A USD34tr debt market

Public debt levels has been exploding across OECD economies as a direct consequence of the massive bailouts of the banking sector in 2008 and 2009 and the stimulus packages that were implemented in response to the economic crisis that followed. The OECD sovereign bond market of rose from USD23tr in 2007 to USD34tr in 2011, that is an increase of almost 50% in just 4 years; and it should break the USD36tr bar in 2012[4]. As a point of comparison, total assets under management by OECD-based pension funds were valued at USD18.6tr in 2010. Central government debt is equivalent to 72.8% of the OECD countries' GDP, while total public debt (also including local government, state-owned enterprises, public-private partnerships) is projected to reach 105.7% in 2012.

Chart 1: Trends in OECD public debt issuances 2007-2012



Source: OECD 2011 http://www.oecd.org/dataoecd/41/52/49243051.pdf

The vast majority of that debt is traded on the bond markets – direct loans, which are not traded, forming a tiny minority. Traded debt needs to be "re-financed": bonds reaching maturity needs to be replaced by new ones (called "debt roll-over") while budget deficits need to be financed by issuance of new bonds. Since 2009, the annual volume of OECD sovereign bond issuance ("central government marketable gross borrowing needs" in the above chart) has been superior to USD10tr. Since 2008, the annual net increase in OECD sovereign bonds (i.e. excluding debt roll-overs) has been three to four times higher than pre-crisis levels. It was close to USD3.3tr in 2009 and has since remained above USD2tr. It is as if every year the OECD sovereign debt market would expand by the combined value of the Dutch and Australian pension fund industry.

Inbox: Bond basics

Bonds are debt securities that are contracted for a given period, also called "maturity" and that are listed on organised exchanges. Bonds offer a monthly interest rate, also known as the "coupon". When maturity comes, the issuer of the bond pays back the nominal value of bond. Bonds can be divided in two categories: short-term bonds which maturity is below three years and long term bonds above three years. In general the longer the maturity, the higher the risk and hence the higher the interest rate (or "yield"). This relationship follows a 'yield curve': short term debt is considered less exposed to default, hence cheaper and less risky than long term debt.

As bonds are traded, both their price value and their interest rate will fluctuate, and they will do so in an inverse relationship: when the price of a bond decrease, its interest rate usually increases, when the price increases, interest rate declines. The financial performance of a bond consists in the combination of both the trading price and the yield. That combination is also called "the Total Return" (hence several bond funds are named "total return").

To measure bond performance, the price and the yield need to be benchmarked. The benchmark of the bond price is the nominal value. When a bond is sold "at a premium", it is done so at higher level than the face value, when it is sold "at a discount", it is done so at lower level than the face value. The benchmark of the yield is the rate of reference of the sector. For Eurozone sovereign bonds, the point of reference is the German bonds. The gap between the benchmark and the bond interest is called the 'spread'.

In theory, a key driver of a bond trading price and yields is the "credit quality" of the issuer, that is the ability of the latter to repay the face value of the bonds at maturity and to pay the interest payments in between issuance and maturity. The highest credit rating is Aaa (Moody's rating) or AAA (S&P or Moody's); the lowest, D. So-called "junk bonds" are those with credit ratings lower than Baa (Moody's rating) or BBB (S&P or Fitch rating).

Unsurprisingly the cost of borrowing has increased significantly for several OECD governments. One factor at play is the level of debt. Looking at past cases, OECD experts argue that "when government indebtedness passes a threshold of 75% of GDP, long-term interest rates increase by 10 basis points for every additional percentage point increase in the debt-to-GDP ratio", and indeed many OECD governments passed the 75% level in 2009.

But financial speculation also contributed to rising borrowing cost. For the OECD, bond market tensions are "*aggravated by contagion pressures and periods of mood swings of markets that seem to be unrelated to changes in economic fundamentals (aka animal spirits)*" and are "*compounded by very rapid (perceived) increases in sovereign risk without changes in fundamentals*"[5].

Inbox: Why is the bond market expanding? And why is it fuelling speculation?

The unprecedented increase in sovereign debt is a direct consequence of a badly managed response to the financial crisis of 2008 and the lack of regulation and proper supervision of financial market that still prevails. In response to the 2008/2009 global financial and economic crisis, governments bailed out numerous banks and other financial institutions and implemented economic stimulus programmes to avert the risk of a global economic depression. These were financed by new bond issuances. At the same time the private sector engaged in massive de-leveraging. Bank lending dropped to historical lows. A massive transfer of debt, and hence of risk and liabilities from the private sector, and from private banking in particular, to governments and their citizens took place.

Loaded with public debt and with "contingent liabilities" arising from guarantees to the banking sector, governments have come under pressure from the bond markets and the credit rating agencies to engage in austerity measures. The recovery became ever more fragile and uncertain, fuelling a vicious circle process. Bond speculators – the 'new bond Vigilantes – are given a freehand in the absence of proper regulation. The pro-cyclical effects of successive sovereign downgradings by credit rating agencies, which fuel further speculation.

The current crisis coincides with a marked increase in debt rollovers which should increase further as a higher share of long term debt is coming to maturity and needs to be renewed. The OECD predicts that a third of the total OECD public debt will need to be renewed annually over the coming years[6]. The rise of debt rollover means that, irrespective of the net increase of sovereign debt, governments have to proceed with an increasing number of issuances and auctions. The multiplicity of auctions is a complication in itself for government debt managers. It becomes a delicate task when it combines with market volatility and rising speculative behaviours. Governments, the OECD reports, have had to adapt to "new scenarios" that include "uncertainty" over bond market behaviour[7].

Failure of EU leadership

It would be too simplistic however to portray OECD governments as innocent bystander victims of the rise of the financial speculation. Several of them have let government debt rise above acceptable levels during the last economic growth cycles (some times as a result of generous tax cuts), leaving little room for manoeuvre once the global crisis erupted. Others let speculative bubbles grow in the private sector (Ireland, Spain). And it is they who failed to take decisive action on the regulatory front to choke the sources of speculations in the aftermaths of the financial crunch in 2008. Inaction on reform contrasted with their willingness to un-conditionally bail out the bankers and their traders – the most extreme case of which being Ireland. Finally it is those same governments who then turned abruptly from fiscal stimulus to austerity policy in mid-2009, thereby killing the few remaining sources of growth.

In Europe the current fiscal tightening is economically unsustainable and politically unsustainable. The austerity plans – which Joseph Stiglitz compares to "medieval blood-letting"[8] – will do little to reduce debt-to-GDP ratios which are likely to spin out of control by the time the expected "benefits" would emerge. The agreement in December 2011 on a new European fiscal treaty will "*impose even stricter austerity measures without offering any prospects for growth*" says the ETUC[9]. And it will not tackle the causes of the Eurozone sovereign crisis. "*Neither Spain nor Ireland would likely have been sanctioned by these new rules, had they been in place pre-2008*" argues Funk Kirkegaard of the US-based Peterson Institute, "*The principal macro-economic weakness of these two countries was not large deficits or high debt, but a runaway housing bubble and the collapse of government revenues and fiscal sustainability when the bubble burst*"[10].

Inbox: The ECB, with friends like these…

The European Central Bank (ECB) has been obsessed with protecting the "credibility" of the Euro and the retail price inflation indexes and made all the possible wrong choices throughout the development of the sovereign debt crisis. Unlike its UK and US peers, the ECB did not engage in quantitative easening, refusing to buy government bonds on the primary market despite calls by politicians and leading academics. In January 2011 ECB council member and governor of the Belgian Central Bank, Luc Coene warned that "Europe shouldn't count on the ECB to save the Eurozone through large-scale purchases of government bonds"[11]. While it has provided unlimited short term lending to private banks, the ECB had denied that right to governments. And it has only reluctantly accepted that private bondholders share the burden of the debt restructuring of Greece. The ECB may have avoided a liquidity crisis of the European banking system, but so far it has failed to grasp the enormity of the sovereign debt crisis.

Since April 2010, there have been no less than 23 EU- or Eurozone- summits at heads of state or at finance ministers' level, each time with the declared objective to put a final resolution to the sovereign debt crisis. The successive EU rescue packages for the "peripheral" economies, first Greece, then Ireland, then Portugal, then Greece again either have come too little too late, or they were simply off target and going in the wrong direction. The fundamental problem is that these plans are essentially liquidity assistance: pilling up cheaper, but subsidised debt to finance old debt, these plans offer temporary relief but fail to take aim at the fundamental insolvency risks that threaten the entire European banking sector.

Key players in the bond market

In early 2010, the rapid increase in public debt across the OECD created some concern in the bond market. Among the most "worried" stood Bill Gross, the managing director of Pimco for whom UK bonds had become a "must avoid" and were "resting on a bed of nitro-glycerine" in February 2010, and should be placed in a "ring of fire" alongside the US, Ireland, Spain, France, Greece, Italy and Japan[12]. Pimco managers urged investors to cut down on exposure to OECD sovereign bonds and to reallocate to emerging economies. For Pimco it was time for a "new normal" in which wealth and power had transferred from West to East. "Old-fashioned" investments in UK and US government bonds needed to be 'exorcised' from model investments by bond funds[13].

And indeed with the deepening of the sovereign debt crisis early 2010 volatility went up in the bond markets and bond fund performance went down. The majority of the bond funds had poor performance results in 2010 and in 2011. Over a third of the bond funds trading on the European bond markets had negative returns in 2011[14]. Yet the fear of massive liquidations by investors did not materialise. Despite the warnings by Pimco and despite the poor performance, investors continued to pour money into bond funds: USD325bn in 2009, some USD270bn in 2010[15]. Bond trading within the OECD markets has remained very attractive.

The investment chain

Broadly speaking, there are four distinct types of players that take part in the bond market. Together they constitute an investment chain: the issuer is at one end of the chain, the asset owner at the other, with underwriters and asset managers as intermediaries.

The issuer is the institution that sells the bonds to finance its operations. Issuers include central governments, local government (such as municipalities in the US), public agencies, banks, insurance companies and private corporations. Governments however account for the biggest source of bond issuance.

The underwriter is an investment bank that services the bond issuance operations on behalf of the issuer. Just like mergers & acquisitions, bond issuance often entails complex capital market operations as well as routine administrative paperwork (prospectus and other legal documents). The riskier the issuer is, the more underwriting activities (and hence fees) are generated. The underwriter typically offers guarantees on the minimum sale price and volume to the issuer in exchange for fees. The business of bond underwriting is dominated by the large too-big-to-fail banking groups from Wall Street and Europe.

The fund manager buys the bonds at issuance (the primary market) or trades them (secondary market), they do so on own account or on behalf of a client. Managers include any of the above institutions (banks, government, corporations) as well as investment firms and their investment funds. In the bond market, key players are the bond funds, the money market funds and the hedge funds.

The beneficial owner of the bonds can either be the bondholder (case of an individual buying a bond, and of proprietary trading by banks) or it can be a separate investor. When that is the case, as it often is when pension funds are involved, then the accountability of the bond holder (the bond manager) to the bond owner (the pension fund) may become an issue.

The bond funds

Bond funds can be distinguished by their investment policies, passive or active. Passive investment consists in designing a portfolio composition so as to replicate a given index and hence “mimic” the market. By contrast actively-managed funds rely on the skills of the bond manager to optimize the composition of the portfolio and ‘outperform’ the market. Active management typically involve higher risks and is expected to deliver higher returns – but come with higher fees paid to the bond manager. Bond funds can either be broadly diversified across a range of asset classes (government bonds, corporate bonds, long term, short term bonds, domestic and foreign issuers), or they can be specialized in a given asset class: corporate, sovereign, domestic, foreign, etc.

Publicly available information on the distribution of the bond fund industry per investment policy and asset classes is lacking. What we know is that the market, like other financial markets, has become more concentrated post-crisis[16]. The largest bond fund in the world is run by US fund manager Pimco with some USD144bn assets under management. Pimco is owned by the German insurance group Allianz. The following top 10 funds have assets in the range of USD20-30bn and are all US-based. Other than Pimco, fund managers appearing in the top 10 include Vanguard and Franklin Templeton.

Table 1: US bond funds exceeding USD20bn Assets Under Management

Bond manager	Ref name	AUM in USDbn
Pimco	PTTRX.O	144.4
Pimco	PTRAX	31.4
Vanguard	VBTLX	31.4
Pimco	PTTAX	26.1
Vanguard	VWIUX	25.5
Franklin Templeton	TGBAX	25.2
Dodge & Cox Income	DODIX	24.1
American Funds	ABNDX	23.7
Vanguard	VFIJX	23.5
Franklin Templeton	TPINX	22.9
Vanguard	VBTIX	22.8
Vanguard	VFSUX	22.1

Source: http://funds.us.reuters.com/US/screener/screener.asp?reset=1

The asset managers

The top 10 ranking is the tip of the iceberg however. There are thousands of bond funds worldwide. Depending on the sources the number of asset funds worldwide (all assets combined - equity funds, bond funds, hedge funds, etc.) is in the range of 50000, of which the number of bonds funds would account for 5000 to 10000. The FT database (whose coverage is incomplete) reports 50570 funds worldwide of which 4950 are focused on bonds[17]. Reuters reports 22847 mutual funds in the US of which 5300 are specialised in fixed income[18].

Given the number of bond funds operations, a better way to identify the key players of the market is to look at the largest asset managers, rather than the top bond funds. The table following lists the largest financial institutions by the size of the assets under management that they oversee on behalf of their clients. The latter includes all types of assets, not just bonds and fixed income. It still provides with a good (and rather simple) indication of the main players in the bond market. Unsurprisingly, Pimco, Vanguard and Franklin Templeton – mentioned above in the list of the top funds – appear in the top ranking of asset managers, but they are not alone. BlackRock (also including Barclays Global Investors) is by far the largest fund manager in the world with approximately USD3.5tr under management. Fidelity (fund manager) and State Street (bank) complement the list of the top 6 largest asset managers in the world.

Table 2: World largest asset managers in 2010

Indicative ranking	**Location of the HQ**	**Parent company**	**AUM range** USDbn
Blackrock (incl. Barclays GI)	US		3500
Pimco& Allianz GI	US	Insurer	1900
State Street GA	US	Bank (G-SIFI)	1900
Franklin Templeton	US		1500
Fidelity Investments	US		1500
Vanguard	US		1400
JPMorgan AM	US	Bank (G-SIFI)	1300
Bank of NY Mellon	US	Bank (G-SIFI)	1000
Amundi (owned by Société Générale & Crédit Agricole)	France	Bank (G-SIFI)	880
Goldman Sachs AM	US	Bank (G-SIFI)	880
Morgan Stanley	US	Bank (G-SIFI)	800
Deutsche Bank (incl Henderson & Standard Life AM)	Germany	Bank (G-SIFI)	730
BNP Paribas Investment Partners	France	Bank (G-SIFI)	690
Legg Mason (incl Western AM)	US		690
Natixis AM (incl Loomis Sayles)	France		680
AXA IM	France	Insurer	650
UBS AM	Switzerland	Bank (G-SIFI)	600
Legal & General Investment	UK	Bank (G-SIFI)	580
Prudential Financial Inc.	US		540
Credit Suisse AM	Switzerland	Bank (G-SIFI)	440
HSBC AM	UK	Bank (G-SIFI)	410
Wells Fargo AM	US	Bank (G-SIFI)	370
M&G Investments (owned by Prudential Plc)	UK	Insurer	300
Kokusai AM (owned by Mitsubishi UFJ)	Japan	Bank (G-SIFI)	n.a

Source: compilation from various sources, including Investment & Pensions Europe.

Going down the ranking it is worth noting that few of the top fund managers are independent entities. The majority of them are subsidiaries of international banking groups that are considered as “too-big-to-fail” by the G20 and the Financial Stability Board: Wall Street banks (Goldman Sachs, Morgan Stanley, JPMorgan, Bank of NY Mellon, etc.) and the European banks (Société Générale, Crédit Agricole, Deutsche Bank, BNPParibas, UBS, Credit Suisse, HSBC). Others are owned by global insurance companies: Germany-based Allianz (controlling Pimco), UK-based Prudential (controlling M&G Investments) and French AXA.

On the other hand, little is known on the governance of the firms, their balance sheet and the remuneration of the individual managers. This is because most of them are established as private companies, which have far fewer disclosure requirements than public (listed) companies. Opacity is the rule. This is true even when the private company is owned by a publicly listed one.

The role of shadow banking

Shadow banking institutions are also present in the bond market. These include money market funds (MMFs), hedge funds, and the structured finance industry: collateral debt obligations (CDOs) and the fast growing exchange-traded funds (ETF). At its peak in 2008, assets held by the shadow banking sector were estimated at USD20tr. The size of the sector has decreased considerably following the burst of the CDO market. Nowadays it is believed to be closer to USD13tr[19].

Money market funds

Money market funds (MMF) run approximately USD1.6tr under management. According to figures by Reuters[20] there are some 1497 registered MMFs in the US, of which 339 exceed USD1bn assets under management. MMFs invest in short term and highly liquid securities and therefore are particularly exposed to short term government bonds. They are also an important source of financing in the interbank lending market including the overnight 'repo' market (i.e. repurchase agreements). MMFs constitute an attractive alternative to traditional bank deposits for large investors who need to manage their surplus liquidities on a daily basis. As shown in the table below the ranking of the top MMFs shows strong similarities with the ranking of asset managers. BlackRock group is the leading institution and a majority of managers are own by US too-big-to-fail banking groups.

Table 3: Key players in the Money Market Funds sector

Largest MMFs (indicative ranking)	**Location of the HQ**	**Parent company**	**AUM range** USDbn
Blackrock	US	Fund manager	400-500
HSBC AM	UK	Bank (G-SIFI)	100-120
JPMorgan AM	US	Bank (G-SIFI)	400
Federated Investors	US	Fund manager	280
Goldman Sachs	US	Bank (G-SIFI)	280
Fidelity Investments	US	Fund manager	200
Wells Fargo AM	US	Bank (G-SIFI)	186
Deutsche Bank	Germany	Bank (G-SIFI)	130
Other important MMFs			
Western Asset Management	US	Fund manager	80
UBS	Switzerland	Bank (G-SIFI)	63
Bank of America	US	Bank (G-SIFI)	44
State Street GA	US	Fund manager	n.a
Franklin Templeton	US	Fund manager	n.a.
Vanguard	US	Fund manager	n.a.
Bank of NY Mellon	US	Bank (G-SIFI)	n.a
Morgan Stanley	US	Bank (G-SIFI)	n.a.

Source: Source: compilation from various sources including Moody's & Investment & Pensions Europe

Unlike bond funds, MMFs' performance is not measured by the net value of the funds, which in fact has to remain stable (the "$1.00 per share" rule). Performance is measured by the daily investment returns that MMFs deliver. Because of that, and because investors can redeem their moneys from the funds very easily and at short notice (unlike hedge funds and private equity for example) MMF asset allocation can be very volatile and rather unpredictable. Being excessively adverse to market and credit risks, MMFs are particular exposed to herding behaviour and to "rush to safety".

MMFs' volatile investment behaviour came to light in August 2011 when the European sovereign debt and banking crisis deepened. Prior to that about 40-50% of the funds managed US MMF (USD600-800bn) were allocated to European interbanking lending market with a high proportion to French Banks (USD240bn)[21]. When rumours of insolvency of the French too-big-to-fail banks spread the MMFs abruptly exited the French interbanking system, hence creating major problems of USD-financing for the French banks. Since October 2011, the latter have been relying on ECB short term facilities to refinance their USD-denominated positions. The potential exposure of MMF to European sovereign and banking credit risk has come at a cost for the US MMF themselves. In just two weeks in September 2011, investors withdrew some USD45.6bn from the US MMF[22].

Hedge funds

Hedge funds constitute a much 'smaller' financial industry than mutual funds and money market funds, with total assets under management estimated at around USD2tr. But it is one that is far more active in the bond market. Hedge funds are classified per type of investment strategy, and there are many of them: "global macro", "directional", "event driven", etc. The sector is less concentrated than the mutual fund sector: average size of hedge funds is in the USD50-200m range, those exceeding USD1bn are uncommon. The US Bloomberg database lists only three hedge funds with +USD1bn under management (two of which are run by AQR).

Table 4: Top 20 ranking of hedge funds world wide

	Hedge fund firm	**Location of the HQ**	**Parent company**	**AUM USDbn**
1	Bridgewater Associates	US		77.6
2	Man Group (incl. GLG)	UK		64.5
3	JPMorgan AM	US	Bank (G-SIFI)	46.6
4	Brevan Howard AM	UK		36.6
5	Och-Ziff CM	US		28.5
6	Paulson & Co.	US		28
7	BlackRock	US		27.7
8	Soros FM	US		27
9	Winton CM	UK		27
10	Highbridge CM	US		26.1
11	BlueCrest CM	UK		25
12	Baupost Group	US		23
13	Cerberus CM	US		23
14	DE Shaw	US		23
15	Angelo Gordon & Co.	US		22
16	AQR CM	US		20.5
17	Farallon CM	US		20
18	Goldman Sachs AM	US	Bank (G-SIFI)	19.5
19	Elliot Management	US		19

20	King Street CM	US	18.5

Source: "The Worlds 100 Richest Hedge-Funds" Bloomberg Markets Magazine, February-2011

Dispersion also prevails among hedge fund firms. Looking at the top 20 ranking per asset under management, the leading hedge fund companies are populated by independent US and British 'boutique' investment firms: Bridgewater Associates, Paulson & Co and Soros in the US, Man Group, Brevan Howard and Winton in the UK. Only three of them are subsidiary of larger financial groups (JPMorgan, BlackRock & Goldman Sachs). Given the dispersion and opacity of the hedge funds sector it is difficult to single out leading firms in the bond trading, especially in the sovereign bond markets. But a few names emerge. In London, Brevan Howard (USD36.6bn under management) is known as "Mr Bond"[23]. Trafalgar AM, BlueBay AM, Moore Capital, Comac Capital and Prologue Capital are other well-known British hedge funds specialised in fixed-income[24].

Hedge funds are reported to have intervened massively in the Greek bond market in the past year, buying bonds at 50% discount or more. Days after the downgrading of Greece by Moody's by 4 notches early 2011, Robert Marquardt, founder of Signet (fund of hedge funds) stated that the Greek bond market was "*certainly a great chance to make money*"[25]. In the first half of 2011 several hedge funds, including Swiss Julius Baer, German StarCap and Luxembourg Ethenea, but also US fund manager BlackRock, and London-based Loomis Sayles (owned by French Natixis) bought between them some USD200m of Greek bonds[26]. The number of hedge funds buying up discounted Greek bonds has increased substantially right after the launch of negotiations on the Greek debt restructuring in November. Including Saba CM, York CM (owned by Crédit Suisse), Och-Ziff CM, Trafalgar AM and CapeView Capital are among managers that now hold Greek bonds[27]. PIMCO, Soros FM and Oppenheimer are also reported to have intervened heavily in the discounted "peripheral" bond markets in Ireland, Portugal and lately in Spain and Italy.

Securities lending and short selling

Another way to measure the importance of the shadow banking system is to look at the volume of debt securities lending for the purpose of short selling. Securities lending consists in a temporary transfer of a securities to a borrower who in turn will provide the lender with a collateral (cash or another other securities). Lending can in principle be triggered for perfectly valid reasons, such as improving liquidity and facilitating trade settlements. The problem is that securities lending falls outside the scrutiny of financial supervisors and therefore may create systemic risks that cannot be seen or anticipated by governments. The ECB acknowledges that it knows "relatively little" about the Eurozone government debt securities lending market and has to rely on data provided by a private consultancy, DataExplorers (which happens to be publicly advocating in favour of short selling trading[28]).

The scarcity of information is of concern considering the size of the market, some USD1.75tr of securities were on loan worldwide in November 2011. According to the ECB, lending is continuing to grow, but has not yet again reached pre-crisis levels. The value of borrowed Eurozone bonds was at least USD270bn (€218bn) equivalent to 3.5% of the total bond market. It is also of concern because securities lending is closely associated with speculative short selling trading. Selling short happens when a trader borrows a given security (for a fee), sells it with the expectation that its price will fall, buys it back at a lower price and returns it to the lender. On that the ECB has found that shortly before the EU/IMF rescue plan was agreed for Greece and Ireland in April 2010, borrowing on Greek and Irish bonds increased significantly and then dropped immediately after as bond prices were falling, thereby providing clear evidence of massive speculative short selling[29]. Traders can then make a double profit by combining the short selling on the bond with buying long on the associated credit default swaps (CDS). The price of Irish sovereign CDS[30] has been multiplied by a factor of five since April 2010, that of Greek CDS[31] by 26. In June 2011 it cost USD2m annually to insure USD10m of Greek bonds against default over five years[32].

Inbox: About 'naked CDS' and why it should be banned

Naked CDS[33] is when a trader takes out insurance (the CDS) on an underlying asset that they do not own. Selling short happens when a trader borrows (for a fee) a given security, sells it with the expectation that its price will fall, buys it back at a lower price and returns it to the lender. The combination of the two – naked CDS and short selling – has nothing to do with insurance. It is a bet – pure speculation:

1. Traders buy long (gambling on a rise in value) on a CDS on Greek government bonds.
2. The same traders sell short the underlying Greek bond (traders borrow the bonds, then sell them);
3. As a result of the short selling, price on the Greek bonds falls, which in turn increases the risk of default as perceived by the CDS market; accordingly the value of the Greek CDS increases;
4. Traders complete the short selling: they buy back the Greek bonds they had borrowed, but this time at a lower price and then return them to their original owners (and they cash in a profit on that).
5. Traders sell the CDS at a higher prick (and they cash on another source of profit on that transaction).

With naked CDS traders make a double: one on the rise of the CDS (buying long), the other on the fall of the underlying bond (selling short). Of course the social utility of such form of trading is nil. It distorts the CDS market because it does not give a true picture of the credit worthiness of the underlying issuer; it distorts the underlying bond market because it pushes the bond interest rate up (given that the bond prices fall) and with that the cost of borrowing government (and their citizens).

The downward spiral is amplified by the credit rating agencies, which follow rather than lead. There is clearly an incentive for coordinated manipulation. The probability of default is not independent of the cost of borrowing – hence there may be self-fulfilling expectations driving down the price of the asset lower and lower. This is one of the processes affecting sovereign debt and bank equity in Europe currently.

The role of Credit Rating Agencies

On 14 January 2009, Standard & Poor's downgraded Greece by one notch to A-. Since then three agencies that control the credit rating market – Moody's, Standard & Poor's and Fitch – have downgraded Portugal, Ireland, Greece and Spain repeatedly, while Spain, Italy and more recently France and Austria have also been downgraded by at least one agency. They have gone from one extreme to another – from being asleep on the job prior to the crisis to being overly reactive through successive downgradings post-crisis.

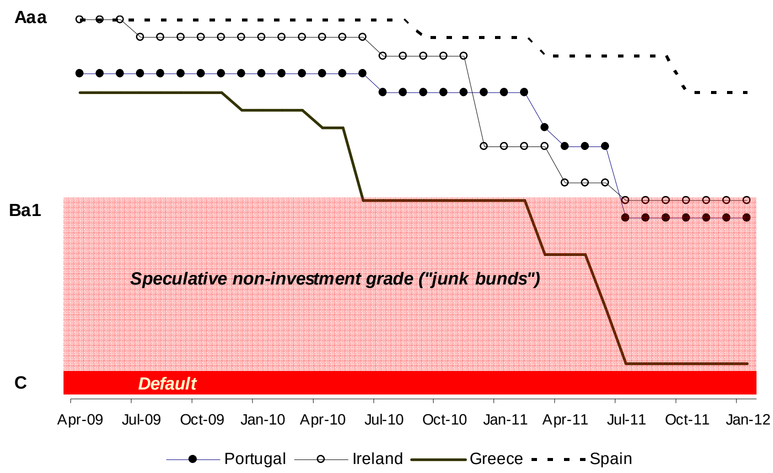
While the economic fundamentals of these countries and of Europe in general certainly deteriorated rapidly following 2008, they alone cannot explain the speed at which these downgrades took place. And these downgrades have had profound effects on sovereign bonds' yields. As the cost of borrowing ballooned, so did net borrowing needs and with that total public debt. Such downgrades have spilled over to the private sector. This is because the credit default risk of a private issuer depends as much on its own fundamentals (the "stand alone" rating) as the potential for financial support by the hosting government. A company that is headquartered in a country with a good rating will be seen more favourably than a similar company headquartered in a lower graded country. For Fidelity bond manager Jamie Stuttard "*There are some great banks and companies in Southern Europe but I'm afraid that because of their country of domicile these companies have simply become un-investable*"[34].

Inbox: From 'high quality' to 'near bankruptcy': how Greece, Ireland and Portugal got downgraded in just 18 months

The series of downgrades that has hit Europe since end 2009 is unprecedented. There are 20 notches in the CRAs rating scale, ranging from AAA (prime) to C (in default). Between December 2009 and July 2011, that is in just 18 months:

- Portugal's sovereign rating has been downgraded by Moody's by 8 notches (from 'high quality' Aa2 to 'ongoing uncertainty' Ba2),
- Ireland by 9 notches (from 'high quality' Aa1 to 'low grade' Ba1), and
- Greece by 15 notches (from 'high quality' Aa3 to 'near bankruptcy' C).

Chart 2: Rating downgrades of Portugal, Ireland, Greece and Spain s by Moody's



The IMF has on several occasions expressed concern about the opacity of the rating methodologies. In October 2011 the IMF recommended that the CRA "provide additional information on the accuracy of their ratings [and] the underlying data"[35]. IMF experts also stressed that while credit ratings "quite accurately" reflected the *relative* ranking between sovereign issuers they by no means could be expected to reflect *specific* default probabilities of the issuers.

There are also concerns about the greater weight of subjective criteria in the CRAs' decision such as the "efficiency" of government action and political uncertainty, as compared to objectively defined criteria (public debt level, share of foreign holdings, budgetary surplus or deficit and debt history, etc.). Sovereign debt rating needs to account for political factors, including tax and regulatory reforms, political changes and structure of government (centralized versus federal), state-ownership and other government liabilities. Unlike corporate bonds, the credit risk of a government bond does not boil down to straightforward balance sheet figures. However the political and institutional factors need to be treated and explained in a transparent and consistent way, which has not always been the case of recent CRA decisions. For example the prime reason given by Moody's to downgrade Portugal by no less than three notches (from A1 to Baa1) in two consecutive moves (15 March and 5

April 2011) was the "uncertain political outlook" following the recent resignation of the government and the resulting "reduction in the speed and decisiveness" of policy making[36]. The importance of political factors will not decline any time soon as 2012 will see key presidential elections in France, the US and Russia.

There are also suspicions of conflicts of interest and, in the case of the bond market, of collusion with bond managers. As reported in the following inbox, the CRAs have been suspected of delivering privileged information to key bond managers ahead of rating decisions. Such cases of collusion are difficult to prove; they are even more so given the weak regulatory framework of the CRAs. Unlike publicly traded companies, there is no regulatory restriction in the US barring the CRAs from discussing their ratings and analyses with selected groups of investors behind closed doors.

Inbox: "Wow, that was a sobering meeting", CRAs' private conversations with bond managers

In July 2011, analysts from Standard & Poor's met privately with a selection of large US bond managers, including PIMCO, TCW, Legg Mason (Western Asset Management) and BlackRock. The meetings' topic was the prospect of historical downgrading of the US, which became reality a couple weeks afterwards. The story was leaked by the Wall Street Journal and raised suspicion that S&P had provided privileged information to the bond managers, and hence allowed for insider trading. S&P fiercely denied any wrongdoing, stating that the meeting was a routine event during which information sharing had been limited to "*comments on rating-related matters to previously published material*." But according to the WSJ, the bond managers "*came away with a stronger sense the nation's debt rating would be cut*". Stephen Walsh of Legg Mason (Western Asset Management) commented "*Wow, that was a sobering meeting*"; the bond manager acknowledged that after the meeting he began to notify his clients that he believed a downgrade was "*very likely*"[37].

The 'New Bond Vigilantes' and the case of the Greece

The failure of EU leadership in managing the debt crisis, the lack of regulation of the shadow banking sector and the sudden and abrupt downgradings by the CRAs have created wide openings for speculative attacks on the bond market. The USD8tr Eurozone sovereign bond market has been tiered in two opposite directions. Latin and 'peripheral' European markets are subject to intense speculative pressures while the Netherlands and Germany (and anything north of it) benefit from historically low interest rates.

What follows is a brief overview of the issues at stake in the negotiations and how the speculative be

Northern European 'safe havens' versus southern 'junk bonds'

To give an idea of the gap between Northern and Southern Europe, on 14 October 2011 a Greek 10-year bond had an annual interest rate of 23.9% while a comparable German 'bund' delivered 2.1% (hence a spread of 2,186 basis points, or 21.8% points). On that day similar-maturity Portuguese bonds were delivering 11.6%[38]. The situation of the Italian sovereign bond market went from "perfectly stable to full crisis" as soon as its 10-year bonds passed

6% on 12 July 2011. France, which too-big-to-fail banks are reportedly in deep trouble, might soon be hit as well following the loss of its AAA rating by S&P in January 2011. For some bond managers, the downgrading of France has not come as a surprise. In September 2011, M&G Investments' Mike Riddell actually compared the risk of France defaulting on its debt to that of the Philippines and Indonesia, "*the same as junk bonds*" arguing "*that is what the credit default swap market is telling us and it's completely right*"[39]. Anthony Crescenzi, executive vice president at Pimco, even compares the European sovereign bonds to the toxic subprime assets: "*It's almost like 2008, when in the United States banks and investors didn't want to be seen as having holdings, or known to have holdings, in subprime mortgages and other so- called toxic assets*"[40].

Meanwhile German and Dutch bonds and, outside the Eurozone, Swiss, Norwegian and Swedish bonds are at lowest levels possible[41]. German bond yields actually turned negative on the occasion of a bond issuance in January 2011: investors were *paying* for the right to lend their money to Germany. More surprisingly, US and UK bond yields are also at historical low levels. In October 2011 British 10-year Gilt yields fell to 2.1%, the lowest level ever recorded since the introduction of the 10-year bonds in the 1950s[42].Yet both the US and UK have deficits and debt-levels that at least are comparable to and if not higher than many of crisis-hit Eurozone bond markets. John Plender (Financial Times) speaks of a counter-intuitive "*breathtaking nature of the paradox*". "*For the past five years*", Plender notes, British "*government borrowing costs have been declining against a background of soaring budget deficits*"[43].

Making bets on the sovereign debt crisis resolution

Clearly some bond and hedge fund managers are making fortunes from the current turmoil in the European bond market. Greek bonds have been traded in the secondary market at 50% discount, as banks have offloaded their holdings to clean their balance sheets. At such discount the short term profits can be huge for speculators betting on a delaying in the restructuring of the Greek debt. Their expectation is that the heavy discount on the bond prices will not materialise as the ECB and the Eurozone member states will act pre-emptively to protect the monetary union. These bond speculators – the new bond vigilantes – are betting that they would be paid more than the current discount, if not 100% of the nominal value for bonds coming to maturity before any agreement on restructuring. This issue is crucial in the case of Greece because a good third of its bonds (more than €100bn) will come to maturity before end 2014, including €14bn in March 2012.

Similar speculative bets are taking place on the Italian markets. For Andrew Bosomworth (Pimco) "*volatility in Italian bonds is creating opportunity*"[44]. Kathleen Gaffney, bond manager at Loomis Sayles (owned by Natixis) sees 7% bond yield as "*the magic number, […] as soon Italy breached that, it looked unsustainable*" and became a "*buying opportunity*"[45]. In December 2011 George Soros' hedge fund bought at a discount price some USD2bn of Italian bonds that were formerly owned by the bankrupted MF Global fund manager[46].

Inbox: "Not hard enough on the populace": bond managers' views on European politics

Several bond managers have come out with their own views on the politics of the European debt crisis. For Mohamed El-Erian, Pimco's chief executive "*investors are in the back seat, politicians in* *the front seat, and it is very foggy through the windscreen*"[47]. Rick Rieder, head of fixed-income at BlackRock complains that "*it's hard to make a significant decision because of the tremendous amount of political wherewithal required to fix this situation*"[48].For Fidelity bond manager Nick Eisinger "*a lot of* [Government] *announcements were in principle only* [and] *lacked detail in terms of implementation and timing*" in the face of "*growing unrest across electorates affected by austerity and generally weak, disparate coalition governments in much of the European periphery*"[49]. For bond manager Kathleen Gaffney (Loomis Sayles / Natixis) Greece and Portugal "*pay the price for not being harder on the populace*"[50]. For Jeffrey Gundlach (DoubleLineCapital) private businesses have incentives by laws and penalties "*to tell the truth when they have earnings calls every quarter*" while politicians don't and "*won't tell you the truth*"[51]. Some bond managers are responding by recruiting former politicians. A leading international bond manager has reportedly hired a former Greek minister and "*other European political figures*".

The Greek debt restructuring negotiations

In April 2010 the EU, the ECB & the IMF ("the troika") agreed to a €110bn financial support in the form of direct loans to Greece. The bailout package was soon to be followed by similar plans for Ireland and Portugal. A second rescue plan was announced - but not implemented – in July 2011: €109bn, of which €34bn would be delivered as direct loans to the Greek government and the remaining €75bn would be allocated to support a Private Sector Involvement (PSI) whereby bondholders would agree to a 21% 'haircut' on the net present value of the bonds.[52]. The €440bn European Financial Stability Facility (EFSF) would contribute to the buy-back of Greek bonds on the secondary market, while the ECB intervene in the secondary market to support Italian and Spanish government bonds so as to avoid contagion effects.

In October 2011 however, the July package was reviewed and enhanced to reach €130bn while the PSI haircut was raised to 50%[53]. The revised plan would aim at a €100bn reduction of the €350bn Greek public debt, bringing its debt-GDP ratio from the current 160% to 120% by 2020. The plan announced in October was agreed to in principle but it had yet to be negotiated in details. These negotiations took no less than four month and ended with a final agreement in February 2012.

Should bondholders shoulder the burden?

The decision to involve bondholders, through a haircut on the value of the bonds has been subject to heated debates within the EU in the past year. Early on Germany took the view that any resolution of the Greek crisis should involve bondholders. Citizens and taxpayers should not be left alone shouldering the burden of the Greek debt. Over half of the funds lent by EU & IMF to Greece so far have gone to the reimbursement at full nominal value of Greek bonds coming at maturity. France has been much reluctant to follow suit because of the heavy exposure of its too-big-to-fail banking groups to Greece (including Dexia which eventually imploded).

Inbox: Who owns the Greek bonds?

The potential benefits of debt restructuring depend on the distribution of the bond ownership structure. Some creditors have the capacity to absorb the losses of the haircut on their holdings. But others don't and, because of their social function in society (say, pension funds) would in turn need to be bailed out by government. In the case of Greece, information is lacking on the precise distribution as ownership has changed substantially since 2009. Many banks and insurance groups have disposed of their holdings, at the cost of deep discounted prices, in order to clean their balance sheet and meet required prudential ratios under Basel 2 and other international agreements. In parallel, EU, IMF and ECB holdings have risen from zero, or from marginal levels, to roughly 20% of listed bonds and 30% of total public debt (listed bonds + loans), while holdings by domestic creditors (Greek banks, pension funds and insurance companies) have remained stable.

As of October 2011 and as shown in annex, bonds held domestically account for a third of the sovereign bond market nominal value, which is a low proportion compared to the OECD average. Ownership was held by Greek private banks (USD50bn), pension funds and other financial institutions (USD30bn) and the central bank (USD10bn). Foreign ownership was concentrated among European private banks (USD50bn), of which German and French banks accounted for over two thirds of holdings. The ECB's ownership through its purchases in the secondary market was estimated at USD50bn in nominal value. Holdings by "other investors", including bond funds and hedge funds, were estimated in the range of USD80-120bn, or 30-37% of the total bond market.

The main opposition to the haircut came – rather unsurprisingly – bond managers and from the ECB. The two were "*unified in their warnings*" against the consequence of a debt restructuring. Having private bondholders to share the burden would "*set off an investor panic similar to the one that followed the bankruptcy of Lehman Brothers*"[54]. For the ECB, imposing losses on bondholders would wreck the Euro's "credibility". It would create "*market anxieties*" about the prospect of future write-downs replicated for Portugal, Ireland, and perhaps Italy, and Spain.

The ECB also has had to defend its own financial interests. In principle, direct loans by members states and by the IMF are to be excluded from the debt restructuring because of their preferred creditor status. The USD50bn in official loans to Greece are to be repaid to the EU and the IMF whatever happens in the future. Doing otherwise would violate the European Treaty that precisely prohibits member states from bailing out each other through debt cancellation. But such exclusion from the haircut would not necessarily cover the bond holdings that the ECB has amassed as part of its purchase programme on the secondary market and whose nominal value is estimated at USD50bn (but the real value should be closer to USD40bn, the assumption being that the ECB bought the bonds at 20% discount). The potential loss would be substantial for the ECB alone, in the range of USD15-20bn, should they indeed be included in the 50% haircut. The then ECB President Jean-Claude Trichet did not expect the ECB to participate in any voluntary rollover of Greece's debt[55]. Mario Draghi, Trichet's successor at the ECB, has reiterated that position since, as has Vitor Constancio, the ECB's vice president, "*The stance is the same as it was before. PSI by definition is private sector. We are not involved in those negotiations*."[56]

Banks, CRAs and bondholders also warned against the "catastrophic consequences" of a haircut that would not formally trigger a credit default of Greece. For JP Morgan not triggering a formal credit event, and hence the CDS contracts would lead to "a major disruption to the market". European banks would be "naked"[57] as most participants – we are told – "*are now the banks exposed to possible losses on Greek debt and who want to hedge that risk, rather than the speculators fingered by politicians*"[58]. For Moody's "*absence of a credit event makes CDS less useful, raising borrowing costs*", because it "*lowers the utility of CDS as a hedging tool and therefore may also reduce demand for the government bonds of stressed Euro area countries, which would at best increase these governments' cost of funds*". Moody's further predicts "*a contagion effect on borrowing costs for other European* *periphery sovereign bonds because investors' ability to limit credit exposures through a CDS would decrease*"[59]. Fidelity analysts concur: "*not triggering CDS would be quite damaging, and could lead to a sell-off of the government bonds of many countries in the Eurozone*" as investors struggle to find ways to hedge their cash bond holdings[60].

Unlike the voluntary haircut as agreed to in October, a formal credit default by opposition would activate the CDS contracts on Greek bonds and allow CDS buyers to seek compensation from CDS sellers. Billions of euros in pay-outs would be activated. That is precisely what EU governments would want to avoid because it would reward financial speculation. Hedge funds indeed have been building up massive positions on the Greek CDS in the hope to "*win the game*" no matter what happens:

- To continue to cash in the high interest rates on the Greek bonds in case of no agreement on the debt restructuring, or
- To get the payouts of the CDS if indeed Greece defaults, with zero or little cost generated by the PSI haircut given that the bonds were bought at heavy discounted price already.

Inbox: How big is the Greek CDS market and who can decide to trigger a credit default event?

Little is known about the ownership structure of the Greek CDS market. It is an Over-The-Counter derivatives market that is lightly regulated and falls under the supervision of the privately run International Swaps and Derivatives Association (ISDA). What is known is that the coverage of the Greek CDS market is thin compared to the total Greek bond market, like other sovereign CDS markets. According to ISDA, the total notional amount outstanding (i.e. the addition of all contracts sold, or equivalently bought) of the Greek CDS market "only" is USD75bn while the netting (i.e. the difference between net sellers and net buyer of CDS contracts, also representing the maximum possible cash payment in case CDS are triggered) is a mere USD3.7bn, that is just 1% of Greek public debt[61]. Italian sovereign CDS' netting also amounts to roughly 1% of the Italian public debt. CDS markets for corporate bonds typically have higher coverage ratios[62].

The ultimate decision to trigger CDS contracts lies with ISDA and its credit determination committee for Europe, Middle East and North Africa. The committee[63] includes 15 representatives from banks, insurers and private investment funds. Four of the biggest US hedge funds are in the committee – BlueMountain Capital, Citadel LLC, D.E. Shaw Group, Elliott Management Corporation – as well as PIMCO and several banks listed as "too-big-to-fail" by the G20. So far the committee has indicated that the haircut as foreseen under the EU rescue plan in October is not "likely to constitute a credit event", and hence would not trigger the CDS contract, this as long as the agreement is on a voluntary basis, and without cutting the final principal payment"[64].

The negotiations on Private Sector Involvement

The negotiations proved to be difficult. The Greek government and the IMF pushed for a higher level of writedowns than the initial reduction by 50%[65]. Discussions were "*tense with stormy exchanges*" with the IMF managing director Christine Lagarde who was said to be "*playing hard ball*" and "*showing a far more uncompromising face*" than what was expected by the creditors[66]. The ECB by contrast was reported to "firmly" take the side of bondholders. For their part, the IIF-appointed creditor committee were blamed for being "*in denial*" about the size of the write-down that is needed[67]. Bondholders also sought equal treatment with public creditors (EU, ECB and IMF) in any future debt restructuring as well as various legal guarantees and collaterals. They insisted in particular for the new bonds (to substitute to the existing ones as part of a swap deal) to be governed by British law – which would offer better creditor protection than Greek law and for clauses of greater returns if economic growth outperforms projections.

Inbox: Who stands behind the Greek bond holder committee?

During the negotiations bondholders were represented by a creditor committee set up by the Institute of International Finance (IIF) which is the most powerful bank lobbying group internationally. The Committee was co-chaired by Charles Dallara, managing director of the IIF, and Jean Lemierre, a senior adviser at BNP Paribas. Josef Ackermann, chairman of Deutsche Bank and of the IIF also participated. The composition of the IIF creditor committee – reproduced in annex – included 8 European insurance companies, 7 Greek banks, 14 European banks, 1 Brazilian bank and 2 US hedge funds with extended experience with debt restructuring[68]. The IIF had hired Blackstone, the private equity firm, to advise in the negotiations, alongside two law firms White& Case and Allen & Overy[69].

IIF director Dallara stated that the committee represented "*more than 70%*" of bondholders[70]. Yet no public information has made available to support that claim. In principle a creditor committee has to be appointed by all creditors through a transparent process and based on a clearly defined mandate. There is no assurance that this was case of the IIF creditor committee whose membership, mandate and appointment process have not been made public. Some members of the committee do not belong to the IIF in the first place. Other investors were not represented at all: that is the case of pension funds despite the fact that they represent an important class of bond owners.

Potential conflicts of interests were also apparent in the composition. BNP Paribas, Deutsche Bank and HSBC were members of the IIF Committee and at the very same time advised… the Greek Ministry of finance in the on-going negotiations[71]. Meanwhile PIMCO (owned by Allianz), BNP Paribas, Deutsche Bank and Société Générale were both at the IIF Committee and at the ISDA Determination committee which decides whether or not the agreed deal on Greece will trigger the CDS contracts.

At last the €130bn announced in October 2011 was finally agreed and settled on 20th February 2012. The deal includes a 55.5% 'haircut'. Clearly, the ECB's principled position against debt restructuring and against burden sharing by bondholders has not paid off. A year and a half after the first bailout of Greece in May 2011 and after paying out several tens of billions of dollars to bondholders, the crisis has only deepened in Greece, and the other 'peripheral' Eurozone countries, Portugal in particular. The contagion risks to Spain, Italy and more recently France have yet to be averted.

Hedge funds that have been building stakes in the discounted second markets were, according media reports, in no mood to cooperate. To give an example, on 20 December 2011 Spanish hedge fund Vega Asset Management left IIF creditor committee and threatened legal action against officials participating in the negotiation. The hedge fund refused any exchange that would imply a haircut above 50% and could not accept that ECB and taxpayers holdings be exempted from the haircut deal[72].

Throughout the negotiations hedge funds have been betting on a continuation of the bailing out by the troika (and by European citizens) with, in the short term, some €14.4bn of Greek bonds coming at maturity on 20 March 2012. Even with the haircut and the €130bn rescue plan finally agreed, they may well refuse to participate. "*I think we'll hold out* [from the PSI deal]", says Robert Rauch of hedge fund Gramercy, "*People are so slow in Europe and by the time they've got everything in place logistically this might be the one window where investors might be paid back in full*"[73]. The fact that the ECB refused to participate in the haircut reinforced hedge funds' confidence: "*If the ECB is out, then for sure you should try to free ride on the back of the ECB. You'd be stupid to actually participate if the ECB does not*."[74]

If hedge funds opt-out indeed and too few bondholders participate in the PSI, the Greek government still has the nuclear option of triggering a collective action clause which would enforce the haircut on all bondholders once a certain threshold has been passed (say 75% of creditors agreeing to the voluntary PSI swap deal[75]). And indeed the IMF has warned that without near-universal participation by bondholders in the PSI, the Greek debt will remain unsustainable[76]. However such collective action clause would also activate the CDS contracts according to ISDA rules which precisely is something governments and the ECB would want to avoid at all cost.

Conclusions & lessons to draw

In October 2011, the ITUC and the TUAC released a discussion paper[77] on financial speculation in the sovereign debt markets, the recommendations of which (reproduced in annex) revolve around three broad objectives:

- to limit destabilizing short term bets by financial traders;
- to limit destructive risk taking by large financial firms;
- to reorient financial institutions and markets and reverse the balance of power in favour of democratically governments rather than the financial markets.

This paper validates some of key policy positions contained in the October paper.

A case in point of the need to curb speculative trading

Governments require private sector buyers for their public debt, and accordingly bond markets need minimum levels of liquidity which according to theory helps lower the cost of borrowing. But the current speculative drive that is hitting the European bond and OTC market outweigh the benefits of highly liquid debt markets. Bond trading, and financial trading in general, should be subject to far more reporting requirements and restrictions that is the case today. That is particularly true with regard to the ultra-speculative 'naked CDS' trading (i.e. buying long on a sovereign CDS and at the same time selling short on the underlying sovereign bond).

- Traders to systematically report on the use and the purpose of securities lending and to enforce a ban on naked short selling.

- A financial transactions tax applied to bond secondary markets would help restrain and indeed prevent speculative behaviour. It would also make sense to extend the FTT to the OTC derivatives, as suggested by the OECD.

Inbox: Why the OECD sees benefits in applying a financial transaction tax (FTT) to derivatives trading

The OECD Secretariat – historically a fervent opponent to the FTT – has recently expressed support for the creation of an FTT for OTC derivatives because it would "help to reduce the trend towards less socially useful derivatives activity"[78]. The rationale for the OECD is as follows:
(i) The OTC market is already characterised by illiquidity, so the standard objection may not apply or matter;
(ii) The FTT would help standardisation, clearing and trading on exchanges of derivatives and hence increase transparency and accountability;
(ii) The incidence of the charge would fall more on "short-term gambling/churning" rather than on longer-term final user hedging (including pension funds) and it would lengthen the holding period of derivative products.
For the OECD an FTT applied to OTC trading would contribute to greater standardisation and hence greater transparency and would lengthen the holding period of derivative products.

Regulating credit rating agencies

If anything, the speculative attacks on peripheral Europe call into question the regulation of the credit rating agencies, the excessive concentration of the sector and the equally excessive reliance of financial markets and government on their ratings. The European bond market is a case in point of the pro-cyclicality of credit rating agencies (flawed ratings prior to the crisis, abrupt series of downgrading afterwards).

- Credit rating agencies should be subject to far more transparency and reporting requirements regarding their methodologies, the way they are financed and governed.

Too-big-to-fail banks hold excessive market power

At least eight asset management companies oversee more than a USD1tr each. BlackRock alone oversees some USD3.5tr in financial assets. Importantly, international banking groups identified by the G20 as Global Systemically Important Financial Institutions (G-SIFIs) populate the top ranking of asset managers, as well as the ranking of money market funds. Goldman Sachs is in the top 20 asset managers, money market funds *and* hedge funds.

The fact that too-big-to-fail banking groups control a large part of the asset management and the money market fund industries is in itself an issue of great concern for supervisors and government. Banks are meant to be 'boring' institutions: taking deposits and providing loans to the real economy. The accumulation of different financial businesses within the same entity, particularly replicated at the global level, creates formidable opportunities for speculative regulatory arbitrage away from the scrutiny of governments. For Adrian Blundell-Wignall of the OECD "risk exposures in large, systemically important financial institutions [i.e. the too-big-to-fail banks] cannot be properly quantified let alone controlled" [by supervisory authorities][79].

- The excessive market power of financial conglomerates considered "too-big-to-fail" as evidenced in the bond market validates the need to mandate separation of commercial and investment banking activities.

That power also extends to policy forums and lobbying groups which are influential in the bond market such as the International Swaps and Derivative Inc. (ISDA), the IIF board, the

US-based Securities Industry and Financial Markets Association (SIFMA), the European Fund and Asset Management Association (EFAMA) and the UK-based International Securities Lending Association (ISLA). There is some irony in the fact that too-big-to-fail banking groups are spearheading opposition to financial reform in Europe[80], in the US and at the G20 while at the same time are relying on government guarantees on their liabilities and on close-to-zero interest rate lending by central banks to carry on functioning in the wake of the crisis.

- If the balance of power between democratically governments and the financial markets is to be reversed in the future, it is essential to protect current financial reforms processes from regulatory capture by bankers and the lobby groups that they control.

The opacity of the bond management business

Market transparency is an issue. Most of the bond funds, money market funds, and hedge funds – whether they are run independently or owned by a G-SIFI – are run by private companies and are accordingly subject to far weaker reporting and disclosure requirements than listed companies. Some market and trading practices, such as securities lending and CDS, are entirely dependent on private consultancies, which often undertake policy advocacy activities in favour of market deregulation. This is of deep concern, considering the trillions of USD that transit via those firms and markets, the potential conflict of interests when a given private corporation cumulate both regulatory functions with policy advocacy activity as is the case of ISDA[81].

- The trading houses that manage bond funds, hedge funds and money market funds should be subject to the same transparency and disclosure requirement that prevail for listed companies. The opacity of the shadow banking sector is a concern on its own, but it is also in relation to the regulation reforms in the ‘formal’ banking sector through the implementation of Basel III and the risk for leaks and regulatory arbitrage that could further benefit the shadow system.

- Not only is it necessary to ensure that all forms of derivatives trading are shifted to organised exchanges, but those whose bear responsibility for overseeing derivatives trading should themselves fall under public oversight and refrain from policy and regulatory advocacy activities.

Annex

Annex 1: Distribution of ownership of Greek government bonds (July 2011 estimates[82])

	In USD Bn	in %
Domestic ownership	**90 - 104**	**32%**
- Greek Banks	≈50	
- Greek pension funds /other financial institutions	≈30	
- Central Bank of Greece	7- 10	
Foreign ownership	**180 - 220**	**67%**
- Other European Banks	≈50	
German banks	*≈15*	
French banks	*≈15*	
- ECB & European NCBs	≈58	
- Other investors, incl.	80 - 120	30-37%
Total government bonds	**267 – 324**	**100%**
EU/IMF loans (already disbursed)	53	
Total Greek public debt	≈360 - 370	

Annex 2: Composition of the IIF creditor committee for Greece

European banks (14)	**European insurance companies (8)**	**Greek banks (6)**	**Other banks (2)**
Bayern LB (De) Commerzbank (De) Deutsche Bank(De) Landesbank Baden-Württemberg(De) BNP Paribas (Fr) BPCE (Fr) Credit Agricole (Fr) Dexia (Be/Fr) SociétéGénérale Unicredit (Italy) ING (Ned) BBVA (Es) HSBC (UK) RBS (UK)	Ageas (Bel) Axa (Fr) CNP Assurances (Fr) Groupama (Fr) MACSF (Fr) Allianz /Pimco (De) Generali (It) Metlife (UK)	AlphaEuro DekaBank Emporiki Marfin National Piraeus	Intesa San Paolo Bank of Cyprus **US hedge funds (2)** Greylock CM Marathon AM

As of December 21, 2011 – Underlining indicates membership to the negotiating steering group
Source: http://www.iif.com/press/press+219.php

Annex 3: Recommendations of the ITUC – TUAC paper "Speculation and Sovereign Debt – An Insidious Interaction" October 2011[83]

Limit destabilizing short term bets by financial traders

- Creating a financial transaction tax would go a long way toward curbing short term speculative trading, including high frequency trading
- Requiring all forms of derivatives trading to shift to organised exchanges
- Restricting short-term financial trading strategies, including a ban on naked short selling

Limit destructive risk taking by large financial firms

- Splitting large financial conglomerates through mandatory separation of commercial and investment banking activities
- Preventing leaks from the regular to the shadow banking systems
- Phase out crisis-driven government guarantees through industry- or tax-financed financial stability contributions (FSC)
- Reform rating agencies, reducing reliance and shifting their business model back to an investor-pay model

Re-orientate financial institutions and markets and reverse the balance of power between democratically governments and the financial markets

- Diversifying the financial sector through a larger array of public and cooperative financial institutions
- Protecting financial reforms processes from regulatory capture by bankers, including through stronger regulation of political parties' financing

Annex 4: Board membership of Global Systemically Important Banks[1] in key financial sector lobbying groups

Institution	**Country** (parent company)	**ISDA** International Swaps and Derivatives Association	**AFME** Association for Financial Markets in Europe	**SIFMA** Securities Industry and Financial Markets Association	**IIF** Institute of International Finance	**FOA** Futures and Options Association	**ISLA** International Securities Lending Association
Global Systemically Important Banks							
Barclays Capital	UK	√	√	√		√	√
Société Générale	France	√	√	√	√		√
Morgan Stanley	US		√	√	√	√	√
J.P.Morgan	US		√	√	√	√	√
HSBC	UK	√	√	√	√	√	
Goldman Sachs	US	√	√	√	√		√
Citigroup	US	√	√	√	√	√	
Deutsche Bank	Germany		√	√	√	√	
Credit Suisse	Switzerland	√	√	√	√		
BNP Paribas	France	√	√	√	√		
Bank of America Merrill Lynch	US	√	√	√		√	
UBS	Switzerland	√	√	√			
Royal Bank of Scotland	UK		√	√		√	
Bank of New York Mellon	US		√	√			√
UniCredit	Italy	√	√				
Mizuho FG	Japan	√			√		
ING	Netherlands		√		√		
Wells Fargo	US			√			
Sumitomo Mitsui FG	Japan				√		
State Street	US						√
Mitsubishi UFJ FG	Japan				√		
Lloyds Banking Group	UK		√				
Credit Agricole	France		√				
Commerzbank	Germany				√		
Share of total board membership		**55%**	**86%**	**38%**	**41%**	**44%**	**58%**
Other banks (at least 2 seats)							
Royal Bank of Canada	Canada	√		√		√	
Nomura	Japan	√	√	√			
Standard Chartered Bank	UK	√			√		
BBVA	Span		√		√		
ICBC	China	√			√		
ABN AMRO	Netherlands					√	√
Natixis (incl. Loomis Sayles)[2]	France			√		√	
Non-banks (at least 2 seats)							
Allianz (incl. Pimco)	Germany	√		√			
British Petroleum	UK	√				√	

[1] as defined by the G20. Other G-SIFIs holding no board membership & not included in the list above: Santander (Spain) Nordea (Sweden) Dexia (France & Belgium) BPCE (France) Bank of China (China)
[2] co-owned by French G-SIFIs Crédit Agricole & Société Générale

[1]FT, November 11, 2011http://www.ft.com/intl/cms/s/0/4baaa250-0c64-11e1-88c6-00144feabdc0.html#axzz1gawCMzGp

[2]Forbes, November 9, 2011http://www.forbes.com/sites/afontevecchia/2011/11/09/bond-vigilantes-to-target-france-as-italy-is-past-point-of-no-return/

[3]WSJ, November 23, 2011http://blogs.wsj.com/economics/2011/11/23/bond-vigilantes-make-their-votes-known-in-europe/

[4] OECD 20111a “Highlights from the OECD Sovereign Borrowing Outlook N°4”, Hans J. Blommestein, AhmetKeskinler and PerlaIbarlucea Flores, Financial Market Trends, Vol. 2011 Issue 2, OECD http://www.oecd.org/dataoecd/41/52/49243051.pdf

[5] Ibid OECD 2011a

[6] Ibid OECD 2011a

[7] OECD 2011b “The future of debt markets”, Hans J. Blommestein (OECD), Alison Harwood (WBG) and Allison Holland (IMF), Financial Market Trends, Vol. 2011 Issue 2, OECD http://www.oecd.org/dataoecd/18/47/49233096.pdf

[8] "Stiglitz says European austerity plans are a suicide pact" The Telegraph, 17 Jan 2012 http://www.telegraph.co.uk/finance/financialcrisis/9019819/Stiglitz-says-European-austerity-plans-are-a-suicide-pact.html

[9]"New treaty: no to rigid fiscal discipline without sustainable growth" ETUC, 12 January 2012 http://www.etuc.org/a/9523

[10]"What the European Union Did and Did Not Accomplish", Jacob Funk Kirkegaard, Peterson Institute for International Economics, December 14th, 2011 http://www.piie.com/blogs/?p=2575

[11] “ECB Buys €462 Million in Bonds”, WSJ, January 2, 2012 http://online.wsj.com/article/SB10001424052970203462304577136080537295076.html?mod=rss_economy

[12] “Bond fund managers brave ‘the ring of fire’”, FT, February 7, 2010 http://www.ft.com/intl/cms/s/0/c725a322-1287-11df-a611-00144feab49a.html#axzz1gawCMzGp

[13] “Pimco’s Gross Eliminates Government Debt From Total Return Fund”, Bloomberg, Mar 9, 2011 http://www.bloomberg.com/news/2011-03-09/gross-drops-government-debt-from-pimco-s-flagship-fund-zero-hedge-reports.html

[14] "US bond manager fears debt crescendo", FT, December 21, 2011 http://www.ft.com/intl/cms/s/0/5f567b8e-2b28-11e1-9fd0-00144feabdc0.html & "Retail threat to euro zone bond markets", Reuters, November 28, 2011 http://blogs.reuters.com/globalinvesting/2011/11/28/retail-threat-to-euro-zone-bond-markets/

[15] "Pimco Total Return Among Biggest Losers as Bond Rally Fizzles", Businessweek / Bloomber, December 23, 2010 http://www.businessweek.com/news/2010-12-23/pimco-total-return-among-biggest-losers-as-bond-rally-fizzles.html

[16] OECD 2011b

[17]http://funds.ft.com/uk/Screener

[18]http://funds.us.reuters.com/US/screener/screener.asp?reset=1

[19]"Finance: Shadow boxes", FT, February 2, 2011 http://www.ft.com/intl/cms/s/0/6431e2e0-2f09-11e0-88ec-00144feabdc0.html#axzz1gawCMzGp

[20]http://funds.us.reuters.com/US/screener/screener.asp?reset=1

[21]& "In Greece, Some See a New Lehman", NYT, June 12, 2011 http://www.nytimes.com/2011/06/13/business/global/13euro.html

[22]“In a Greek Default, Higher Risk for Money Market Funds”, Mooneylink, October 7, 2011 http://mooneylink.info/in-a-greek-default-higher-risk-for-money-market-funds/

[23]“Finance: Shadow boxes”, FT, February 2, 2011 http://www.ft.com/intl/cms/s/0/6431e2e0-2f09-11e0-88ec-00144feabdc0.html#axzz1gawCMzGp

[24] "Hedge fund route to fixed income" FT, April 3, 2011 http://www.ft.com/intl/cms/s/0/9dbaf036-5c9c-11e0-ab7c-00144feab49a.html#axzz1juM09500

[25]"Hedge funds seek rich pickings from Greek crisis", Reuters, June 22, 2011 http://www.reuters.com/article/2011/06/22/uk-hedgefunds-greece-idUSLNE75L04C20110622

[26] "Vulture funds to profit from a second Greek bailout", The Telegraph, 25 Jun 2011 http://www.telegraph.co.uk/finance/financialcrisis/8598657/Vulture-funds-to-profit-from-a-second-Greek-bailout.html

[27] "Hedge Funds Try to Profit From Greece Debt Swap" By Jesse Westbrook and Julie Cruz - Jan 12, 2012 http://www.bloomberg.com/news/print/2012-01-11/hedge-funds-trying-to-profit-from-greece-as-banks-face-losses.html

[28] For DataExplorers, the short selling bans in August by several European countries was a “depressing” news "Securities Lending Review - Back to its roots" Dataexplorers, November 2011

http://www.dataexplorers.com/sites/default/files/qr_q3_2011_download_0.zip
[29]"Financial Stability Review", ECB, December 2011
http://www.ecb.europa.eu/pub/fsr/shared/pdf/iii3financialstabilityreview201112en.pdf?f89673ed6794213195130c2b869c6fe1
[30]http://bloom.bg/cds5yIreland
[31]http://bloom.bg/cds5yGreece
[32]"Worries Grow About Breadth of Debt Crisis", NYT, June 16, 2011
http://www.nytimes.com/2011/06/17/business/17debt.html
[33] This inbox is heavily inspired from "Speculation and Sovereign Debt – An Insidious Interaction", Gerald Epstein & Pierre Habbard, ITUC-TUAC, October 2011 http://www.ituc-csi.org/speculation-and-sovereign-debt-an.html
[34]"Inside the eurozone plan", Fidelity Viewpoints, 11 February 2011
https://news.fidelity.com/news/article.jhtml?guid=/FidelityNewsPage/pages/fidelity-inside-the-eurozone-plan&topic=investing-bonds-cds
[35] "The Uses and Abuses of Sovereign Credit Ratings" IMF, October 2011
http://www.imf.org/External/Pubs/FT/GFSR/2010/02/pdf/chap3.pdf
[36]"Assessing the Impact of the Eurozone Sovereign Debt Crisis on Structured Finance Transactions" Special Comment, Moody's, April 20, 2011
[37] "S&P Met With Bond Firms - Some Investors Got the Impression U.S. Downgrade Was More Likely Than Not", WSJ, September 7, 2011
http://online.wsj.com/article/SB10001424053111903648204576554642014670986.html
[38] "Greece's Bondholders Brace for Bigger Losses to Solve Crisis", Bloomberg, October 14, 2011
http://www.bloomberg.com/news/2011-10-13/greece-s-bondholders-brace-for-bigger-losses-to-solve-crisis-euro-credit.html
[39] "In search of 'safe' currencies", FT, September 25, 2011 http://www.ft.com/intl/cms/s/0/15f43336-e470-11e0-844d-00144feabdc0.html#axzz1gawCMzGp
[40] "European Sovereign Debt 'Toxic' Amid Fiscal Crisis, Pimco's Crescenzi Says", Bloomberg, December 29, 2011 http://www.bloomberg.com/news/2011-12-29/european-sovereign-debt-is-toxic-amid-turmoil-pimco-s-crescenzi-says.html
[41] "In search of 'safe' currencies", FT, September 25, 2011 http://www.ft.com/intl/cms/s/0/15f43336-e470-11e0-844d-00144feabdc0.html#axzz1gawCMzGp
[42] "Stagnation fears take shine off gilt market", FT, November 11, 2011
http://www.ft.com/intl/cms/s/0/a361e3c8-0c7d-11e1-8ac6-00144feabdc0.html#axzz1gawCMzGp
[43] "Don't trust the new normal in bonds", FT, John Plender, November 27, 2011
http://www.ft.com/intl/cms/s/0/390b3d6a-1512-11e1-b9b8-00144feabdc0.html#axzz1gawCMzGp
[44] "Loomis's Gaffney Adds Italian Bonds as BlackRock'sRieder Remains Cautious", Bloomberg, July 15, 2011
http://mobile.bloomberg.com/news/2011-07-14/loomis-s-gaffney-adds-italian-bonds-as-blackrock-s-rieder-remains-cautious
[45] "Bond manager bets on Greek debt", FT, December 4, 2011 http://www.ft.com/intl/cms/s/0/4c0670f6-1c29-11e1-9631-00144feabdc0.html#axzz1gawCMzGp
[46] "Corzine's Loss May Be Soros's Gain" December 9, 2011
http://online.wsj.com/article/SB10001424052970204319004577086652040716704.html
[47] "Papandemonium shakes investors", FT, November 4, 2011 http://www.ft.com/intl/cms/s/0/dfe1ed5e-06f9-11e1-90de-00144feabdc0.html#axzz1gawCMzGp
[48] "Loomis's Gaffney Adds Italian Bonds as BlackRock'sRieder Remains Cautious", Bloomberg, July 15, 2011
http://mobile.bloomberg.com/news/2011-07-14/loomis-s-gaffney-adds-italian-bonds-as-blackrock-s-rieder-remains-cautious
[49] "Inside the Eurozone plan", FIDELITY VIEWPOINTS, 11 February 2011
https://news.fidelity.com/news/article.jhtml?guid=/FidelityNewsPage/pages/fidelity-inside-the-eurozone-plan&topic=investing-bonds-cds
[50] "Bond manager bets on Greek debt", FT, December 4, 2011 http://www.ft.com/intl/cms/s/0/4c0670f6-1c29-11e1-9631-00144feabdc0.html#axzz1gawCMzGp
[51] "US bond manager fears debt crescendo", FT, December 21, 2011 http://www.ft.com/intl/cms/s/0/5f567b8e-2b28-11e1-9fd0-00144feabdc0.html
[52] To sweeten the pill for this contribution by bondholders, the EU, ECB and IMF would spend €20bn in buying back Greek bonds, €35bn would be parked as collateral for bondholders agreeing to the haircut (which would happened through a swap with new bonds) and €20bn "to repair damage of buy-backs, swaps and roll-overs" "Plan contains costly paradox", FT, July 22, 2011 http://www.ft.com/intl/cms/s/0/2762fe9e-b483-11e0-a21d-00144feabdc0.html#axzz1jbnWdXR4

[53]"The October 26 Statement envisions the launch of this transaction in early 2012", Ministry of Finance, Hellenic Republic, 17 November 2011http://www.minfin.gr/portal/en/resource/contentObject/id/c17cc44c-b20b-45a7-9487-87607d41654f

[54] "In Greece, Some See a New Lehman", NYT, June 12, 2011 http://www.nytimes.com/2011/06/13/business/global/13euro.html

[55]"Greece's Bondholders Brace for Bigger Losses to Solve Crisis", Bloomberg, October 14, 2011 http://www.bloomberg.com/news/2011-10-13/greece-s-bondholders-brace-for-bigger-losses-to-solve-crisis-euro-credit.html

[56] "Hedge Funds Try to Profit From Greece Debt Swap", Bloomberg, January 12, 2012 http://www.bloomberg.com/news/print/2012-01-11/hedge-funds-trying-to-profit-from-greece-as-banks-face-losses.html

[57]"Greek Hunt for Debt 'Holy Grail' Pits ECB Against Naked Banks", Bloomberg, Jun 17, 2011http://www.bloomberg.com/news/2011-06-16/greek-hunt-for-debt-holy-grail-pits-ecb-against-naked-banks-euro-credit.html

[58]"Greek debt talks cast doubt over sovereign CDS", FT, May 18, 2011 http://www.ft.com/intl/cms/s/0/9f8f0276-8177-11e0-9c83-00144feabdc0.html#axzz1gawCMzGp

[59]"Weekly Credit Outlook", Moody's, November 21, 2011

[60]"Inside the eurozone plan", Fidelity Viewpoints, 11 February 2011https://news.fidelity.com/news/article.jhtml?guid=/FidelityNewsPage/pages/fidelity-inside-the-eurozone-plan&topic=investing-bonds-cds

[61] "Greek Sovereign Debt Q&A" ISDA October 31, 2011 http://www2.isda.org/attachment/Mzg4NA==/GreekSovQandAUpdate2012-01-16_FINAL.pdf

[62]"Greek Hunt for Debt 'Holy Grail' Pits ECB Against Naked Banks", Bloomberg, Jun 17, 2011 http://www.bloomberg.com/news/2011-06-16/greek-hunt-for-debt-holy-grail-pits-ecb-against-naked-banks-euro-credit.html

[63] http://www.isda.org/dc/committees.html#EMEA

[64]"Greek Sovereign Debt Q&A" ISDA October 31, 2011 http://www2.isda.org/attachment/MzY5Ng==/Greek%20Sov%20QandA%202011-10-31.pdf

[65]"Government, creditors to meet Monday on valuation, 10 December 2011" http://www.athensnews.gr/portal/11/51293

[66]"Progress made on debt talks, both sides say", 16 December 2011 http://www.athensnews.gr/portal/11/51592

[67]"IMF delivers harsh truth from Planet Earth" January 16, 2012 http://www.ft.com/intl/cms/s/0/b9358b54-405e-11e1-8fcd-00144feab49a.html#axzz1jiVl7Q8x

[68] Marathon AM has an emerging markets credit team which "specialises in distressed corporate and sovereign debt", while Greylock AM is headed by Hans Humes who represented bondholders during Argentina's debt restructuring in the early 2000s "Hedge funds hunker down for Greek debt standoff", Reuters, Januar 13, 2012 http://uk.reuters.com/article/2012/01/13/uk-hedge-funds-greece-idUKLNE80C00P20120113

[69]"Greek Creditor Group Said Near Hiring Blackstone, Law Firms", Bloomberg, December 15, 2011 http://mobile.bloomberg.com/news/2011-12-14/greek-creditor-committee-is-said-to-work-with-blackstone-group-law-firms.html

[70] "Government, creditors to meet Monday on valuation, 10 December 2011" http://www.athensnews.gr/portal/11/51293

[71]"Greek Creditor Group Said Near Hiring Blackstone, Law Firms", Businessweek / Bloomberg, December 15, 2011 http://news.businessweek.com/article.asp?documentKey=1376-LW7FOM0YHQ0X01-1VG14LPU7L5CC9IB26F4BKJGV7 & "Greece Hires BNP Paribas, Deutsche Bank, HSBC for Exchange" July 27, 2011 http://www.bloomberg.com/news/2011-07-27/greece-hires-bnp-paribas-deutsche-bank-hsbc-for-debt-exchange.html

[72] "Fund threatens to sue over Greek bond losses", FT, December 21, 2011 http://www.ft.com/intl/cms/s/0/c2943c1e-2bf4-11e1-98bc-00144feabdc0.html#axzz1h5i81KWc

[73] "Greek debt talks open Pandora's box", FT, January 18, 2012 http://www.ft.com/intl/cms/s/0/137a416c-41eb-11e1-a1bf-00144feab49a.html#axzz1juM09500

[74] "Hedge Funds Try to Profit From Greece Debt Swap", January 12, 2012 http://www.bloomberg.com/news/print/2012-01-11/hedge-funds-trying-to-profit-from-greece-as-banks-face-losses.html

[75] "Greek debt talks hit snag", Reuters, December 20, 2011 http://business.financialpost.com/2011/12/20/greek-debt-talks-hit-snag/

[76] "Fund threatens to sue over Greek bond losses", FT, December 21, 2011 http://www.ft.com/intl/cms/s/0/c2943c1e-2bf4-11e1-98bc-00144feabdc0.html#axzz1h5i81KWc

[77] "Speculation and Sovereign Debt – An Insidious Interaction", Gerald Epstein & Pierre Habbard, ITUC-TUAC, October 2011 http://www.ituc-csi.org/speculation-and-sovereign-debt-an.html

[78] "Bank Competition and Financial Stability", OECD, Augsut 2011 http://www.oecd.org/dataoecd/14/49/48501035.pdf

[79] "Solving Europe's banking and debt crisis", Adrian Blundell-Wignall, 2 Ferbruary 2012 http://www.oecd.org/document/14/0,3746,en_2649_201185_49544846_1_1_1_1,00.html

[80] See for example : Letter to Rt Hon George Osborne MP Chancellor of the Exchequer, 24 October 2011 www.bba.org.uk/download/7184

[81] http://www2.isda.org/functional-areas/public-policy/

[82] http://www.leimonis.com/2011/07/main-holders-of-greek-government-bonds-and-greek-debt/

[83] http://www.ituc-csi.org/speculation-and-sovereign-debt-an.html