

ECONOTE

Société Générale
Economic studies department

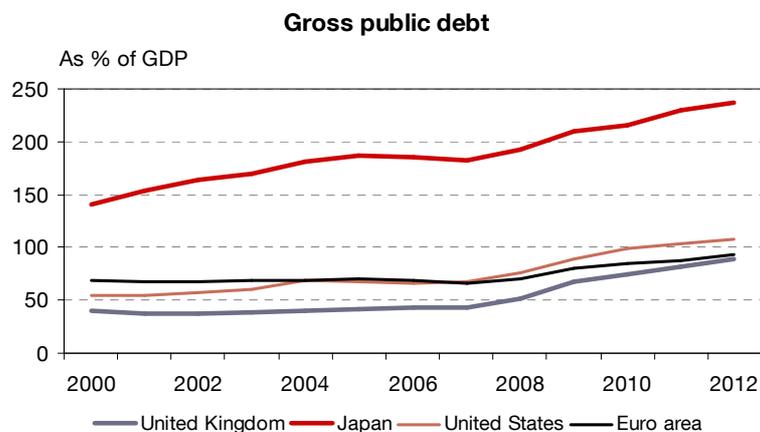
DEVELOPED COUNTRIES: WHO HOLDS PUBLIC DEBT?

— In response to the global financial crisis of 2008, the major countries of the OECD implemented massive economic stimulus plans that contributed, alongside the effects of the recession, to a sharp deterioration in their public finances and, thus, an explosion in public debt levels.

— Faced with significant financing needs, these countries are now wondering how they will continue to attract a large base of investors over the long run, which is needed to maintain finance conditions that are compatible with the sustainability of their public debt. In an attempt to address this question, we will take a look at the holding structure of government debt in the major industrialised countries, while striving to understand the roots of demand for debt.

— During the decades running up to the "Great Crisis", non-resident investors generally played a growing role in funding government debt against a backdrop of financial globalisation and large current account imbalances. One of the biggest exceptions has been Japan, where the lion's share of public debt is held by residents.

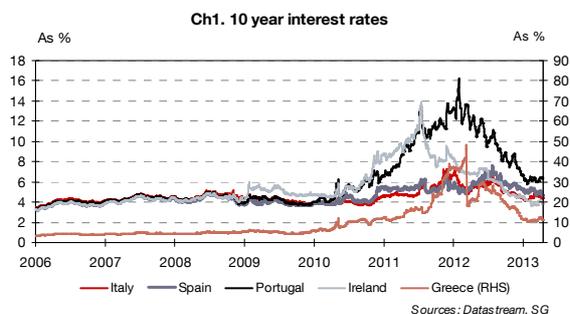
— Since the crisis broke out, three main changes have occurred: 1) the major central banks have bought up massive quantities of domestic government debt; 2) investors have retreated to government debt markets they consider to be safe havens and 3) debt holdings have been "renationalised", particularly in the euro area.



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Until the end of the 2000s, the governments of industrialised countries had absolutely no problem in financing their deficits by tapping into their domestic financial sectors or the global capital markets¹.

Non-resident investors² markedly increased their presence on government bond markets in all major developed countries, save Japan, over the decade preceding the eruption of the global financial crisis. Growing non-resident demand for public securities (or the net inflow of capital) contributed to depressing interest rates in both the US and the euro area. With the advent of the euro, funding conditions for countries on Europe's periphery improved a great deal almost overnight. However, in the 2010s, the Greek, Irish and Portuguese crises and the funding struggles of Spain and Italy reminded everyone of how vulnerable developed countries were to a swift change in investor sentiment (chart 1).



SPIRALLING PUBLIC DEBT

In the immediate aftermath of the Great Crisis of 2008, massive economic stimulus plans or support measures for the banking sector led to an explosion in public debt levels³ (see inset 1) and, consequently, sovereign bond issuance. Between 2007 and 2012, the gross debt⁴ of general government jumped from 44% to 88% of GDP in the UK, from 66% to 94% of GDP in the euro

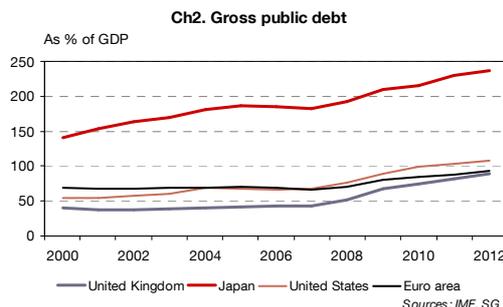
¹ Note that we have chosen, in this paper, to concentrate on the euro area as a whole while only focusing briefly, if at all, on specific euro zone countries. For more information on debt holdings in the euro area, please see Econote no. 13 "Financing government's debt: a vehicle for the (dis)integration of the Eurozone?"

² Statistics on foreign holdings do not generally distinguish between intermediaries and end debt holders.

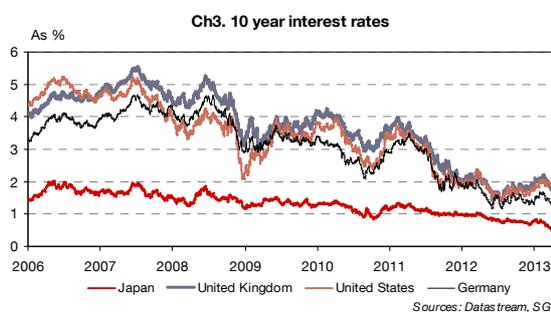
³ Public debt is comprised of the debt of all levels of the government, including the central government, state, local governments and social security funds.

⁴ Gross public debt designates all general government commitments that require a future payment of interest and/or principal to creditors. Net debt is gross debt less deposits and loans held by general government (deposits, short-term investments, loans and transferable securities held on private players).

area⁵, from 67% to 107% of GDP in the US, and from 183% to 236% of GDP in Japan (chart 2).



Since the start of the 2010s, yields on "peripheral" government debt in the euro area have exploded whilst they have dropped to all-time lows in Japan, Germany, the US and the UK (charts 1 and 3).



The increase in the supply of government securities, *ceteris paribus*, pushes long-term yields higher, except when demand for debt also increases proportionally. Therefore, the question now is to ascertain whether the major buyers of public debt are willing to sustainably absorb a massive increase in public debt without demanding an additional risk premium.

This paper will take a look at public debt holdings⁶ (as opposed to loans), as they account for the bulk of public debt financing (see inset 1). Moreover, we are focusing on debt securities issued by the central government (except for the euro area where only data on general government are available), i.e. gilts for the United Kingdom, treasuries for the United States and JGB (Japanese Government Bonds) for Japan.

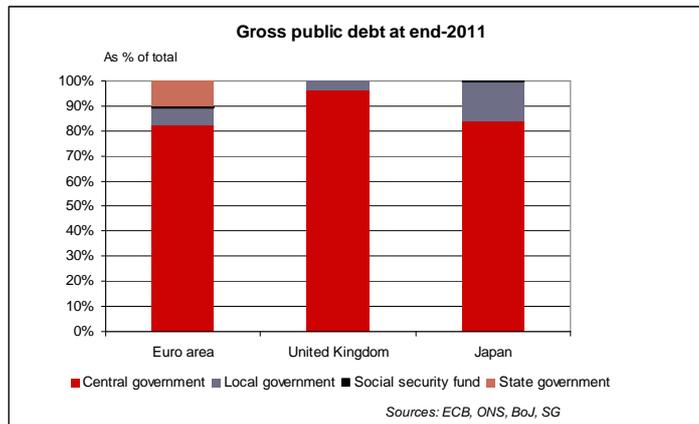
⁵ Public debt in the euro area is now well above levels set out in the Maastricht convergence criteria. The convergence criteria or "Maastricht criteria" (i.e. gross public debt must not exceed 60% of GDP and the public deficit must not exceed 3% of GDP) must be adhered to by all Member States of the European Union under the Stability and Growth Pact.

⁶ The classification of public debt holders follows the broad definition of the public sector instead of just general government, i.e. they also include public social security funds and state-owned entities such as public pension funds and the national central bank.

INSET 1 - PUBLIC DEBT STRUCTURE

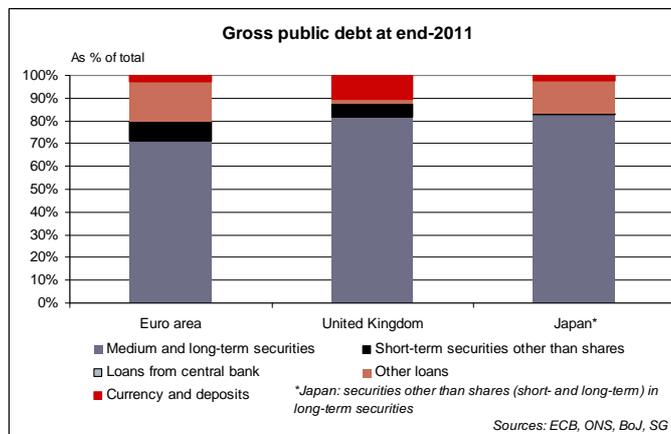
By sector

- In accordance with national accounting standards, “public debt” covers the debt of all levels of government (i.e. general government). General government includes the following sub-sectors: the central government, the state government (in the US and Germany), local governments as well as social security funds.
- The debt of the central government is by far the biggest contributor to public debt (over 80%).



By instrument

- The debt of general government is comprised mainly of medium- and long-term bonds.



Focus on the debt of the federal government in the United States

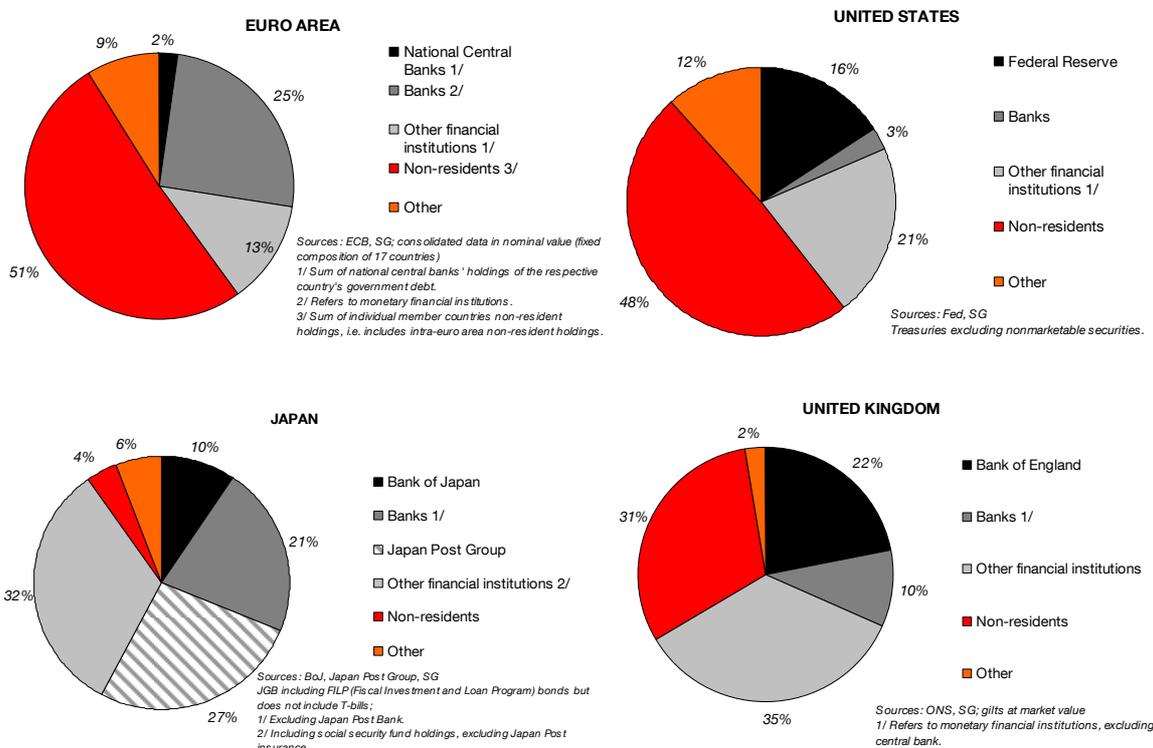
- The debt of the federal government (\$15,230 billion at end-2011) is the debt issued by the Treasury and other areas of the federal government. It is broken down into two parts:
 - debt held outside of the federal government (non-resident investors, private domestic investors, the Fed, local and state governments) for a total amount of \$10,450 billion at end-2011 and
 - debt held by entities belonging to the federal government for \$4,780 billion at end-2011 (particularly the *Federal Social Security and Medicare Trust Funds*).
- In this paper, we only analyse government debt held outside of the federal government.

FROM THE EUROPEAN SITUATION TO THE "JAPANESE" MODEL

The degree to which public debt is held by non-residents is starkly different in Japan and the euro area. Non-residents (including investors from different countries within the euro area) finance half the public debt in the euro area, which stands in contrast to the 4% in Japan. Non-residents are also major investors in government debt in the US (more than 45%), while in the United Kingdom this stands at nearly one-third of the total (see inset 2). However, it should be noted that holdings of public debt in the euro area by non-residents would appear much lower if non-resident

holdings within the euro area were stripped out. Data that would allow for this type of calculation is not available. However, it can be indirectly estimated by using data on external debt: non-resident debt holdings outside of the euro area reached only 29% at end-2011. There are many reasons for the divergence in non-resident holdings. A strong domestic private savings rate or the existence of large pension funds encourages holdings of government debt by domestic residents. However, belonging to a monetary union or the issuance of debt denominated in an international reserve currency are factors that lead to an increase in the base of non-resident debt holders.

INSET 2 – GOVERNMENT DEBT SECURITIES* HOLDINGS AT END-2011** (AS % OF TOTAL)



*Except for the euro area where data includes the securities of general government.

**Data at the end of Q1 2012 for Japan due to the availability of data of the Japan Post Group.

Note 1: data were compiled in such a way so as to maximise cross-country comparison, but differences persist between the national sources. There is no centralised database with harmonized data between countries. In the graphs, the "other financial institutions" category includes all financial institutions excluding banks and the national central bank (pension funds and insurance companies, investment companies including UCITS, etc.).

Note 2: data are booked in nominal value, except for the United Kingdom, where they are expressed in market value. The nominal value is the face value of debt securities; neither accrued interest nor the fluctuation in the price of securities is included in the evaluation of financial instruments. The market value is the price of securities set by buyers and sellers on the market.

Note 3: the "other" category includes holdings by non-financial companies, households and public entities⁷ (except for the euro area where data are consolidated, i.e. excluding the liability items of an entity held by another public entity).

⁷ Data are available on the social security fund's holdings of government securities (only for Japan) as well as local government holdings (for all countries excluding the euro area).

INTERNATIONALISATION OF GOVERNMENT DEBT HOLDINGS

The euro area countries and the United States have the highest rates of non-resident debt holdings (table 1).

TABLE 1. GOVERNMENT DEBT HOLDINGS AT END-2011

As % of total	United-States	Japan	United Kingdom	Euro area*
Residents	52	96	69	49
Non-residents	48	4	31	51**
Including "official sector" ***	35	2	5	17

* Sum of holdings of euro area countries; general government debt

** Including intra-zone

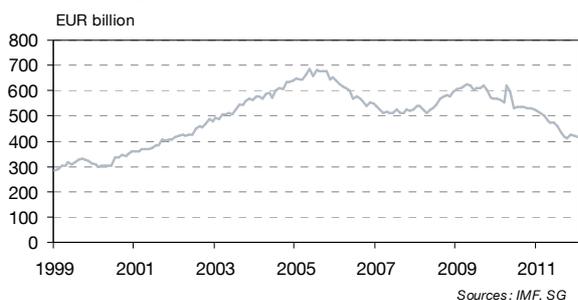
*** Central banks and general governments

[1] Jochen R. Andritzky, June 2012, "Government Bonds and their Investors: What Are the Facts and Do They Matter?", IMF WP.

The internationalisation of public debt holdings in developed countries has been the product of two main trends:

- financial integration during the pre-crisis period, which spurred the international diversification of portfolios and large cross-border holdings. This trend picked up a sizeable head of steam in the euro area when the single currency was adopted, which is why public debt holdings are extremely diversified within the euro area (chart 4).
- The growing current account imbalances across the world and the related accumulation of reserve currencies by foreign central banks, whose investments are primarily concentrated in government securities.

Ch4. Cross-border holdings of euro area general government debt by zone's banks



Euro area: recent disparate changes in non-resident holdings within and outside of the euro area

As of the end of 2011, the percentage of non-resident holdings in public debt in euro area countries was 51%, up from 22% in 1995. For each Member State of the euro area, holders from fellow Member States are considered as "foreigners". In the last decade, small issuing countries (Portugal, Greece) have seen their non-resident holdings financing their debt increase the fastest.

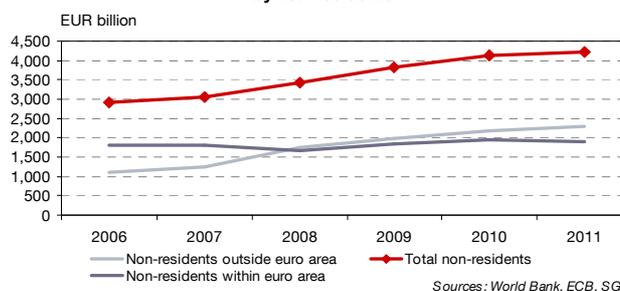
The creation of the single currency has led to a sharp rise in cross-border public debt holdings within the euro area:

- Prior to the euro: domestic investors mostly bought the bonds of their national government in the local currency because of the lack of currency risk and because they matched the currency in which their liabilities were denominated.
- At the beginning of the euro: with currency risk no longer an issue, bond investors were able to broaden their investment universe to securities issued by other euro area governments (most often in proportion to the size of the debts in question). As a result, cross-border holdings have increased considerably.

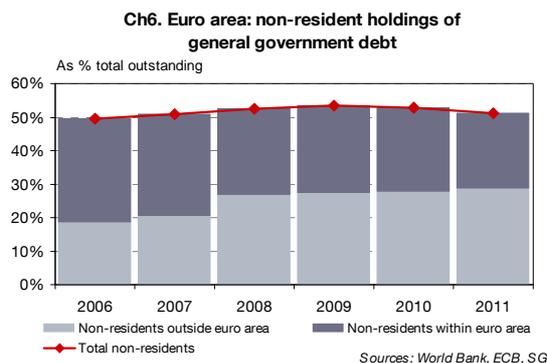
Using ECB data on public debt holdings and external debt of the public sector from the World Bank, we can estimate the breakdown between non-resident holders within and outside of the euro area. During the first years of the euro and up until 2008, the increase in non-resident public debt holdings in the euro area was mainly due to non-residents within the euro area (i.e. residing in a different country but within the euro area). However, the crisis has resulted in a movement towards renationalising public debt within the euro area (chart 5), because, notably, investors from core countries sharply reduced their exposure to peripheral countries⁸. This explains the drop in the rate of holdings by non-residents within the euro area, which went from over 30% in 2006 to 22% in 2011 (chart 6).

However, the percentage of holdings of non-residents from beyond euro area borders continued to increase (from under 20% in 2006 to 29% in 2011) and is now higher than that of non-residents from within the euro area (chart 6). It is mainly the big "core" countries of the euro area (Germany and France) that have attracted non-euro foreigners, which explains why their debt has not been affected by the peripheral crisis.

Ch5. Euro area: general government debt holdings by non-residents



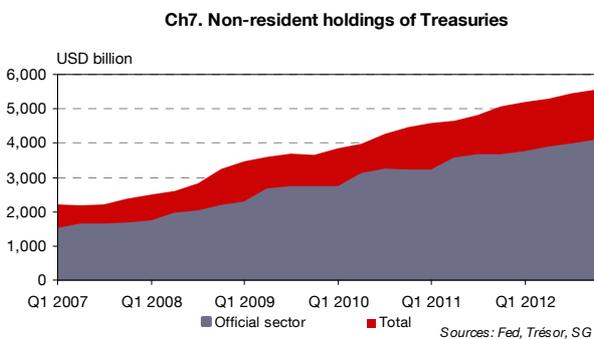
⁸ See Econote no. 13 "Financing government's debt: a vehicle for the (dis)integration of the Eurozone?"



In total, the peripheral debt crisis in the euro area has underlined the extent to which non-residents investors are often the first to sell their government securities and are therefore a less stable source of funding. However, it should be pointed out that these movements affected, first and foremost, cross-border holdings within the euro area. Taken as a whole, the euro area seems less vulnerable from this point of view: first, non-resident holdings outside the euro area continued to increase during the crisis; second, the percentage is not as high as in the US or even the UK. This reflects the fact that the euro area, taken as a whole, has a relatively high internal private savings rate, which enables it to balance its current account.

United States: substantial foreign central banks' holdings

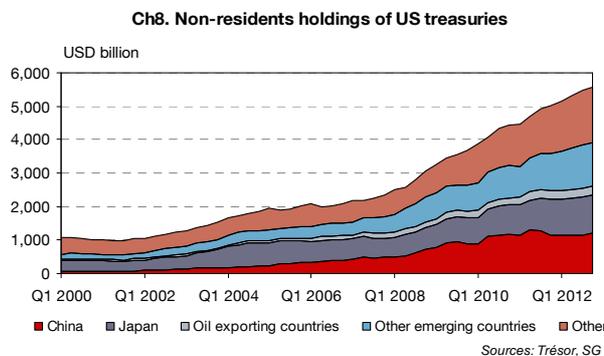
In the US, non-residents as a percentage of federal debt holdings stood at 48% at end-2011, versus 31% at the start of 1998. Since 2002, the "official"⁹ sector accounts for the vast majority of non-resident holdings (around 78% currently) (chart 7). This is due to the take-off in reserve currency stockpiles by emerging countries central banks, which are mainly invested in US t-bills due to the dollar's role as the international reserve currency. Debt bought up by foreign central banks has contributed to the drop in US long-term interest rates.



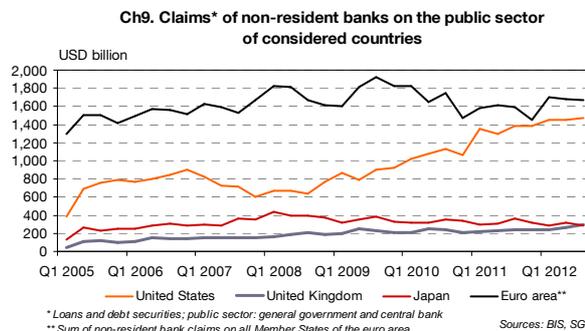
China and Japan are the two largest holders of US government debt, accounting for nearly half of total non-resident holdings. The massive treasuries

⁹ Source: US Treasury International Capital (TIC).

purchases by China are mostly explained by the fact that the Renminbi is pegged to the dollar. Since 2007, China's treasuries holdings have jumped practically three-fold and Japan's holdings have doubled. However, in recent years the holdings of other Asian countries and Middle Eastern countries have also taken off considerably (chart 8).



Among the "non-official" non-resident debt holders, banks increased their treasuries purchases markedly: their claims on the US public sector (general government and the national central bank) have more than doubled since end-2007 unlike in other regions where non-resident bank holdings have remained mostly stable (chart 9). We can estimate that non-resident banks (according to the BIS) held approximately 10% of US public debt at end-2011. Japanese and UK banks are the biggest debt holders.



Domestically, US banks only hold 3% of the federal debt. However, if we include, in addition to treasuries, the debt of government-sponsored enterprises (GSEs)¹⁰, which are not included in the federal debt (although they are guaranteed at the federal level), the percentage of government and GSE debt held by US banks rises to 12% of total debt outstanding as of end-2011. It should also be pointed out that US households have played an increasingly important role in treasuries since the start of the crisis (11% of the total at end-2011).

For US public debt, the main question mark is the sustainability of the dollar's status as the world's

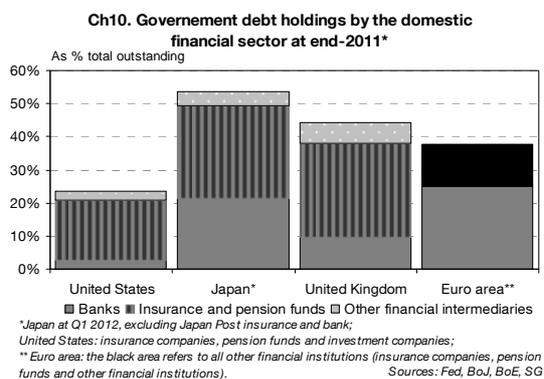
¹⁰ The GSEs (Federal Home Loan Banks -FHLB, Fannie Mae, Freddie Mac, Ginnie Mae) refinance home loans in the US.

reserve currency. If non-residents decide to diversify their portfolios, or should suddenly stop buying treasuries, strong downwards pressure on the dollar could result and US bond yields could rise. This could potentially have destabilising effects on the financial and fiscal balances of the country.

RENEWED HOME BIAS STEERS SAVINGS TO DOMESTIC DEBT

In Japan and the United Kingdom, they are residents who hold the bulk of government debt (96% and 69% of total outstanding, respectively). It should be noted, however, that in Japan, non-resident debt holders increased 40% between early 2010 and end-2012 as international investors sought to hold yen (despite low yields) due to European economic woes. However, the percentage of non-resident holdings is still extremely low. The new government that took office in December 2012, which is in favour of depreciating the yen, and a more expansionist monetary policy could shake up this trend.

The domestic financial sector (banks, pension funds and insurance companies, investment companies and other financial intermediaries) is a major holder of public debt (more than 50% of outstanding at Q1 2012, excluding the Japan Post Group) and in the UK (45% at end-2011), compared with the euro area (37% at end-2011) and the United States (24% at end-2011). In particular, domestic insurance companies and pension funds hold sizeable chunks of their government's national debt (28% in Japan, 25% in the UK vs. 18% in the US and 13% in the euro area) (chart 10).



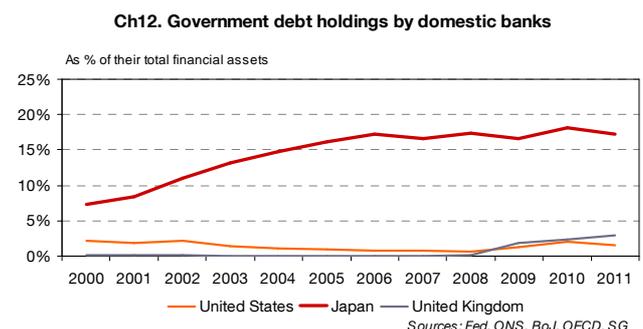
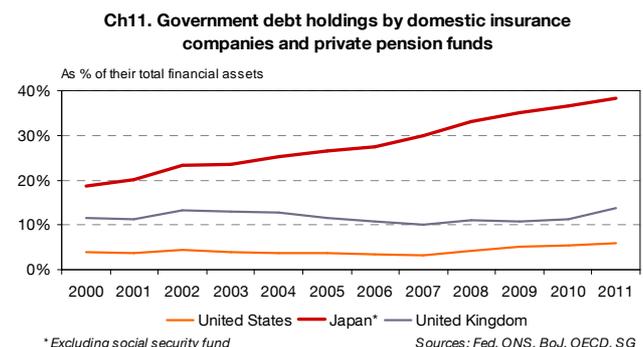
Japan: the importance of the domestic financial sector

Two factors have underpinned the Japanese government debt 's extremely low international investor diversification: Japanese households' strong risk aversion (and their "home bias") and the private sector's surplus savings compared with domestic investment. Japanese households are happy to gobble up risk-free government securities, which they hold via banks, the Post Group, pension funds and life insurance companies. In Japan, the banks and institutional investors (insurance companies and

pension funds) have had to continually bank-roll the spiralling Japanese debt. At Q1 2012, more than half of Japanese government debt was held by financial institutions. This number jumps to nearly 80% of total outstanding when the Japan post bank and insurance is included (see inset 2).

Holdings by insurance companies and pension funds are generally more stable than bank holdings because the former need to match their liabilities with long-term assets.

At end-2011, Japanese government securities accounted for nearly 40% of the total financial assets held by insurance companies and pension funds (vs. 12% for the UK and 6% for the US) (chart 11). Japanese banks are also heavily exposed to sovereign risk, with nearly 20% of their assets invested in government paper (vs. 3% in the UK and 2% in the US; although this figure jumps to 12.5% of US banks' balance sheets if GSEs securities are included) (chart 12). The Japan post Group is the largest holder of Japanese sovereign debt, with nearly one-third of total outstanding. Until 2007, bank and insurance postal companies (merged in October 2007 to form the Japan Post Group) were not subject to the same regulations (Japan Financial Services Authority) as other financial institutions. In exchange, the funds it held had to be invested in safe assets, especially JGBs. Today, domestic banks (including the post bank) hold around 40% of Japanese debt, a much higher percentage than other industrialised countries. This is explained by the sizeable inflows of banking deposits from Japanese households, which are largely invested in JGBs due to low lending levels.

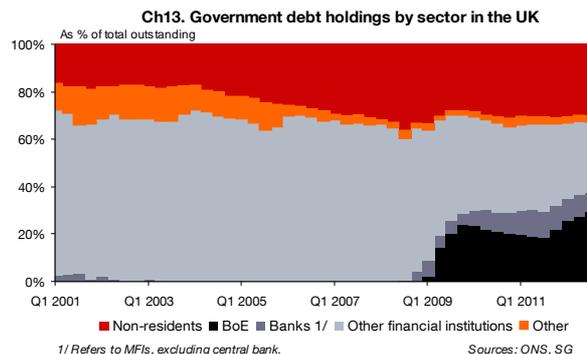


The essential role of the domestic financial sector in financing government debt is due, first and foremost, to structural factors related to the strong financial savings of the private sector in Japan (reflected in the country's current account surpluses). But it also reflects liability matching constraints linked to the exchange rate encountered by Japanese investors (just like in the UK or US)¹¹.

United Kingdom: domestic insurance companies and pension funds driving strong demand for government debt

In the United Kingdom, the domestic financial sector is the top holder of gilts with 45% of total outstanding at end-2011, the percentage of insurance companies and pension funds stood at 25%, at 10% for banks and other financial intermediaries accounting for 10%. Large pension funds in the UK drive strong domestic demand for government debt. In addition, with lower interest rates (making liabilities more expensive) and the mediocre performance of equities, many pension funds have reconsidered their asset allocation, increasing their position on long-term bonds. Insurance companies are also major holders of gilts, which they use to back their commitments.

Insurance companies and pension funds as well as banks (a more recent phenomenon and to a much lesser extent) have participated in the financing of the ballooning UK public debt since the outbreak of the crisis (chart 13). Anticipating forthcoming regulatory changes, UK banks have massively increased their purchases of high-quality, liquid assets since 2008, with government paper leading the way. The UK was a frontrunner in imposing liquidity rules for the banks by forcing them to hold a buffer of safe and liquid assets made up of high-quality securities. The Basel III agreements from December 2010 with the enactment of liquidity ratios, have also contributed to this. However, since 2009, the share of government debt held by domestic financial institutions has dropped. This is due to a heavyweight buyer's arrival on the scene: the Bank of England and its arsenal of quantitative easing.



THE "GREAT CRISIS" HAS CHANGED THE DRIVERS OF GOVERNMENT DEBT'S DEMAND

Since the outbreak of the global financial crisis, the demand for public debt has met new investors' needs and concerns. As public finances have markedly deteriorated since 2008, the central banks of the UK and US have used quantitative easing to take major action on their government debt markets. At the same time, there has been a flight-to-safety which has centred on US and German public debt seen as "safe havens" by non-resident investors. More recently, euro area general government debt holdings have begun to be "renationalised". New prudential regulations have also pushed financial institutions to hold a greater amount of high-quality liquid assets. In addition, the emerging markets still do not issue large amounts of liquid debt and do not have any other choice but to invest their currency reserves in government securities issued by developed governments.

INCREASING INVOLVEMENT OF CENTRAL BANKS

After the outbreak of the "Great Crisis", the Fed and the Bank of England (BoE), unlike the European System of Central Banks (ESCB: the ECB and national central banks of the euro area countries), have played an important role in financing domestic public debt as part of unconventional measures (see table 2). With their key rates approaching zero and no longer able to cut rates further, they decided to swell the size of their balance sheets by buying up sovereign debt. The Bank of Japan has regularly intervened on the sovereign debt market since March 2001, when it set up its quantitative easing plan. In fact, until 2005, its slice of the government debt pie remained stable (around 15%) then dropped until 2009 (when the massive debt purchases were finished in 2006) before rising slightly (to 9% at end-2011) when unconventional measures were rekindled (chart 14).

¹¹ In the euro area, these balance sheet constraints do not exist because debts are bought and sold in euros.

TABLE 2 – UNCONVENTIONAL MONETARY POLICY REGARDING PUBLIC DEBT

Federal Reserve	Quantitative easing in three cycles: - From March 2009, \$1,750bn in total assets (MBS, debt of Fannie Mae, Freddie Mac and Ginnie Mae and \$300bn in long-dated treasuries); - From November 2010, \$600bn in treasury bonds; - From September 2012, monthly purchases of \$40bn in securitized property assets, and from early 2013, new programme of treasuries purchases for \$45bn/month. Operation Twist (sale or redemption of \$667bn in short-term debt securities in order to buy securities with longer maturities) from September 2011 to end-2012.
Bank of Japan	- Quantitative easing programme, from October 2010 and March 2013, for ¥101 trillion in all (nearly 21% of GDP), including ¥44 trn in JGBs. In addition to this programme, the BoJ has been steadily buying, since 2001, JGBs (for ¥21.6 trn per year since March 2009). - From April 2013, new quantitative and qualitative easing programme: the target is to double the monetary base (from ¥138 trn at end-2012 to ¥270 trn at end-2014) through doubling JGBs purchases (from ¥89 trn to ¥190 trn) and increasing more risky assets (J-REITs and ETFs). JGBs with all maturities will be made eligible for purchase.
Bank of England	Quantitative easing programme (Asset Purchase Facility) since March 2009, has been increased six times, totalling £375bn (i.e. 25% of GDP), with mostly gilts.
European Central Bank	Securities Markets Programme launched in May 2010, totalling €211.5bn (sterilized intervention) and halted with the OMT (i.e. Outright Monetary Transactions), unveiled in September 2012, which consists of unlimited government bond purchases on the secondary markets (for the States requesting an EFSF/ESM bailout). No purchases carried out at present.

The pace of the Fed's asset purchases picked up in the second round of quantitative easing. The Fed thus became the biggest treasury buyer on the secondary market, while the purchases of other investors, such as foreign central banks, have slowed. The Fed's share of the federal debt surpassed the 15% mark at end-2011. Operation Twist was set up to lower long-term interest rates and loosen financial conditions geared at stimulating growth; it consisted of buying long-dated treasuries, while selling bonds with shorter maturities. Through this operation, the maturity of assets held on the Fed's balance sheet was extended.

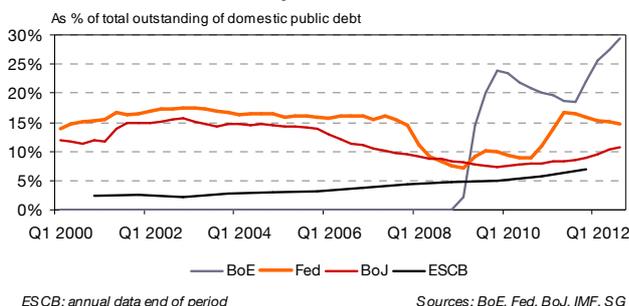
well ahead of the Bank of Japan (8%) or the Eurosystem (7%) (chart 14).

Central banks' purchases of government securities made it possible to finance a considerable increase in American and British debt since 2008, without putting pressure on interest rates.

FLIGHT TO SECURITY

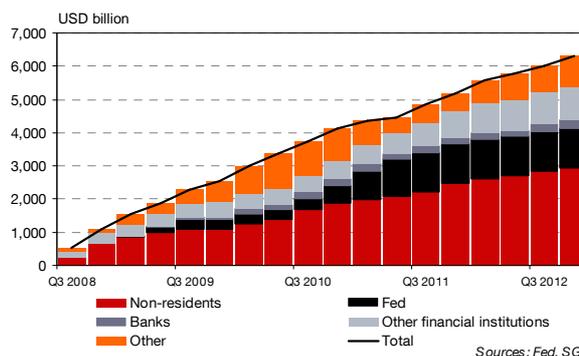
The global financial crisis, and more specifically the European debt crisis, bred a strong aversion to risk, which led non-residents to invest in the government debt perceived to be the safest (i.e. a "flight to quality"). The United Kingdom, Germany and the United States thus became particularly attractive in the eyes of international investors, as reflected in the drop in their bond yields since 2011. Besides the UK and US central banks, non-residents have bank-rolled the recent sharp rise in the debt of the US, UK and the euro area as a whole (charts 15 and 16).

Ch14. Domestic government bonds outstanding held by central banks

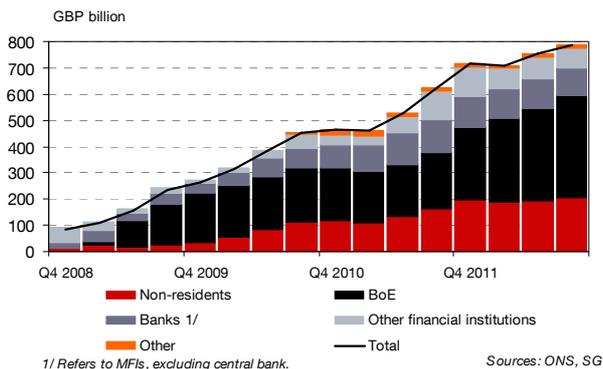


The BoE's quantitative easing plan is even more spectacular than the Fed's efforts: since March 2009, its portfolio of gilts has been substantially increased over a short period both in terms of the absolute amount and market share (from 0% at end-2008 to 14% of total outstanding in Q2 2009). At end-2011, the percentage of domestic debt held by the Bank of England stood at 22%, ahead of the Fed (16%) and

Ch15. US treasuries held by sector since 2008



Ch16. Gilt holdings by sector since 2008



"RENATIONALISATION" OF PUBLIC DEBT PURCHASES IN THE EURO AREA

Several factors explain why investors have retreated to their domestic market since the crisis:

- fears about the solvency of peripheral countries in the euro area and the ongoing restructuring of Greek public debt;
- "convertibility risk", i.e. the risk of one or more euro area countries leaving the currency union with governments having to issue bonds in their national currency and the associated depreciation risk.

Moreover, the ECB's two long-term refinancing operations (LTROs) implemented in December 2011 and February 2012 led the euro area's commercial banks to increase their holdings of domestic public debt. In fact, the banks used ECB liquidity to buy domestic public securities, thus pocketing the favourable "carry trade".

In addition, Italy sought to attract more individual investors to its public debt so the temptation for many euro area countries is to "renationalise" the holdings of their public debt. This move would have a counter-productive effect, however. First of all, it would lead to a fragmentation of the euro area's public debt markets, thus substantially reducing the benefits of the monetary union in terms of financial integration. Then, this "renationalisation" would reinforce the vicious circle between sovereign risk and banking risk at the national level. Last but not least, most euro area economies (except Germany and a few other northern countries) have a negative net external position: hence they cannot transform themselves into "little Japans" and finance their public debt using domestic savings alone.

TOWARDS A NEW CARTOGRAPHY?

Since the onset of the crisis, three main changes have occurred simultaneously: (1) public debt holdings have been "renationalised", particularly in the euro area, (2) the public debt accumulation in central banks' balance sheets (US, UK, Japan) and (3) financial institutions' balance sheets have piled on domestic public debt, especially in Japan.

However, these trends are untenable in the long-term. First, as previously mentioned, public debt renationalisation policies quickly reach their limits when the country in question does not have ample domestic savings. Second, if central banks' balance sheets should become bloated with government debt it could constrain the future leeway of monetary policies and spark - sooner or later - a marked increase in inflation. Lastly, national public debt holdings by domestic credit institutions increase the risk of a vicious circle between sovereign risk and banking risk.

Even in countries such as Japan, where nearly all public debt has been financed through domestic savings up until now, certain risks have surfaced. In fact, domestic investors, who make up the structural majority of public debt, could seek higher yield from investment opportunities abroad that carry greater risk. Moreover, the country's demographic structure, with a greater number of pensioners, is expected to provoke a long-term drop in national savings as older Japanese dig into their nest eggs. Direct and indirect domestic demand (via financial intermediaries) for government bonds should tail off, particularly demand from households fond of short-term and liquid investments (55% of their total assets today, vs. 14.5% in the US). This risk, however, would not materialise quickly. If such a scenario were to play out, it could lead to a higher percentage of non-resident holdings in Japanese public debt, thus potentially pushing interest rates higher (and, by extension, the debt burden). The effect of higher yields would jeopardize the sustainability of the public debt.

In the end, the current situation combining excess demand for government bonds considered as safe havens and policies of "financial repression" by other countries (channelling domestic savings towards funding their public debt) is a precarious balance.

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