FINANCIAL SYSTEMS

Global trends of shadow banking

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Observed data displays an increase in shadow banking activity at a global scale. Although its size relative to the overall financial system is still larger for developed economies (areas with a good institutional framework and a deeper credit market), it is growing at a faster pace in some emerging countries, especially China. While implications of these global trends for financial stability are not yet clear, it is essential to maintain shadow banking activity monitoring in order to implement the necessary regulation to mitigate both systemic risk and competitive distortions.

Shadow banking can constitute an important complement to traditional banking. It can facilitate access to credit, provide market liquidity, enable for maturity transformation and support risk sharing, in particular in the first stages of a project or for risky businesses. However, if non-adequately regulated, it can also be a source of systemic risks. On the one side, carrying out bank-like activities without being subject to the same regulation than traditional banks imposes a direct risk to financial stability. On the other side, competitive distortions emerging from tighten regulation of the banking system while maintaining unregulated shadow banking can induce banks or bank intermediation activity to move into the shadows (regulatory arbitrage) in order to increase profitability or avoid losing market share, what indirectly results in an increase of systemic risks.

At a global scale several proposals are emerging to correctly measure and monitor shadow banking activity. Although detailed data is still scarce and only imprecise measures are available, recent studies are improving data quality and transparency, which allows for a better picture of global trends of shadow banking. Based on new available data disclosed by the Financial Stability Board in its last monitoring report[1] recent trends of shadow banking are presented in this document.

Defining and measuring shadow banking

Consensus on a unique definition of shadow banking is difficult to find. Since shadow banking activities can take very different forms across countries, several, although related, definitions of shadow banking have been provided in the literature. In general, shadow banking can be defined from two different perspectives, i) by focusing on the entity that performs the activity and ii) by focusing on the activity that is being performed, i.e. regardless of the entity that carries it out. The activity approach has advantages, because it allows distinguishing between risky and non-risky activities performed by an entity, to apply the same prudential regulation to a concrete activity avoiding inconsistencies and to reduce incentives for the entities to move into the shadows to avoid regulation.

Since 2011 the Financial Stability Board (FSB), which coordinates national financial authorities and international standard-setting bodies, has been conducting a shadow banking monitoring and assessment exercise which has two pillars: i) measuring and monitoring shadow banking activity around the globe to identify potential sources of systemic risk and ii) developing prudential regulation to mitigate systemic risk and regulatory arbitrage. The FSB annually publishes a Global Shadow Banking Monitoring Report in which an overview of shadow banking at a global scale is provided and the main global trends are identified. In its last report, released in October 2014, a comprehensive dataset was published in line with the intention of

[1] See Financial Stability Board (2014): Global Shadow Banking Monitoring Report.

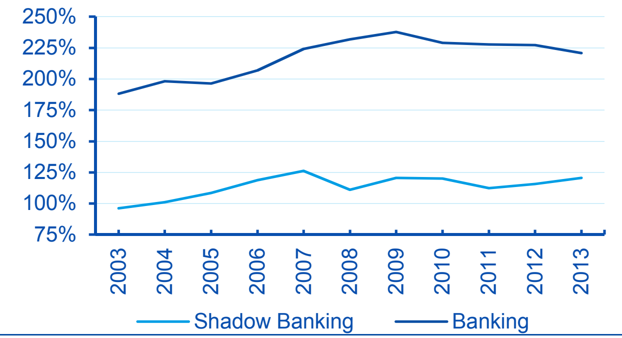
improving data transparency. Although these data allow to have a better picture of current trends, FSB's definition of shadow banking is still partial and very heterogeneous.

The FSB (2014) provides two entity-based definitions of shadow banking: a broad measure and a narrower one. Shadow banking is broadly defined as "credit intermediation involving entities and activities outside of the regular banking system". The narrower definition focusses only on the non-bank credit intermediation that can potentially be a source of systemic risk (hence disregarding competitive distortions effects), subtracting "entities that are not part of a credit intermediation chain and those that are prudentially consolidated into a banking group". Under the broad approach the FSB measures shadow banking as the volume of total financial assets held by Other Financial Intermediaries (OFIs), which include all non-bank financial intermediaries besides insurance companies, pension funds and public financial institutions[2]. The narrow approach subtracts from total financial assets held by OFIs those linked to self-securitization, non-bank financial entities not involved in credit intermediation (Equity Investment Funds and equity Real Estate Investment Trusts) and those non-bank financial activities that are prudentially consolidated into a banking group (Finance Companies and Broker-Dealers).

Financial system development and shadow banking trends

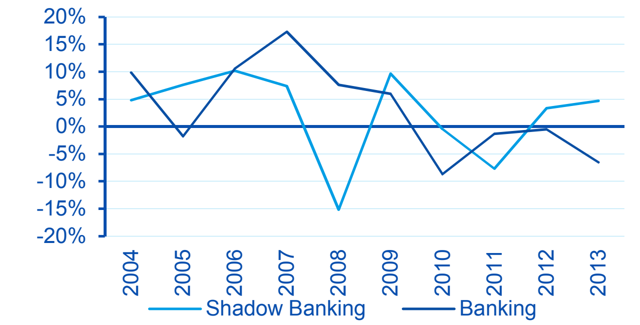
Following the FSB approach figure 1 and 2 displays global trends[3] of broadly[4] defined shadow banking, i.e. measured as financial assets held by OFIs[5], with respect to GDP and compare them with those of traditional banking, measured as financial assets held by deposit-taking institutions. The analyzed period comprises 10 years running from 2003 to 2013. As shown in these figures shadow banking was increasing its relative size during the pre-crisis period, it abruptly decreased in 2008 with the financial crisis outbreak, recovered since 2009 but fell again in 2011 and reentered a positive path thereafter. With respect to traditional banking, global trends reflect a growing banking sector from the beginning of the sample until 2009, and a fall of its relative size since then. Shadow banking activities suffered the crisis earlier but, contrary to traditional banking, they have been able to come near pre-crisis levels.

Figure 1
Global Banking and Shadow banking volume as a percentage of GDP



Source: BBVA Research based on Financial Stability Board

Figure 2
Global Banking and Shadow banking as a percentage of GDP (YoY percentage change)



Source: BBVA Research based on Financial Stability Board

2 Other Financial Intermediaries (OFIs) include money market funds, finance companies structured finance vehicles, hedge funds, other investment funds, brokers dealers, real estate investment trusts and funds, trust companies and others non-classified.

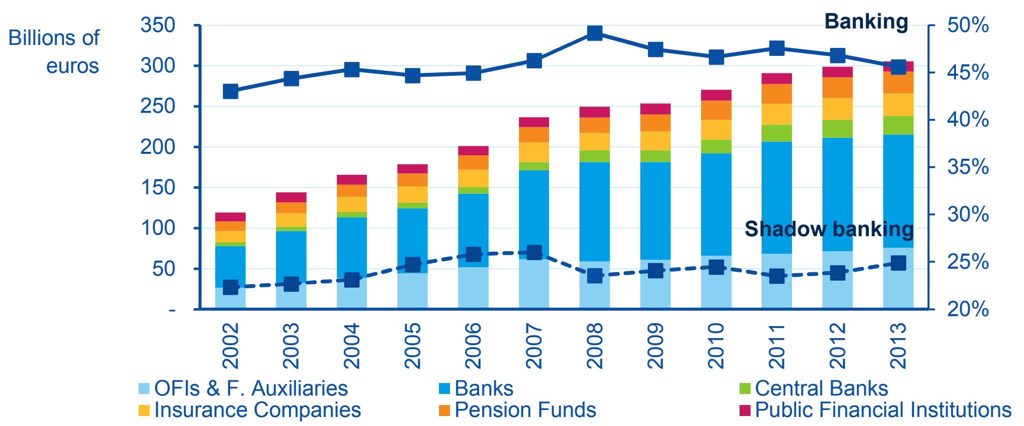
3 Global measures comprise those geographies included on the FSB reports, namely Argentina, Australia, Brazil, Canada, Chile, China, Hong Kong, Indonesia, India, Japan, Korea, Mexico, Russia, Saudi Arabia, Singapore, Switzerland, Turkey, United Kingdom, United States, South Africa and the Eurozone.

4 Since the FSB does not provide historical data for the narrower measure of shadow banking only the broad one is presented in figures 1 and 2. Unless specifically mentioned, the shadow banking measure used along this document refers to the broad one.

5 Due to data availability and to allow for cross-country comparisons the broad shadow banking measure presented in this document also includes financial auxiliaries.

Similar global trends are observed in terms of the size of shadow and traditional banking activities with respect to the overall financial system. As shown in figure 3 (RHS) shadow banking relative size was increasing during the pre-crisis period, it experienced a drop in 2008 and continued growing until 2013, with the exception of a fall in 2011. Traditional banking sector relative size was increasing until 2008 (with the exception of a drop in 2005), and since then it started to reduce its relative size (with the exception of a rise in 2011). Additionally, figure 3 (LHS) also displays the evolution of assets held by all financial system subsectors, which overall have been increasing in absolute terms over these years.

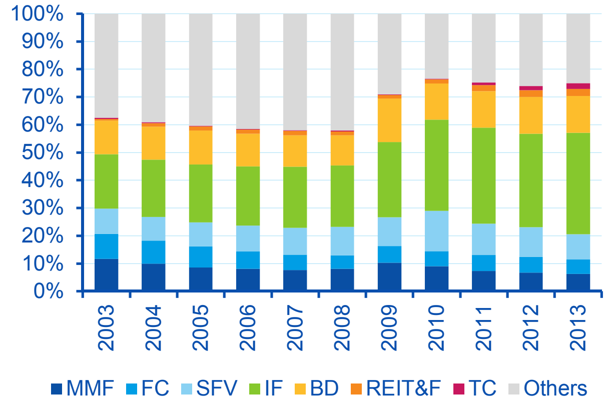
Figure 3
Global financial system subsectors. Traditional and shadow banking relative size



Source: BBVA Research based on Financial Stability Board and International Monetary Fund

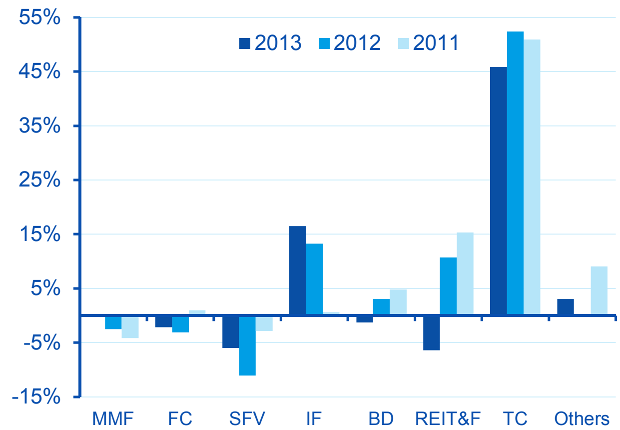
Broadly measured, the global shadow banking system is mainly composed of investment funds, broker dealers and special financial vehicles. However, it is important to remark that an important part of non-bank activities remains unclassified (included here in the category "others") and that the investment funds subsector (which includes hedge funds) is underestimated, since most hedge funds are domiciled in offshore financial centers, which are out of the scope of the FSB analysis. Although representing a small share of total shadow banking, trust companies have experienced by far the most rapid growth over the last three years, recording an average growth rate of 50%.

Figure 4
Shadow banking composition by sub-sector



Source: BBVA Research based on Financial Stability Board
MMF: Money Market Funds, FC: Financial Companies, SFV: Special Financial Vehicles, IF: Investment Funds, BD: Broker Dealers, REIT&F: Real Estate Investment Trusts and Funds, TC: Trust Companies.

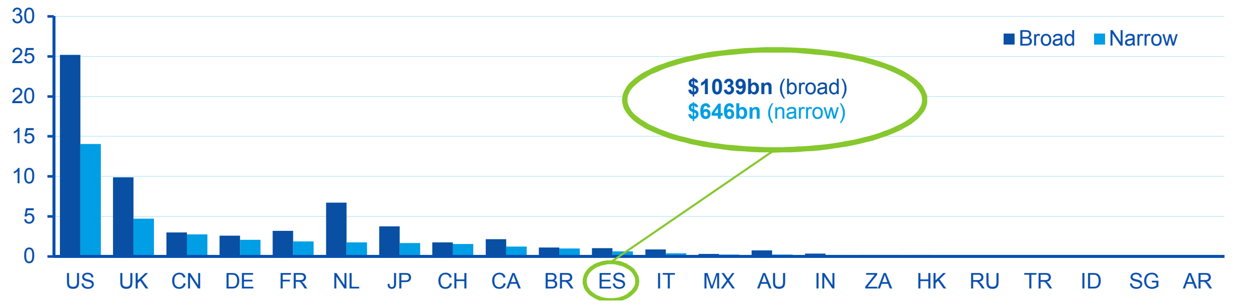
Figure 5
Shadow banking subsectors (YoY percentage change)



Source: BBVA Research based on Financial Stability Board
MMF: Money Market Funds, FC: Financial Companies, SFV: Special Financial Vehicles, IF: Investment Funds, BD: Broker Dealers, REIT&F: Real Estate Investment Trusts and Funds, TC: Trust Companies.

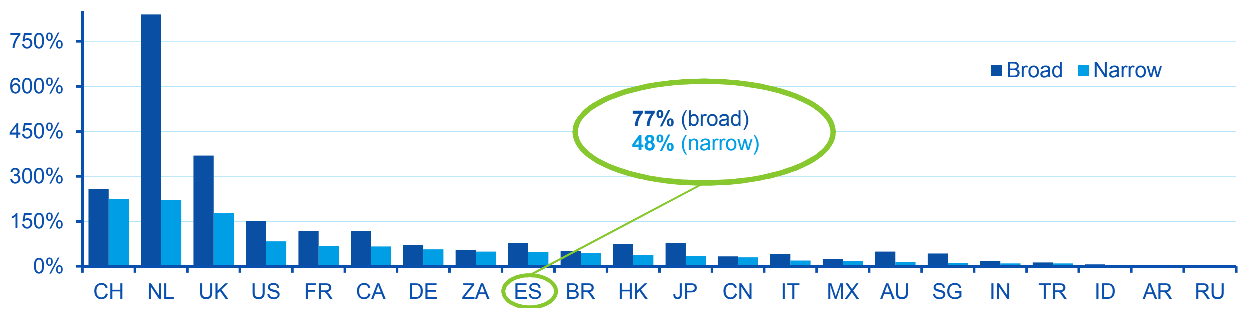
When focusing in individual countries[6] it can be observed that advanced economies tend to have a more important shadow banking system than emerging ones. Figures 6, 7 and 8 show, respectively, the size of shadow banking in absolute terms, as percentage of GDP and with respect to the financial system for some individual countries in 2013.

Figure 6
Broad and narrow shadow banking measure ($US trillion, 2013)



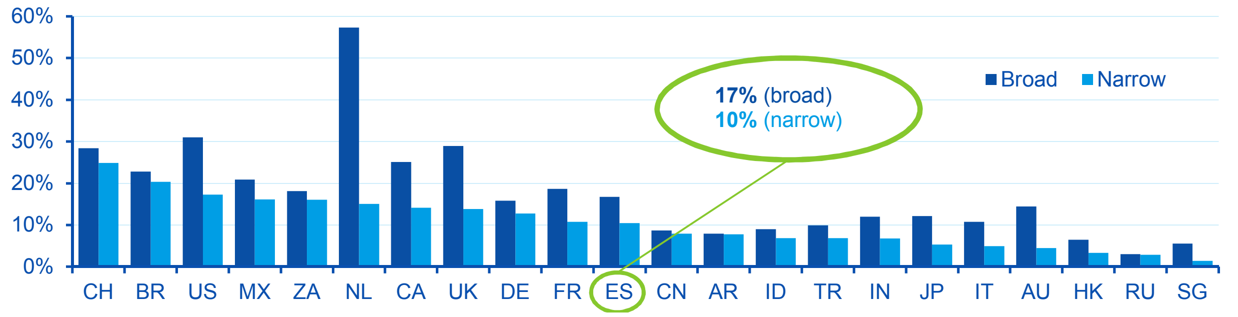
Source: BBVA Research based on Financial Stability Board

Figure 7
Broad and narrow shadow banking measure as a percentage of GDP (%, 2013)



Source: BBVA Research based on Financial Stability Board and International Monetary Fund

Figure 8
Broad and narrow shadow banking measure as a percentage of financial system (%, 2013)



Source: BBVA Research based on Financial Stability Board

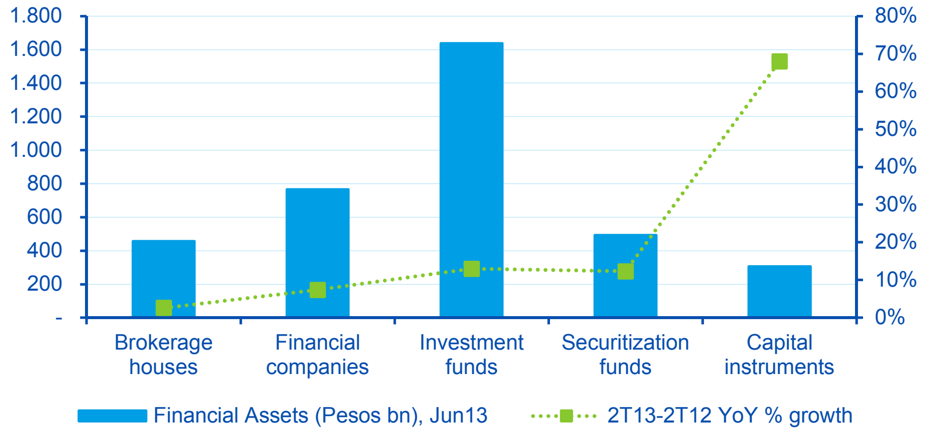
6 The following abbreviations have been used for the individual country names shown in the figures: AR = Argentina; AU = Australia; BR = Brazil; CA = Canada; CH = Switzerland; CL = Chile; CN = China; DE = Germany; ES = Spain; FR = France; HK = Hong Kong; ID = Indonesia; IN = India; IT = Italy; JP = Japan; KO = Korea; MX = Mexico; NL = Netherlands; RU = Russia; SA = Saudi Arabia; SG = Singapore; TR = Turkey; UK = United Kingdom; US = United States; EZ = Eurozone; ZA = South Africa.

Whereas broadly or narrowly measured, shadow banking represents a larger share of GDP for advanced economies with Switzerland, the Netherlands, the UK and the US at the top positions, while emerging countries like Russia, Argentina, Indonesia or Turkey remain at the bottom. This is a natural outcome since advanced economies normally have more developed financial systems, and shadow banking size is expected to growth with the deepening of financial markets and the rise of financial innovation.

Within advanced economies the case of the Netherlands deserves special attention. Although ranking at the top in either case, the broad measure of the Dutch shadow banking is much larger than the narrower one. This is due to the relative importance of Special Financial Institutions (SFIs) –accounting for 68% of the OFI assets in 2013– of which around 80% are set up by non-financial corporations and are not engaged in credit intermediation outside of the group, and therefore are not included in the narrow measure.

Within emerging economies, it is important to highlight the case of China, with a shadow-banking system that is drawing global attention due to its potential threat to financial stability. As measured by the FSB, the size of China´s shadow banking system relative to GDP (or to the overall financial system) is very limited in comparison with other economies (although it is not in absolute terms, where China ranks in the third place for the narrow measure). But such definition is limited as it is based on entities and not on activities: non-financial corporations that provide credit are not included in either the broad or the narrow definition of the FSB, as they are not classified as OFIs. In addition, it is also worth mentioning that when looking at the share of shadow banking (narrow measure) in the overall financial system, Brazil, Mexico and South Africa rank as second, fourth and fifth largest, respectively. These results are in line with observed global trends in shadow banking growth, with some emerging economies being in the spotlight. In the case of Mexico (figure 9), investment funds represent almost half of its total shadow banking (about 45% in June 2013). However, capital instruments have increased sharply (68% YoY in June 2013), led by real estate trusts which, despite representing just a small portion of OFIs (1%), are growing at a very fast pace (373% YoY in June 2013).

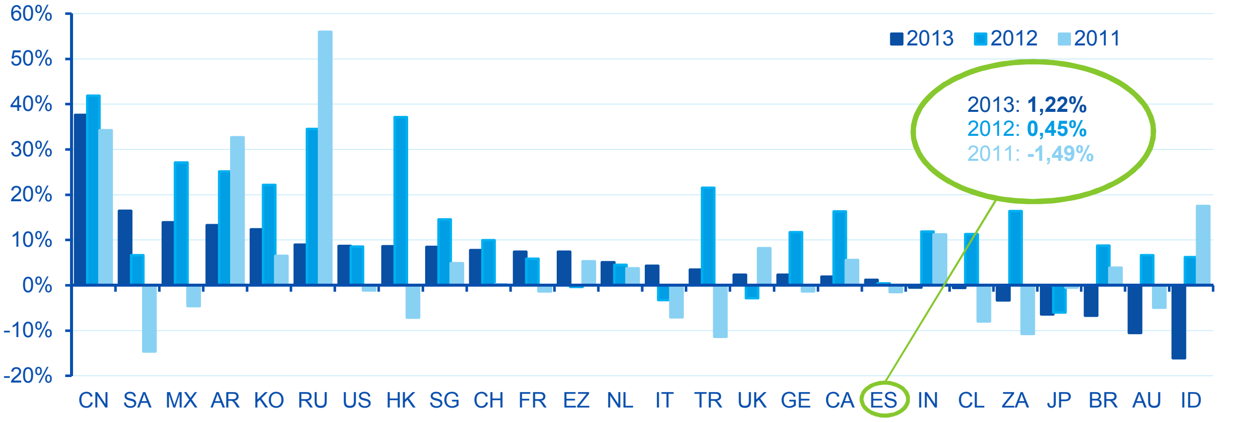
Figure 9
Composition of broadly measured shadow banking in Mexico



Source: BBVA Research based on Mexican Comisión Nacional Bancaria y de Valores

In general, shadow banking is growing faster in emerging countries than in advanced economies. Figure 10 displays the year over year (YoY) growth rates recorded in 2011, 2012 and 2013 per country. China was the country recording the highest YoY growth rate in 2013 (38%), followed by Saudi Arabia (16%) and Mexico (14%). Lower rates were recorded in advanced economies with the US, the Eurozone and the UK, experiencing a growth of 7%, 9% and 2%, respectively. Considering the last three years as whole, the countries which have recorded the highest rates have been China and Russia.

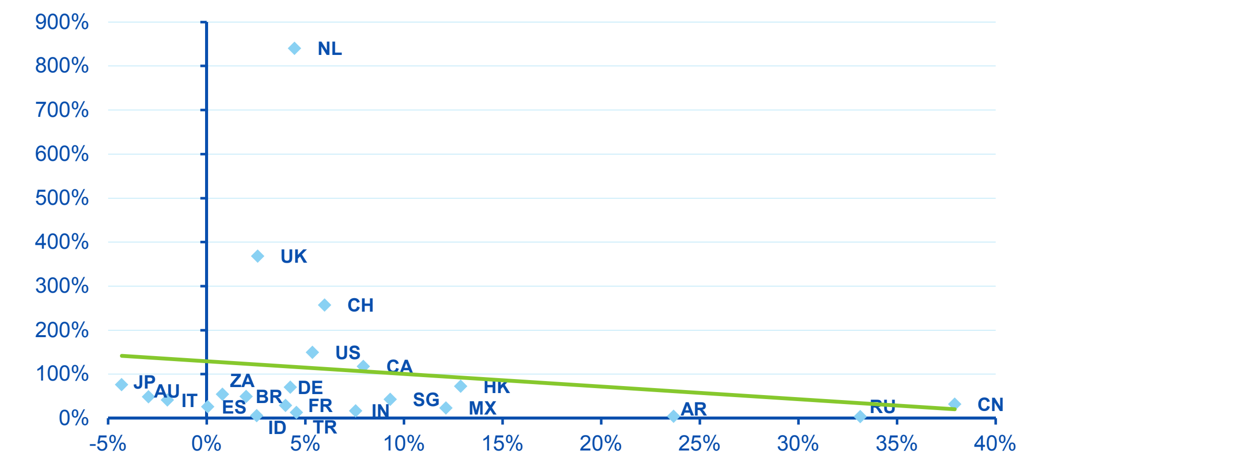
Figure 10
Broadly measured shadow banking YoY growth rate (2011, 2012 and 2013)



Source: BBVA Research based on Financial Stability Board

Figure 11 displays the relationship between relative shadow banking size (in terms of GDP) in 2013 and the average growth rate of shadow banking over the last three years (2011, 2012 and 2013). A negative correlation is observed, with advanced economies like the Netherlands, the UK and Switzerland with a relatively large shadow banking sector experiencing low growth rates and emerging countries like China, Russia or Argentina growing at very fast rates but departing from a relatively small base.

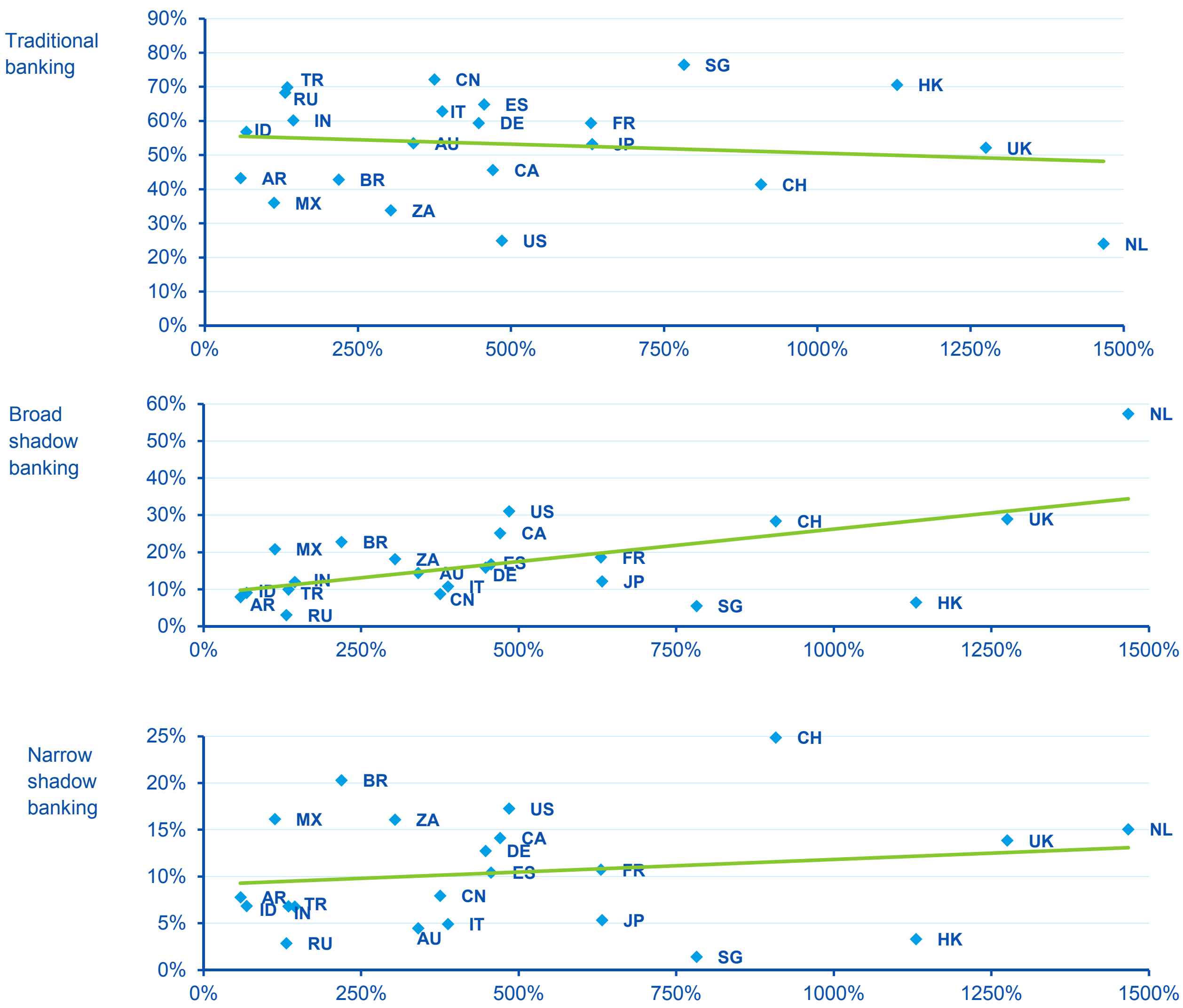
Figure 11
Shadow banking relative size to GDP (Y-axis) and average YoY growth rate of shadow banking (X-axis)



Source: BBVA Research based on Financial Stability Board and International Monetary Fund

Figure 12 investigates the possible relationship between the share of traditional and shadow banking in the financial system and the relative weight of the financial system in the economy. Although there is not a strong correlations, the shadow banking (both broadly and narrowly measured) is positively correlated with the relative weight of the financial system (as expected), whereas there is no clear relation with traditional banking.

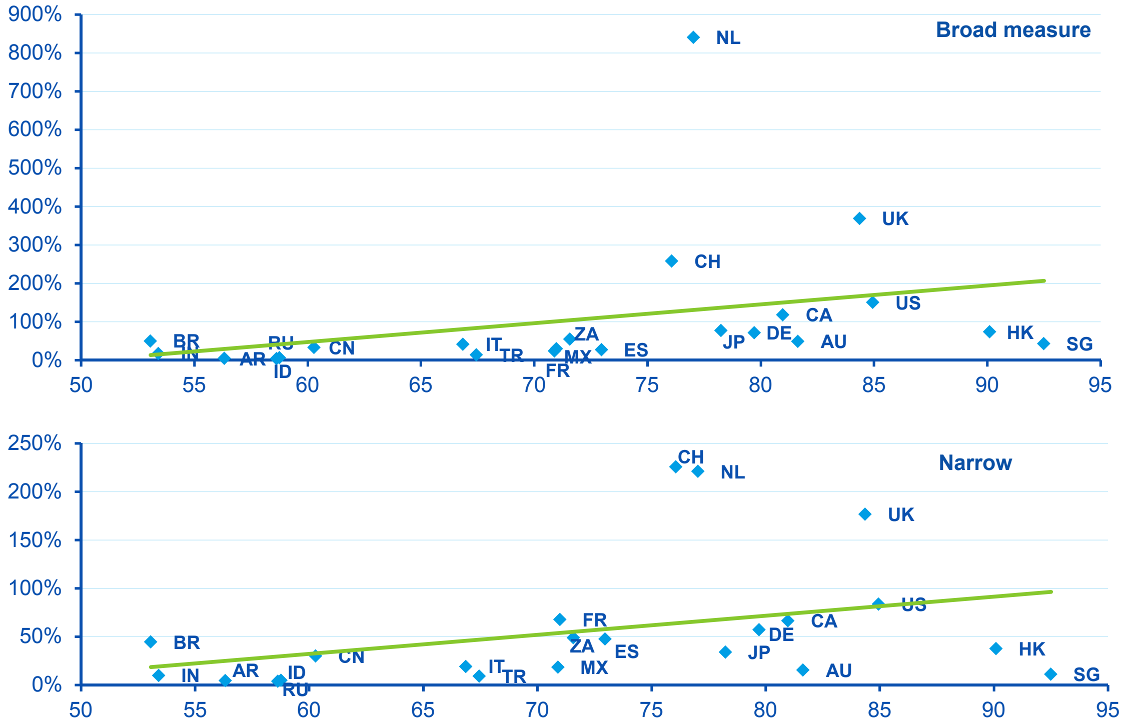
Figure 12
Traditional and shadow banking relative size (% financial system assets, Y-axis) and financial system relative weight (%GDP, X-axis) in 2013



Source: BBVA Research based on Financial Stability Board and International Monetary Fund

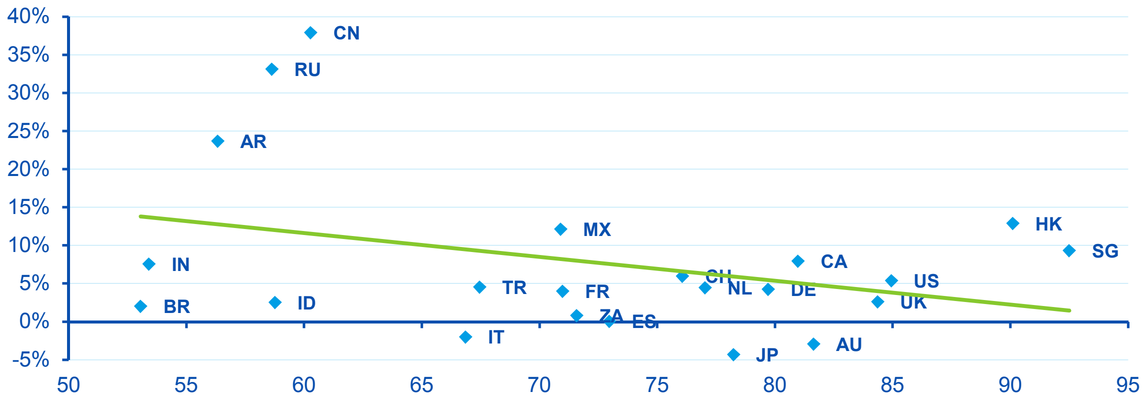
Figure 13 explores potential relationships between the relative weight of shadow banking in the economy with the quality of institutions in the country, measured by the Doing Business index (an indicator published by the World Bank that measures business regulations and their enforcement). A positive correlation is observed, both for the broad and the narrow measure of shadow banking. Therefore, shadow banking is more developed in countries with a good institutional framework, which are usually developed countries, and not as substitutes of regular banking activities in areas where making businesses is more difficult, a fact that is reassuring, although the trend towards fastest increase in developing countries raises more concern. Against this background, figure 13 studies the potential relationship between the growth of shadow banking over the last three year with the quality of institutions. A negative correlation can be perceived, signaling that shadow banking has been growing more in those economies with a less developed institutional framework.

Figure 13
Shadow banking relative size to GDP (Y-axis) and the quality of institutions (X-axis) in 2013



Source: BBVA Research based on Financial Stability Board and Doing Business (World Bank Group)

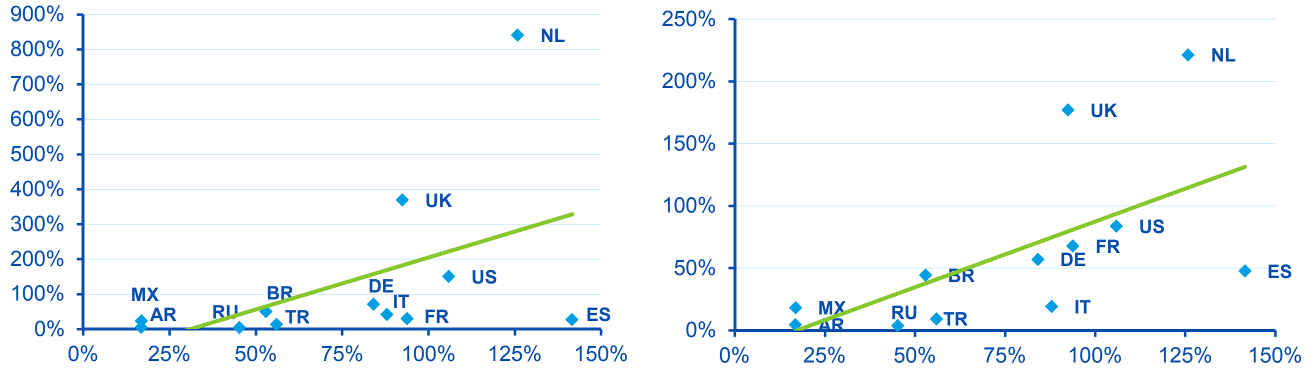
Figure 14
Broad shadow banking YoY average growth 2011-2013 (Y-axis) and the quality of institutions (X-axis) in 2013



Source: BBVA Research based on Financial Stability Board and Doing Business (World Bank Group)

Finally, the relationship between shadow banking relative size and the stock of credit to GDP is shown in figure 15. Both broadly and narrowly measured, shadow banking appears to be positively correlated with the stock of credit, and therefore with the size of traditional banking activities.

Figure 15
Shadow banking relative to GDP (Y-axis) and the stock of credit to GDP (X-axis) in 2013

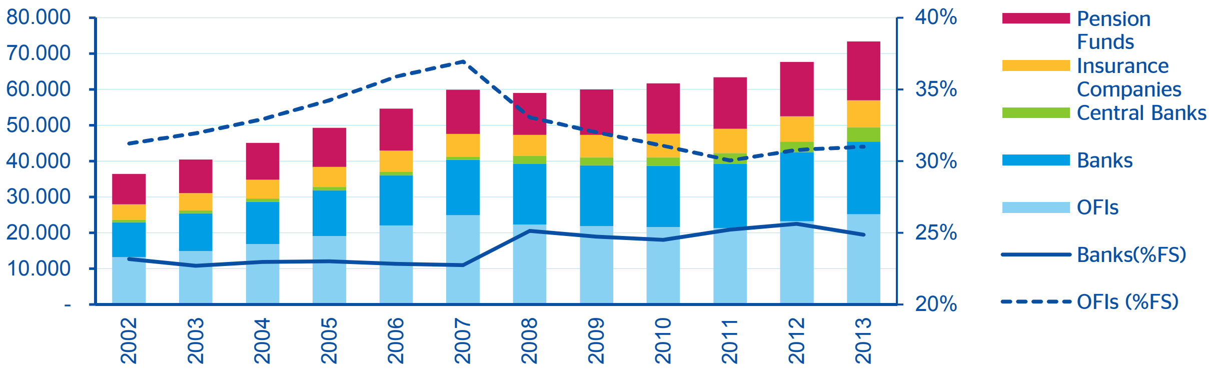


Source: BBVA Research based on Financial Stability Board, International Monetary Fund, European Central Banks, IMF and National Accounts

In summary, shadow banking can be measured using the assets of the entities involved in these activities, although a measure based on the activities would be preferable. Data shows that shadow banking has a more important size in developed countries, where financial assets are more significant, with a better institutional framework and a deeper credit market. However, these activities are growing at a faster pace in emerging countries, so that a more homogenous presence among geographical areas can be expected in the future.

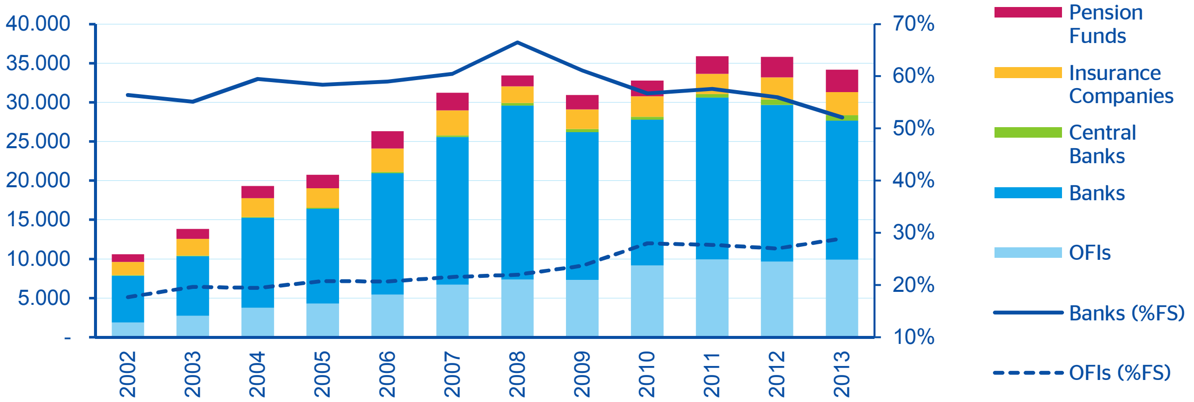
ANNEX 1: Additional data on developed countries

Figure 16
US Financial System Distribution per Subsector (LHS in $bn, RHS in %)



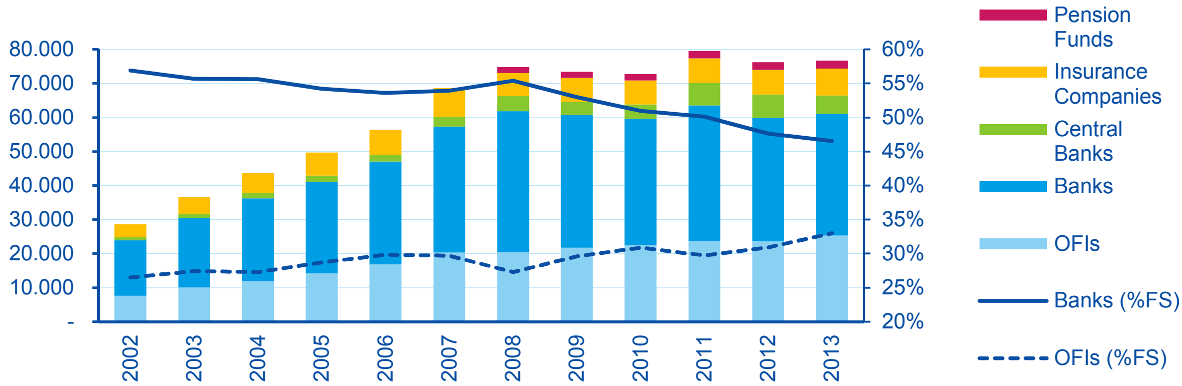
Source: BBVA Research based on Financial Stability Board
OFIs: Other financial Institutions; FS: Financial system

Figure 17
UK Financial System Distribution per Subsector (LHS in $bn, RHS in %)



Source: BBVA Research based on Financial Stability Board
OFIs: Other financial Institutions; FS: Financial system

Figure 18
Eurozone Financial System Distribution per Subsector (LHS in $bn, RHS in %)



Source: BBVA Research based on Financial Stability Board
OFIs: Other financial Institutions; FS: Financial system