

COMISSÃO DO MERCADO DE VALORES MOBILIÁRIOS

Risk Outlook

December 2012

CMVM Semiannual Risk Outlook & Market Analysis



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1. Macroeconomic snapshot

The latest macroeconomic news depict the weakening of the European economy, with the Eurozone recently entering its second recession in four years. In terms of global growth predictions for 2013, the IMF has recently done another downward revision, expecting now a global growth of 3.6%, a revision in line with an also less optimistic forecast for 2012 (3.3%).

The last weeks were marked by the conclusion of the renegotiations on the terms of the Greek bailout, the negotiations on the bailout for the Spanish financial sector (of about €40 Billion) and also the negotiation of a bailout for Cyprus. The European authorities have been also pursuing agreement on the institutionalization of a Banking Union that could establish euro-wide deposit insurance but still no agreement on the layout or effective timeframe has yet been reached. The increasingly debilitated economic outlook in the European Union (EU) and its enduring institutional crisis within the Eurozone (with unavoidable financial and economic backlashes) are by now the single most important risk hot spot grasping attention and economic concern worldwide.

Another international hot spot with potential to threaten the global economy comes from the Middle-East. The ongoing Syrian civil war increasingly involving most of its neighbors and the resurgence of bellic activities between Israel and Palestine have potential to impact the economic activity worldwide.

Concerning the Portuguese macroeconomic data, it is clear that the beginning of the year brought some alert signs on fiscal consolidation, latter confirmed by the need to redefine the public deficit target for the year. The Portuguese GDP slipped 3.4% year-on-year, in real terms, in the third quarter of 2012, and the latest figures on the budget execution reveal a higher risk mainly on the fiscal revenue execution. The Portuguese economy has been shrinking significantly, with the unemployment rate climbing to new highs (nearing 16%). On a positive note, the Portuguese trade deficit kept decreasing also significantly nearing equilibrium. Also significant is the steady increase of the weight of Portuguese goods exports towards the rest of the world (30.7% in the quarter ended in September 2012 versus 27.0% a year before), by contrast with a decreasing influence of the EU trade partners. The banking system recapitalization was mostly concluded at the end of June.

Overall, there are signs of increased trust by relevant markets on the Portuguese economic situation when compared to last Fall's outlook. Even though CDS premia for the Portuguese sovereign debt continue in the world's top 10, there has been a continuous decline in the interest rate asked for by the market in new short term public debt issuance by the Portuguese Republic. Nevertheless, the prospects



for the Portuguese economy are increasingly gloomy. Effectively, the outlook for the next year is still highly uncertain with the forecasts for the GDP growth rate in 2013 clearly in the red, ranging from -1% to -1.8% (OECD).

Another relevant aspect of the near term economic forecasts concerns inflation. After the (expected) 2,8% inflation rate in 2012, this indicator could end 2013 as low as 1% or even less, a scenery that is likely to happen along with further pressure to decrease the reference interest rates by ECB and with the already stressed low growth expectations for the European Union.

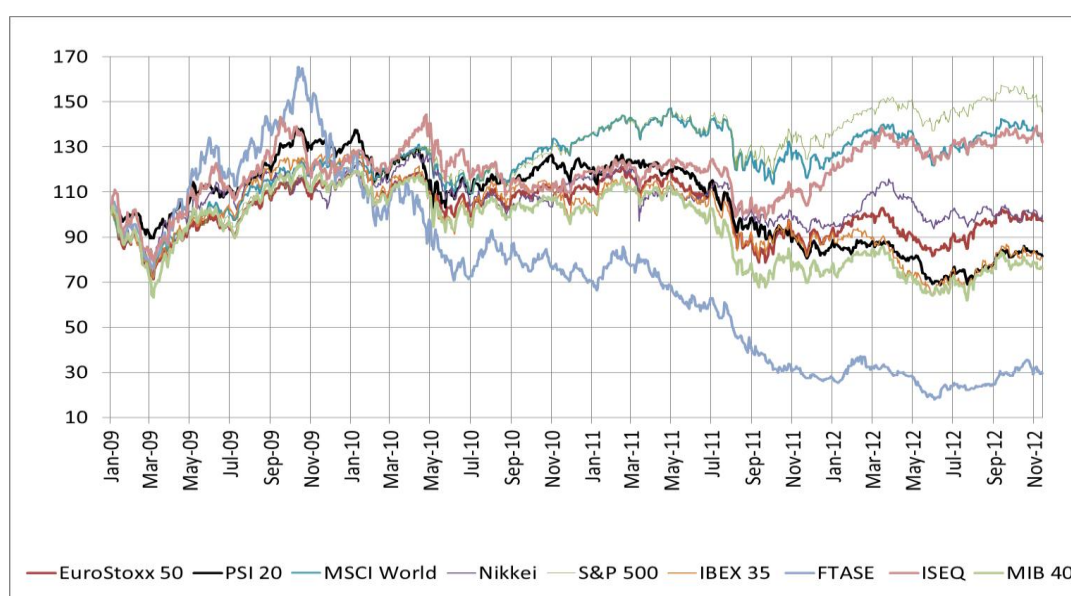
2. Selected Securities Markets Indicators

European equity markets crawling back to losses

Chart 1 below shows the daily performance of the PSI-20 and major stock market indices of selected countries, in the period January 2009 to the 15th of November 2012. With the exception of the MSCI World, the S&P500 and the ISEQ, all major indices posted losses in the period.

By the mid November, and comparing to the beginning of the year, ISEQ (Ireland) gained 10.1%, Eurostoxx 50 was up by 3.9% and FTASE (Greece) was up by 6.5%. MIB40 (Italy) was slightly negative -1.9%, PSI20 (Portugal) was negative (-6.7%) and IBEX35 (Spain) was clearly in the red by falling 11.8%. Nikkei (Japan) was up 4.4% in the same period and S&P (USA) was gaining 7.6%.

Chart 1 - Stock Market Indices
(2009 – 15th November 2012; 100 = Jan2009)



Source: Bloomberg.

Commodity prices recovered lost ground to lose it again

By November the 15th all the commodities indexes registered values considerably below the year maximums (the spread varying from -4.4% – Gold to -16,7% in Industrial Metals). Comparing with the beginning of the year Grain (+23.0%), Platinum (+12.2%), Gold (+9.4%), Agriculture Index (+6.4%) and Zinc (5.6%) registered clear valorizations by November 15th. Copper was almost stable (+0.5%) while Energy, Industrial metals and Palladium saw their indexes decreased contributing for the overall stabilization of the global commodities index DJUBS (0.0%).

Chart 2a – Commodities
(Price indices in USD; 100 = Jan2009)

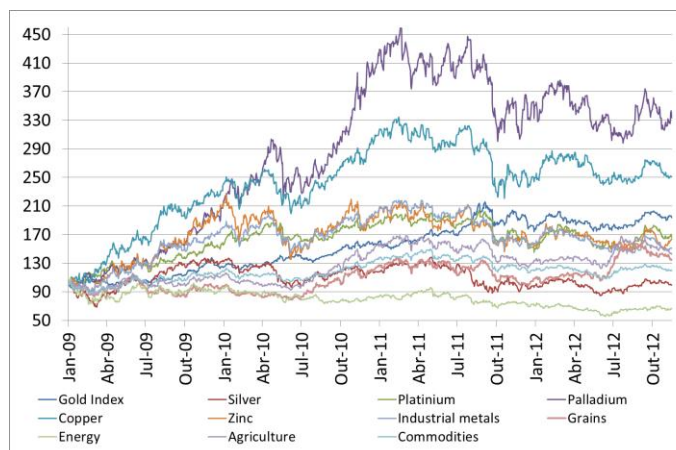
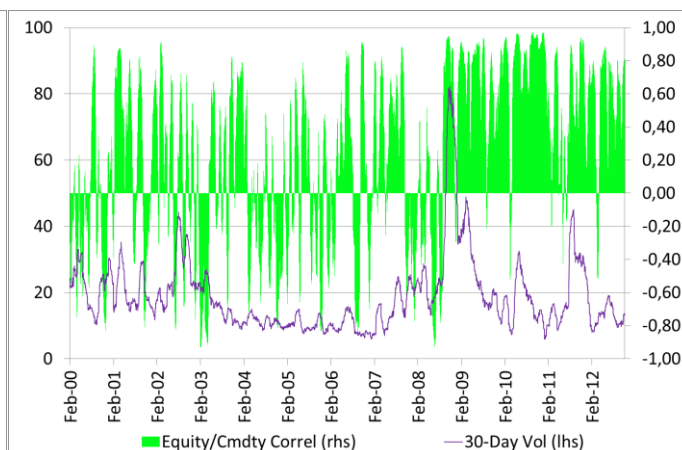


Chart 2b – Correlation between Equity and Commodities
(2000- 15th November 2012)



Data source: Bloomberg

The chart that depicts the correlation between equity and commodities² it becomes evident that the strong positive correlation registered since the collapse of Lehman Brothers persists. Volatility, on the other hand, is now quite lower than one year ago but it has begun an increasing path since last February. In a nutshell increasing volatility in commodity prices coincides with the decrease in most of the prices that has been ongoing since February.

² The correlation was computed between Bloomberg's DJUBS index (a.k.a. Dow Jones-UBS Commodity Index) and S&P 500 index. The volatility indicator is the 30-day Volatility for S&P 500 and is also from Bloomberg.

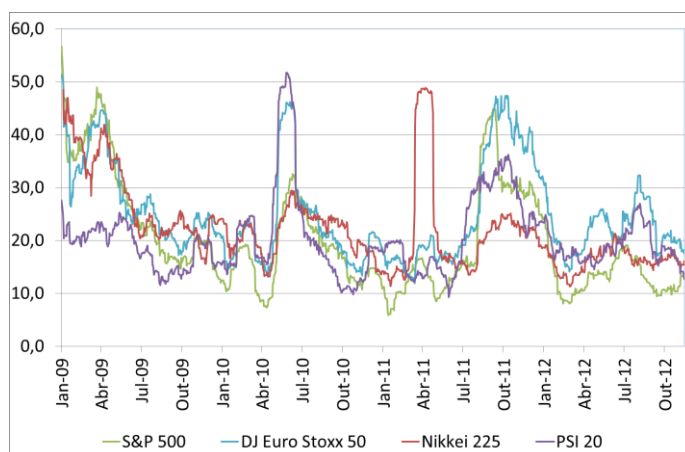
Volatility in European markets with upward trend since February and diverging from the USA and Japan Markets

Volatility in European equities has been almost continuously decreasing since the year maximums registered in last August. PSI20 volatility, for instance, is now at 2012 minimum level.

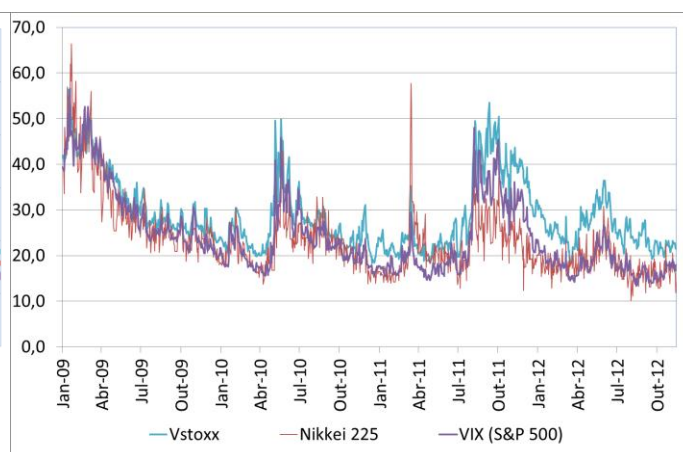
S&P500 has been increasing its volatility since the beginning of September contributing to a convergence in the level of volatility registered in both sides of the Atlantic.

Chart 3b shows the equities markets' implied volatility of three major indices representative of the European, US and Japanese markets. The equity implied volatility indicators depict a continuously higher level of expected risk in Europe (Vstoxx) during the whole year. By November 15th, the represented implied volatility indexes were fairly below the beginning of the year level.

**Chart 3a – Equity Realized Volatility
(in %)**



**Chart 3b – Equity Implied Volatility
(in %)**

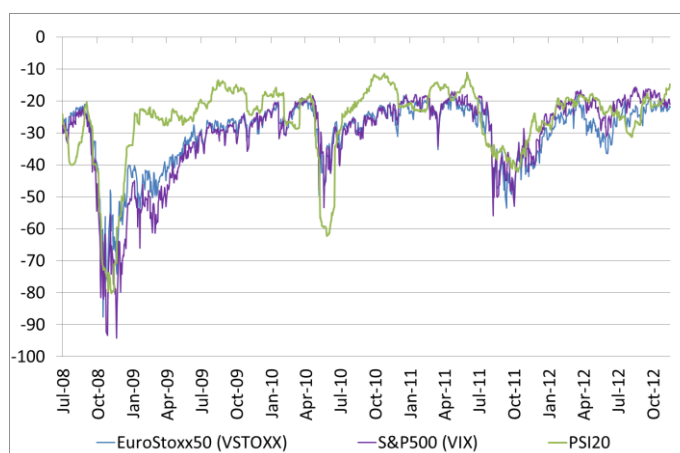


Source: Bloomberg.

Value-at-Risk decreases significantly, particularly for PSI20 however earnings are steeply diminishing

The risk of market turbulence can also be expressed in monetary terms through the calculation of the Value-at-Risk (VaR) for a portfolio of securities. Chart 4 illustrates the maximum losses investors may incur when holding a basket of securities representing the DJ EuroStoxx 50, the S&P 500 and the PSI20, excluding only the losses associated with very unlikely events, i.e. those which occurrence probability is equal to or less than one per cent in accordance with the confidence level applied. Implicit volatility is used for the EuroStoxx 50 and S&P 500, while for the PSI20 historic volatility is used.

Chart 4 – Value-at-Risk of PSI20, Eurostoxx50 and S&P500
(3 month horizon in % of loss, 99%)



Source: Bloomberg and own calculations; data until 15th November.

For PSI20 indicator, in particular, the current level is at his best since mid-2011. As we compare the historical data set for the VaR of the selected indices and the respective volatility, for the same investment, higher volatility means higher risk, hence higher potential for losses.

The price-earnings ratio (PER) has been increasing sharply for the main Portuguese index, the PSI20, as a result of a significant decline in earnings. Although equity prices declined in the Portuguese market along the period, corporate earnings diminished at a higher pace resulting in a meaningless unadjusted PER value.

Chart 5 – Adjusted Price-Earnings Ratio and five year moving average

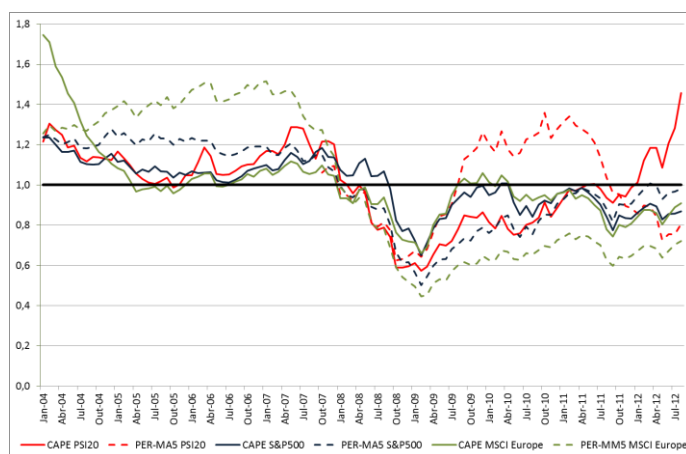
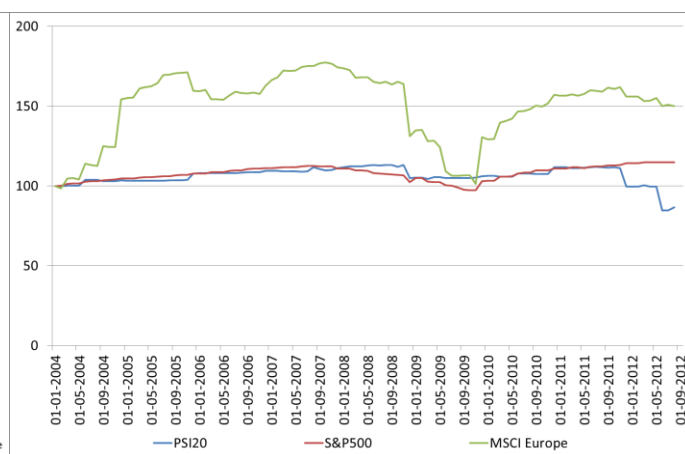


Chart 6 – Fundamental Earnings
Jan 2004 = 100



Source: Bloomberg and own calculations; data until 15th November.

For comparison across markets, we divide the adjusted PER by its historical mean. Hence, the market is probably undervalued when the indicator becomes progressively inferior to one or probably overvalued when it progressively exceeds one. Additionally, we added another PER based indicator where the cyclical adjustment is made by taking the five year moving average of the earnings against the current price (variables named PER-(index name) in the following chart. In chart 5 both types of indicators are shown for three indexes: PSI20, S&P500 and MSCI Europe. Our results suggest that the markets here analyzed do not show signs of overvaluation with the exception for PSI20 when considering the CAPE estimate.

For the PSI20 index, the results from the Cyclically Adjusted Price Earnings (CAPE) ratio suggest that corporate earnings fundamentals have been deteriorating relative to the price that investors have been willing to pay for. This is illustrated by the increase in the indicator in recent months which suggests some overvaluation of the Portuguese market. This result reflects a marked decrease in fundamental (trend) earnings estimated by the state space model presented above and a slight rebound of the PSI20 price index from May 2012 onwards (+10.76% from May to August 2012).

When analyzing PSI20 via a five year moving average of PER (a much less reactive indicator for recent evolutions) the information leads us to a still quite under evaluated market.

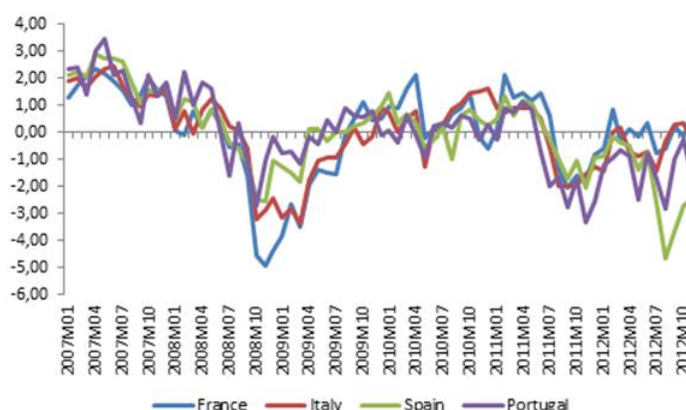
Equity Liquidity is dwindling and, in some markets, approaching 2008 minimum levels

Chart 6 exhibits the Liquidity Composite Indicator (LCI, hereinafter).³ LCI is a relative performance liquidity index. Thus, LCI results will depend on the sample used to run the calculations. When LCI crosses the X-axis (denoting a value of zero), it means that the liquidity in that period equals the liquidity of the whole period considered in the sample. Conversely, a negative (positive) LCI indicates that the liquidity is lower (higher) than the sample average.

Chart 6 - Liquidity Composite Indicator (Principal Components)

One may draw three major conclusions. Firstly, LCI seems to present a high level of correlation across the analyzed countries.

Secondly, the liquidity over the last couple of years hasn't recovered yet to the levels exhibited before the Lehman Brothers bankruptcy period. Thirdly, in some of the analyzed countries, the current liquidity level is quite similar to the October 2008 level (period in which the Lehman Brothers bankruptcy occurred, followed by financial panic), which constitutes the worst LCI record.



In particular, Portugal and Spain are still displaying a very low liquidity score (looking at the data from October 2012).

³ LCI is a composite indicator based on five liquidity indicators: Price Volume; Turnover Ratio; Lhh5; Amihud Illiquidity indicator and MEC. Daily data from Reuters regarding prices, price volumes and market capitalization was collected for the stocks included in the equity indexes of Portugal, Spain, Italy and France. In a second stage, we selected the 20 companies with highest market capitalization from each stock index were selected. Price Volume, Turnover Ratio, Lhh5, Amihud Illiquidity indicator and MEC were computed on a monthly basis for each stock. Subsequently, a trimmed equal weight mean for each indicator was calculated on a monthly basis in order to aggregate data for each country. Finally, and based on the aggregate data from the individual countries, the principal components method was applied. With the first principal component we aim to capture the common trend of the five abovementioned variables across time. Sample ranges between 01-01-2007 and 23-11-2012.

Trading activities in Portugal continue to decrease in a year-on-year basis

About 2/3 of the trading activity reported to CMVM (which only comprises operations mostly done in the regulated markets like Euronext Lisbon⁴ and MEDIP) is made on equity with debt representing 30% of the total, slightly below what was recorded in October 2011⁵. It should be stressed that this represents a complete inversion of what was the norm until 2010.

Table 1 – Trading activity in the Portuguese secondary cash market and futures market (€ million)

	Out-12		Out-11		2011		2010		2009	
	Value	%	Value	%	Value	%	Value	%	Value	%
Equities	18.033,5	68%	24.251,3	65%	27.896,7	66%	41.008,2	39%	31.597,4	30%
Debt (public and private)	7.869,4	30%	12.571,3	33%	13.431,4	32%	62.265,9	60%	72.662,9	69%
Other	456,4	2%	741,1	2%	826,0	2%	577,9	1%	989,8	1%
Total	26.359,3	100%	37.563,8	100%	42.154,1	100%	103.852,0	100%	105.250,1	100%
	Set-12		Set-11		2011		2010		2009	
	Value	%	Value	%	Value	%	0	%	Value	%
PSI 20 Futures	236,1	100%	451,1	99%	458,5	99%	777,4	99%	-0,4	36%
Equity Futures	0,6	0%	2,6	1%	2,7	1%	10,5	1%	-0,7	64%
Total	236,8	100%	453,7	100%	461,2	100%	787,8	100%	-1,2	100%

Source: CMVM; end-of-period cumulative data. Trades carried out by resident and non-resident members of CMVM-supervised trading venues, most notably Euronext Lisbon (including Easynext), PEX and MEDIP.

Overall secondary cash market trading volume lost 29.8% in October 2012 comparing with the same month of the previous year. The amount of debt securities traded in trading venues supervised by CMVM declined 37.4% from October 2011.⁶ The debt figures featured in Table 1 regard essentially government securities traded in *Mercado Especial da Dívida Pública* (MEDIP), the Portuguese branch of MTS Europe.

On the futures trading volume, the last years' downward trend seems to continue. By September 2012 the volume was -47,8% than the one registered in the same period of 2011.

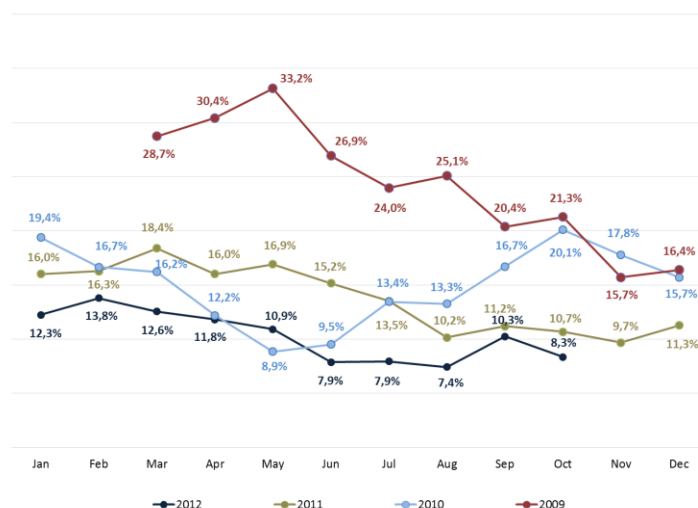
⁴ A small amount of the reported trades is done via Easynext and TCS, outside Euronext Lisbon's central order book – and outside the regulated market. Data also includes another multilateral trading facility operating in Portugal – PEX.

⁵ It must be stressed that to attain the overall market activity one should add, if available, trades done outside regulated markets.

⁶ The lack of comprehensive data on the OTC debt market does not allow drawing conclusions on the overall debt market performance.

In the national scene, a brief analysis of the Euronext Lisbon share order activity in the first 10 months of 2012 reveals that 90.0% of the number of orders placed relate to PSI20 stocks and that the subset of the 10 most traded stocks account for 82.6%.

Chart 7 – Executed orders in % of total number of orders - PSI20 stocks



On average, 64.8% of orders targeting the 10 largest issuers are originated from 5 trading venue members. The orders' concentration ratio varies according to the issuer, and ranges between 44.0% and 82.0%, the two extreme values. Three out of the 5 most prominent financial intermediaries sending orders to Euronext Lisbon (equity segment) emerge as dominant. The three most active members (measured by the number of orders they send to the system) are non-domiciled entities. In the same vein, 46.8% of actual trading activity was carried out by the 5 members. The data show a relatively high concentration among the largest 5 members across all stocks. Considering the monthly data for the percentage of orders which are executed (Chart 7), the downward trend is clear. The most significant feature explaining these figures is the fact that the number of orders has increased at a much higher pace than the number of trades. Using the order-to-trade ratio, i.e. the ratio between the number of orders routed to the system and the number of trades actually carried out on the basis of such orders, it is possible to grasp to which extent buy/sell intentions materialize. Between January and October 2012, the average order-to-trade ratio for PSI20 stocks was 10.7. On the same vein, the highest daily order-to-trade ratio for a single stock registered in 2011 was 8735, and 9981 in 2012. These data suggests that domestic stocks might be subject to algorithmic / high frequency trading.

Non-regulated market platforms congregate increasing trading market share on PSI20 equities

Table 3 clearly shows that OTC trades have been steadily increasing its relative weight in PSI20 turnover in the last years, becoming, since 2010, the preferred way to do business. Even though remaining a marginal choice for investor, trades done in dark pools have been also gaining weight. As a consequence, lit regulated markets only accounted for 37.8% of the total turnover by October 2012. Since the bulk of supervision authorities' work is focused on regulated markets and much less on the rest (particularly those headquartered in foreign jurisdictions), this rapid and most significant shift of activity away from regulated markets pose serious challenges and could pose important risks on the account that most of the trading business is now being performed in less transparent, less regulated and less supervised stances. Note that the above mentioned figures were compiled from 10 distinct venues that are or have been trading PSI20 stocks between 2008 and 2012, adding fragmentation as a supplementary feature and extra challenge for market supervision.

Table 3 – Weight of Market Platforms Trading PSI20 Stocks (in % of turnover)

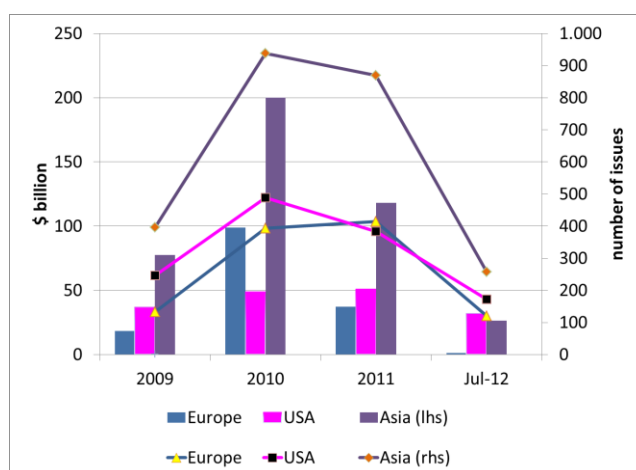
Row Labels	2008	2009	2010	2011	2012
Dark Order Book Total	0,1%	0,5%	1,0%	1,3%	1,4%
MiFID OTC Total	38,4%	37,4%	51,8%	52,0%	53,5%
Off Order Book Total	2,9%	3,2%	1,7%	1,6%	2,0%
Order Book - Auction Total	6,3%	6,4%	4,9%	5,5%	5,3%
Order Book - Hidden Total	0,0%	0,0%	0,0%	0,0%	0,0%
Order Book - Lit Total	52,4%	52,5%	40,5%	39,6%	37,8%
Grand Total	100,0%	100,0%	100,0%	100,0%	100,0%

Order Book - Lit = trades generated by trading on electronic open limit order book excluding trades executed during an auction period or trades resulting from orders that were not visible on the book. This does include orders executed against iceberg orders; Order Book - Hidden = trades executed on electronic open limit order books where one side of the order was not visible on the book; Order Book - Auction = trades executed during an auction period operated by electronic open limit order book; Dark Order Book = trades generated by a dark pool of liquidity operated as an MTF; Off Order Book = trades reported under the rules of an exchange which may be as a result of trading on quotes from market makers or just OTC trades reported under the rules of a regulated market or ATS/MTFs; MiFID OTC = trades reported through pure reporting venues like Markit BOAT or the equivalent services offered as off-exchange reporting by the exchanges such as Euronext or Nasdaq OMX. Source: Thomson Reuters

There is no IPO market in Europe as of 2012 but it is significant in the Americas

Worldwide Initial Public Offering (IPO) declined in number and proceedings in 2011 when compared to 2010, and taking the 2012 figures until July as good for the remainder of the year it should decrease again this year. Comparing 2010 and 2011 (Chart 8), by region, the most spectacular change occurred in Europe with a 62.3% fall in the investment flows attributed to IPO. Asia followed with a 40.9% decrease. IPO in America (South and North) behaved in counter-cycle by increasing investment flows by 4.7%. Strikingly, the decrease in value in Europe happened alongside with a slight increase in the number of IPO issuances (+5,1%) precisely the opposite that was recorded in the Americas where the number of IPO diminished by 21.3% (-7.4% in Asian Markets). If the 2012 figures until July would prove to be close to the average 2012 activity, Europe could end the year with less 94.4% of issued value for less 49.9% issues. Like in 2011, the average investment value for an IPO is rapidly decreasing in Europe while in the American Stock Exchanges it has been increasing in 2011 and 2012. Asian Markets remain, in 2012, as the most important in IPO number of issues but were surpassed by the American markets on investment values with the later representing 53.7% of the total and the former only 44.3%. European IPO represented 18.0% of the worldwide global amount of investment via IPO in 2011 and it is accounting for only 2.0% in 2012.

Chart 8 – IPO World Activity



Source: World Exchange Federation

Bonds issuance: the “new” most preferred way to finance Portuguese listed companies

No IPO involving companies listed in any of the trading venues supervised by CMVM took place in 2012 so far. On mergers and acquisitions there were public offers of acquisition on CIMPOR, BRISA and Fisipe.

The most common financing operation concerning securities in the last months in the Portuguese market was bond issuance. Since January until October seven different listed companies issued new bonds (representing a total of €1.875bn in excess of the €1.339bn registered for the whole of 2011). In a scenario of virtual credit crunch, with the financial sector having to cope with its own capital problems⁷, the non-financial listed companies turned directly to the retail investor, competing with bank deposits for their savings. In a significant extent, the marketing of these offerings used unusual resources, in scope and dimension, for this kind of product, targeting otherwise potentially unreachable investors.⁸ Overall, the operations have been successful and public statements from the bond issuers on new near future operations appear with significant frequency. According to the available data published by Euronext Lisbon, several thousand investors are reported to have bought bonds in these six operations. The number of brand new non-experienced investors that were attracted to the security market by these operations is not known. It is known, however, that at least in some offerings, the resident investors took up to 97% of the offering value which, combined with the significant shortcomings derived from a low level of financial literacy afflicting the Portuguese incumbent and potential market investors, lead the Securities Market Commission to act. In fact, CMVM demanded the distributors to provide further information that could allow, in particular the non-experienced investors, a more educated decision, namely by receiving more information on the characteristics of the bonds, their associated risks and global trading and custodian costs.

⁷ Public intervention sponsored by the troika was needed for the banking sector to match capital requirements namely Tier 1 ratios.

⁸ Aggressive SMS and email advertising campaigns to the listed companies' client databases and a board direct sales approach in some of the most popular supermarkets all over the country are, probably, the most significant examples.

The domestic investment management business continues to shrink and several looming risks are gaining relevance

Chart 9a depicts the evolution of the domestic investment management industry; assets under management (AuM) are split between collective investment and individual portfolio management activities. Chart 9b presents collective investment only, broken down by the major classes of fund types, also for the period 2009 - October 2012.⁹

Chart 9a – Investment Management in Portugal (in € billion)

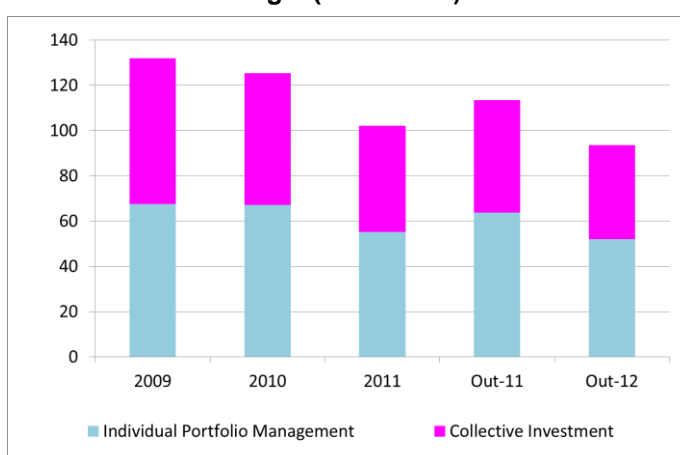
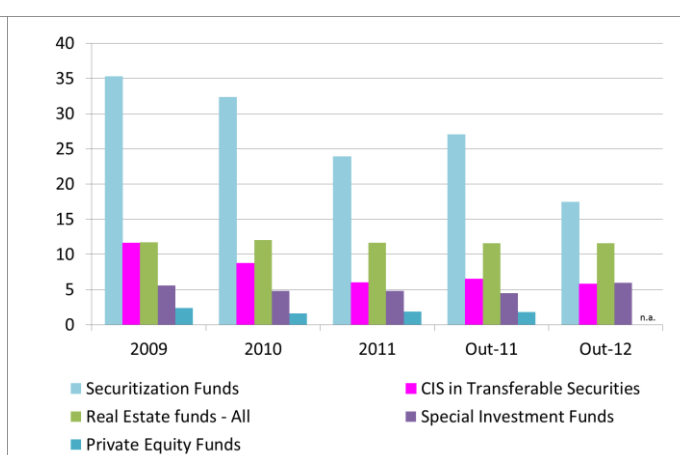


Chart 9b – Investment Management in Portugal by Fund Type (in € billion)



Source: CMVM.

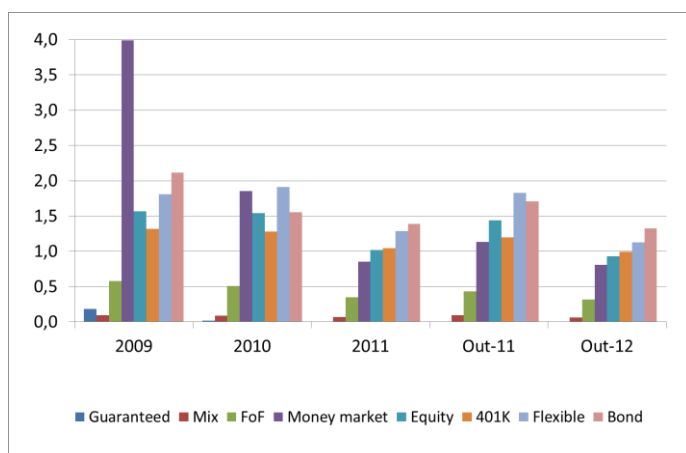
The Portuguese investment management activity continued to quietly decline during 2012. The total AuM as of October 2012 was 18% less the equivalent October 2011 figure. Collective investment, which accounted for 46% of total investment management in 2011, kept losing ground, having declined to 44% of total assets (in October 2012).¹⁰ However, the decline is due to trends in securitized asset deals, which have tended to privilege bond vehicles instead of funds. This corresponds to a substitution effect in terms of vehicle, or “wrapper”, rather than a decline in assets as we saw in recent years. One of the significant exceptions is Special Investment Funds (SIF). Indeed, for some years now, several financial groups have been launching new SIF (many of these comprising assets linked to the same financial group) at a rate, diversity and sales force commitment that suggests that the offer could be leading the demand. This

⁹ This section presents data as of October 2012.

¹⁰ The total industry figures do not include private equity funds as there is no data available for 2012. Foreign funds are excluded either (account for roughly 1% of the total).

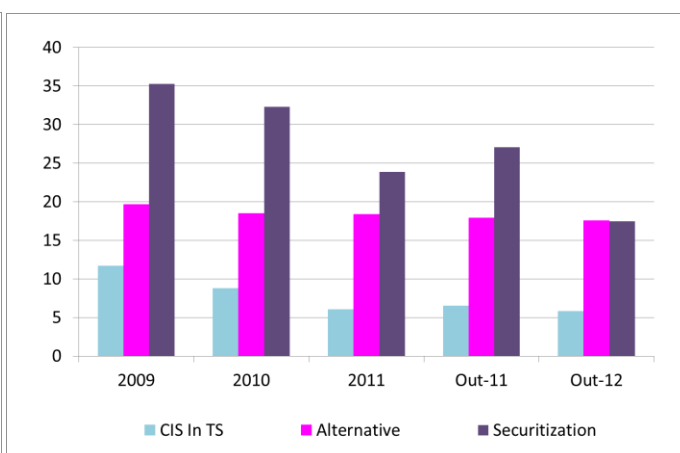
phenomenon surely finds some track in the wider discretion allowed in this type of fund and in the still very high level of financial illiteracy that leads the average retail investor to be prone influence from the sales force. We find that in an important number of cases there is a clear mismatch between the risk taken and the expected return. Some of the reasons for the strong commitment from financial institutions to promote SIF could be obtaining easier funding for the parent company of the group (with increased credit risk for the fund takers), along with the internalization of cascading commissions.

Chart 9c – CIS in TS by Fund Type
(in € billion)



Source: CMVM.

Chart 9d– Investment Management in Portugal
by Fund Class (in € billion)



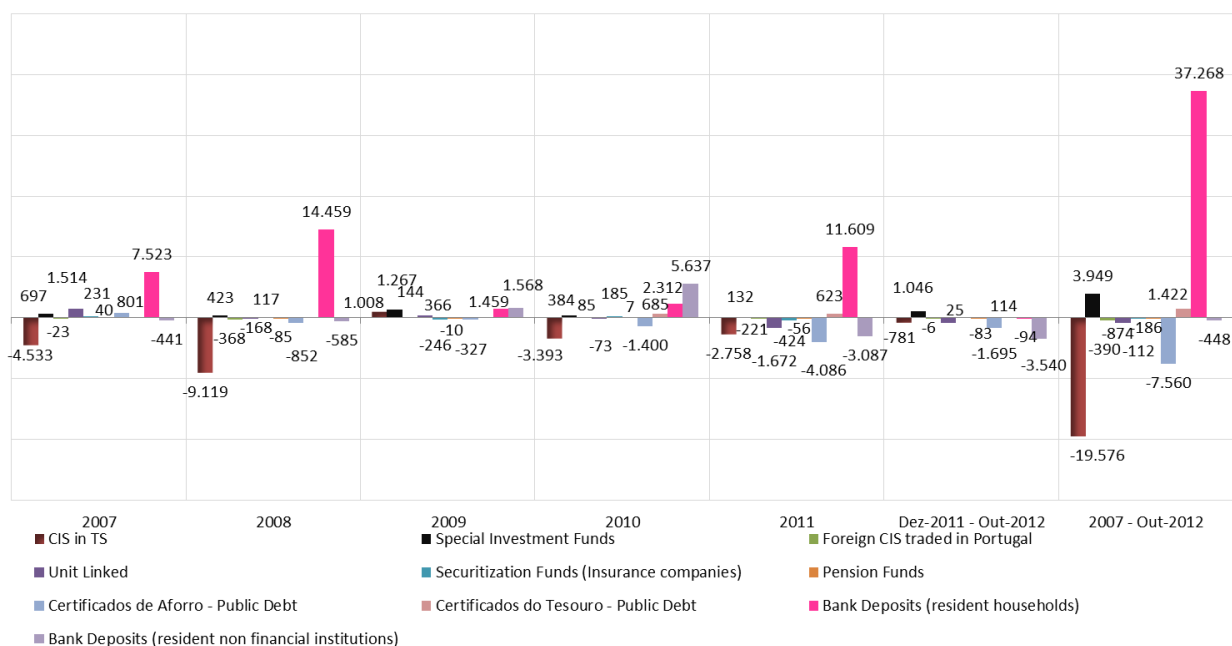
Real estate funds continue to be the major fund type by amount under management, outnumbering funds in listed securities. For the purpose of this analysis these are classified as “Collective Investment Schemes in Transferable Securities” (CIS in TS) and include all funds except real estate, private equity, special investment funds and securitization funds, harmonized or non-harmonized. Chart 9c shows CIS in TS total AuM, split into eight fund categories. By the end of 2011 Bond Funds were the most valuable fund type, with Money Market and Equity Funds losing ground. By October 2012 the global picture hadn’t changed. On fund class categorization the most significant feature is the leveling in AuM between Securitization and Alternative Funds¹¹, justified exclusively by a decrease in Securitization funds (see above for substitution effects).

Several trends continue to adversely affect AuM in the investment management activity. Such trends include tense European equity markets, increased competition from deposits of retail banks, which try to

¹¹ Alternative Funds are composed by Real Estate funds, Special Investment Funds, Private Equity Funds.

meet their capital and leverage requirements (see Chart 9e), the above mentioned direct bond sales and a the decrease in household disposable income due to the ongoing recession. On the positive side, the private equity industry has seen positive trends in 2012, mostly driven by the deleveraging of domestic banks. Chart 9d shows that when comparing October 2012 with the same month of the previous year, Alternative Funds registered a slight increase in AuM. This trend should strengthen in the second semester of 2012.

Chart 9e – Net Inflows by Investment Instrument (in € million)



Source: CMVM, ISP, BdP, IGCP and APFIP

The indebtedness of real estate Funds kept increasing on a year-on-year basis. Open and closed end funds exhibit diverging trends, with the former clearly increasing their indebtedness level (by 31st October 2012 the debt was 54% above October 2011) and the latter reducing it at a one digit pace.

AuM by open-end real estate funds also kept decreasing significantly during the same period. This decrease is mostly explained by the negative net outflow of investment from these funds. The number of small investors leaving this

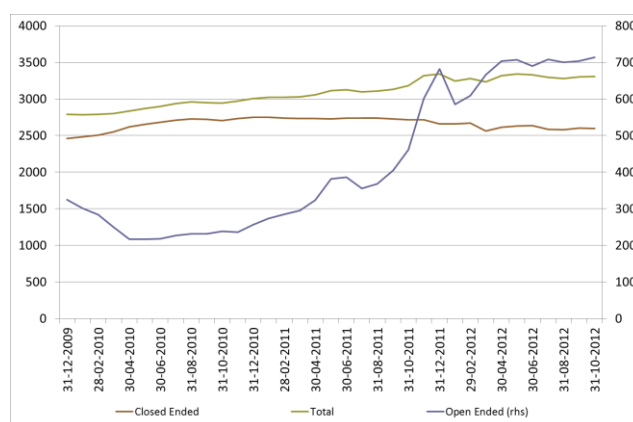
sector continues to increase, adding additional stress to the liquidity management of such funds. There is also some evidence that there has been an increase of the quotas detained by investors with 25% or more of the AuM in open-end real estate funds. This trend could reflect, for instance, that institutional investors related to the fund management institutions are internalizing AuM, in a conduct that could be ill-fated if the undergoing liquidity stress deepens. In brief, the investment management industry and the financial

groups that manage and support most of it in Portugal could be buying time while exposing themselves further to its risks and thus also increasing the associated systemic risk level.

Furthermore, the issue on the valuation of real estate assets (and concomitantly of the AuM of real estate funds) in a context of global depreciation and dwindling liquidity is an additional concern.

On a different chapter, the number of domestic private equity firms has increased from 31 in Dec. 2011 to 30 in September 2012 respectively. This is closely linked to the deleveraging process taking place in domestic banks. The launch of such funds, sponsored by financial institutions, must be closely monitored, especially in what concerns the valuation of the assets held. An inflated valuation in practice prevents investors other than involved banks from buying such funds. The latter may only buy time for banks which could otherwise deal with balance sheet issues in a more definite manner.

Chart 10 – Indebtedness in Real Estate Funds from December 2009 until October 2012 (in € million)



Update on the deleveraging process in the corporate and household sector

The evolution of Non-Performing Loans (NPL), generally understood as a good indicator of financial distress in the economy, is shown in Chart 11a, which includes both corporate sector and household's NPL. According to Banco de Portugal data, the level of NPL in relation to total credit extended is still increasing in 2012.¹²

If the current NPL level for 2012 should be a good proxy for the entire year it should be expected an acceleration among non-financial corporations while among households the evolution could be less dramatic. Nevertheless the most significant piece of information comes precisely from the current level: 10.1% of total credit extended to the non-financial corporate sector (6.7% in 2011) and 4.0% to households (3.7% in 2011), both record breaking figures.

On the NPL of households it must be stressed that considering the type of credit there are quite different patterns. NPL on housing credit, for instance, has remained stable, near 2%, while consumer credit has been driven overall NPL upwards (11.4% in 2012Q3, compared to 10.5% at 2011Q4).

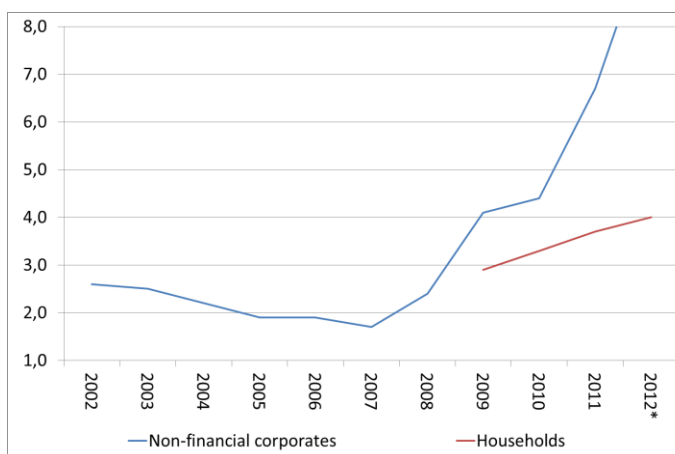
For non-financial companies by the end of 2012Q1, considering Banco de Portugal's breakdown by outstanding credit amount, it was evident that none of the intervals¹³ registered less than 24% of companies with overdue loans. These data do suggest that all types of companies, regardless of their size, still face increasing liquidity and funding constraints.

Chart 11b shows the annual change in the amounts of credit extended to households in Portugal compared to the Euro area split between the two major household sub-classes (mortgage credit and consumer credit) between 2008 and 2012 (September). The data shows that with the exception of mortgages (barely positive), by September 2012, the credit activity was shrinking in the Eurozone, and this represents a change from the previous year. In Portugal the negative evolution persists and has been intensifying, especially on consumer credit that has shrank 8.8% in the first nine months of 2012 (-3.2% in 2011).

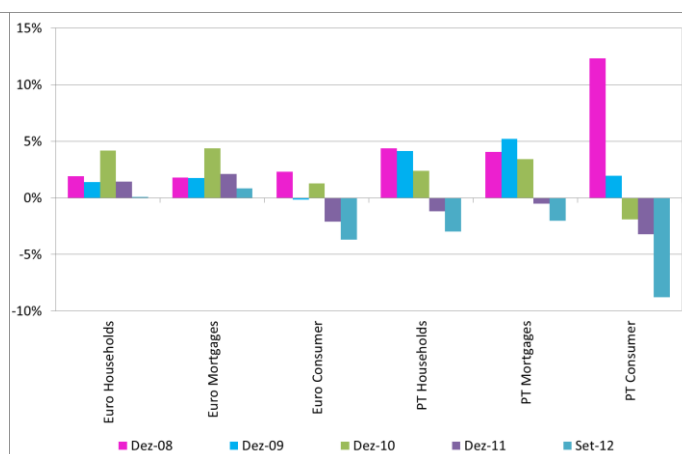
¹² Latest 2012 data comprise the 3rd quarter.

¹³ Banco de Portugal uses eight intervals to categorize non-financial institutions in terms of lending outstanding liabilities: 1st Up to €20.000; 2nd from €20.000 to €50.000; 3rd from €50.000 to €100.000; 4th from €100.000 to €200.000; 5th from €200.000 to €400.000; 6th from €400.000 to €1 million; 7th from €1 million to €5 million; 8th more than €5 million.

**Chart 11a – Non-Performing Loans
Portugal (in % of total credit extended)**



**Chart 11b – Change in credit extended to
households in Portugal vs Eurozone
(mortgages and consumers credit)**



Data source: Banco de Portugal; *September.

Data source: ECB, Banco de Portugal.

Looking back from 2008 until now, Portugal data has behaved as a leading indicator for what would happen in the Eurozone. Considering households' current savings as a percentage of real GDP¹⁴, after a minimum value of 9.2% registered in 2010Q2, this indicator has been steadily increasing, reaching 11.5% in 2012Q2 (the highest value since mid-2008).

Chart 11c portrays that the Portuguese economy, by June 2012, was still registering negative financial savings¹⁵ although clearly trailing in towards equilibrium. Chart 11d shows the evolution of the level of indebtedness of the private sector (companies and households) as percentage of real GDP (since the end of 2007 until September 2012). This chart illustrates that debt has continuously increased among private companies even though it has almost remained constant among the households. By September 2012, the total indebtedness of the non-financial sector (public and private) amounted for 436.7% of the

¹⁴ The data used include non-profitable institutions serving households. Source: INE, National Quarterly Accounts by Institutional Sector.

¹⁵ Financial savings from the Financial National Accounts balance the following assets and liabilities: Currency and deposits; Securities other than shares, Loans, Shares and other equity, Insurance technical reserves and Other accounts receivable and payable

GDP in real terms (420.6% in September 2011).

Chart 11c – Financial Savings (in % of GDP in real terms)

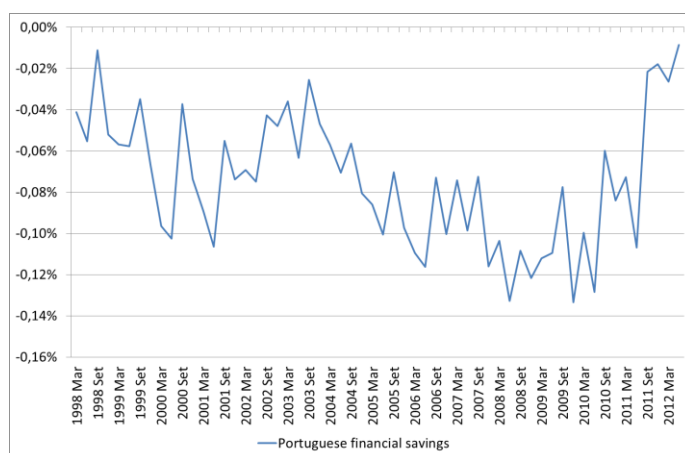
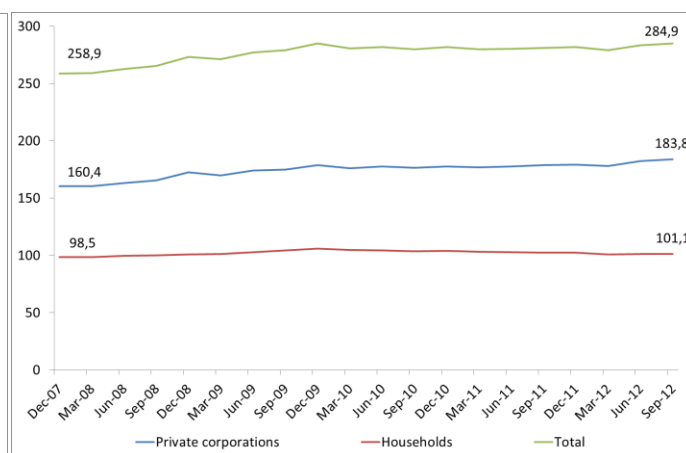


Chart 11d – Private Sector Indebtedness Level (in % of GDP in real terms)



Source: Banco de Portugal, INE, calculations CMVM

In a nutshell, deleveraging continues to be a primary goal. Challenges on cash flow management keep on troubling families and enterprises; the high cost of new credit, the devaluation of assets (including real estate) and the retraction of internal economic activity add to those challenges. The continuous fall of Euribor - a major reference rate for most outstanding credit contracts in Portugal, both for households and non-financial companies - and the increased attractiveness of Euro quoted exportable goods and services – due to, among others, the falling Euro exchange rate - are probably the major positive contributions for some families and companies in terms of loosening cash flow management. Notwithstanding it must be mentioned that the fall of Euribor is also contributing to a decrease in the level of remuneration of the safe deposits (decreasing the incentives to save) which affect a non-negligible percentage of the Portuguese families. Moreover, the decrease of the cost of the euro against the dollar is far from being a safely projected trend for the future.¹⁶

¹⁶ By December 5th the Euro had devalued 6.1% against the dollar (considering the 2011 average exchange rate), a value quite distant from the 14.3% devaluation registered by the end of July 2012.

A few words on banking systemic risk

Portuguese major banks completed the recapitalization process by receiving aid from the €12bn troika's bailout fund and by increasing capital via new inflows from incumbent qualified shareholders. The latest figures from outstanding loans with ECB signaled a decreased dependency and the increase in the loan-to-deposit ratio is under way. Charts 12a and 12b depict the leverage level¹⁷ of some of the most relevant Portuguese private banks followed by V-Lab from the New York University (NYU) Stern School of Business. Chart 12a depicts leverage not reacting to market value (book value was used) and Chart 12b portrays leverage when incorporating market value. This indicator shows the selected banks¹⁸ at different stages of deleveraging and reacting differently to the latest episodes of market turmoil. On one hand some banks are already near medium term averages while others are under huge stress, some of them just starting to move away from historical maximums registered earlier in the current year.

Chart 12a – Leverage:
Net Debt / Total Equity (book value)

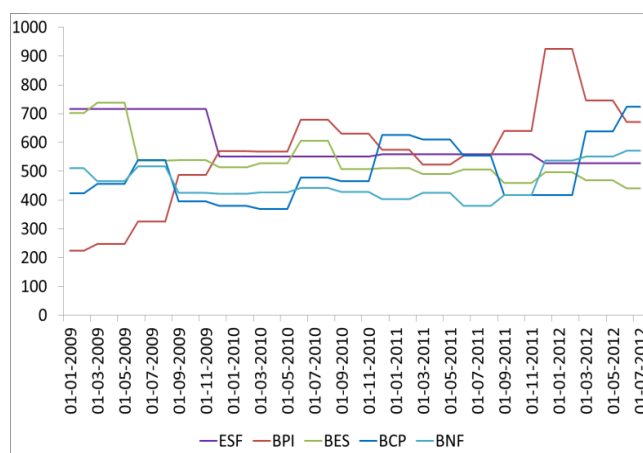
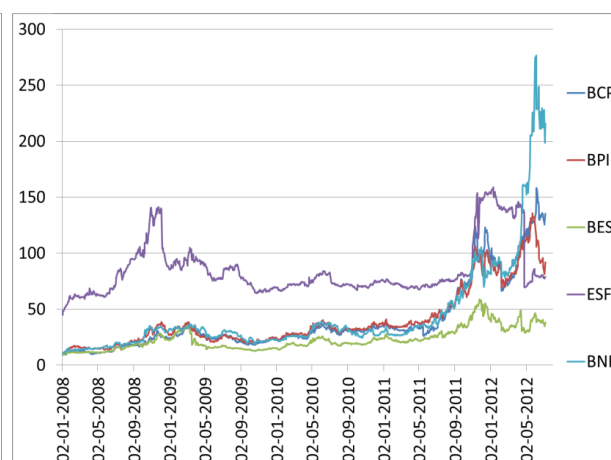


Chart 12b – Leverage:
Quasi leverage



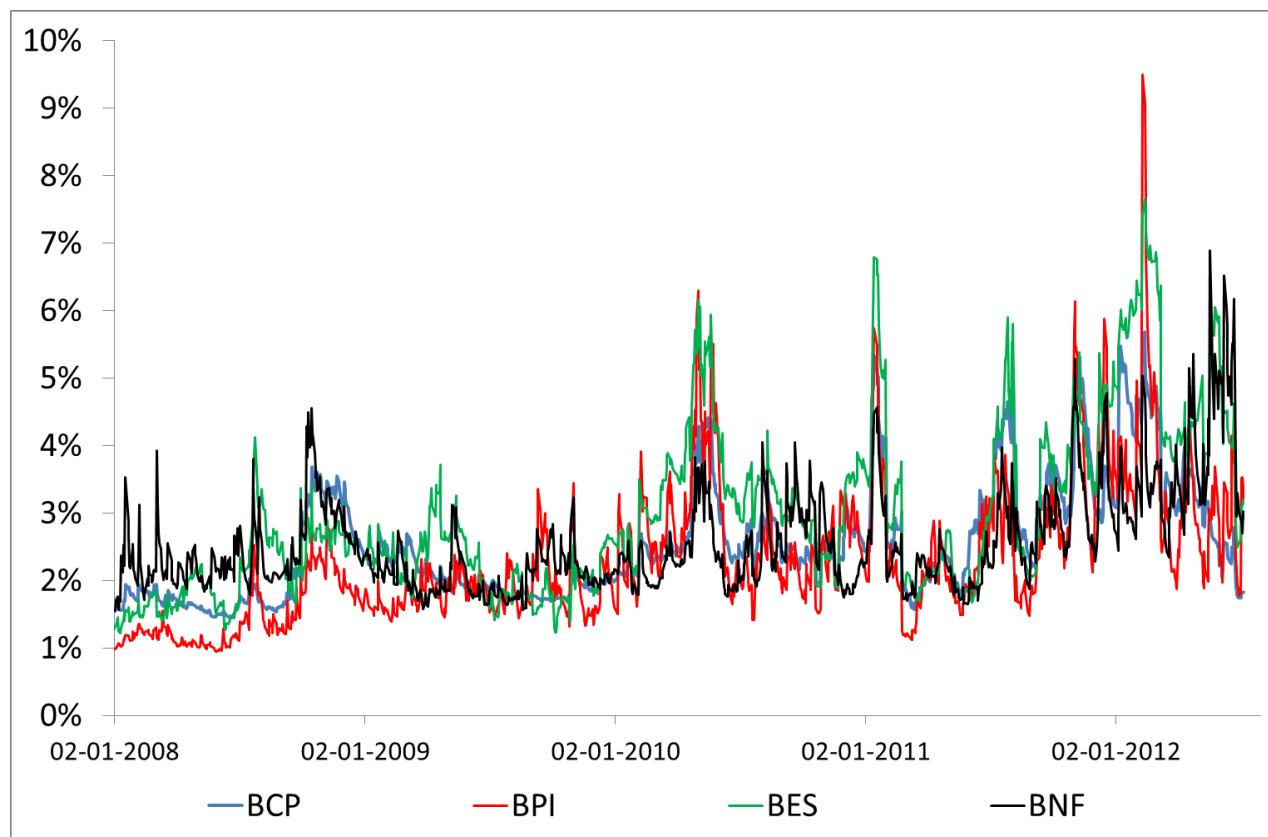
Source: Bloomberg (Chart 12a) and NYU Stern School of business, V.-Lab (Chart 12b)

¹⁷ The indicator on Chart 12b was computed by V-Lab at NYU Stern School of Business and it represents the Quasi Leverage of a company which is one plus its book value of liabilities divided by its market value of equity.

¹⁸ BCP – Banco Comercial Português, BPI – Banco Português de Investimento; BES – Banco Espírito Santo; ESF – Espírito Santo Financial Group; BNF – Banif.

The domestic deposit base increased by 5.5% between 2010 and 2011 (2.6% if comparing September 2012 with same month in the previous year), as a result of the ongoing “savings war” (not only in Portugal but also in other southern European countries). In the latest months, however, the safe deposits started to decrease slightly, following an equivalent change in the overall AuM when considering the major kinds of saving instruments.

Chart 13a – Marginal Expected Shortfall
(expected loss per \$ invested in the equity when the market falls by 2% over a day, in %)



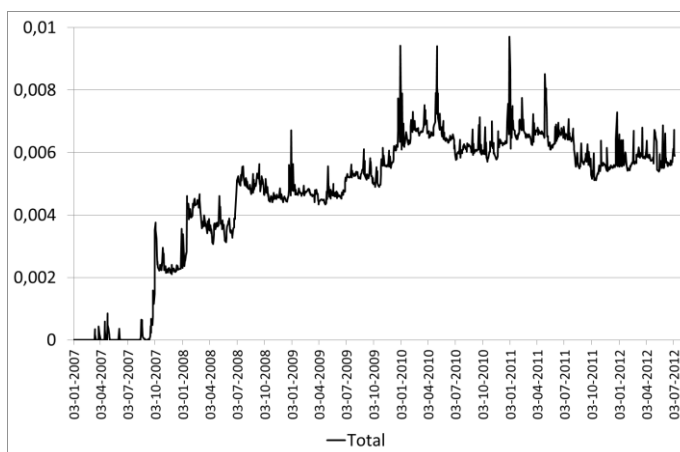
Source: NYU Stern Scholl of business - V-Lab and CMVM calculations.

The already mentioned Stern Scholl of Business from NYU has been feeding what could be called an ongoing stress test analysis of several hundred international financial institutions and has developed at its

V-Lab project a set of risk indicators¹⁹ serving both the objective of following the idiosyncratic risk of each firm and approaching a current level of systemic risk that each by its self could channel to the market. MES²⁰ or Marginal Expected Shortfall measures the estimated fall in a firm's equity value caused by a single day fall of not less than 2% in the equity market and it's a proxy for the idiosyncratic risk of the firm.

SRISK²¹ or Systemic Risk Indicator is the firm's expected capital shortfall in the event of another financial crisis and represents the fuelling effect onto the market that that single firm could induce. V-LAB states that SRISK% (derived from SRISK and later used in this report) *"is the proportional contribution of each firm to capital shortfall of the financial system. If a financial crisis corresponds to something like a 40% drop in a market index, then many firms will have dramatic drops in equity value. Firms with high leverage will face capital shortage and financial distress. Losses will be faced by bondholders and other creditors. The percentage of capital shortfall is the firm loss divided by the losses in all other financial firms."* By adding up SRISK from a worldwide representative sample of financial institutions it is possible to reach a global Systemic Risk indicator. V-Lab included at least five Portuguese private financial institutions and Charts 13a and 13b depict MES and SRISK% for each one of them respectively, since the beginning of 2008 until July 2012.

Chart 13b – SRISK%
(contribution to capital shortfall of the financial system
by five of the most significant Portuguese banks)



Source: NYU Stern Scholl of business - V-Lab and CMVM calculations.

¹⁹ Meta-information on the computation of these indicators can be found at V-Lab dedicated website: <http://vlab.stern.nyu.edu/welcome/risk/>

²⁰ According to V-Lab, MES *"is the expected loss per dollar invested in the equity of a company when the market falls by 2% over a day. LRMES, or Long-Run MES, is the expected loss per dollar invested in the equity of a company when the market falls by 40% in a six-month time period. This measure is constructed from GJR-GARCH and ADCC. It is a blend of the correlation, volatility, and tail performance of the stock and the market."*

²¹ According to V-Lab, SRISK *"is the equity risk for this firm in a crisis. It comes from regressing MES, log(Lvg), and industry dummies cross sectionally on the average of the losses in each firm over a quarter for days when returns are less than 2%"*

The SRISK% indicator seems to have clearly “warned” by mid-2007 that a systemic risk crisis was about to develop as it signaled that the systemic risk inducement capability of the selected Portuguese private banks was rapidly escalating. On a chronological perspective, the cumulative indicator (total) is by now slightly below 2010’s average but still considerably higher than the 2009 or 2008 average

According to MES, 2012 has been highly volatile with the percentage of equity at risk under a relatively small market shock registering the highest values since the beginning of the crisis (by February 2012). Average MES values for this group have however recently recorded a significant decline in what seems to be a reaction to the latest intentions by European Authorities on the addressing of Eurozone crisis.

In a nutshell, the near future could present a considerable reduction on the MES for financial institutions if the path towards a stabilization of Eurozone unfolds positively but, also, according to the picture of the very near past, unprecedented vulnerability to market fluctuations can quickly resume.