RISK OUTLOOK

Autumn 2016
Index

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**SUMMARY OF RISKS**

### CMVM Risk assessment

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**Note:** colours indicate current risk intensity for the risk segments in Portugal; Coding: green = potential risk; yellow = elevated risk; orange = high risk; red = very high risk.

**Systemic Risk:** The weak external environment continues to weigh on the Euro Area growth outlook. The low yield low growth for long describes the outlook for European countries. Regarding emerging market economies (EME), the economic activity in China is expected to continue to slowdown, and some commodity exporters are facing new normal of lower prices, while in case of other refuge commodities, such as oil and metals, an upward trend can be observed. Although the outcome of the UK referendum on the EU membership surprised financial markets, most of the impacts (e.g., higher implied volatilities, the depreciation of the euro against the US dollar and the flattened EONIA forward curve) have been short-lived. On the other hand, the post-referendum political developments raise uncertainty and may open space for other countries to consider to leave the EU. Uncertainty might also stem from other sources, such as potentially divergent monetary policy between the EU and the US, geopolitical risks, the effects of the US elections on external trade, the possible strengthening of Russia's influence on the global political landscape, the evolution of the refugee crisis in Europe and the results of the Italian referendum. Despite the challenging external and financial developments, the level of the Euro Area systemic stress has remained relatively contained during the first three quarters of 2016. The highest contribution for systemic risk during the year was attributed to financial intermediaries. The banking sector is facing structural issues, such as tighten regulatory requirements on capital, excess capacity, low profitability, high ratio of non-performing loans (NPL) in some countries and declining investor confidence in banks. The composite indicator for sovereign debt reveals that the level of financial stress in the Euro Area has remained subdued. For Portugal, the SovCISS index shows an increase in February 2016 and throughout the year exhibits higher levels than those in 2015.

**Funding Risk:** Notwithstanding the positive real GDP growth in Portugal and some deleveraging efforts, non-financial corporation (NFC) indebtedness remains at high levels and hinders investment's contribution to growth. Moreover, disturbances in the banking sector tend to obstruct the recovery of the economic activity and to delay the investment decisions. The global level of new loans maintained its mild evolution, remaining at a lower level, however, without showing a clear negative trend in the last few years. The latest indebtedness data of private corporations and individuals, considering not only loans, but also debt securities and trade credits, reveal a moderate deleveraging process since 2013. The NPL ratio in Portugal indicate that both NFC and
households continue to beat historical levels of non-compliance. On the contrary, in the Euro Area, with the exception of a few countries, credit quality has been improving in general since 2013.

**Equity Market Risk:** Euro Area and global equity markets showed periods of intense short-term volatility during 2016. For instance, stock market volatility spiked on the day following the UK referendum and then returned quickly to its normal values. Bank equities in Europe continue to underperform the wider market indexes, especially from a longer term perspective. Relying on the FED model results, global bond markets yields appear to be unbalanced vis-à-vis the equity markets earning yields. This indicator for Portugal shows in general, with only a few exceptions, a large negative value since 2011. This originates mainly from the large default risk perceived by investors in Portuguese sovereign debt, and also from the relatively steep fall in the Portuguese stock market earnings.

**Bond Market Risk:** In Europe, the spread differential between BBB and A corporates hover around their minimum historical levels, signalling a certain flattening in risk pricing. This also warns for caution in the near future since it might contribute to the worries regarding the surge of another risk gap mispricing (this gap is slightly less than half than that observed in the US). Portuguese government bond yields spread vis-à-vis Germany and other Euro Area benchmark countries continued to increase. The spread between the German treasury bills and interbank rates with one-year tenor provides evidence that the level of credit risk of the banking sector is still far above than that observed in the period preceding the great recession. Interest rate risk is also relevant, since the duration of sovereign debt traded in the world markets is reaching unprecedented levels. According to recent estimates, a one percentage point increase in interest rates would result in $2.1 trillion losses for global investors. In Portugal, the duration of mutual funds’ bond portfolio (considered as a proxy for institutional investors’ behaviour) has been much lower, suggesting that domestic fund managers are more cautious than world investors in general.

**Real Estate Risk:** Although in Portugal, no real estate price bubble burst occurred in the aftermath of the financial crisis, market prices appreciated substantially due to the heavy contraction of the market between 2010 and 2013 Q1. The real estate market illiquidity combined with non-performing loans puts banks under stress and gives rise to potential conflicts of interest in highly concentrated financial groups with stakes in insurance, real estate funds (which have been experiencing net outflows) and other areas of asset management. Nonetheless, the current data on the real estate market shows an even more intense pickup than in 2015 in the number of houses sold and more markedly in prices. The price increase is more noticeable in touristic appealing regions, such as Lisbon and Algarve, and has been mainly due to used houses transactions. This tendency is not fully accompanied by real estate banking appraisal values, which signals that banks are still prudent in their evaluations compared to other market practitioners. The surge of the aforementioned indicators warn for close surveillance over the real estate market.

**Investors Risk:** Recent developments suggest that investor confidence in investment funds in Portugal has decreased again and that investors are more willing to allocate their savings in bank deposits and retail public debt instead (in terms of numbers, in a period of almost ten years, around €27 billion were divested from securities and insurance products and almost €57 billion floated to deposits and retail public debt). Fund returns compared to appropriate benchmarks in a period of almost seven years show, nonetheless, that collective investments still pay more than other investments with similar risk-reward profile. Open ended real estate funds prove to be an exception as they presented negative aggregated returns for the last five years. The recent evolution of the modified duration of the collective investment schemes’ bond portfolio shows a slight reduction of the global exposure to the yield curve, revealing a growing caution in managers’ investment policy towards sovereign debt. This is supported by the observation that fund managers reinforced their investments in corporate debt with higher duration and reduced the duration of public debt held.

**Cyber Risks:** Although technological innovation in the financial sector can increase efficiency, speed and
access while promoting product innovation, it also rises new types of risks. Recent reports reveal that cyber threats directed to financial entities, markets and infrastructures have increased in number, complexity and importance over the past few years. Mitigating cyber risks and increasing the cyber resilience of financial systems therefore qualifies to be the included in the agenda of regulators and other market participants.
1 Macro-Financial and Credit Overview

1.1 Systemic Risk Indicators

The developments observed in various market segments are reflected in two systemic risk indicators produced by the ECB, namely the Composite Indicator of Systemic Stress (CISS) and the Sovereign CISS (SovCISS). The CISS has trended upwards since January 2014, amid volatility spikes. Nonetheless, in spite of challenging external and financial developments, the CISS has remained relatively contained during 2016. The maximum (0.32) was reached in June, mainly motivated by uncertainty arising from the UK referendum, which caused turbulence especially in equity, bond, and currency markets. Financial intermediaries showed the highest contribution to systemic risk during the year. Indeed, banks and insurers face weak profitability prospects and banks’ intermediation is also challenged by unresolved problems in reducing non-performing loans (NPL) and a more equity demanding regulatory environment.

European bank equities showed large price declines, even after the results of EBA’s stress tests that revealed a certain resilience of the European banking sector. However, the EU banking sector is facing structural issues (excess capacity, low profitability, high NPL ratios in some countries and declining investor confidence in banks), which are amplified by prospects of low yield low growth for long.

Risks to financial stability stem not only from financial intermediaries, but also from equity markets. Indeed, as systemic stress, implied volatility has also exhibited short-term instability. The turbulence over the last year is closely tied to equity market volatility.
Graph 3. Composite Indicator of Systemic Stress and Implied Volatility

Source: ECB and Bloomberg; CMVM calculations. Last data point: September 2016.

The CISS for Portugal ‘disconnects’ from the Euro Area CISS in early 2012 and again in the second half of 2014, signalling higher systemic risk in the Portuguese markets. However, in the third quarter of 2016, both indicators seem to follow a similar path and values, suggesting a higher correlation between Portugal and its Euro Area peers. In Portugal, the main contributors for the indicator are the financial intermediaries and the equity market, showing clear signs of the banking sector’s fragilities.

Graph 4. CISS_ECB and CISS_PT


The Euro Area sovereign stress has remained subdued. In general, the stress levels observed for most countries are lower than those recorded in the past and hover near those of the period before the financial crisis. In the case of Portugal, the SovCISS shows an increase in February 2016 and reaches higher levels throughout the year than in 2015.

Graph 5. Composite Indicator for Sovereign Debt (Sov CISS)

Source: ECB; CMVM calculations. Last data point: October 2016.

The co-movement between the economies is also revealed by the links between the financial markets, in particular among the stock market, the private and public debt markets, the commodity markets and the money markets. The co-movement measured by the variance explained by the first principal component has significantly fluctuated over time, albeit with a downward trend. It reached its maximum in 2011-2012, and then fell in a context of greater economic confidence and more stable world markets, including financial markets. The recent behaviour of sovereign debt and private debt has played a significant role in the first component, while the second main component is explained by the commodity prices and exchanges rates.
Taking into account the above analysis, systemic risk is considered to be elevated.

1.2 Market Sentiment Indicators

Right at the beginning of 2016, investors faced a drift towards weaker global growth. Economic expectations for Asia (ex. Japan) reflected a perceived slowdown of the Chinese business cycle. Besides short-term fluctuations, the Sentix investment indices reveal positive developments in investors’ perceptions on the global economic landscape. The Sentix for Euro Area fell during 2016 and Brexit dampened the economic expectations in July. However, the October 2016 survey reveals an increasing investor confidence.
Concerning investor sentiment, the negative sentiment exhibits an upward trend till July 2016 and then the importance of negative search terms decreases. Meanwhile, in the third quarter of 2016, the search for positive terms was stronger than in the first half of the year. These results show an increase of the economic sentiment revealed by google search data in the second half of the year.

Graph 9. Positive and Negative Sentiment (Portugal)

Looking at investment funds, the first two principal components explain 45% of the total variance in the fund net flows. The first principal component weighs positively across all fund categories, although heavily in hybrid bond funds, fixed income bonds funds, personal retirement funds, hybrid equity funds and equity funds, and hence may be perceived as a generic demand effect accounting for general shifts in and out of investment funds of these categories. The first principal component alone explains about 26% of the variance in net flows, suggesting relevant co-movement among fund investors with medium and higher risk profile in Portugal. It can be argued that this first principal component captures a broad investor sentiment pertaining to the investment fund sector.

In Portugal, the weight of short-selling in the market capitalization of companies whose shares were subject to short selling records a positive trend between November 2012 (beginning of the series) and September 2016. This trend is accompanied by an increase in the number of companies whose shares were shorted. The correlations between that weight and PSI20’s monthly returns and the returns in the previous month are negative. Throughout 2016, the month with the sharpest drop in share returns in Portugal (June) was preceded by an intensification of short-selling activity. However, the weight of short-selling in the market capitalization of companies whose shares were subject to short selling showed the lowest values in 2016 in October. Considering the above mentioned, the results reveal a relationship (not necessarily that of causality) between share prices and short-selling of Portuguese stocks, based on which short-selling can be interpreted as an investor sentiment indicator, especially for the institutional sector.

Graph 10. Short-Selling (Portuguese Market)

In contrast, the second principal component indicates that the next most important driving force behind fund flows is a polarity between safer fund (money market funds and variable income bond funds) and riskier fund categories (such as equity funds, fixed income bond funds and hybrid funds). This risk-safety contrast suggests that, controlling for the generic demand effect, when cash flows out of the riskier fund categories, it tends to flow into the safer categories, generally referred to as “flight to safety”. The sovereign debt crisis period (between September 2011 and September 2013) and the period between 2015 Q3 and June 2016 (after high market uncertainty related to Brexit) show evidence of the shift from riskier to
safer investments. **In other periods, when money flows out from lower risk funds towards riskier funds, there is a speculative effect** (visible between May 2010 and May 2011, and again between September 2013 and May 2015).

**Graph 11. Mutual Funds Flows (Portugal)**

Source: APFIPP; CMVM calculations. Last data point: August 2016.

Notes: Funds are aggregated into money market funds, float income bond fund, fixed income bond funds, equity funds, hybrid bond funds, hybrid equity funds, personal retirement funds, alternative funds and other funds. This approach is based on the idea that a set of variables share a latent structure, and PCA is then used to insulate the underlying common features across several time series while expurgating idiosyncratic characteristics.

Altogether, economic sentiment is slightly recovering, but investors’ sentiment towards securities markets is yet far from taking off.

### 1.3 Macroeconomic Outlook

The weak external environment continues to weight on the Euro Area growth outlook. The low yield low growth for long describes the outlook of European countries. Regarding emerging market economies (EME), economic activity in China is expected to continue to slow down, and some commodity exporters are facing a new normal of lower prices, while other refuge commodities, such as oil and metals, register an upward trend.

The world GDP is expected to maintain a low and uneven growth in 2017, below the 1995-2007 average of 3.3%. Prospects for global nominal GDP growth have been revised downwards, particularly in the US and Japan, and to a lesser extent in Europe.

**Graph 12. GDP Growth (yearly changes)**

Source: OECD; CMVM calculations. Last data point: September 2016.

**Graph 13. Maximum Accumulated Loss (6 months) Commodity Indices**

Source: Bloomberg; CMVM calculations. Last data point: September 2016.

The European Commission’s 2016 growth forecast for the Portuguese economy is similar to that of the previous year. A moderate increase in growth is projected for 2017. Euro Area economies also appear to lose momentum, signalling fragility in European growth. In Spain, for instance, even though growth prospects are still robust due to lower government debt and unemployment, recent forecasts indicate a lower growth rate in the next two years due to the political turmoil.
Portugal ended 2015 with a positive GDP growth (+1.5%), mainly supported by the domestic demand, driven by a more intense growth in consumption, while investment slowed down. Between 2014 and 2015, household savings as a percentage of disposable income declined from 5.2% to 4.5%, while there was an increase in 2016 Q2, from -1.0% to 6.5%, compared to the previous quarter. Meanwhile, consumer credit has picked up and reached a three-year high in August 2016.

The GDP growth turned out to be below the expectations based on the scenario in which the Portuguese economy aligned with its most relevant partners; comparing to Spain, which maintains a steady growth despite its political turbulence (3.2% in 2016 Q3), the Portuguese economic activity was weak.

In the third quarter of 2016, the contribution of domestic demand has increased\(^1\), essentially due to the pickup in consumption, and that of net external demand has also improved, due to the more intensely growing exports than imports.

Up until July 2016, there was a drastic decrease in both imports and exports of goods, however in August an inversion of trajectory was registered, with a rise of 5.1% in exports and 9.8% in imports. Nevertheless, the fragile external environment, the downturn in emerging economies and, more recently, a deceleration of growth in some of the major advanced countries pose a challenge to the Portuguese external trade.

The most important market that contributed solely to the positive evolution of the Portuguese external trade in 2015 was the UK, replacing Angola, stricken by the low oil prices. In August 2016, EU countries

\(^1\) Statistics Portugal (INE), Quarterly National Accounts - Flash Estimate, 15 November 2016
were the main contributors to the increasing exports, with exports to Spain growing by 11.5%, to France by 16.9% and to Germany by 12.9%. On the other hand, exports to Angola and to the US declined (by 30.6% and 25.9%, respectively). On the imports side, Germany, Angola and Spain were the main providers of goods.

The uncertainty in the exports of goods is still worrisome. The fall in Portuguese exports to several countries following low oil and other commodities' prices and some geopolitical instability did not permit the Portuguese economy to gain a steady market quota in other countries. In the past years, numerous Portuguese companies directed their main activity towards Angola or Brazil, but now, due to economic difficulties that they face, their participation in those markets has reduced.

**Investment is expected to continue to decline in 2016, however, potentially increase in 2017, supported by the overall improvement in funding conditions, particularly in EU structural funds.**

![Graph 16. Marginal Efficiency of Capital](image)

Source: AMECO; CMVM calculations. p – Projected.

The marginal efficiency of capital in Portugal, although showing high negative values between 2011 and 2013, has been converging to the Euro Area average in the last three years. **Nevertheless,** the long term average marginal efficiency of capital for Portugal is still below the Euro Area value.

The economic climate indicator, after an increase in the past two months, decreased slightly in October 2016. The confidence indicator increased in the industry and in the construction sector, and decreased for trade and services sectors. The increase of the industry confidence indicator was a result of the more optimistic opinions on global demand and on stock evolution. In the construction sector, the increase was due to positive perspectives on the order books. The confidence indicator for trade, which was increasing since April, reflects negative expectations on sales, and services’ confidence was also driven by pessimistic expectations on business activity and demand evolution.

For the Portuguese CEO, the main limiting factors for business investment between 2015 and 2016 were the deterioration of sales perspectives and the uncertainty about investment profitability. It is important to note that managers are still emphasising the use of companies’ own resources to support the intended investment, and relying less on bank credit. Replacement investment was the main objective of the companies until the beginning of 2016, while the extension of production capacity stood out for the exporting firms.

**The beginning of 2016 brought a significant increase in the Portuguese companies’ intentions to invest compared to mid-2015 (6.0% increase in investment intentions, against the 3.1% increase reported earlier).** However, in recent months investment estimates have not confirmed those intentions. Moreover, the latest data for turnover and production reveals negative signs in construction but positive ones in the retail trade, industry and services sectors. Private consumption has fostered so far the Portuguese GDP growth, but is on a slowing pace and is expected to slow even further in 2017 due to a possible raise of indirect taxes and the recovery of energy prices.

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2 Statistics Portugal (INE), Investment Survey, October 2015.
The consumer confidence indicator has increased in October 2016, driven by the positive perspectives on the evolution of the country’s economic situation, on the household’s financial situation, on unemployment and on savings.

Indeed, positive labour market expectations are in line with one of the most robust indicators for the Portuguese economy in 2015 and 2016: a decline of the unemployment rate to 11.2% in 2016 Q2. Additionally, the provisional unemployment rate estimate for September 2016 was 10.9%, remaining unchanged from the previous month’s level, but not breaking the downward trend observed since February.

This continuous decline was enabled by a higher number of jobs available, by the still enduring emigration flow, and also by the success of public policies actively boosting temporary jobs, since the share of temporary employment into total employment has been increasing in recent years, not only in Portugal but across the Euro Area. In Europe it is expected that the unemployment rate continues to decrease, leading the Euro Area to pre-crisis levels of unemployment.

In parallel, the government consolidated gross debt as a percentage of the GDP reached 85.2% in 2015, the first decrease since the beginning of the 2007 financial crisis. It is anticipated to remain in a descending path along with the government deficit, although with different intensities across countries. In terms of per capita GDP, Portugal has been recently diverging from its Euro Area peers: in 2010 the per capita GDP of Portugal was around 60% of the EU average, and it declined to 56% in 2015.

Graph 17. Unemployment Rate

Source: Eurostat; CMVM calculations. Last data point: June 2016.

1.4 Credit Environment

The data for September 2016 on non-performing loans in Portugal indicate that, although with smaller increase in recent months, both non-financial corporations (NFC) and households continue to reach historical levels of non-compliance. The analysis of the different categories of Portuguese NFCs with overdue loans is critical. The size of companies seems to be inversely related to the share of overdue loans; micro and small enterprises were responsible for 74% of the overdue loans in September 2016.

The gap between the higher loan interval (above €25 million) and the lower interval (below €5 million) has been narrowing through 2014 and late 2015, but it increased again in June 2016, reflecting the decline
in creditworthiness of the NFC that took higher loans.

Graph 19. Overdue Loans – Portugal (% of total credit granted)

Source: Banco de Portugal; CMVM calculations. Last data point: September 2016.

Graph 20. Bank Non-performing Loans (% of total gross loans)

Source: World Bank and Deutsche Bundesbank; CMVM calculations.

The current levels of interest rates and sovereign yields asymmetries among Euro Area countries continue to be historically low, with the exception of Portugal, whose spread compared to countries such as France, Ireland and Spain widened since the end of 2015. Nominal ECB reference rates, the Euribor and even sovereign yields are at, or close to their minimum historical values (Portugal is yet again an exception in this latter indicator), warning therefore caution for historically low price of money. The real returns are of course lower when inflation is discounted because although the HICP exhibits low values in several countries - with outright negative price changes showing in Spain - the second quarter of 2016 marks a renewed tendency of positive inflation almost all over the Euro Area. In Portugal, however, public debt real yields are higher in 2016 Q3 than in 2015 Q2.

Additionally, with several competing investment options continuing to show historical minimums, from the yield seeker investor’s point of view, the evolution of their relative attractiveness has even more relevance. In fact, the spread of the 10-year sovereign yield in Portugal vis-à-vis the 12-month Euribor (a usual reference for the return of deposits) makes the Portuguese sovereign yield more attractive: it is 140 b.p. higher than at the end of 2008 and amounts to 70 b.p. when compared to the end of 2015.
Non-performing loans are also a source of concern in other countries, particularly in Greece and Italy. Nonetheless, these countries seem to be exceptions as credit quality in the Euro Area has been improving since 2013. A noticeable example is Ireland whose NPL ratios, despite still being at historical high levels, have been decreased considerably in the past year.

The latest indebtedness data of private corporations and individuals\(^4\), considering not only loans but also debt securities (nominal value) and trade credits, reveal some deleveraging. The households’ indebtedness level has been slowly but steadily reducing since December 2007, reaching a minimum in September 2016 at 78.3% of the GDP. Private corporations show the lowest ratio (144.9% of GDP\(^5\)) in the last three month since September 2008, though it is still among the highest in Europe. Considering that these levels of indebtedness are still quite high, they hamper the increase of savings and investment.

Considering the dimension of private corporations and non-financial holdings by headcount,\(^6\) micro-, small-, and medium enterprises have undergone deleveraging since 2012, while large corporations are following an opposing path.

The overall net issuance of debt securities in Portugal, after remaining negative during last year, turned to positive in 2016 owing to the evolution of the long-term debt securities.

The global level of new loans has been steadily rising since 2005, remaining, however, at a lower level in the last couple of years, without showing a clear negative trend. On the other hand, nominal interest rates declined, though in a smoother way for loans up to €1 million, and reached minimums for all amount of loans.

**Graph 22. HICP (percent change)**

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Source: Bloomberg; CMVM calculations. Last data point: September 2016.

Latest data for Portugal (June 2016) shows that private (state owned) NFC indebtedness amounts to €266.4 billion\(^3\) (€44.4 billion), which corresponds to a decrease (increase) when compared to the previous month.

In September 2016, loans granted to NFC decreased by 4.9% on an annual basis, while loans granted to households fell by 2.0%. Considering the credit purpose, housing loans maintained a downward trend, whereas consumer

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\(^3\) One billion equals 10\(^9\) throughout this report.

\(^4\) The scope goes beyond considering households. It also considers self-employed entrepreneurs and non-profit institutions serving households.

\(^5\) Non-consolidated values.

\(^6\) This data includes non-financial holdings in order to add up for the total of private corporations’ debt.
loans and loans for other purposes increased. Indeed, the NPL ratio has increased the most in consumer credit, especially in the case of credit cards, and more modestly in the mortgage secured credit.

Graph 24. New Loans, Respective Interest Rates

For the Euro Area, credit granted to households increased substantially in 2015, however, numbers for 2016 show a reduction in the pace of growth. This slowdown occurred both in mortgages and consumer loans. In Portugal, the overall outstanding loans for households have decreased by 18.1% compared to its peak in late 2010, while it increased by 4.2% in the Euro Area.

Notwithstanding the real GDP growth progress, NFC indebtedness remains high and restricts investment’s contribution to growth. Moreover, the disturbances in the banking sector tend to obstruct the recovery of the economic activity and to delay agents’ investment decisions. Additionally, as referred above, the NPL ratio still remains at historically high levels. As a conclusion, funding risks are considered to be very high in the Portuguese market.

1.5 Real Estate Developments

Since the US-born sub-prime crisis, awareness over real estate has increased, turning it a critical area of financial stability analysis. The real estate market has therefore been on the radar as a possible source of risk transmission across multiple sectors. Currently, China is probably the most prone to develop a potential real estate bubble while other jurisdictions, such as the UK, have experienced in 2016 Q3 the suspension of redemptions in several real estate funds in the aftermath of Brexit. In Portugal, no actual bubble burst occurred in the aftermath of the financial crisis, however, market prices have been scaling since the market heavily contracted between 2010 and 2013 Q1.

The real estate market illiquidity combined with non-performing loans put banks under stress and give rise to potential conflicts of interest in highly concentrated financial groups with stakes in insurance, real estate funds and other areas of asset management. This has been one of the action matters for the Portuguese tri-party financial supervision authorities during the last few years which promoted, among other initiatives, the harmonization of the appraisals framework.
Nonetheless, Portuguese real estate market shows currently an even more intense pickup in the number of houses sold and, more significantly than in 2015, in prices. The price increase of 6.3% in 2016 Q2 is more noticeable in touristic appealing regions, such as Lisbon and Algarve, and has been mainly due to used houses transactions. This tendency is not fully accompanied by real estate banking appraisal values (yearly change of 3.6% in August 2016) which signals that banks are still prudent in their evaluations compared to other market practitioners.

The vacancy rates of real estate funds’ properties have diminished in the last three years, revealing an increased manager ability to let property, namely in the housing segment. The higher occupancy rate has not been accompanied, in some cases, by positive real estate funds’ returns due to a significant decrease in rental yields, as well as to a moderate decrease in experts’ appraisal valuations. Sectors such as logistics and subprime housing have yet to show a price recovery.

Graph 26. Number of Sold Houses

Graph 28. Occupancy Rate of Real Estate Funds’ Properties

The recent evolution of the aforementioned indicators warn for close surveillance over the Portuguese real estate market.

2 Securities Market Indicators

2.1 Equity Markets

At the global level, the capital raised through IPO in 2015 decreased by 21.5% on a yearly basis and the IPO activity in the first 3 quarters of 2016 was down by nearly 50% year-on-year. The decline in EU equity issuance is particularly marked in the financial
sector, in line with the under-performance of equity prices. Contrasting with the downward trend of share issuance, mergers and acquisitions worldwide registered a record level in 2015 and in 2016 Q3 hitting higher levels than in 2013.

The majority of the secondary stock market indices show significant accumulated negative returns until 2016 Q3, while the S&P500 (US market), the FTSE 100 (UK market) and the MSCI World index (which includes developed and emergent markets) indicate a raise in the stock market performance since the beginning of the year. The drop in prices was higher a few weeks before and immediately after the UK referendum, but among European markets only the UK index recovered in 2016 Q3 to a higher value than the one observed at the Brexit’s result.

The dispersion of several sectoral indexes shows a higher heterogeneity in stock price evolution in different segments. The index of the financial sector exhibits the lowest performance.
Historical 30-day volatility in 2016 Q3 hovered around values significantly below the ones registered during the year, especially after the spikes that occurred between mid-June and the beginning of August in the aftermath of Brexit. The European and Japanese markets reached maximum volatilities around 35%. On the contrary, volatility in the US market remained below the half of that value and did not show the same level of responsiveness to Brexit than the European indices.

In the end of 2016 Q3 the difference between the stock market earnings yield and the 10-year Treasury bond yield in Europe ranged between 2.5% and 4.9%, Portugal being an exception with a negative value of 2.5%. This may indicate that stock and Treasury bonds European markets are not in equilibrium. The low level of bond yields is probably the main robust explanation for such unbalanced situation.

In case of Portugal, this indicator shows, with just a few exceptions, a large negative value since 2011. This originates mainly from the large default risk perceived by investors related to the Portuguese sovereign debt, but also from the relatively steeper fall in the Portuguese stock market earnings.

The value-at-risk is mostly influenced by fluctuations in volatility. Therefore, it is not surprising that potential losses that investors may face in US stocks since mid-2015 (and to a certain extent, also historically) are much lower than the ones borne when holding European stocks. Regarding the PSI20, the value-at-risk shows higher responsiveness to potential losses after Brexit (which was also observed during the peak of the financial crisis), but since August 2016 it remained at around 15% to 20%, relatively lower than the EuroStoxx50 index.
The average dividend yield of PSI20 stocks trends upwards since the beginning of 1999. After the peak in 2011 (and coinciding with low GDP growth), the dividend yield has stayed below the average for most of 2014, namely due to the low interest rate environment. On the other hand, the average implied risk premium\(^7\) in the Portuguese market stood at around 8.4% between 1999 and 2015 (9.1% in 2015).

**Graph 36. PSI20 Dividend Yield – Monthly Average**

When analysing the weight of the net present value of growth opportunities (NPVGO\(^8\)) of the stock prices of the Portuguese firms, a positive trend is apparent since 2007, suggesting that investors are more confident in firms’ growth opportunities and in the perspective of future dividends. However, NPVGO for banks remain negative.

\[^7\] The implied market return is obtained considering a diversified stock portfolio and the dividend discount model, weighted by the stock market capitalisation. The 5Yr Euro Generic Govt Index is considered risk-free.

\[^8\] NPVGO is calculated considering 12 firms quoted in Euronext Lisbon. Stock prices, earnings per share and cost of capital are value-weighted. \(P_0 = \frac{EPS_1}{\delta} + NPVGO_0\), where \(P_0\) is the stock price on period 0, \(EPS_1\) represents the earnings per share on period 1, \(\delta\) the cost of capital and \(NPVGO_0\) is the net present value of growth opportunities on period 0.
The next graph shows the evolution of the price to book ratio (PBR) for bigger European and North-American listed banks and for Portuguese listed banks, evidencing the contrast between European banks prior to and after the 2007-2008 financial crisis. In 2007 the PBR surpassed 1.5 for both European and US banks, whereas in September 2016 it was only 0.55 for European banks and 0.92 for US banks. European banks performed worse compared to their US peers even in the heightened of the financial distress period.

As mentioned earlier, the European economy has proven to be less resilient than the US economy regarding the adverse shocks in economic growth and employment. The slower recovery of the EU economy led to a sharp increase in non-performing loans in some European countries (most notably in Italy and Portugal). The profit margin of the EuroStoxx banks was 9.04%, compared to 22.36% for banks included in the S&P500, while the return on equity stood at 3.72% and 8.39%, respectively.

The nexus between the real economy and the banking crisis is now a source of concern for policy makers and supervisors. On one hand, the high levels of non-performing loans not only cut the profitability of the banking sector and drives away investors, but also weakens the link between the monetary policy and the real economy. On the other hand, the slow economic recovery also hampers bank profitability due to the higher level of defaults in the non-financial sector.

The regulatory pressure that affected the banking sector has also resulted in negative effects in the banks’ profitability. Even though negative interbank interest rates increase the value of bank’s assets, they affect negatively their profit margin as banks, due to legal constraints, do not have the ability of rebounding those rates on depositors and other short term creditors. Additionally, some banks in distress face greater difficulties in raising capital, or issuing hybrid instruments and junior debt in capital markets since the introduction of the Single Resolution Mechanism on January 1, 2015. The costs of such capital has proven to be higher than recent return-on-equity obtained by banks.

The structural profits of the S&P500 have been growing steadily since 2000, at an average rate of 6.1% per year, well above the inflation. Most notably, structural profits of the S&P500 grew at an even higher pace in the period between 2014 and 2016 Q2 (with an annualized growth rate of 9.9%). The Cyclically-adjusted Price Earnings (CAPE) for the S&P500 amounts to 20.3 in June 2016, higher than its long term average (19.1).
The profit margin of the S&P500 has evolved negatively in the past three years (9.62% and 8.25%, in December 2013 and September 2016, respectively), whereas the dividend pay-out ratio has increased (36.9% and 55.4%, in December 2013 and September 2016, respectively). There is, thus, a reduction in the retained earnings that boosts investment and future growth. In parallel, the price-earnings ratio implied by analysts’ forecasts for the next year (16.1) is below the current price-earnings ratio. Considering these values statistics together, they contradict the perception that the market has higher earnings growth expectations in the medium-term.

The economic performance of Euro Area companies contrasts with that of the US companies. Structural profits of Euro Area companies have not yet recovered to the levels exhibited prior to the 2007 financial crisis. Indeed, the level of structural profits in June 2016 is 36% below the level of September 2008. One of the reasons for the underperformance of the Euro Area firms concerns their profitability: the current profit margin of the MSCI Euro Area index firms is 4.5%, in contrast with the 8.25% for the firms of the S&P500. The current dividend pay-out ratio of the MSCI Euro Area index is equal to 74.6%, which conforms to the idea that Euro Area bigger firms lack medium-term growth opportunities.

In Portugal, the earnings of major listed firms (particularly those of the banking sector) dropped into negative domain in the last few years. As a result, ratios such as the price earnings ratio and CAPE became meaningless. Notwithstanding, the PSI20 saw a slight increase of the price earnings ratio associated to positive earnings from 2014 onwards. However, PSI20 firms experienced a profit margin decline in the first semester of 2016 (-0.44%, against 2.15% in December 2015).

2.2 Market Venues

In the major developed economies, the weight of lit venues (i.e., traditional regulated markets) in the overall equity trading activity has been decreasing. Portugal has been trailing some of its European partners where this phenomenon has been less intense. Nevertheless, the average weight of the lit market decreased from 56.3% in 2014 to 46.1% in the 2016 Q3, as the off-book trade (i.e., executed over the counter) increased from an average weight of around 39.0% to 48.1% in the third quarter of 2016. This means a recovery of off-book markets share since it represented less than 40% of trading in several quarters. The fragmentation and trading dispersion poses a challenge to market oversight since it may affect efficient price formation and
generate regulatory arbitrage among platforms.

The value of share trading has been decreasing gradually since the end of 2013, with the total amount traded in 2016 Q3 representing around one third of the volume of 2010 Q2. This reduction has clear negative effects on market liquidity and implicit transaction costs and also pushes the Portuguese market to an even more peripheral situation compared to its European peers.

Graph 42. Lit Venue Market Share

Source: Fidessa; CMVM calculations. Last data point: September 2016.

Graph 43. Market Share of Trading Venues (PSI20 constituents)

Source: Fidessa; CMVM calculations. Last data point: September 2016.

2.3 Bond Markets

Credit conditions for corporates slightly improved towards the end of 2016 Q3. The spread of A and BBB US corporate bonds vis-à-vis the 10Yr Treasury bills have almost reached the values observed before the 2007 crisis and stood significantly below the ones registered in the pike of Europe's sovereign debt crisis (although the US credit market only suffered a minor impact). Nonetheless, the credit gap spread between BBB and A US corporates remains at levels that suggest the need for correction in risk pricing differentiation: although decreasing since 2016 Q1, it remains in a range of 60 to 80 b.p. since the end of 2014, slightly below the levels observed in the aftermath of the 2007 crisis.
In Europe, the spread differential between BBB and A corporates has also been falling since the beginning of 2016, and is about to reach a historical minimum, signalling a certain flattening in risk pricing. This also warns for caution in the near future since it might contribute to the worries regarding the surge of another risk gap mispricing. Currently the gap is slightly less than half than that registered in the US. This evolution might be explained by the search for yield behaviour, given that prime European sovereign yields have been historically low (and sometimes even negative).

As regards the 10Yr sovereign spot rates, while Germany, UK, Spain and France display a negative year-to-year variation (-0.71 p.p., -1.02 p.p., -1.01 p.p. and -0.80 p.p., respectively), in Portugal the 10Yr spot rate has increased by 93 basis points.

Portugal is also the only country in the group that shows a positive variation in the spread vis-à-vis Germany. In the end of September 2016 the 10Yr sovereign spot rates for Portugal hovered around 3.3%, well below the average for the period 2002-2008 (4.18%). Nevertheless, that figure represents a striking jump in the spread compared to Germany (0.12 p.p., on average, for the period of 2002-2008, and 3.44 p.p. for September 2016), within a context in which the ECB, due to the net purchases delivered between March 2015 and October 2016 under the public sector purchase programme, holds around 20% of the Portuguese government fixed rate bonds (OT).

This spread gap can be also observed in the CDS market. In fact, the Portuguese 10Yr CDS 2016 Q3 spread over Germany (287 b.p.) is at its high since the end of 2013, while CDS spreads for Spain, France and the UK have either dropped or remained relatively stable.
decomposed into three different components. The first component owes to the credit risk associated to the Portuguese Republic. The credit spread of 10Yr Portuguese sovereign bond yields compared to the German counterpart mounted 1.64 p.p.. One of the reasons for the increase of the sovereign credit risk lies in the expectations of economic agents regarding the Portuguese economic growth in the near future. In its latest report, the IMF cut the projections for the real GDP growth for the 2016-2018 time horizon and private sector players surveyed by Bloomberg also predict the underperformance of the Portuguese economy vis-à-vis the Euro Area economy.

The second component is related to the yield curve slope and curvature. The yield curve slope of the German sovereign debt (measured as the difference between the 10Yr and 2Yr spot rates) declined by 0.27 p.p. in the last year. Indeed, the reduction of the slope of the (considered risk free) yield curve is consistent with the economic slowdown projected by official and private entities. For instance, the IMF latest report for the Euro Area predicts a reduction in the GDP growth rate (from 2.0% in 2015 to 1.7%, 1.5% and 1.6% in 2016, 2017 and 2018, respectively). The projections of the private sector entities surveyed by Bloomberg are even more pessimistic than those of the IMF.

The 12M Euribor is influenced by the monetary policy and the credit risk perceived by the financial institutions that operate in interbank markets. The private sector entities surveyed by Bloomberg and the IMF both foresee the maintenance of negative short-term interest rates over the next year.

As for the spread between interbank rates and the German Treasury bills with one-year tenor, it hovers around -0.617%. To put this number into context, this spread was 0.14% for the period of 2002-2007, and -0.77% for the period of 2008-2016, which means that the level of credit risk of the banking sector is still far above that observed in the period preceding the great recession.

Interest rate risk is also relevant, since the duration of sovereign debt traded in world markets is at or near unprecedented levels. The effective duration of a global government bond index sponsored by the Bank of America registered an all-time high of 8.23 years in 2016 (5 years in 1997, year when the index was launched). The duration is a record 5.9 years for US bonds, 7.2 years for the Euro Area and 8.8 years for Japan. Based on these figures and on a Bloomberg Barclays sovereign debt index, estimations of the end of October 2016 predict that a one p.p. increase in interest rates would result in $2.1 trillion losses for global investors, which, considering the arising inflationary tensions in the US, might be a scenario to be observed.

In Portugal, the duration of mutual funds’ bonds portfolio is a good proxy to ascertain how institutional investors position themselves towards the interest rate curve and how hard bond prices would be impacted by an increase in interest rates. In general, duration has been low (around 2.11 in October 2016, although duration of public debt reaches 2.45), showing that domestic fund managers have a more cautious position on the yield curve than world investors overall. On the side of Portuguese insurance companies, the exposure to the yield curve for domestic sovereign debt is represented by an average duration of 4.87 years in 2016 Q2.
2.4 Investors

Investment Management

In 2016 the investment management sector suffered from the consequences of the resolution of Banco Internacional do Funchal (BANIF) as well as from relevant changes in the shareholder structure of the asset management company connected to it (BANIF GA). Even though BANIF’s core banking business was sold to the Santander Group, BANIF GA was included in a company managed by the Resolution Fund itself. Nonetheless, the loss borne by investors was unavoidable with almost €500 million of assets under management (AuM) eroding from BANIF GA between the quarter previous to the resolution and 2016 Q3. The most likely scenario is that the assets will be transferred to other investments outside the perimeter of the resolved bank.

Up until September 2016, a decrease in AuM of individual portfolio management (-4.5% since December 2015) occurred, as well as of in collective investment (-8.4%). This decrease of AuM in collective investment was cross sectoral, with special investment funds (-19.3%) experiencing the most significant drops. Undertakings for collective investment schemes in transferable securities (UCITS) decreased in 2016 Q3 (-9.5%), and real estate funds, despite higher real estate prices, also recorded a reduction in AuM (-5.0%). This latter was possibly boosted by the elimination of the remaining tax benefits put forward in the 2016 State Budget.

On the private equity and venture capital side, the strongest investment activity continues to be focused on distressed and highly indebted companies. Start and seed capital have received increasing attention in 2016. Insofar, no Portuguese company entered the stock market through an IPO after being assisted by domestic venture capitalists, suggesting that the sector is not yet large enough to allow a proper capitalization of domestic companies. Private equity and venture capital funds and companies are mainly held by institutional investors.

With the exception of flexible funds, the AuM of the different fund types have been relatively stable. Money market funds are an exception, with lower AuM (mainly due to low yields and low reference interest rates). Equity funds, in particular those focusing on Portuguese stocks, continue to be subdued and do not provide real alternative for domestic companies to seek placement of own capital. This, together with a still small private and venture capital sector (amounting less than €4 billion of AuM), poses probably the most relevant financing constraint that companies face, pushing them towards bank credit, resulting both in higher financing costs and increased bankruptcy risks arising from unbalanced capital structures.

Bond funds show, in turn, a longer trend in AuM reduction which cannot be separated from recent default episodes in commercial paper and bond issues of relevant listed Portuguese companies. These most probably implied reluctance among bond
Fund investors regarding future direct investment in bonds and in specialized collective investment schemes of such nature. However, since funds did not hold the mentioned bonds at the time of default, they were not directly affected. This occurred despite average positive bond fund returns in four out of the last five years. Alongside, the recent evolution of the modified duration of CIS’ bond portfolio shows a slight reduction of the global exposure to the yield curve, steeper in what concerns public debt duration, revealing an accrued caution in managers’ investment policy towards sovereign debt.

**Graph 50. UCITS (AuM in € Millions)**

![Graph 50](image)

Source: CMVM; Last data point: October 2016.

**Graph 51. Weighted Modified Duration of All Mutual Funds’ Bond Portfolio**

![Graph 51](image)

Source: CMVM; Last data point: October 2016.

Fund returns compared to appropriate benchmarks in a period of almost seven years show nonetheless that collective investment – after fees and taxes – still pays more than (or equal to) other risk/reward comparable investments. Open ended real estate funds – that amounted in 2016 Q3 to around €3.5 billion – are an exception since they have been generating negative aggregate returns for the last five years (below an alternative investment in an average 2-year bank deposit), Bond fund managers, even though positioned in a significantly lower yield bond curve duration relatively to the selected benchmark, show a rather persistent ability to outperform it.

**Graph 52. Fund Returns vs Benchmarks**

![Graph 52](image)

Source: CMVM, APFIPP, BdP and Bloomberg; CMVM calculations; Last data point: September 2016.

Net flows of a wide array of financial instruments available to investors reveal a consistent flight to safety from securities and insurance investments to investment in bank deposits and public debt offered directly to retail investors. In a period of almost ten years around €27 billion were divested from securities and insurance products and almost €57 billion floated to deposits and retail public debt. This shows that, regardless of the low (and sometimes even negative) interest rate environment, investors still prefer to allocate their savings in bank deposits. Despite the recent resolution of two banks, investors seem to prefer the risk of a possible ‘€100,000 covered bail-in’ and to bear the risk of the Portuguese Republic than to invest their savings in the securities markets.
The year up to September has been positive for Public Debt (sold to individuals as Certificados de Aforro and Certificados do Tesouro) in line with the three previous years. All the remaining investment instruments experienced outflows in the period.

**Graph 53. Net Flows of Mutual Funds by Type**

A steady increase in demand for safer investment funds occurred between 2012 and 2015, with the exception of 2014. This stemmed from positive net inflows (€2.3 billion) into both money market funds (MMF) and variable income bond funds (VIBF) and negative inflows in riskier funds (€350 million outflow from equity funds (EF) and fixed income bond funds (FIBF)). During the second half of 2014, both the generic demand and the flight to quality components exhibit, again, a significant drop, coming from widespread outflows across virtually all fund categories, suggesting a loss in investor confidence. Despite the general increase in demand for investment funds observed in 2015, supported by substantial net inflows into hybrid equity funds (HEF) and personal retirement funds (PRF), flight to quality was still present, determined by net outflows from VIBF. Furthermore, the first nine months of 2016 also show global outflows across all fund categories, especially in MMF and alternative funds. Flows into riskier investments, such as EF, dropped more than the average of the last three years. Altogether, EF recorded outflows of around €660 million since 2010 and safer funds (such as MMF and VIBF) exhibit precisely the opposite figure. Taken together, these recent developments suggest that investor confidence in investment funds has receded again and that fund investors are more willing to allocate their savings in other instruments such as bank deposits and retail public debt.

**Structured Retail Products**

The placement of structured retail products (SRP) has been diminishing both in what regards the amount issued and the riskiness of products. Although SRP without capital protection is still dominant, guaranteed SRP is also catching recently.

The decrease observed in 2016 could be explained by the default of bonds issued by Portugal Telecom International Finance in June. These bonds were the underlying of several SRP, including credit linked notes (CLN), causing significant losses to investors. This event undermined significantly the confidence of investors and probably pushed issuers to adjust their offers towards lower risk products.
The aforementioned is reflected in the alert type included in the SRPs’ informational documents, since products flagged with a green alert (100% capital protection) have been increasing both in number and in proportion. However, looking at products’ special complexity (SRP whose pay-off and other product’s mechanisms may be hard to be apprehend by retail investors), around 87% of SRP issued in the first three quarters of 2016 were tagged as having special complexity. Thus, although the risk of SPR may have decreased, the probability that the average retail investor will not be able to understand its functioning has been increasing.

2.5 Technological Developments and Related Risks

The technological developments and the digital innovations are changing trading approaches. Indeed, the electronification rates are increasing sharply in many asset classes (e.g. according to BIS, the share in electronic trading in 2015 in equities and futures is higher than 80%). Market participants use increasingly the web, mobile, cloud and social media technologies.

The emergence of new innovative technologies and market practices are expected to facilitate the interaction between financial intermediaries and investors. Consumers have a wide range of accessible investment offers to compare and to manage their savings online. Service providers might develop technological solutions to improve traceability and storage of information on their clients, lower their distribution costs and offer product innovations.

The rise of digital platforms and new online offerings might be tracked by regulators in order to minimize potential impulsive buying by the consumers and to prevent less financially literate consumers to be exposed to misunderstanding and mis-selling conducts.

The spread of digital offerings and the increasing market electronification are advantageous for market participants. However, they also foster the emergence of new concerns and new risks for the financial markets. While it appears to promote liquidity in regular market conditions, the increasing electronic trading might raise concerns with the evolution of high frequency trading and associated risks. Moreover, with the growing interdependency and interconnectedness of the financial system, the speed of the reaction to a shock affecting a given asset class to be passed on to the equity market might increase.

The electronification also contributes to the emergence of a new type of risk, i.e. the cyber risk. A cyberattack can be defined as "a harmful activity, executed by one group (including both grassroots groups or nationally coordinated groups) through computers, IT systems and/or the internet and"
targeting the computers, IT infrastructure, and internet presence of another entity. An instance of cyber-crime can be referred to as a cyberattack.\(^9\) In the financial sector, cyber-attacks might affect not only market infrastructures such as trading venues, but also market participants, including investors, financial intermediaries and management companies (e.g., OICV-IOSCO report for an overview of recent cyber-threats and attacks in the banking systems and financial services industry targeting markets and asset managers\(^10\)).

Also, the World Economic Forum identified large-scale cyber-attacks as one of the high-impact global risks of 2015\(^{11}\). Additionally, the range of motivations behind cyberattacks broadens\(^{12}\). Hackers might attack market infrastructures to harm the system or market participants by stealing data and money, for a profit. From a market efficiency standpoint, the manipulation of trading venues would obstruct functioning of markets. From an investor protection perspective, cyber-attacks could, for example, result in leakage of confidential investor information, in misappropriating investor assets or even financial intermediaries’ website cloning with the aim of defrauding investors. Moreover, terrorists might cause political as well as financial instability.

Cyberattacks launched against securities markets can result in high economic costs and damage the integrity of the financial system. As cyber threats have increased in number, sophistication and resulting costs over the past few years\(^{13}\), mitigating cyber risks and increasing the cyber resilience of the financial systems should be in the agenda of security market regulators around the world (see OICV-IOSCO report for an overview of the recent approaches undertaken by financial regulators). Currently these risks do not seem very intense in the Portuguese market, but should not be disregarded.

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\(^{10}\) IOSCO Securities Markets Risk Outlook 2016.
\(^{11}\) WEF Global Risks 2015, 10th Edition.
\(^{12}\) CPMI, Cyber Resilience in Financial Market Infrastructure 2014.
\(^{13}\) Ibidem.