ROYAUME DU MAROC

acaps

Autorité de Contrôle des Assurances et de la Prévoyance Sociale

بنك المغرب

BANK AL-MAGHRIB

الهيئة المغربية لسوق الرساميل

AUTORITÉ MAROCAINE DU MARCHÉ DES CAPITAUX

FINANCIAL STABILITY REPORT

YEAR 2016 | ISSUE NO. 4

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FOREWORD

Law No. 103-12 on Credit Institutions and Similar Bodies, which entered into force in January 2015, has established the Systemic Risk Coordination and Monitoring Committee (SRCMC). The mandate of the Committee is to ensure macroprudential oversight of the Moroccan financial system. In this framework, the Ministry of Economy and Finance's Treasury and External Finance Department (DTFE), in close coordination with Bank Al-Maghrib, the Supervisory Authority of Insurance and Social Welfare (ACAPS) and the Moroccan Capital Market Authority (AMMC), drew up a draft decree setting out the composition and functioning of this Committee. This decree, currently in the course of being adopted, has been supplemented by the Committee's rules of procedure that define the practical arrangements of coordination between the members of the SRCMC.

At the operational level, the SRCMC held two meetings in 2016, in which it approved the inter-authority financial stability roadmap for the period 2016-2018, assessed risks to the financial system based on the systemic risk mapping and approved the Financial Stability Report for 2015.

At the analytical level, financial system regulatory authorities continued their efforts to strengthen arrangements for macroprudential supervision analysis. In the banking sector, work focused particularly on developing macroprudential models and analyses, examining interactions with monetary policy and refining the framework for assessing contagion risk from foreign-based subsidiaries of Moroccan financial institutions.

In the insurance sector, the analytical framework was revised, taking account of the shift towards a risk-based solvency regime. Regarding the capital market, a project was launched in the fourth quarter of 2016 to overhaul relevant risk indicators, with the technical assistance of the World Bank.

Concerning crisis resolution preparedness, Bank Al-Maghrib developed, in the first half of 2016, a roadmap to establish a resolution system compliant with international standards, with technical assistance from the International Monetary Fund and the World Bank in consultation with the DTFE.

Turning to communication, the SRCMC issued, for the first time, press releases following its two meetings in 2016 in order to enhance the transparency of its action in terms of financial stability and macroprudential oversight. In addition, an information and sensitization symposium on financial stability was organized for the benefit of the staff of both the SRCMC member authorities and the Ministry of Economy and Finance.

* * * * *

This issue of the Financial Stability Report was prepared jointly by the financial system regulatory authorities. It includes four chapters which deal with the following topics:

1. Major international and national macroeconomic developments, related risks and their impact on the financial system;

2. The financial position of nonfinancial sectors and their ability to meet their financial obligations with respect to the financial system;

3. Assessing the soundness and resilience of financial institutions by analyzing the main risks to the sectors of banking, insurance and pension plans;

4. Developments in capital markets and market infrastructures, with emphasis on the assessment of major risks to market stability and systemically important infrastructures.

These chapters are preceded by a general overview of the main economic and financial trends relating to financial stability.

CONTENTS

GENERAL OVERVIEW

Risk from the external position remains weak despite the rise in the current account deficit

In 2016, global growth decelerated to 3.1 percent compared to 3.4 percent a year earlier, reflecting slower economic activity in advanced countries and the major emerging economies. Financial conditions remain surrounded by several uncertainties related to the effects of the Brexit referendum, the rise of protectionism and the fiscal stimulus announced by the new American administration.

Over the next two years, the IMF expects global growth to improve, particularly driven by the expected activity upturn in major advanced[1] and emerging countries, as well as in commodity-exporting economies, thanks to the gradual increase in commodity prices.

Nationally, the current account deficit rose to 4.4 percent of GDP from 2.1 percent in 2015, due to the widening of trade deficit. This trend is attributed to a substantial increase in imports combined with an insufficient momentum of exports[2]. According to Bank Al-Maghrib's projections, the deficit should grow slightly in 2017 before falling in 2018, allowing foreign exchange reserves to cover 6 months of imports in both 2017 and 2018. Against this backdrop, the risk arising from the external position remains low.

National economy was affected by the underperformance of agricultural activities and the persistently sluggish nonagricultural sector

The sluggishness of national economic activity continues to weigh on the Moroccan financial system. Indeed, GDP growth moved down sharply to 1.2 percent from 4.5 percent in 2015, suffering from the sluggishness of nonagricultural activities, whose value added evolved only 2.2 percent[3], and the 12.8 percent contraction in the agricultural sector. The latter was impacted by adverse climatic conditions, with the highest rainfall deficit over the last thirty years and a poor spatial and temporal distribution of rainfall.

On the demand side, this situation reflects a negative contribution of around 4.7 points of net exports to GDP growth in 2016 after two years of positive contributions.

According to Bank Al-Maghrib's forecasts, national economy is expected to recover at 4.4 percent in 2017 and 3.1 percent in 2018, driven by the anticipated rebound of the agricultural sector in 2017 and the gradual improvement in nonagricultural activities.

1 Owing to faster growth in the United States.

2 Imports recorded, in 2016, a strong growth in volume by 15.4 percent, well above exports, or 5.1 percent.

3 Growth rate remains below pre-crisis growth potential (4.7 percent on average between 2003 and 2012).

Fiscal adjustment did not continue as planned and Treasury debt increased further

The fiscal consolidation that started in 2013 did not continue, as the deficit excluding privatization stood at 4.1 percent of GDP, a level higher than the Finance Act forecast. This overshoot is mainly due to an execution well above projections for investment spending and VAT credit repayment, as well as to lower-than-expected amounts of donations from Golf Cooperation Council countries.

Under these conditions, Treasury's debts moved up from 63.7 percent of GDP to 64.7 percent, with an increase in its domestic component to 50.6 percent of GDP and a fall in external debt for the second consecutive year to 14.1 percent of GDP. The overall public debt widened to 81.4 percent of GDP, mainly driven by the external indebtedness of public enterprises and institutions.

Considering the Finance Act forecasts and Bank Al-Maghrib's macroeconomic projections, the risk of a widening budget deficit should mitigate and the Treasury's debt is expected to decline from 2017 onwards.

Bank lending to nonfinancial corporations recovered, combined with an uptrend in nonperforming loans and longer inter-company payment deadlines

Household debts continued to progress, but at a slower pace than last year, at 4.3 percent. Their payment default kept falling to 7.3 percent, from 7.5 percent in 2015 and 7.8 percent in 2014.

The financial loans of nonfinancial corporations recovered with a 3.4 percent growth, after a 2.8 percent decline in 2015, thanks to the recovery of its banking component which grew by 2.1 percent after a decrease of 3.9 percent in 2015, while their default rate rose again to 10.2 percent from 9.7 percent in 2015.

The acceleration of this debt was largely driven by the public-sector businesses, whose debt grew by 7.5 percent, as its banking component continued to rise, registering at the end of 2016, its largest increase since 2010, at 24.4 percent.

Analysis of a sample of nearly 14,000 public and private nonfinancial enterprises shows a slight increase in their long-term debt ratio to 41 percent of their equity at end-2015. However, intercompany payment deadlines continued to extend, especially for VSMEs, reaching worrisome levels for certain economic sectors, such as real-estate development, construction, transport and communications, and services provided to businesses.

Financial institutions held up well amid unfavorable macroeconomic context

Income generated by banks in 2016 showed a growth of 31 percent, driven by an exceptional transaction, without which it would have fallen by 1.7 percent, particularly due to the contraction in their interest margin and the increase in their cost of risk. Against this backdrop, the profitability of their assets was slightly down around 0.8 percent and that of their equity dropped to 8.6 percent.

Banks' exposure to major debtors, one of the biggest risks faced by the Moroccan banking sector, continued to represent almost three times their equity.

On the prudential side, Moroccan banks hold equity ratios above regulatory minimums. The average equity ratio stood at 14.2 percent, from 13.7 percent in 2015, while the Tier 1 capital ratio stood at 11.5 percent, from 11.8 percent in 2015. In addition, the specific provisions made up by banks brought the rate of NPLs coverage to 69 percent.

The bank liquidity needs decreased in 2016, mainly due to higher foreign exchange reserves. Banks' use of Bank Al-Maghrib's advances fell to an average of 15 billion dirhams, from 35 billion dirhams a year earlier.

Moreover, the stress tests performed confirm that banks overall can maintain their resilience to shocks resulting from macroeconomic conditions or their exposures to subsidiaries located abroad.

The insurance sector business continued to grow in 2016. The penetration rate, measured as the ratio of issued premiums to GDP, stood at 3.6 percent, from almost 3.2 percent in 2015. Their unrealized gains amounted to 29 billion dirhams, an increase of 52.3 percent compared to 2015, reflecting an increase in the capital gains recorded in the compartment of equities and collective investment schemes. Liquid assets continue to hedge potential cash outflows, with a liquidity ratio of 266 percent, compared to 243 percent in 2015. The solvency margin, covering underwriting risk, increased to 449 percent, from 408 percent in 2015. However, with the shift to risk-based solvency, margin surpluses should drop significantly.

The level of services provided by pension schemes accounted for 110 percent of the contributions received and their reserves reached 281 billion, up 3 percent compared to 2015. The parametric reform of the Civil Pensions Scheme (RPC) in 2016 helped to balance the pricing of its affiliates' future entitlements, without reducing its significant past commitments under the previous entitlements. It also reduced the commitments not covered by the scheme by 53 percent over the forecast horizon (2066).

Capital market remains stable though with high stock market valuation and structurally low liquidity

In 2016, the issuance of private debt securities in Morocco fell by 8.7 percent from 2015 and their composition remains dominated by emissions of financial institutions. The credit risk to private debt is broadly limited, as debts of troubled issuers represented only 3.1 percent of the overall outstanding amount of private debt.

The stock market liquidity improved for the second year running, though hampered by the weakness of the floating stock. Indeed, market capitalization increased by 28.7 percent at the end of 2016, but is still characterized by the preponderance of strategic holdings, which represent almost 75 percent, de facto limiting the turnover rate. Moreover, the stock market contribution to financing the economy is marginal, as the funds raised stood only at 2 billion dirhams, as against 2.9 billion dirhams in 2015.

Following the significant increase in stock prices in the last quarter of the year, the valuation of the Casablanca Stock Exchange was high, driven by investors looking for better profitability given the low yield in the interest rate market. This situation could negatively impact the stock market, if the context of low rates changed drastically.

CHAPTER 1

MACROECONOMIC DEVELOPMENTS

OVERVIEW

The global economic environment in 2016 was marked by slower growth, particularly due to a lower increase of GDP in the key emerging and developing economies and a persistently modest growth in the advanced countries.

Financial conditions were impacted by rising uncertainty over growth in China, the referendum in the United Kingdom and fiscal stimulus measures announced by the new US administration.

Nationally, growth slowed markedly to 1.2 percent, suffering from sluggish nonagricultural growth and a 12.8 percent drop in the agricultural value added. According to Bank Al-Maghrib's projections, domestic activity is expected to recover at 4.4 percent in 2017 and 3.1 percent in 2018, thanks to the rebound in agricultural activity and the gradual improvement in nonagricultural activities.

Despite an increase in the outstanding amount of international reserves, their equivalent in months of imports fell slightly, mainly due to the large increase in imports. According to the Bank's forecasts, the current account deficit should widen slightly in 2017 before falling in 2018, enabling foreign exchange reserves to cover 6 months of imports. At these levels, the risk arising from the external position should remain low.

The budget execution resulted in a deficit at 4.1 percent of GD, excluding privatization, a level higher than the Finance Act prospects, thus breaking off the budgetary consolidation process which began in 2013. Moreover, following an increase in payment arrears for the first time since 2012, the Treasury's financing requirement fell by 20.2 percent compared to 2015 and was covered mainly by domestic resources. Treasury's debts thus rose from 63.7 percent of GDP to 64.7 percent. Bank Al-Maghrib's forecasts improvement of the budget deficit and a slight cut in the Treasury debt ratio as of 2017.

In terms of monetary conditions, the bank liquidity situation improved, leading Bank Al-Maghrib to raise the required reserve ratio from 2 percent to 4 percent. In addition, it pursued its accommodative monetary policy by lowering its key rate in March by 25 basis points to 2.25 percent, a historically low level. This situation continued to cause interest rate to ease and spurred credit growth to a more favorable rate (4.2 percent in 2016 from 2.8 percent), but its ratio to GDP remains lower than its historical trend. According to Bank Al-Maghrib's forecasts, the growth rate of loans to the nonfinancial sector should stand at 4.5 percent in 2017 and 5 percent in 2018.

In the real estate sector, the Real Estate Price Index (REPI) grew by 0.9 percent against the backdrop of a slight increase in loans to this sector and an easing of interest rates. Under these conditions, the risk related to this sector mitigated further compared to previous years.

I.1 INTERNATIONAL DEVELOPMENTS

Continued but modest growth globally

Global economic activity was characterized by a decline of growth from 3,4% to 3,1% in 2016, due to the slowdown in the major advanced economies. Particularly, weak investment contributed to the decline in growth from 2.6 percent to 1.6 percent in the United States, while in Japan it fell from 1.2 percent to 1 percent, owing to slower exports following the appreciation of the Yen. In the United Kingdom, the improvement in private consumption led to maintainig a sustainable growth of 1.8 percent, despite the Brexit-related uncertainties. In the euro area, although GDP increase dropped from 2 percent to 1.7 percent, growth in major economies improved, due to continuing accommodative monetary policies and particularly low oil prices. In Morocco's key European partner countries, growth accelerated in Germany and Italy, while it stabilized in Spain at 3.2 percent and fell from 1.3 percent to 1.2 percent in France.

In emerging and developing countries, economic growth almost stagnated at 4.1 percent, from 4.2 percent in 2015. More particularly, growth continued to decelerate in China for the sixth consecutive year, while in Russia and Brazil, GDP contraction eased relatively.

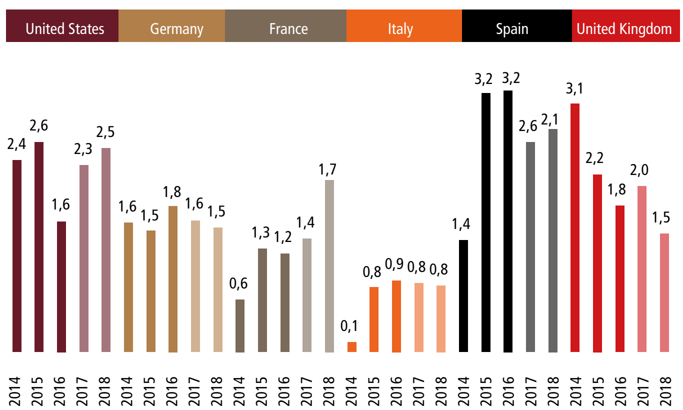
Growth in the MENA region moved up from 2.6 percent to 3.8 percent, supported by the significant improvement in economic activity in Iraq, which benefited from higher oil production and non-oil growth acceleration in Iran following the fiscal loosening.

Meanwhile, growth in Sub-Saharan Africa fell sharply to 1.4 percent from 3.4 percent a year earlier. This underperformance differs from one country to another. Indeed, the expansion of commercial activity, added to the increase in agricultural output and infrastructure investment, supported growth in the WAMU zone[4] , which almost stabilized at around 6.1 percent.

4 The West African Monetary Union is a monetary zone comprising eight countries in West Africa: Benin, Burkina Faso, Ivory coast, Guinea-Bissau, Mali, Niger, Senegal and Togo.

In fact, growth stood at 6.6 percent in Senegal from 6.5 percent, 7.5 percent in Côte d'Ivoire as against 8.9 percent, 5.4 percent in Mali from 6 percent and 5.4 percent in Burkina Faso from 4 percent. In East Africa, despite drought, the diversification of the economy in some countries, such as Tanzania and Kenya, maintained growth at a sustained level (5.8 percent). However, GDP of the countries of the CEMAC zone[5] contracted by 0.7 percent, suffering from the negative repercussions of the oil sector sluggishness.

Growth in the United States and Morocco's key European partner countries (%)



Source: IMF

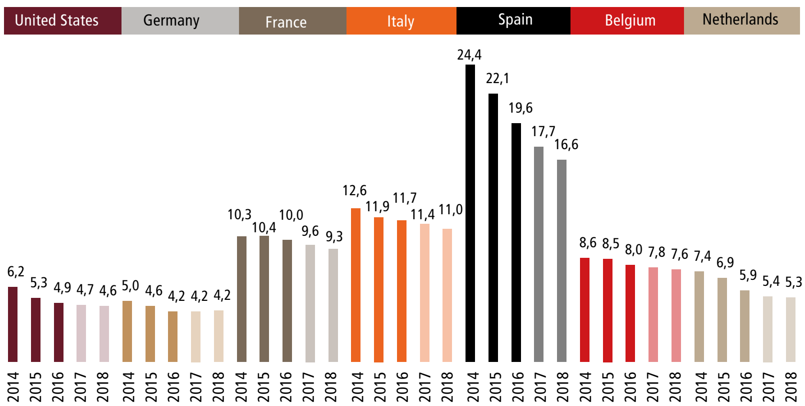
Labor market conditions improved considerably

Despite the economic slowdown, labor market conditions in advanced economies continued to improve in 2016. Indeed, unemployment rate fell from 5.3 percent to 4.9 percent in the United States, from 3.4 percent to 3.2 percent in Japan, from 5.4 percent to 4.9 percent in the United Kingdom and from 10.9 percent to 10 percent in the euro area. In the main host countries of Moroccan expatriates, this rate moved down from 22.1 percent to 19.6 percent in Spain, from 11.9 percent to 11.7 percent in Italy, from 10.4 percent to 10 percent in France, from 8.5 percent to 8.0 percent in Belgium, from 6.9 percent to 5.9 percent in the Netherlands and from 4.6 percent to 4.2 percent in Germany.

5 The Central African Economic and Monetary Community (CEMAC) is composed of six countries: Cameroon, Central African Republic, Republic of Congo, Gabon, Equatorial Guinea and Chad.

In the major emerging and developing countries, unemployment rate fell from 4.1 percent to 4 percent in China and from 5.6 percent to 5.5 percent in Russia, while it rose from 8.3 to 11.3 percent in Brazil. In the medium term, labor market conditions are expected to improve further, as indicated by the IMF outlook which projected a gradual decline in unemployment rate in 2017 and 2018.

Change in the unemployment rate in the United States and in the main host countries of Moroccan expatriates



Source: IMF

Slower fall in commodity prices

In 2016, the commodity market was characterized by a reduction of the energy price decline from 45.1 percent to 15.3 percent and in non-energy prices from 15 percent to 2.6 percent. Particularly, the average oil price rose from $29.8 per barrel in January to 52.6 in December, buoyed by the recovery in Chinese demand, the succession of production disruptions in several countries, the Oil Production Restriction Agreement concluded in November 2016 between members of the Organization of Petroleum Exporting Countries (OPEC). The crude phosphate price declined 4.5 percent, year on year, to $112.2 per tonne, while triple superphosphate (TSP), diammonium phosphate (DAP) and urea declined 24.5 percent, 24.7 percent and 27 percent, respectively. The annual decline in wheat prices eased from 22.5 percent to 16.5 percent.

Global growth should improve over the next few years

Global economic growth is expected to improve overall, according to the IMF's economic outlook of April 2017, to reach 3.8 percent by 2022. The gradual normalization of the macroeconomic situation in some countries, coupled with the gradual rise in commodity prices, should support growth in emerging and commodity-exporting countries. The economic activity of advanced countries should benefit from the faster growth in the United States following, inter alia, its expected fiscal policy loosening. As for Morocco's European partners, growth is expected to decelerate in Germany, Italy and Spain, but should move up slightly in France.

However, certain risks that could lead to a decline in growth require vigilance. These include:

- decline in the benefits of international economic integration due to the increasing protectionism;
- persistence of low growth and inflation in advanced countries due to the insufficiency of private demand;
- tightening of global financial conditions and the reversal of capital flows in connection with high corporate indebtedness and the fragility of bank balance sheets in emerging countries.

Financial conditions were marked by several uncertainties in 2016

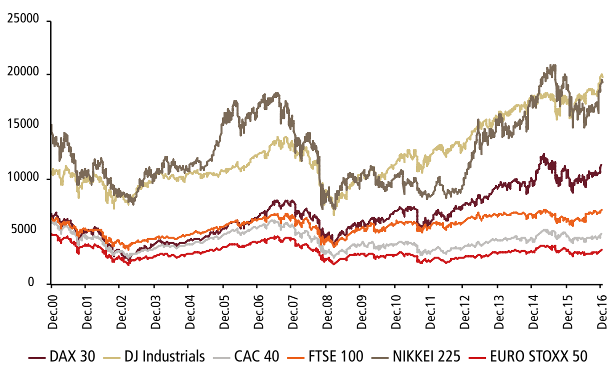
Financial conditions were mainly marked in 2016 by several uncertainties surrounding growth in China, Brexit and fiscal stimulus measures announced by the new US government.

The downward revision of global forecasts in the beginning of the year, coupled with a persistent slowdown in China, lower commodity prices and continued accommodative monetary policies, led to a decline in stock prices and an easing in interest rates of sovereign securities. On the other hand, despite the negative impact caused by the Brexit decision in June 2016, markets were revitalized in the second half of the year particularly owing to the improved economic activity and the announcement of the US recovery and tax cuts policies.

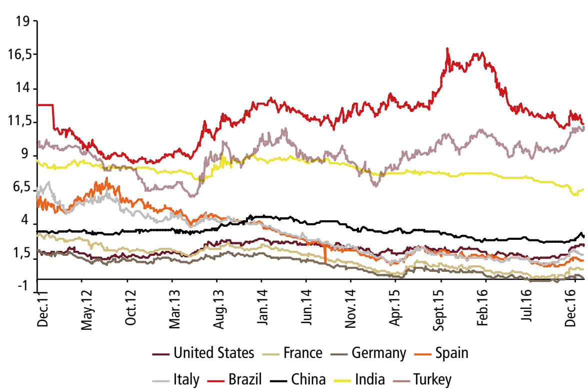
On the bond market, the 10-year sovereign yields declined from 2.1 percent to 1.8 percent in the United States, from 0.5 percent to 0.1 percent in Germany, from 0.8 percent to 0.5 percent in France and from 1.7 percent to 1.4 percent in Spain. Similarly, it fell from 13.8 percent to 12.9 percent in Brazil, from 7.8 percent to 7.2 percent in India and from 3.4 percent to 2.9 percent in China, on an annual average basis.

Although stock market indexes ended the year up, they recorded, on average, annual declines ranging from 1.8 percent for the FTSE 100 to 12.7 percent for the EUROSTOXX 50, except for Dow Jones Industrial, which rose by 1.9 percent.

Change in stock market indexes



Change in sovereign rates



Source: Datastream

Foreign exchange markets were affected by the normalization of the FED's monetary policy, which resulted in large depreciations of emerging countries' currencies vis-à-vis the dollar, ranging from 4.6 percent for the Indian rupee to nearly 10.1 percent for the Turkish lira. The pound sterling suffered from the pro-

Brexit decision, registering a strong depreciation of around 11 percent against the dollar and the euro and 20 percent versus the Japanese Yen.

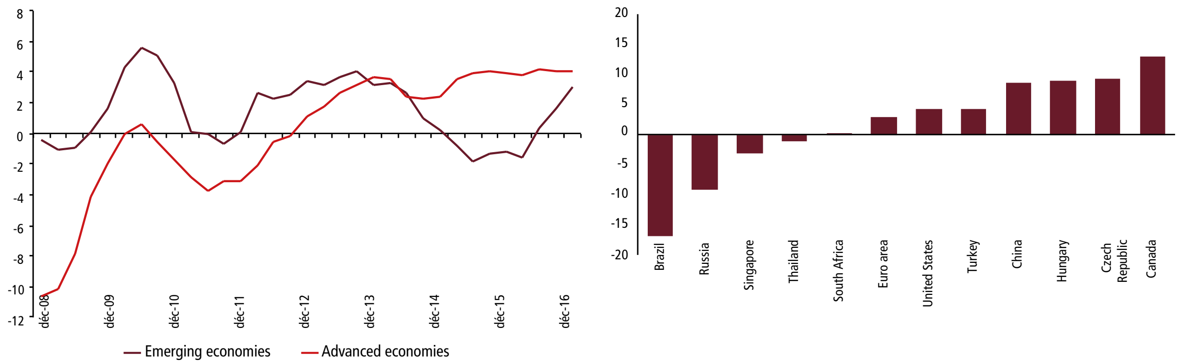
Trends in the foreign exchange market combined with those in oil prices have significantly impacted inflation in several countries. Indeed, the easing of the dollar appreciation contributed to the rise in inflation from 0.1 percent to 1.3 percent in the United States, while in Russia and Brazil it fell respectively from 15.5 percent to 7 percent and from 9 percent to 8.7 percent, following the dissipated impact of their currencies' strong depreciation, which occurred a year earlier. In the euro area, inflation was up to 0.2 percent, as against 0 percent, mainly affected by trends in energy prices.

Broadly further increase in real estate asset prices, without reaching pre-crisis levels

In the real-estate market, data for the fourth quarter of 2016, published by the Bank for International Settlements, indicate that residential prices continued to rise in advanced countries, boosted particularly by lower rates induced by accommodative monetary policies. Apart from Canada and Australia[6], growth of residential prices remained below pre-crisis levels in several advanced economies. Indeed, the price increase was limited to about 4.2 percent in the United States and United Kingdom, 2.2 percent in Japan and 3 percent in the euro area. In emerging countries, residential price inflation stood at 3.1 percent, year on year, driven mainly by price increases of 8.6 percent in China and 4.4 percent in India and Turkey. However, price index of residential properties declined sharply in Brazil and Russia to 16.7 percent and 9.3 percent, respectively.

5 Prices rose sharply by 13 percent and 6 percent, respectively.

Growth rate of the Residential Real Estate Index (%)

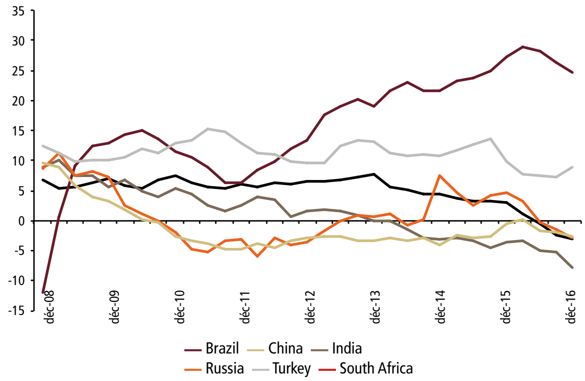


Source: BIS

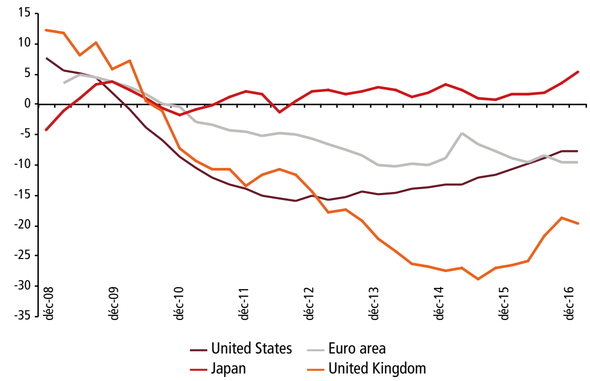
The credit bubble formation risk in advanced economies is broadly low, as evidenced by the analysis of the credit-to-GDP ratio gap compared to its trend at end-2016. This gap is still negative in the United States, the United Kingdom and the euro area, while it gradually widened in Japan to 5.4 percent in the fourth quarter. In key emerging countries, the credit-to-GDP ratio gap, compared to its trend, narrowed overall in the fourth quarter compared to the same period of the previous year. However, it remains broadly high in several countries, such as Turkey (8.8 percent), Thailand (11.3 percent) and Mexico (9 percent). More particularly, the above-mentioned gap reached an alarming level in China, or 24.6 percent in the fourth quarter, mainly reflecting a more rapid credit growth.

Changes in the credit-to-GDP ratio gap

Key emerging countries



Key advanced countries



Source: BIS

In short, despite the global economic slowdown in 2016 and uncertainties about financial conditions, risks to short-term financial stability appear to mitigate, partly due to the expected gradual recovery in prices of raw material, lower uncertainties about the slowdown in China and dissipation of concerns about Brexit.

However, the IMF's latest report showed that global financial stability could be, in the medium term, particularly affected by the accumulation of risks linked to the persistence of low interest rates which are likely to undermine the profitability of financial institutions. In the same vein, the Financial Stability Board highlights the need to carry out a post-implementation review of the reforms undertaken and to maintain vigilance regarding risks associated mainly with shadow banking, securitization of derivatives and the emergence of FinTechs.

Box 1: FSB Action Plan for 2017

The Financial Stability Board (FSB) announced, at the G20 meeting held in March 2017, the priorities of its action plan for 2017, which is structured around the following four areas:

- **Ensuring the resilience of shadow banking:** while the reform introduced by the FSB in 2011 to regulate shadow banking was fruitful, the latest assessments by the FSB have shown that the risk from this sector has diminished. Nevertheless, as new forms of shadow banking activities have emerged, the FSB is encouraged to maintain an effective surveillance program in this regard to prevent new risks and issue relevant recommendations.

- **Making derivatives markets safer:** Although the regulation of derivatives markets has been greatly strengthened following the financial crisis, thus helping improve the soundness of these markets, the FSB has planned to strengthen the measures regulating central counterparties (CCP), by presenting a detailed guidance to ensure their resilience, in collaboration with the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO).

- **Supporting effective and dynamic implementation of the post-crisis reforms:** the FSB develops a structured framework to assess the effects of the financial system reforms put in place by the G20 (post-implementation review) and mostly to ensure that the expected objectives of these reforms have been fully achieved.

- **Addressing new and emerging vulnerabilities and risks.** These include:
  - preventing "misconduct risks": the FSB planned to continue work to reduce these risks by proposing a framework for strengthening financial institutions' governance through several measures aimed at (i) reinforcing financial institutions' governance and compensation structures; (ii) improving standards of conduct in currency and commodities markets; and (iii) conducting reforms to major benchmark arrangements to reduce the risks of their manipulation.
  - improving information on climate change-related financial risks: the Task Force on Climate-related Financial Disclosures (TCFD) is pursuing its efforts in this area and is expected to publish its report on this issue at the end of the first half of 2017.

Box 1: Continued

- regulating/supervising "FinTech": the increasingly emerging "FinTech" (companies specializing in setting up innovative technological solutions for the financial sector) generates new risks for financial stability. In this sense, the FSB is expected to publish a report on the implications of FinTech on financial stability by June 2017.

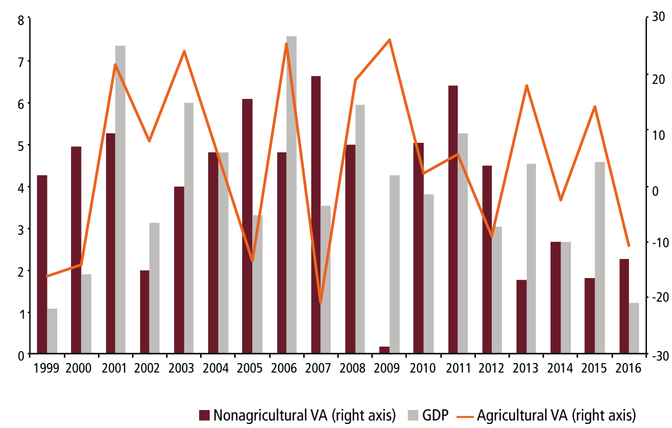
I.2 DOMESTIC MACROECONOMIC DEVELOPMENTS

Net slowdown of domestic growth in 2016

In 2016, economic growth slowed down markedly from 4.5 percent to 1.2 percent, its lowest level since 2000. This trend was attributed to a sluggish nonagricultural growth and to the 12.8-percent decline in agricultural value added[7]. The latter drew 1.5 percentage point from GDP growth, after its positive contribution by 1.3 percentage point in 2015.

The nonagricultural value added grew by 2.2 percent from 1.8 percent in 2015, thus maintaining the slow pace of its growth observed in recent years. This trend covers a slowdown in the secondary sector to 1.2 percent from 1.8 percent in 2015 and a recovery in the tertiary sector to 2.7 percent from 1.7 percent a year earlier.

Change in GDP components in %



Source: HCP

Value added showed contrasting trends across industries. The growth of the processing industries decelerated to 0.8 percent from 2.3 percent in 2015, driven particularly by the continued downturn in chemical and related industries (-0.1 percent to -0.4 percent) and the decline in food industries (0.1 percent as

7 Due to adverse weather conditions.

against 2.6 percent). However, the textile industry returned to growth (from -2.4 percent to 1.8 percent) while the metallurgical industry virtually stagnated (2.7 percent).

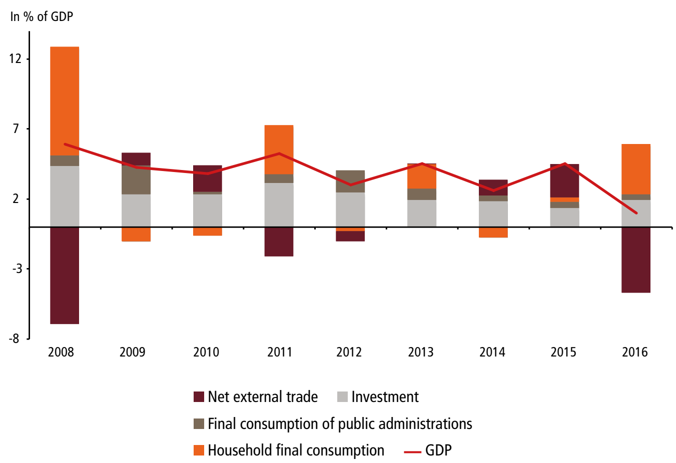
Meanwhile, the electricity and water sector decelerated from 6.2 percent to 2.5 percent, mainly due to a continued expansion of solar energy production and a lower hydropower electricity production.

Growth in the building and public works sector kept its slow pace with 1.7 percent as opposed to 0.7 percent. Growth in the telecommunications branch accelerated from 2.8 percent to 4.9 percent. Tourism activities (hotels and restaurants), supported by the recovery of external tourism and the continued momentum of domestic tourism, showed a net recovery to 3.6 percent, after its 1.3 percent decline. Trade activities grew by 4.2 percent from 0.5 percent a year earlier.

Marked improvement in domestic demand, driven mainly by investment and household consumption

External demand contributed negatively to growth by 4.7 percentage points after two positive contributions, resulting from a marked increase in imports and a more moderate growth of exports. However, domestic demand regained its role as the main driver of national economic growth, by contributing 5.9 points from 2.1 in 2015. This contribution was mainly driven by total investment, which increased by 11.6 percent as against 0.9 percent. Growth of household final consumption improved from 2.2 percent to 3.4 percent and that of general government consumption fell from 2.4 percent to 2.1 percent.

Contribution of demand components to GDP growth



Source: HCP

In a context of lower participation rate, unemployment stood at 9.4 percent, as against 9.7 percent in 2015. This trend covers a drop in urban unemployment from 14.1 percent to 13.9 percent, partially offset by an increase in rural unemployment. It should be particularly noted that unemployment among young people aged 15 to 24 years worsened again from 20.8 percent to 22.5 percent nationally and from 39 percent to 41 percent in urban areas. The Moroccan economy lost 37,000 jobs in 2016, covering a net decline of 119,000 jobs in agriculture and a creation of 38,000 jobs in services, 36,000 posts in the construction sector and 8,000 jobs in the industry, including crafts.

Under these conditions, inflation remained moderate at 1.6 percent, unchanged from 2015. This covers higher food prices and slow fall in fuel and lubricant prices, as well as a deceleration from 1.3 percent to 0.8 percent in core inflation.

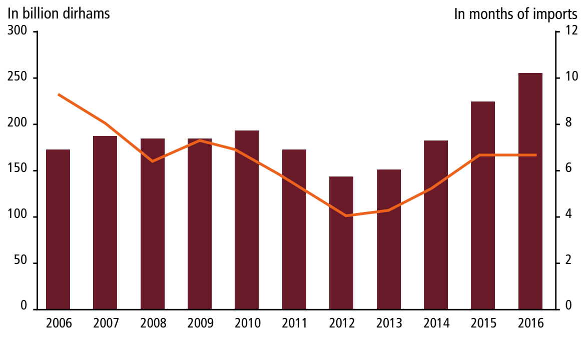
In the end, the financing requirement of the economy[8] increased to 4.3 percent of GDP, as opposed to 2 percent. This change was attributed to a recovery in investment to 33.1 percent of GDP and the stagnation of savings at 28.8 percent of GDP.

Bank Al-Maghrib's projected that national growth should stand at 4.4 percent in 2017 and 3.1 percent in 2018, due to a moderate recovery of nonagricultural activities to 3.3 percent and 3.6 percent, respectively. These projections are supported by an improvement in household incomes following a rebound in agricultural activities, a consolidation of foreign demand addressed to Morocco and an appropriate monetary policy stance.

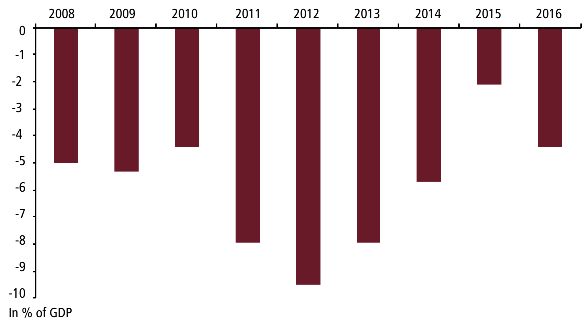
Despite the deteriorated current account, the risk emanating from the external position remains low

At the end of 2016, outstanding net international reserves (NIR) rose by 12.1 percent to 251.9 billion dirhams. Nevertheless, the NIR equivalent in months of imports decreased from 6 months and 21 days to 6 months and 15 days, mainly due to the substantial increase in imports.

Net International Reserves



Current account deficit



Source: Foreign Exchange Office and BAM calculations

8 The financing requirement of the economy refers to the difference between investment and domestic saving at the macroeconomic level.

Contrary to its downward trend observed since 2012, the current account deficit widened to 4.4 percent of GDP, i.e. 44.5 billion, mainly due to the worsening of trade deficit to 184.6 billion dirhams, or 18.3 percent of GDP. This change reflects:

- increase by 9.8 percent in imports, mainly in conjunction with higher purchases of capital goods (27.6 percent) and foodstuffs (25.2 percent). However, the energy bill continued its decline (-17.9 percent) given the decline in world prices;
- a moderate export growth to 2.7 percent, due to lower sales of phosphates and derivatives (-10.9 percent), which offset the buoyancy of automotive sales (13.1 percent), as well as of the agricultural goods and foodstuffs (7.4 percent) and textile exports (7.8 percent).

The surplus of services balance stabilized at 66.4 billion dirhams, covering an increase in travel revenues to 5 percent and a worsening of the transport services balance.

The income balance grew by 11.5 percent to 62.8 billion dirhams, mainly driven by remittances from Moroccan expatriates, which rose by 4 percent compared to 4.8 percent, and by the recovery of GCC donations.

The current account deficit is offset by an 11.8 percent increase in the capital account surplus to 63.5 billion dirhams, reflecting a sharp increase in commercial credit and high inflows of FDIs, albeit down 17.2 percent from the exceptional level of 2015.

According to Bank Al-Maghrib's forecasts, the current account deficit should worsen slightly to 4.6 percent of GDP in 2017, before falling to 4 percent in 2018, thus allowing foreign exchange reserves to cover 6 months of imports in 2017 and 2018. This change is particularly attributable to the change in oil prices which, according to the World Bank, should rise from $42.8 per barrel to $55 in 2017 then to $60 in 2018. It is also underpinned by the following assumptions on prices of phosphates and derivatives: the rock phosphate whose prices will fall from $112 per tonne to $100 and then to $102 in 2017 and 2018, respectively, prices for the triple superphosphate (TSP), which should drop from $291 per tonne to $275 and to $282, and a sharp increase in prices for diammonium phosphate (DAP) from $345 per tonne to $360 and then to 366.

The year was marked by the stoppage of the fiscal consolidation process

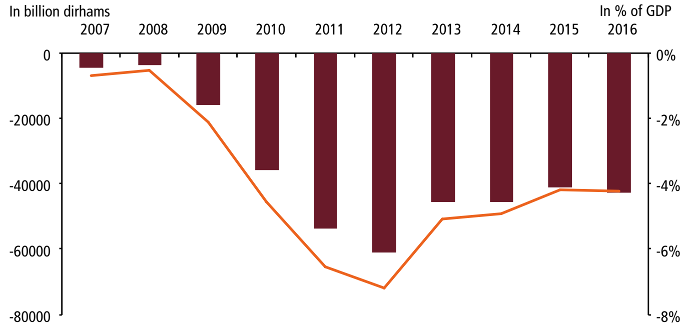
The 2016 Finance Act had forecasted a continued consolidation process by limiting the budget deficit to 3.5 percent of GDP, assuming an economic growth of 3 percent. However, budget execution resulted in a deficit of 4.1 percent of GDP excluding privatization, or 42.1 billion dirhams, worsening by 2.1 percent. This overshoot is mainly due to an execution well above the forecasted investment spending and VAT credits repayments as well as to a less-than-expected GCC donations. In this respect, it should be noted that:

- Investment spending, amounting to 63.2 billion dirhams, registered a rebound of 7.8 percent, reflecting an execution rate of the 2016 finance law forecasts at 119 percent.
- Tax revenues, up 3.8 percent, were driven by a significant increase of 17.6 percent in customs duties, 5.4 percent in income tax revenues and 1.5 percent in VAT. The latter was impacted by the decline in its domestic component due to higher repayments of VAT credits, which peaked at 8.1 billion, as against 5.3 billion in 2015. Proceeds from corporate taxes grew by 5.2 percent, following improved income of certain large corporations, including OCP, ANRT and BCP.

- Nontax revenues almost stabilized at 25.4 billion dirhams in 2016, after their 24.1-percent decline in 2015. Monopoly revenues fell by 8.6 percent to 8.2 billion, covering 2 billion from OCP, 1.5 billion from ANCFCC, 1.4 billion from Maroc Telecom, 750 million from Marsa Maroc and 435 million from Bank Al-Maghrib. Donations from the GCC countries amounted to 7.2 billion, as against 3.7 billion in 2015, a figure that is far below the 13 billion dirhams programmed in the Finance Act.
- Current expenditure stabilized at 223 billion dirhams, following a 1.3 percent increase in payroll expenses offset by a decrease in other operating expenditure categories. Subsidy costs stood at 14.1 billion dirhams, up 0.9 percent after three years of decline. However, as a result of lower external debt interest payments, debt servicing charges fell slightly by 0.7 percent, as against an increase of 10.1 percent.

The coverage ratio of current expenses to current revenues was 108 percent, from 104.6 percent a year earlier. Thus, public saving improved for the third consecutive year, making it possible to finance a larger share of investment spending

Change in the budget balance



Source: Ministry of Economy and Finance, BAM estimates

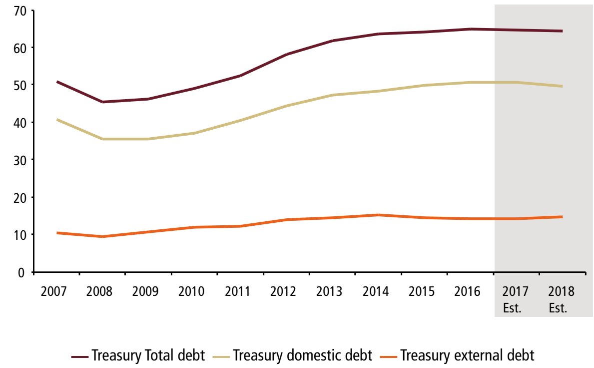
Treasury debt should fall as of 2017

Despite the increase in the budget deficit, the Treasury's borrowing requirement decreased by 20.2 percent compared to 2015, due to the build-up of payment arrears of 5.2 billion dirhams[9]. This borrowing requirement was mainly covered by the domestic market up to 92 percent. As a result, Treasury debt rose to 657.4 billion dirhams, or 64.7 percent of GDP, as against 63.7 percent in 2015. However, its external component declined for the second consecutive year to 14.1 percent of GDP.

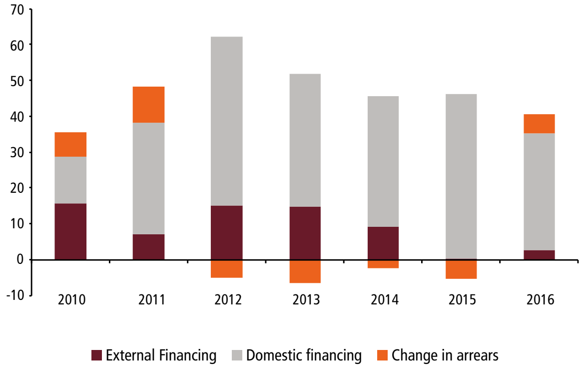
Overall, the outstanding amount of overall public debt[10] moved up 4.8 percent to 826.9 billion, or 81.4 percent of GDP from 79.9 percent of GDP in 2015. Public debts contracted by state-owned companies increased by 5.9 percent to 169.6 billion, representing 16.7 of GDP as opposed to 16.2 percent in 2015.

Taking account of the slowdown in fiscal adjustment observed in 2016 and the main provisions of the Finance Act 2017, Bank Al-Maghrib's latest forecasts projected an easing in the fiscal deficit to 3.6 percent of GDP in 2017 and to 3.4 percent in 2018. As a result, the debt ratio should decline in 2017 to 64.4 percent and stabilize at this level in 2018.

Change in debt, as % of GDP



Financing of the Treasury, in billions of dirhams



Source: Ministry of Economy and Finance, BAM estimates

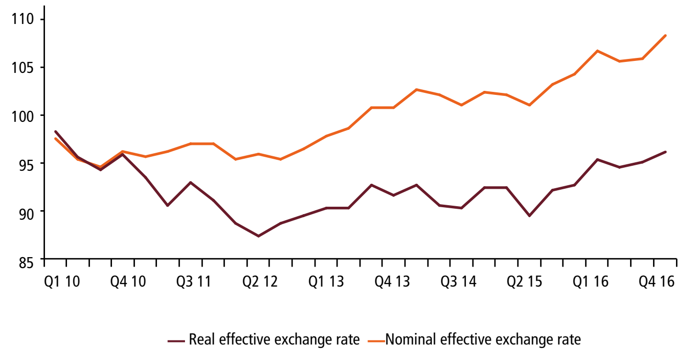
9 First increase since 2011.

10 Treasury and state-owned companies and institutions.

Monetary conditions were marked by a slight appreciation of the real effective exchange rate (REER) and an easing of interest rates.

Indeed, the REER progressed by 2.4 percent following the appreciation of the dirham in nominal terms against the currencies of some competing and partner countries. Nevertheless, according to Bank Al-Maghrib's forecasts, this tightening of monetary conditions should fade away in the medium term following a reduction in the inflation differential between Morocco and its main partners and competitors.

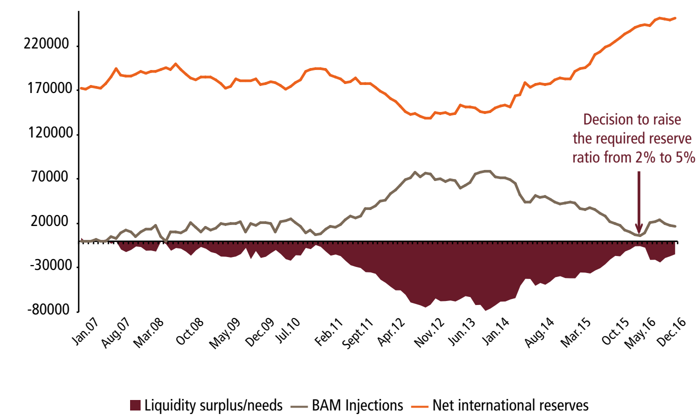
Change in effective exchange rates (2010=100)



Source: IMF and BAM calculations

Moreover, as a result of the continued strengthening of foreign exchange reserves in 2016, banks' liquidity needs decreased considerably to a weekly average of 14.4 billion dirhams, from 33.2 billion dirhams in 2015. Consequently, Bank Al-Maghrib raised the required reserve ratio from 2 percent to 4 percent in June and reduced the volume of its injections to 15.6 billion dirhams on weekly average, including 6 billion for secured lending transactions granted under the VSMEs financial support program. At the same time, monetary policy continued its accommodative stance with a further decline in the key rate to 2.25 percent in March, a historically low level.

Banks' liquidity needs, BAM injections and NIR, in billion dirhams

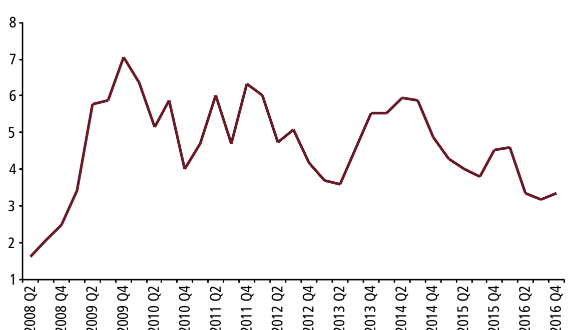


Source: BAM

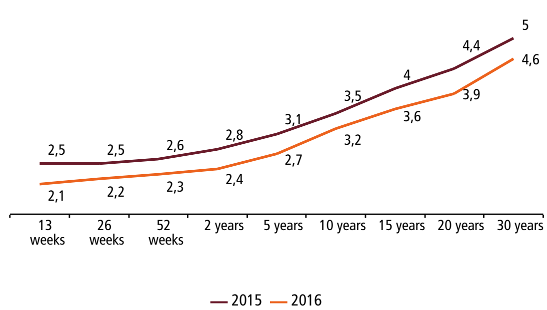
Further easing of interest rates

Accommodative monetary policy decisions continue to feed the interest rates easing observed in the various markets since 2014. Average Treasury bill rates declined markedly, with decreases of 30 basis points for the 52-week maturity and 40 basis points for 5-year and 10-year bonds. Similarly, lending rates continued their downward trend from 5.70 percent to 5.24 percent on average. This decline affected all loan categories. Indeed, rates fell by 50 basis points for cash facilities, 45 points for real-estate loans, 47 points for consumer loans and 29 points for equipment loans. Taking into account an inflation of 1.6 percent, the real interest rate fell from 4.1 percent to 3.6 percent, year on year.

Real debtor interest rate



Average Treasury bill rates on the primary market



Source: BAM

Recovery in bank lending, with markedly improved loans to nonfinancial sector

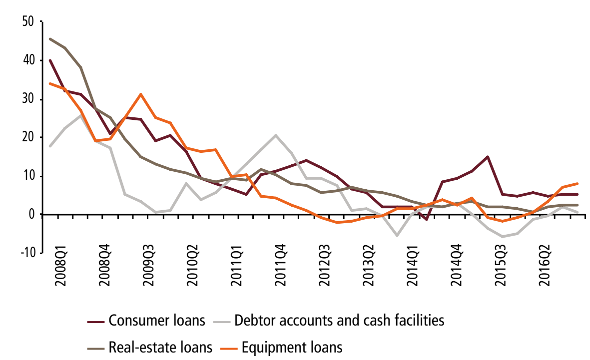
In 2016, bank lending growth accelerated to 4.2 percent from 2.8 percent in 2015, reflecting improved loans to the nonfinancial sector. After a growth limited to 0.3 percent, these loans increased by 3.9 percent, particularly with a more rapid growth of loans to nonfinancial enterprises.

According to Bank Al-Maghrib's lending conditions survey, this trend would be attributed to a higher demand as well as to the relaxation of supply conditions.

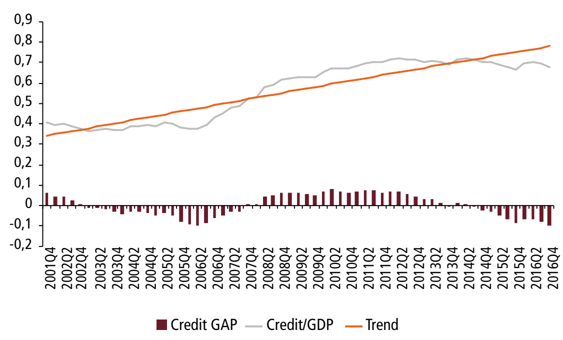
By economic purpose, change in credit was mainly attributable to an 8.1 percent increase in equipment loans, after a 0.7 percent decline. Similarly, cash facilities grew 0.5 percent, after a drop of 4.9 percent. At the same time, growth of real-estate loans moved up from 1.7 percent to 2.5 percent and consumer loans grew to 5.4 percent from 4.9 percent.

To measure its adequacy, lending growth is compared with the growth of the economy. Thus, despite the improvement in credit growth, the credit to GDP ratio continues to be lower than its historical trend. This change is confirmed for all loan categories, albeit at contrasting proportions.

Change in major loan categories (%)



Credit/GDP ratio deviation from its trend



Source: BAM

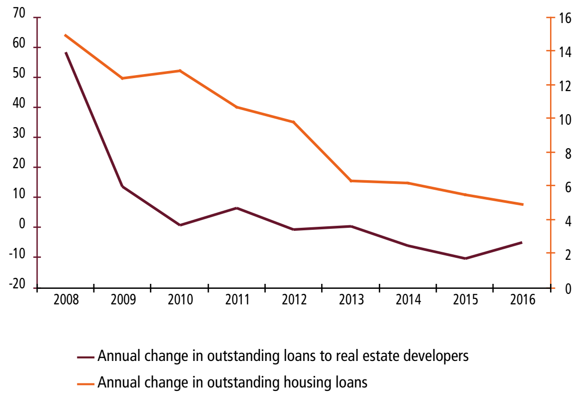
The rising real-estate transactions indicate a reduced real-estate risk, in a context of moderate price rise and eased interest rates

Taking into particular account the downward revision of foreign exchange reserves, the banking liquidity deficit should worsen to 34.6 and then to 43.5 billion dirhams in 2017 and 2018, respectively. Similarly, credit to the nonfinancial sector is expected to grow 4.5 percent in 2017 and 5 percent in 2018.

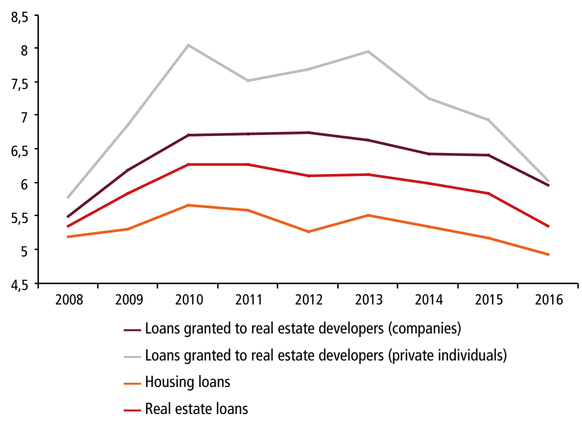
The real-estate market saw a slight increase of loans, by 2.8 percent, covering a less significant decline in loans to property developers compared to 2015 (-4.3 percent, as against -9.3 percent) and a slight decline in housing loans (from 5.3 percent in 2015 to 4.8 percent in 2016), which started decelerating in 2010. Under these conditions, the absolute gap between growth of credit to property developers and housing loans slightly narrowed to 9.5 percentage points from 14.6 points a year earlier.

Interest rates on real-estate loans continued to ease, owing to a cut in the key rate and to competition. Thus, lending interest rates on housing loans moved down from 5.2 percent to 4.9 percent, while those on property development stood at 6 percent, as against 6.9 percent for individual entrepreneurs and fell back from 6.4 percent to 6 percent for companies.

Change in the gap between the growth of loans to developers and housing loans, in%



Change in lending rates on real estate loans, in%

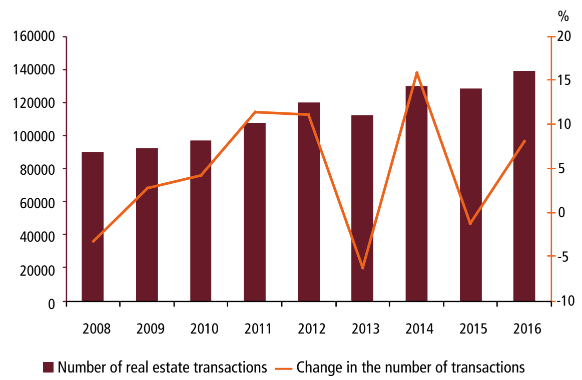


Source: BAM

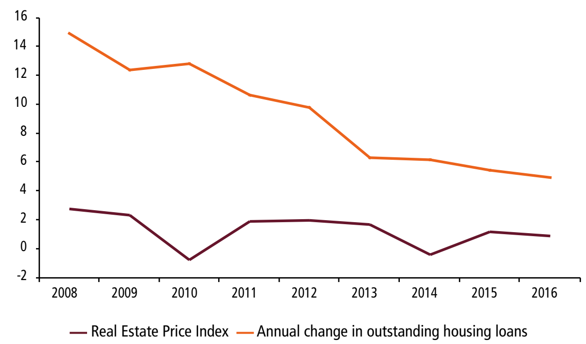
Under these conditions, the REPI was up 0.9 percent, as against 1.2 percent in the previous year, owing to virtual stagnation of apartment prices, as well as to the rising of prices by 2.1 percent increase for urban land and by 4.7 percent for professional property. At the same time, the volume of transactions increased 8.1 percent for all asset categories after their 1.3 percent drop in 2015.

In the end, the real-estate risk was mitigated owing higher real-estate transactions coupled with a moderate increase in prices and an easing of interest rates.

Annual change in the number of transactions



Annual change in REPI and growth in housing loans (%)



Source: ANCFCC and BAM

CHAPTER 2

FINANCIAL POSITION OF NONFINANCIAL SECTORS

OVERVIEW

In 2016, the financial assets held by Moroccan households progressed by 5.2 percent, at a slower rate compared to their growth over the last three years. Besides, their financial debt registered a deceleration, both in housing and consumer loans. Nevertheless, measured as a ratio to GDP, this debt stood at around 30 percent.

Households' payment default rate fell for the second consecutive year, reaching 7.3 percent, as against 7.5 percent in 2015.

The analysis of the new consumer loans granted by credit institutions in 2016 for a group of private individuals shows that their level of debt represents, on average, 31 percent of their income.

The financial indebtedness of nonfinancial companies recovered, registering an increase of 3.4 percent. This acceleration was particularly attributed to state-owned companies, whose debt progressed by 7.5 percent, driven mainly by bank indebtedness. Debt of private nonfinancial corporations rose by 1.5 percent, after a 2 percent decline in 2015, due to the recovery of its banking component.

The study of indebtedness carried out on a sample of nearly 14,000 public and private nonfinancial enterprises shows a slight increase in their long-term debt ratio, standing at 41 percent of their equity at the end of 2015. This study also reveals that inter-company payment deadlines continued to increase, especially within VSMEs, reaching worrisome levels for certain sectors of activity, such as property development, construction, transport and communications and services provided to businesses.

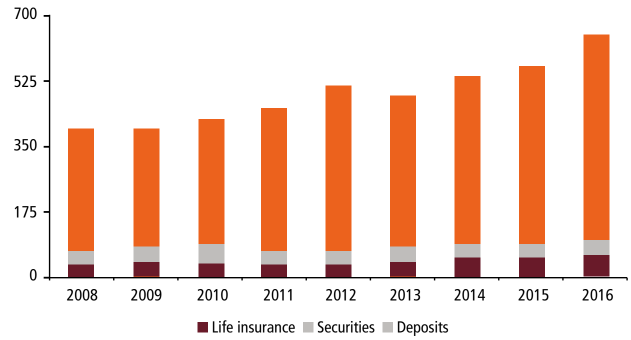
Nonperforming loans of nonfinancial companies grew at a slower pace of 8.1 percent in 2016, bringing their share of their bank debt to 10.2 percent.

II.1 HOUSEHOLDS

Financial assets held by Moroccan households increased less rapidly in 2016, compared to the last three years

At the end of 2016, financial assets held by Moroccan households grew by 5.2 percent, as against an average of 6 percent over the last three years. This slowdown is mainly attributable to slower growth of bank deposits, main component of these assets, falling to 5.6 percent from an average of 6.6 percent in the last two years

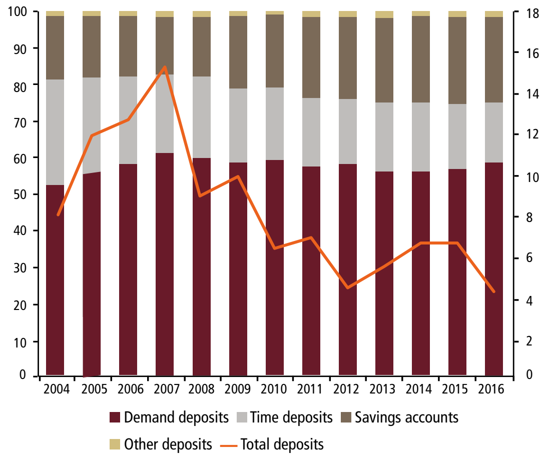
Change in households' financial assets, in billion dirhams



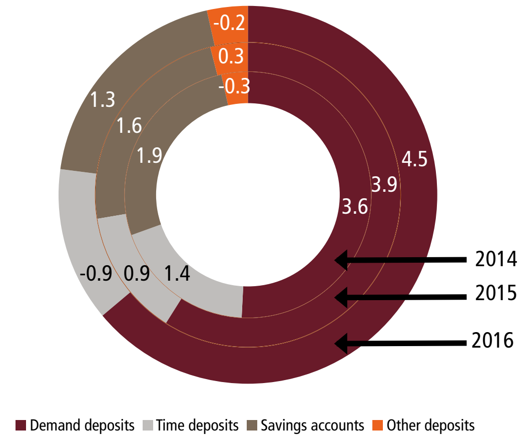
Source: BAM and ACAPS

The analysis of the evolution of household bank deposits according to their nature reveals disparate progress. Indeed, unpaid demand deposits, up 8 percent, continued to register robust growth, more significant than in 2015, when it stood at 7 percent. Households continued to expand their investments in savings accounts, but at a slower pace, with an increase of 6 percent, as against an average of 12 percent over the last ten years. In addition, time deposits, totaling 103 billion dirhams, dropped by 5 percent for the first time since 2009, due their lower the remuneration.

Structure and change of households' deposits, in %



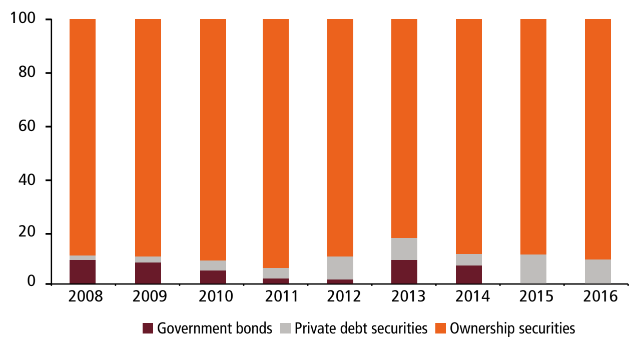
Contribution of deposit categories to the overall growth of household deposits, in percentage points



Source: BAM

Household investments in securities grew by 9 percent in 2016, mainly due to a 9 percent rise in ownership securities, which accounted for 89 percent of these investments. Private debt securities, representing nearly 9 percent of the securities held by households, progressed by 21 percent.

Breakdown of households' securities, in %

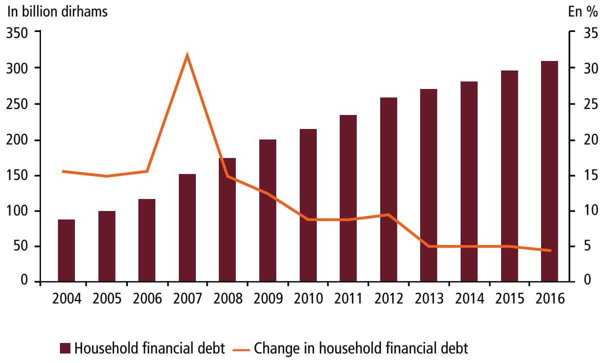


Source: BAM

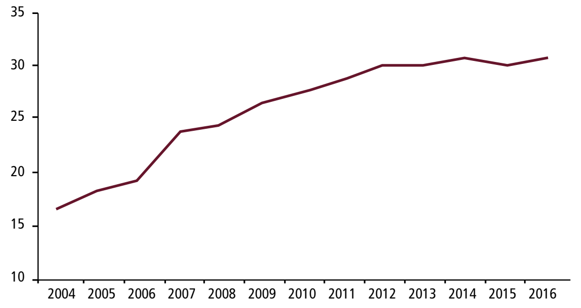
Household financial debt decelerated in 2016, both in terms of housing loans and consumer loans

Household financial debt owed to banks and finance companies grew by 4.3 percent in 2016 to 309 billion dirhams, still under deceleration, compared to 2015, when it had increased by 5.1 percent.

Change in household financial debt



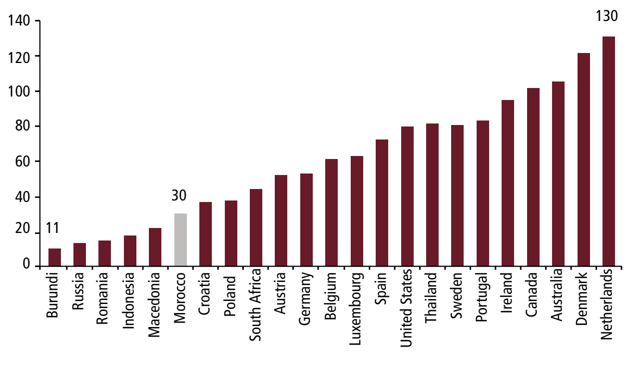
Moroccan household financial debt, in % of GDP



Source: BAM

Calculated as a percentage of GDP, household financial debt stood at around 30 percent. Although this level is considered high compared to several emerging and developing economies, it still remains below the levels of the most advanced economies.

Household financial debt in% of GDP in 2016

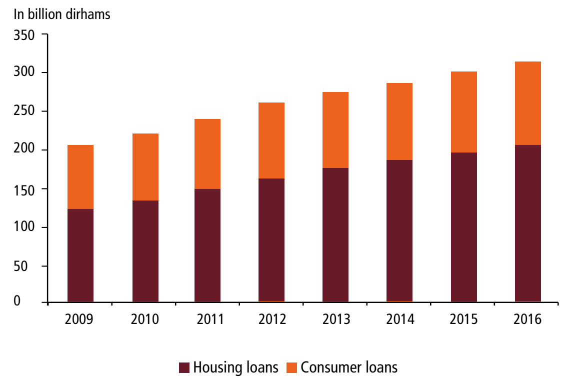


Source: IMF

Albeit under slowdown, real estate investment continues to be the main reason behind household indebtedness

Moroccan households continued to be heavily indebted to finance the real-estate purchases in particular, with home loans accounting for 64 percent of their debt, totaling an outstanding amount of 199 billion dirhams. This proportion has remained almost stable over the past three years. The share of debt serving household consumption needs is around 36 percent, with an outstanding amount of 110 billion dirhams.

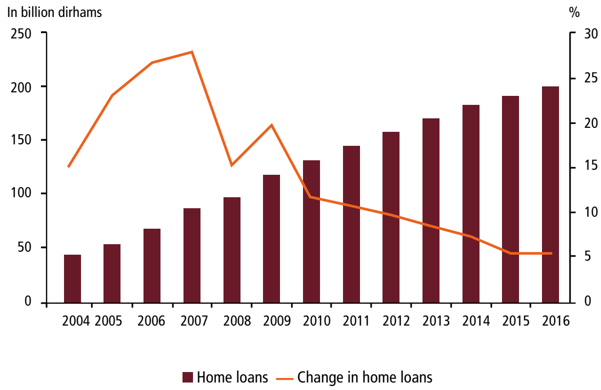
Change in the composition of household financial debt



Source: BAM

Household loans to finance real estate purchases continued its slowdown that began in 2010, and fell to 4.8 percent in 2016, as against 5 percent in 2015 and an average of 9.2 percent over the period 2010-2014. This deceleration occurred despite the 8.8 percent-increase in new loans contracted in 2016, after the 1.6 percent decline (boosted by lower interest rates) and the virtual stabilization of residential real-estate prices after a 1.7 percent increase a year earlier.

Change in home loans

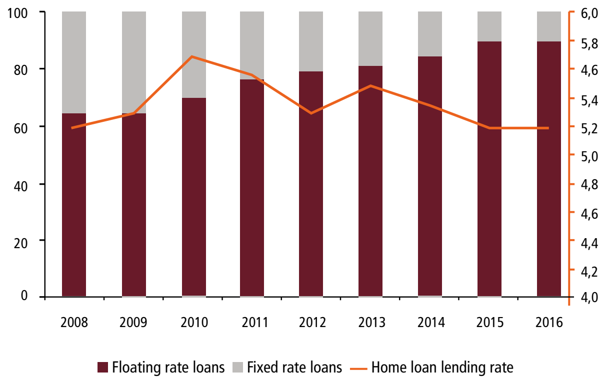


Source: BAM

Most of home loans are at fixed rate

Thanks to a low-interest economy, households continued to prefer fixed-rate loans, whose share represented almost all of home loans held by households.

Breakdown of home loans between fixed and floating rates, in%



Source: BAM

Real-estate loans are contracted for increasingly longer repayment terms. Indeed, home loans with a repayment term of more than 20 years represented a 62 percent share, compared to 58 percent in 2015. Those with a repayment term ranging between 10 and 20 years represented only 33 percent.

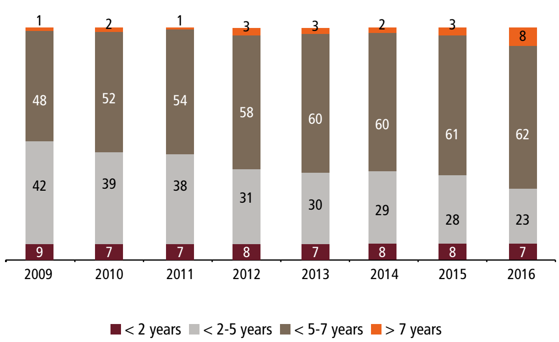
The proportion of home loan recipients whose income is less than 4,000 dirhams stood at 33 percent from 37 percent on average between 2013 and 2015. Households with an income between 4,000 and 10,000 dirhams represent 38 percent, as against 35 percent in the last three years, while households with an income exceeding 10,000 dirhams accounted for 29 percent. The majority of borrowers of these loans are employees and civil servants with a share of 77 percent.

Household consumer loans slowed down again and their maturity increased further

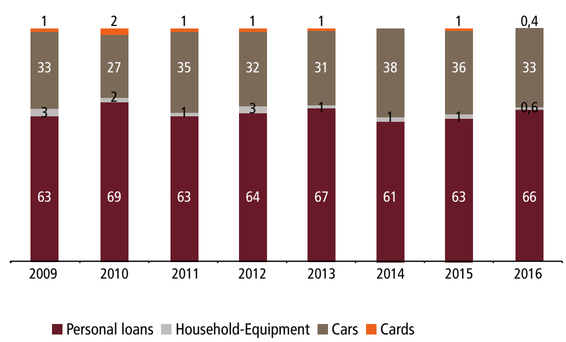
Household loans contracted to meet consumption needs grew at a slower rate of 3.2 percent from 5 percent a year earlier, totaling nearly 110 billion dirhams. These loans continued to be mainly allocated to financing personal projects, with a share increasing to 66 percent, followed by those granted for car purchases, at 33 percent.

The repayment period of these loans kept increasing over several years. The majority of consumer loans have an initial term of more than 5 years, with a 70 percent share, as against 64 percent a year earlier. Loans whose maturity ranges between 2 and 5 years represent 26 percent, while those with a term of less than 2 years account merely for 7 percent.

Structure of consumer loans by maturity



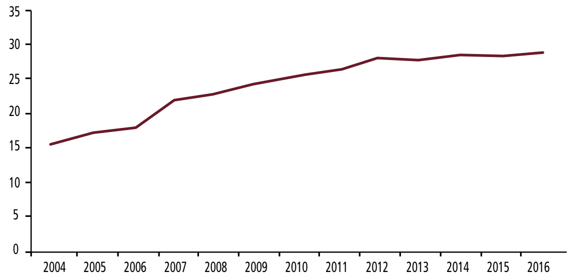
Structure of consumer loans by purpose, in%



Source: BAM

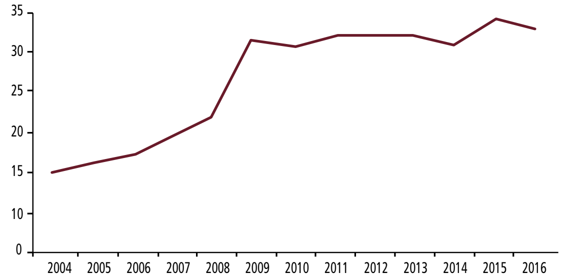
The financial debt of households living in Morocco stabilized over the last five years around 28 percent of GDP. Totaling an outstanding amount of 288 billion dirhams, this debt grew by 4.5 percent in 2016, unchanged from 2015. As for Moroccan households residing abroad, their financial debt amounted to 20.7 billion dirhams, equaling almost 33 percent of their remittances, a quasi-stable proportion since 5 years.

Debt of resident households (%) of GDP



Source: BAM

Debt of nonresident households, in % of nonresidents' remittances



Source: BAM and the Foreign Exchange Office

Box 2: Financial indebtedness of private individuals

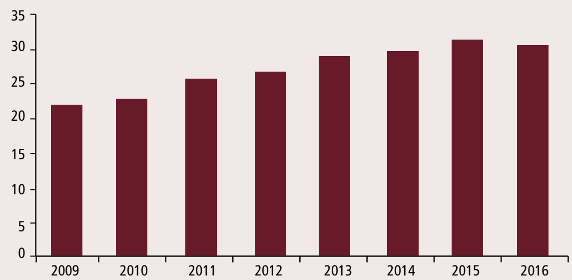
The present box provides an analysis of financial debt of a group of private individuals who contracted consumer loans in 2016, through analysis of their socio-professional categories, age and income. Emphasis is placed on individuals with a debt ratio exceeding 40 percent.

This analysis covers 188,964 consumer credit files for private individuals who have renewed or contracted a new credit in 2016.

The average debt ratio for all of these files stood at 31 percent, reflecting a level of indebtedness virtually close to the one calculated for the data analyzed in 2015.

Box 2: Continued

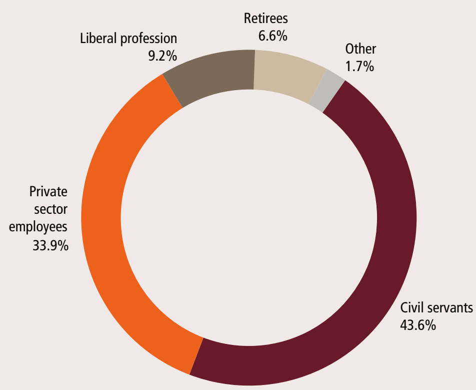
Average debt ratio of private individuals *, in%



(*) Individuals with new consumer loans in 2016. Data are collected from the main financing companies.

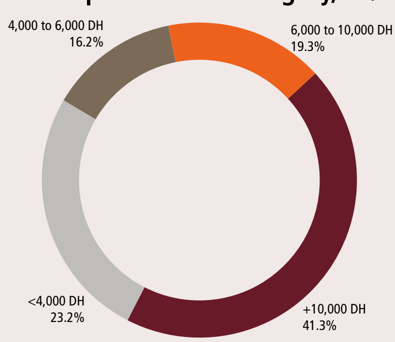
This debt ratio showed divergent levels across socio-professional categories. It stood at 32.4 percent for civil servants, who received 46 percent of the total consumer loans granted in 2016. Private sector employees, with a 35.6 percent share of the loans granted, showed a debt ratio of 30.5 percent. On the other hand, persons exercising a liberal profession and retirees have a debt burden of 24.6 percent and 27.2 percent, respectively.

Share of private individuals* by income group in total amount financed in consumer loans in 2016



(*) Individuals having contracted new consumer loans in 2016. Data are collected from the main financing companies.

Breakdown of private individuals* by socio-professional category, in%



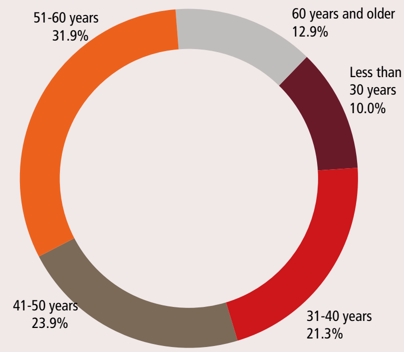
(*) Individuals with new consumer loans in 2016. Data are collected from the main financing companies.

Analysis by income bracket indicates that individuals whose income does not exceed 4,000 dirhams received 23.2 percent of total consumer loans in this year. Meanwhile, individuals whose income bracket stands between 4,000 and 10,000 dirhams and those whose income tops 10,000 dirhams benefited respectively from 35.4 percent and 41.3 percent of this total.

Box 2: Continued

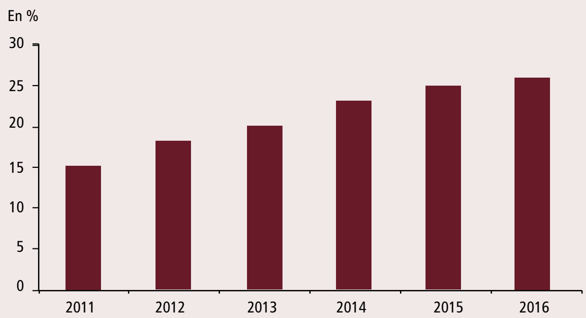
The most indebted individuals are aged between 41 and 60 years, with a share of 55.7 percent. Their average debt ratio stood at 32.1 percent for the 41-50 age group and 33.5 percent for the 51-60 age group. Those aged above 60 years have an average debt burden of 30.3 percent and represent 12.9 percent of the total beneficiaries. Young people aged 31-40 have a debt ratio of 27.8 percent, with a share of 21.3 percent, while the youngest, under 30 years old, are indebted with a rate of 23.8 percent and represent only 10 percent of all files examined

Breakdown of private individuals* by age group (%)



(*) Individuals with new consumer loans in 2016. Data are collected from the main financing companies.

Share of private individuals* with a debt ratio exceeding 40%



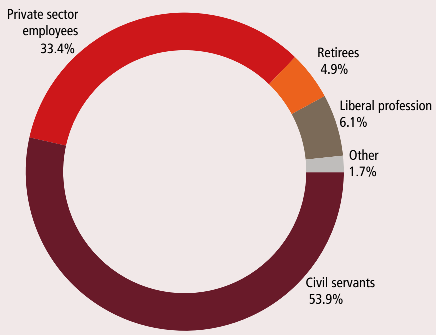
(*) Individuals with new consumer loans in 2016. Data are collected from the main financing companies.

Individuals whose debt exceeds 40 percent of their income represent 25.7 percent of the files reviewed, totaling 37.4 percent of the total amount of credits granted.

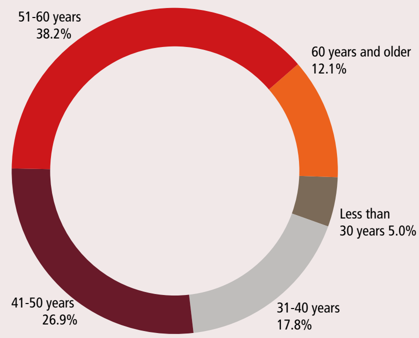
This population consists mainly of civil servants and private sector employees, with a share of more than 85 percent. Older individuals are more affected by high debt rates, over 40 percent. Indeed, the age groups 41 to 50 and 51 to 60 years respectively represent 26.9 percent and 28.2 percent of this category. The youngest have smaller shares of 17.8 percent for the 30-40 age group, while those under 30 years do not exceed 5 percent.

Box 2: Continued

Share of private individuals* with a debt ratio exceeding 40%, by socio-professional category



Share of private individuals* with a debt ratio exceeding 40%, by age group



(*) Individuals with new consumer loans in 2016. Data are collected from the main financing companies.

source: Credit institutions database, BAM calculations

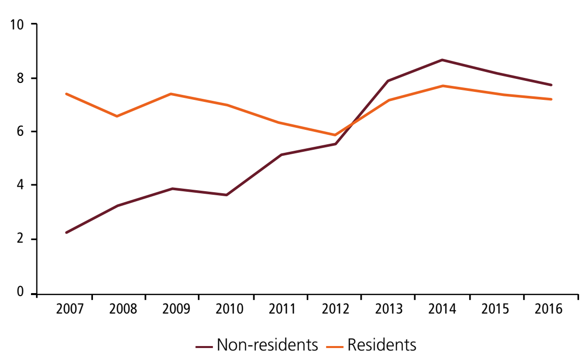
Decline of household default rate for the second consecutive year

Household payment defaults totaled 22.4 billion dirhams, up 1 percent, a level unchanged from 2015, but lower compared to 2013 and 2014.

Default rate[11] thus stood at 7.3 percent from 7.5 percent in 2015, covering a decline in that of housing loans from 6.1 percent to 5.8 percent as well as a slight decrease in the default rate of consumer loans from 10 percent to 9.9 percent.

Rate of households' nonperforming loans, in %

Rate of households' nonperforming loans, by residence in %



Source: BAM

11 Household default rate corresponds to the share of households' nonperforming loans of households in their total financial debt.

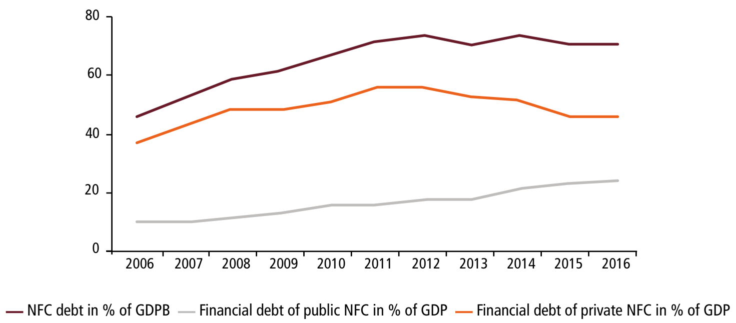
The drop in this rate was attributed to resident households, whose outstanding nonperforming loans accounted for 7.2 percent of their total debt, as against 7.4 percent a year earlier. As for nonresident households, the proportion of their nonperforming loans dropped to 7.8 percent from 8.2 percent in 2015.

II.2 NONFINANCIAL CORPORATIONS

Financial debt of nonfinancial corporations recovered its growth, driven by debt of state-owned enterprises

The growth rate of financial debt of non-financial companies rebounded to 3.4% to reach 716 billion dirhams, following a 2.8% decline in 2015. Measured as a ratio to GDP, the level of this debt stood at 70 percent.

Change in financial debt of nonfinancial corporations in (%) of GDP



Source: BAM

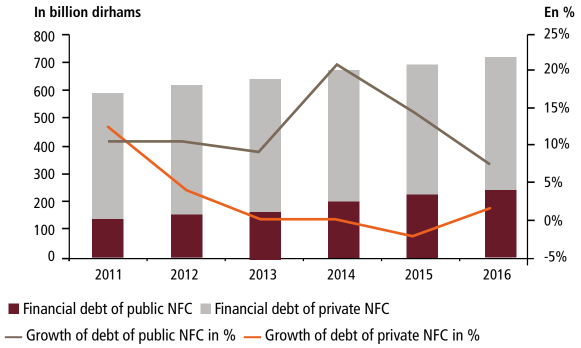
The continued increase in bank loans of public nonfinancial companies is a source of concern

The growth of financial debt of nonfinancial companies is attributed to public companies to the tune of 71 percent. These companies recorded an additional debt of 17 billion dirhams at the end of 2016, showing a slowdown compared to 2015. The debt of private enterprises grew by 1.5 percent, or nearly 7 billions, while it had declined by more than 2 percent in 2015.

The slowdown in the financial debt of state-owned companies is mainly due to the 6.2 percent decline in its market component, totaling 28 billions, and to the deceleration of its external component from 17.1 percent in 2015 to 6 percent in 2016. However, banking debt, representing 19.4 percent of public enterprises financial debt, has steadily increased in recent years, recording at the end of 2016 its largest increase since 2010, with 24.4%. This trend reflects the further investment effort within some of these companies.

At the same time, the recovery in financial indebtedness of private nonfinancial enterprises was mainly driven by the appreciation in bank indebtedness, the main source of financing for these corporations, which progressed by 1.8 percent, after a decline of 2.4 percent a year earlier.

Change in financial debt of public and private nonfinancial enterprises

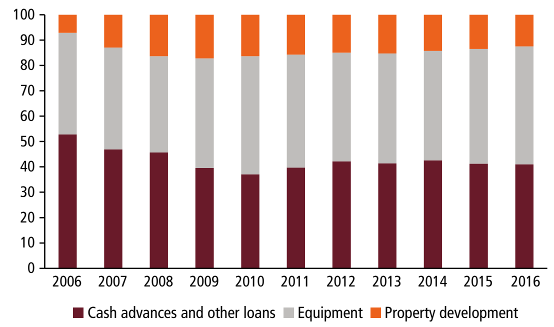


Source: BAM

Growth in bank debt, the primary source of financing for nonfinancial enterprises, recovered, while bond debt continued to fall

Bank debt, which accounts for 67 percent of debt of nonfinancial corporations, grew by 3.7 percent to 467 billion dirhams in 2016, as against a decline of 1.6 percent at the end of 2015. Its level relative to GDP continued to appreciate to 46 percent, from 45.6 percent at the end of 02015.

Change in the structure of NFC banking debt, in%



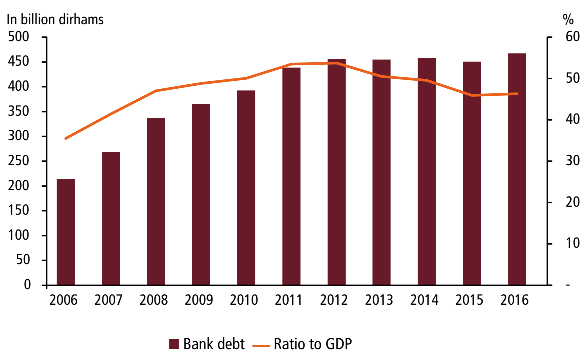
Source: BAM

Bank borrowings contracted by nonfinancial companies were allocated mainly to investments and cash requirements, with respective shares of 47 percent and 41 percent of their total bank indebtedness at the end of 2016. Bank debt intended to finance property development continued to fall in recent years and accounted for about 12 percent of bank debt, particularly due to the continuing deleveraging of certain major real-estate groups.

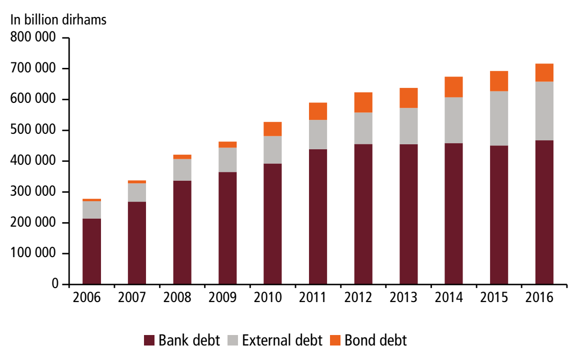
Nonfinancial companies' resort to external debt continued to be robust, but at a slower growth to 8.3 percent, as against an average growth of more than 16 percent registered over the 2006-2015 period. This relatively high debt (19 percent of GDP in 2016) continues to be dominated by state-owned enterprises, which could raise questions about their coverage against foreign exchange risk under a more flexible regime.

Nonfinancial companies use less and less bond debts, whose outstanding amount totaled 30 billion dirhams in 2016, down 11 percent from 1.8 percent in 2015. This deterioration was mainly attributed to private enterprises whose bond debt decreased by 15 percent, as against 10 percent in 2015, and to a lesser extent to public enterprises whose bond debt fell by 6 percent, while it had grown by 11 percent a year earlier.

Change in the NFC banking debt and its ratio to GDP



Structure of NFC financial debt



Source: BAM

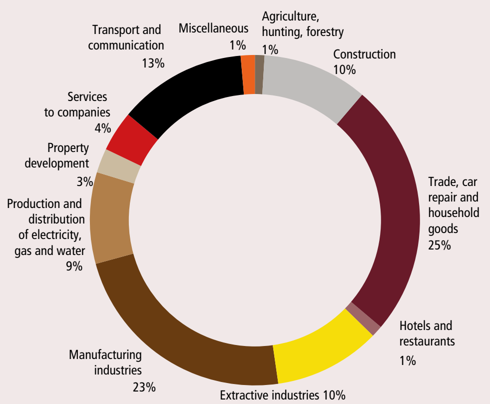
Box 3: Indebtedness study on a sample of nonfinancial companies

The study covered a sample of 13,954 nonfinancial companies[12] with a turnover of 511 billion dirhams in 2015, a financial debt of 282 billion dirhams and a commercial debt of 146 billion dirhams.

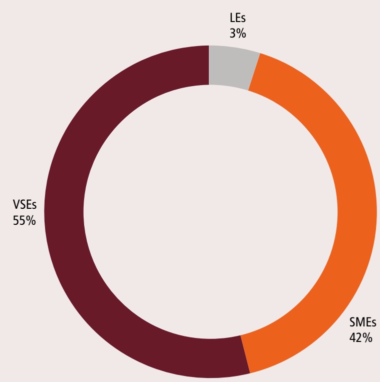
In order to analyze companies' debt trends over a sufficient time horizon, the selected sample only includes companies with balance sheet data covering a period of 4 years, from 2012 to 2015, the most recent date of the availability of centralized financial statements.

The sample is composed of public and private nonfinancial enterprises operating in various sectors of activity and divided by size[13] into 7,722 very small enterprises (VSE), followed by 5,828 small and medium-sized enterprises (SMEs) and 404 companies identified as large enterprises (LE).

Breakdown of sampled companies by sector of activity based on turnover



Breakdown of the number of sampled companies by size



Source: OMPIC, Ministry of Economy and Finance, BAM calculations

Long-term debt ratio[14] in the sample stood at 41 percent in 2015, marking a slight increase from the end of 2014, attributable to LEs whose debt ratio increased from 2014 by two percentage points to 42 percent, particularly due to higher indebtedness of enterprises

12 These are companies for which the accounting data for the past four years have been collected and cleared.

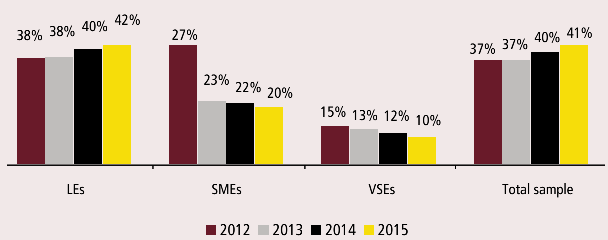
13 Large enterprises (LEs) refer to companies with a turnover of more than 175 million dirhams; SMEs refer to those with a turnover ranging between 3 and 175 million dirhams; VSEs are those whose annual turnover is less than 3 million dirhams.

14 The sectors' activitiesactivityactivityactivitiesactivity correspond to those of the Moroccan classification of activities for 1999, with the regrouping of certain sectors and the singling out of companies operating in the property development branch in the sector of "real-estate, rental and services provided to businesses". Corporations operating in several sectors of activity are included in the sector with the largest share in terms of turnover.

Box 3: Continued

working in the "transport and communication" and "extractive industries" sectors, which progressed by 40 percent and 34 percent, respectively, compared to 2014. Conversely, financial indebtedness continued to decline for SMEs and VSEs, which recorded respective debt ratios of 20 percent and 10 percent, as against 22 percent and 12 percent in 2014.

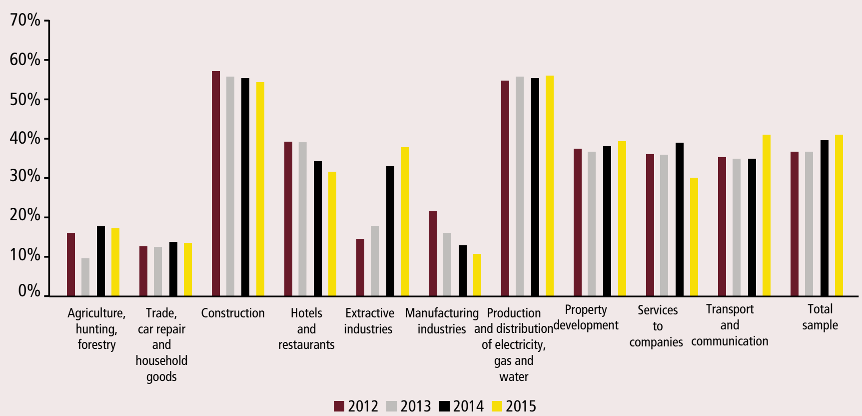
Change in long-term indebtedness rate of sampled companies - by size



Source: OMPIC, Ministry of Economy and Finance, BAM calculations

A focus on the long-term debt of large companies highlights divergences across sectors. Corporations operating in the "electricity, gas and water production and distribution" sectors as well as the "construction" branch are the most indebted compared to the average, with respective debt ratios of 57 percent and 56 percent. On the other hand, companies working in the "transport and telecommunication", "property development" and "extractive industries" sectors showed debt ratios of around 42 percent, 41 percent and 39 percent, respectively.

Change in long-term indebtedness rate of sampled companies - by sector of activity[15]

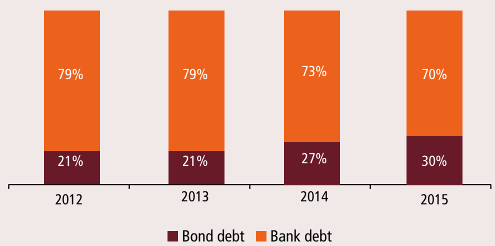


Source: OMPIC, Ministry of Economy and Finance, BAM calculations

Box 3: Continued

While bank debt remains the major component of corporate financial debt, its share declined from 79 percent in 2012 to 70 percent in 2015, while the proportion of bond debt rose from 21 percent in 2012 to 30 percent in 2015. This trend reveals that LEs operating in the "extractive industry" have increasingly resorted to market-based finance, followed by those operating in the "property development" and "construction".

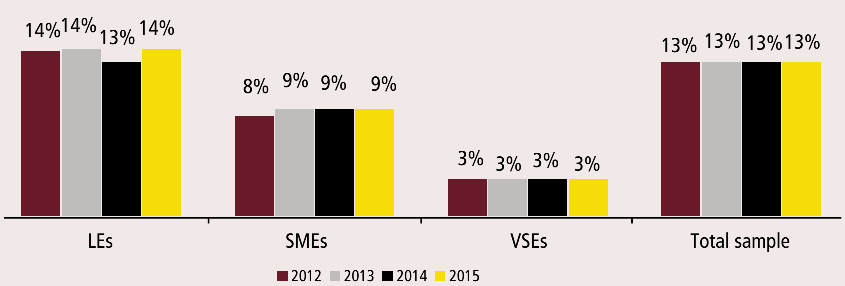
Change in the composition of long-term financing debt of sampled companies



Source: OMPIC, Ministry of Economy and Finance, BAM calculations

In addition to long-term financing, companies used short-term financing which remained stable between 2012 and 2015 and overall close to 13 percent of their turnover. Such an evolution reflects a cash debt representing 14 percent of turnover in 2015 for LEs, followed by SMEs with 9 percent. Regarding VSEs, this funding remained very low at levels close to 3 percent of their turnover.

Change in cash debt/turnover ratio of sampled companies - by size

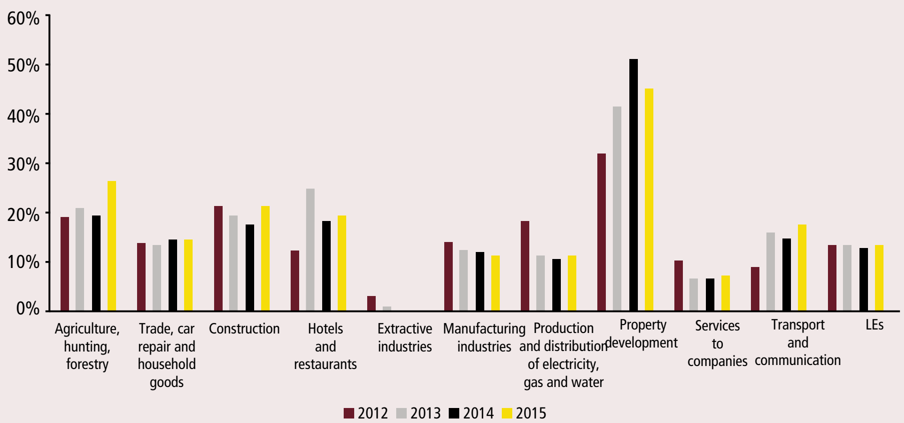


Source: OMPIC, Ministry of Economy and Finance, BAM calculations

Box 3: Continued

A focus on the cash debt of LEs reveals sectoral disparities. Companies operating in the property development posted a cash debt representing 46 percent of their turnover in 2015, which adds to their long-term debt, thus reflecting a high debt compared to the cash-flows generated by their activity. Companies working in "agriculture", "construction and public works" and "hotel and restaurant" sectors had respective cash debts of 27 percent, 22 percent and 20 percent of their turnover in 2015.

Change in cash debt/turnover ratio of sampled LEs - by sector

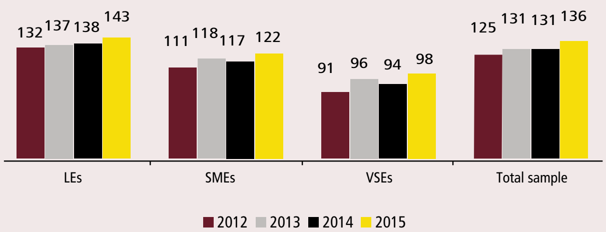


Source: OMPIC, Ministry of Economy and Finance, BAM calculations

In addition to financial debt, sampled companies used intercompany credit, which increased overall by 5 days to 136 days of purchases in 2015. The three segments of businesses showed an increase in their amounts due to suppliers which stood at 122 and 98 days of purchases respectively for SMEs and VSEs at end-2015. LEs, with high bargaining power, maintained relatively long supplier payment deadlines at 143 days of purchases.

Box 3: Continued

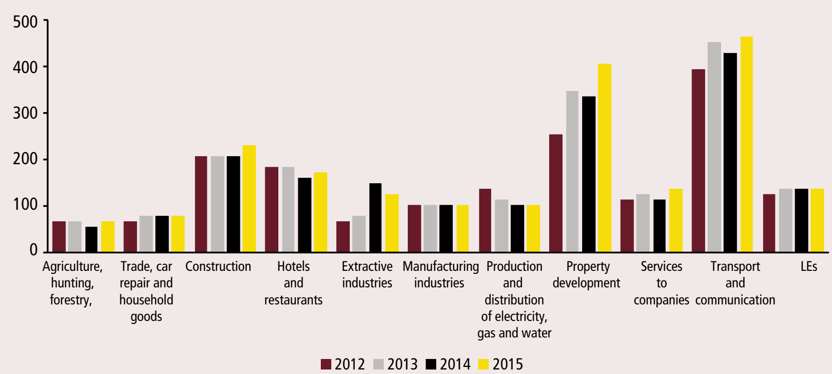
Change in commercial debt in purchasing days of sampled companies -by size



Source: OMPIC, Ministry of Economy and Finance, BAM calculations

Regarding LEs, companies operating in the "transport and communication" sector showed the longest supplier payment deadlines, followed by the "property development" sector. This significant increase is mainly due to a 28 percent decline in purchases made by companies in this sector, while their net debt with their suppliers fell by only 10 percent.

Change in debt of suppliers in purchasing days of sampled LEs turnover - by sector

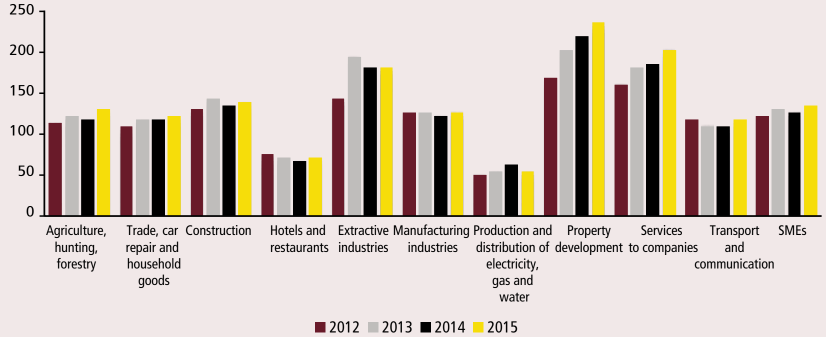


Source: OMPIC, Ministry of Economy and Finance, BAM calculations

Box 3: Continued

Concerning SMEs, the highest levels of commercial indebtedness are observed in the sectors of "property development", "services provided to businesses" and "extractive industries" with respective periods of 217, 187 and 166 days of purchases in 2015. SMEs operating in the "electricity, gas and water production and distribution" sector posted a commercial debt representing 50 days of their purchases.

Change in debt of suppliers in purchasing days of sampled SMEs' turnover - by sector

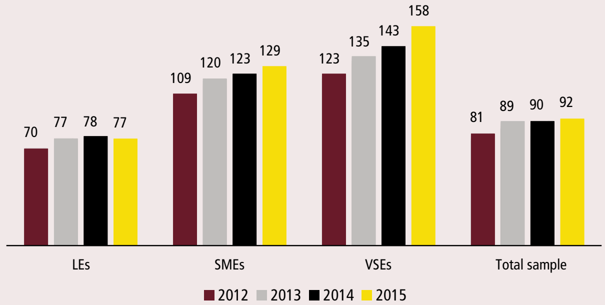


Source: OMPIC, Ministry of Economy and Finance, BAM calculations

Sampled companies reported longer payment deadlines from their customers, which stood overall at 20 days over the period 2012-2015. In terms of size, LEs, with more significant bargaining power, recorded the shortest payment periods by their customers around 77 days of turnover in 2015 compared to 129 days for SMEs and 158 days for VSMs. Moreover, while the payment periods of customers' debt remained stable for large companies, SMEs and VSEs observed an extension of these payment periods by 6 and 15 days of turnover, respectively.

Box 3: Continued

Change in customers' claims in days of turnover of sampled corporations - by size



Source: OMPIC, Ministry of Economy and Finance, BAM

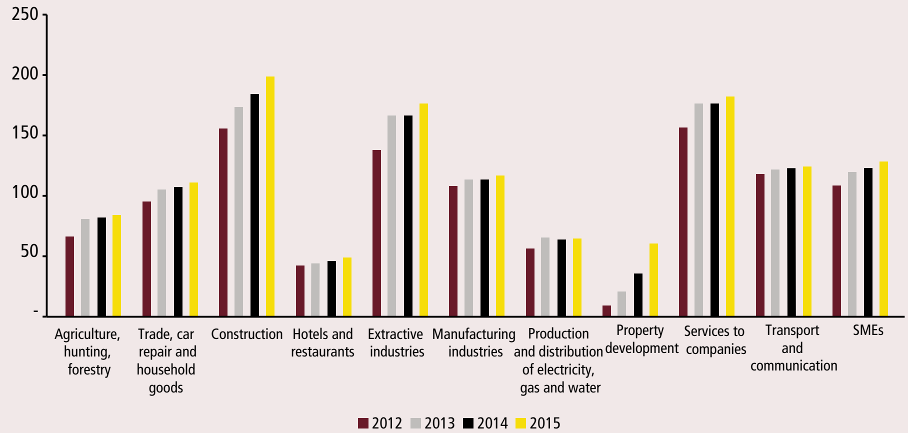
Companies working in the "services provided to businesses" generally record the largest payment deadlines, with claims representing 202 days of turnover regarding VSEs, 182 days for SMEs and 134 days for LEs. Those working in the construction sector also showed high customer payment deadlines for all three segments, with 159 days of turnover for VSEs, 198 days for SME and 144 days for the LEs at the end of 2015.

Concerning LEs, the largest increase in customers' claims is observed in the sectors of "services provided to businesses" and "hotels and restaurants" with 22 days and 11 days, respectively, at the end of 2015.

Regarding SMEs, the "real-estate development" and "construction" sectors recorded the most significant increases in customers' debts with respectively 24 and 14 days of turnover.

Box 3: Continued

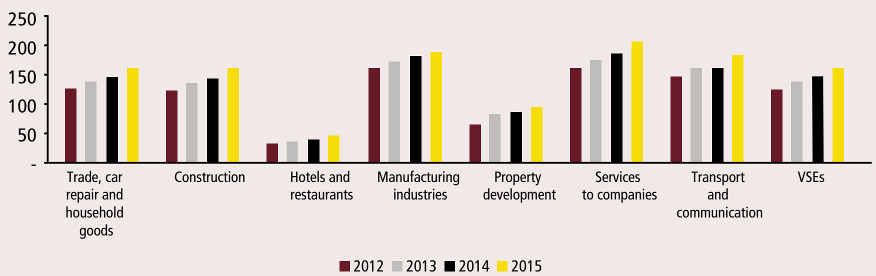
Change in customers' claims in days of turnover of sampled SMEs - by sector



Source: OMPIC, Ministry of Economy and Finance, BAM calculations

As to VSEs, customers' claims for "Construction" and "transport and communication" sectors posted the largest increase with 18 days of turnover in 2015.

Change in customers' claims in days of turnover of sampled VSEs - by sector

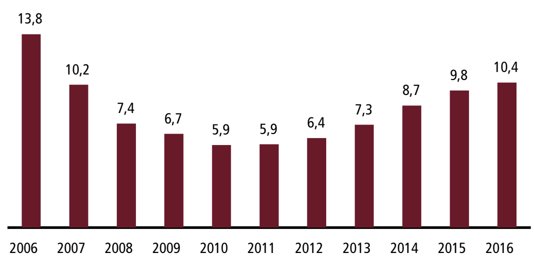


Source: OMPIC, Ministry of Economy and Finance, BAM calculations

The outstanding nonperforming loans of nonfinancial corporations grew at a slower pace

Nonperforming loans of nonfinancial corporations continued its slowdown that started last year, with growth of 8.1 percent in 2016, reaching nearly 48 billion dirhams. However, the share of these loans in the total bank debt of nonfinancial companies grew to 10.2 percent, from 9.7 percent due to a more than proportional growth compared to non-impaired loans.

Change in the rate of NPLs of nonfinancial corporations (%)



Source: BAM

By sector of activity, tourism showed a high default rate of 21 percent, followed by the manufacturing sector with 15 percent, and the sectors of “trade” and “transport and communication”, with 14 percent for both.

CHAPITRE 3

SOUNDNESS OF FINANCIAL INSTITUTIONS

OVERVIEW

Banks' aggregate profit in 2016 was up 31 percent, boosted by a one-off operation without which it would have been down 1.7 percent due to the decrease, for the first time in 10 years, in their interest income and the rise of their cost of risk.

The unfavorable economic context was not without impact on the quality of the banks' assets, which saw their nonperforming loans (NPL) increase to 7.6% of their credit portfolio. Banks made specific provisions to cover these claims up to 69 percent, compared to 68 percent in 2015. In addition to these provisions, banks made general provisions totaling 7.3 billion dirhams to cover latent risks.

At the same time, Moroccan banks continued to increase their prudential capital base, posting an average ratio of 14.2 percent, up from 13.7 percent in 2015. However, Tier 1 capital ratio was at 11.5 percent, down from 11.8 percent in 2015.

Similarly, banks' liquidity continued to improve and resulted in less recourse to advances from the central bank, which averaged 15 billion dirhams compared with 35 billion dirhams in 2015.

The good fundamentals of the banking sector were broadly confirmed by the results of stress tests simulating shocks from the macroeconomic environment. The risk of cross-border contagion that may arise from foreign-based subsidiaries of Moroccan banks remains low.

On the insurance side, their business continued to grow in 2016, with however, a deceleration. The penetration rate, which corresponds to the ratio of premiums issued to GDP, reached 3.6 percent, lower than the year before. Their unrealized capital gains amounted to 29 billion dirhams, up 52.3 percent compared to 2015, which conceals a rise in capital gains in equity and mutual fund compartments and slight declines in profits from bonds and real estate investments. Liquid assets continued to cover potential cash outflows, showing a liquidity ratio of 266 percent as against 243 percent in 2015. The solvency margin, hedging the underwriting risk, increased to 449 percent from 408 percent in 2015; however, some insurance companies need recapitalization, with the shift to the risk-based solvency regime.

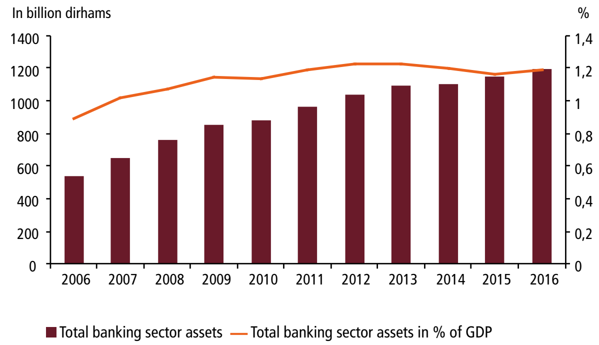
Regarding pension schemes, the benefits provided in 2016 represented 110 percent of the contributions received and reserves reached 281 billion dirhams, up 3 percent compared to 2015. The parametric reform of the Régime des Pensions Civiles (Civil Service Pension Scheme) during 2016 has balanced the pricing of this pension scheme for the future rights of its affiliates -but has not absorbed its significant commitments under the past entitlements- and reduced by 53 percent the scheme's uncovered liabilities over the projection horizon.

III.1 BANKING SECTOR[16]

Banking sector activity continues to grow, due notably to stronger intermediation activity

In 2016, the size of the banking sector expanded by almost 5 percent, reaching a volume of assets of over 1,200 billion dirhams, which represents 118 percent of GDP as against 116 percent a year earlier. This change is due in particular to the continued strengthening of their intermediation activity.

Change in the size of the banking sector



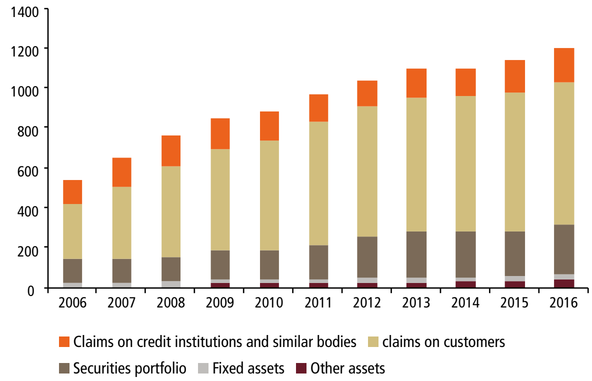
Source: BAM

The structure of banks' balance sheets remained almost similar to that of 2015. Customer's loans continued to be predominated in the assets side, representing 60 percent of the total assets, followed by the securities portfolio, accounting for 20 percent, and claims on credit institutions, with a share of 14 percent.

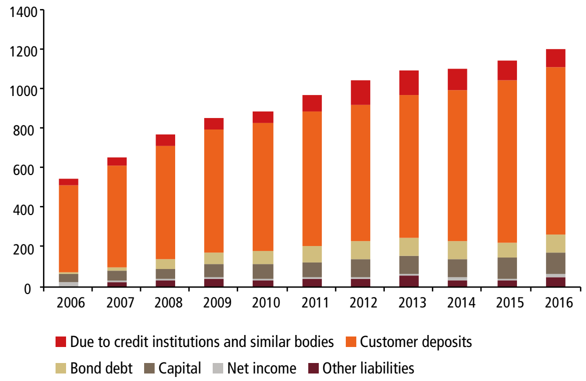
In terms of liabilities, customer deposits continued to represent the largest share, with a slight drop to 71 percent after an increase of 4.6 percent in their outstanding amount. Following the 10 percent decline in amounts due to credit institutions, their share stabilized at 8 percent, reflecting a lesser recourse to refinancing from Bank Al-Maghrib. Bond refinancing rose by more than 7 percent in 2016.

16 This section highlights the main indicators of the soundness of the banking sector on an individual basis.

Change in the structure of banks' assets, in billion dirhams



Change in the structure of banks' liabilities, in billion dirhams

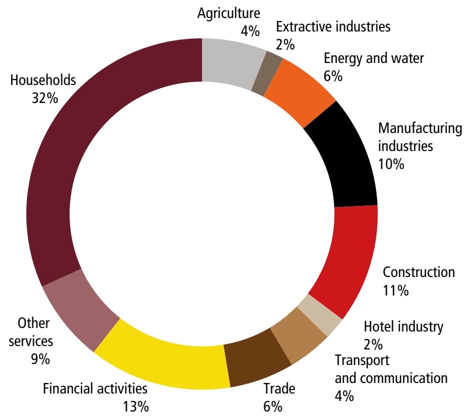


Source: BAM

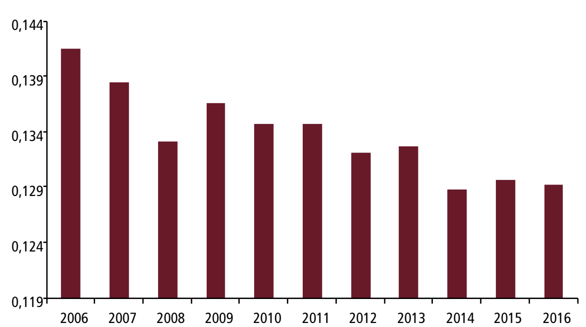
Loans granted by banks to their customers are diversified across sectors

Loans granted by banks to their customers continue to be fairly diversified at the sectoral level. Lending to corporations operating in the "financial activities" sector represented 13 percent of loans, same level as in 2015. Credits benefiting the "manufacturing" and the "construction" sectors represented each a share of about 10 percent of total loans. As a result, the concentration of corporate lending, measured through the HHI index[17], was around 0.13, that is the same level observed for the last six years.

Sectoral breakdown of bank loans by disbursement in 2016



IHH index measuring the concentration of bank loans to corporations



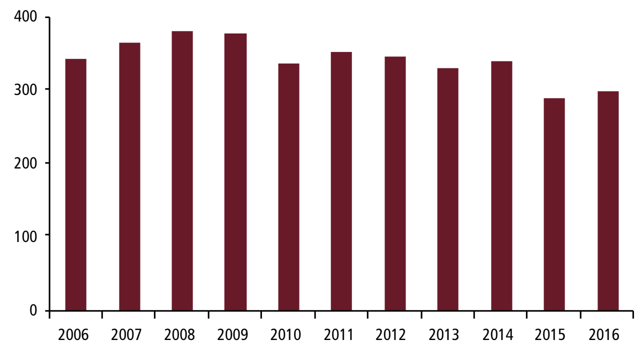
Source: BAM

17 The Herfindhal-Hirschmann Index (HHI) measures the concentration of a market. It ranges between 0 and 1, and the closer it is to 1, the higher is the level of concentration.

Banks' exposure to corporations and groups of corporations exceeding 5 percent of their capital remains elevated

The concentration by "large debtors"[18] is a significant risk to which the Moroccan banking sector is exposed. It was reflected in the balance sheet and off-balance sheet liabilities, totaling more than 355 billion dirhams in 2016, up 7 percent from last year. However, these exposures still represented about three times the capital of banks, following banks' capital strengthening.

Banks' exposure to major debtors, in % of their regulatory capital



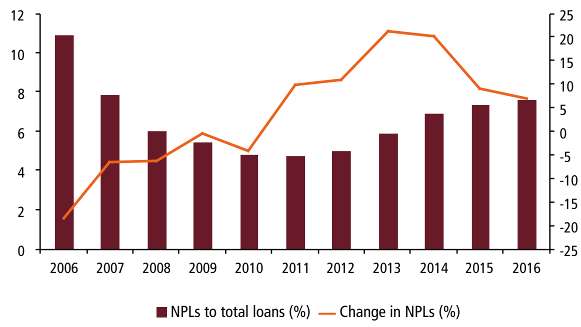
Source: BAM

Banks' NPLs, up to 7.6 percent of total loans, were impacted by the adverse macroeconomic environment

The unfavorable macroeconomic environment continued to weigh on the quality of banks' assets, as nonperforming loans (NPLs) rose further by 6.8 percent in 2016, a rate more moderate than in the past five years. The share of these loans to total loans stood at 7.6 percent, as against 7.4 percent in 2015. They could increase in 2017, in connection with the adverse macroeconomic conditions that prevailed in 2016.

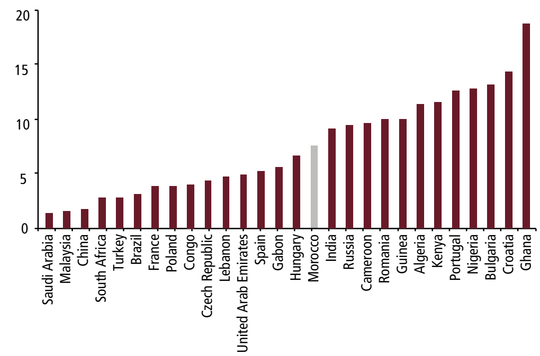
18 A large debtor refers to any counterparty or group of counterparties receiving a loan that exceeds 5 percent of the bank's capital.

Change in banks' NPLs



Source: BAM

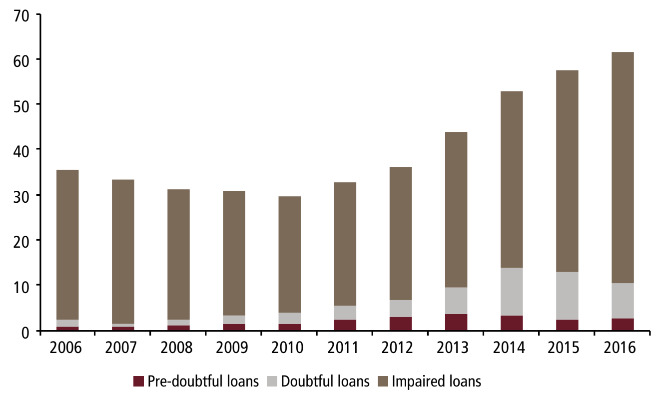
NPLs to total loans (%)



Source: IMF

By category, impaired loans recorded the largest increase, with a surplus of 6.5 billion dirhams compared to last year, bringing their outstanding amount to 51 billion dirhams, representing 83 percent of all NPLs. Pre-doubtful loans rose by 11 percent to 2.8 billion dirhams, accounting for 4 percent of total NPLs, while doubtful ones fell to 7.8 billion dirhams, down from 10.6 billion dirhams in 2015, thus decreasing their share to 13 percent from 18 percent in 2015.

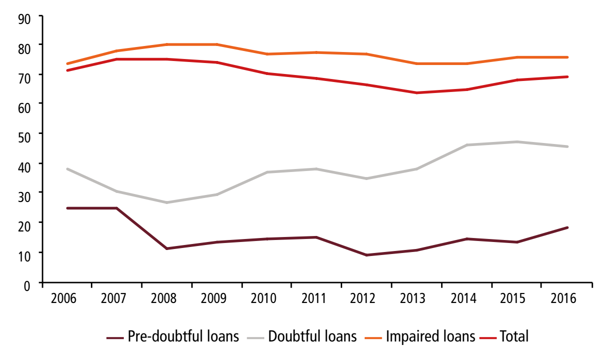
Banks' NPLs by category, in billion dirhams



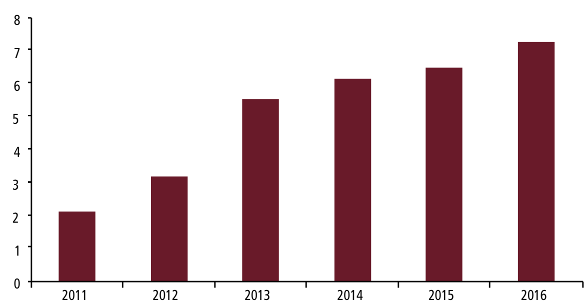
Source: BAM

Banks' NPL coverage with specific provisions reached 69 percent. By category, the coverage ratio stands at 76 percent for impaired loans, 47 percent for doubtful loans and 18 percent for pre-doubtful loans. In order to cover their unrealized risks, banks also made general provisions totaling 7.3 billion dirhams, up 12 percent from end-2015.

NPL coverage ratio by category (%)



Change in banks' general provisions, in billion dirhams



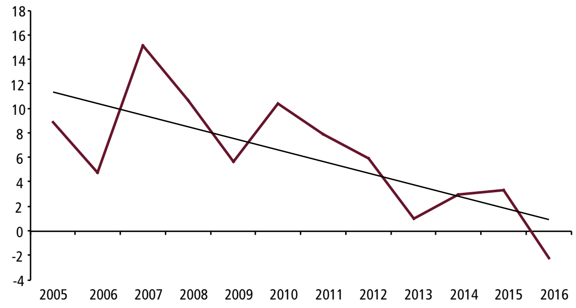
Source: BAM

Banks' earnings in 2016 were negatively impacted by lower interest rates and higher costs of risk

Net earnings of banks, which are one of the factors contributing to their resilience, were up 31 percent in 2016 to more than 12 billion dirhams, impacted by an exceptional operation. Without the latter, they would have declined by 1.7 percent, mostly because of the decrease in their interest margin and their cost of risk.

The analysis presented in this section excludes the elements of this exceptional income.

Change in banks' interest income (%)



Change in general operating expenses (%)

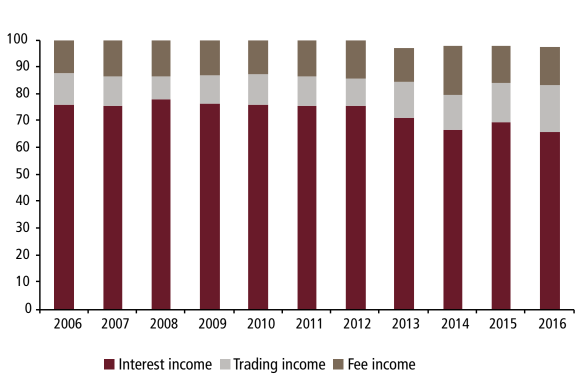
Source: BAM

Net Banking Income (NBI) increased by 3 percent, keeping its ratio to assets close to 0.4 percent, unchanged from the average of the last ten years. It was impacted in particular by the opposite effects of the low interest rate environment.

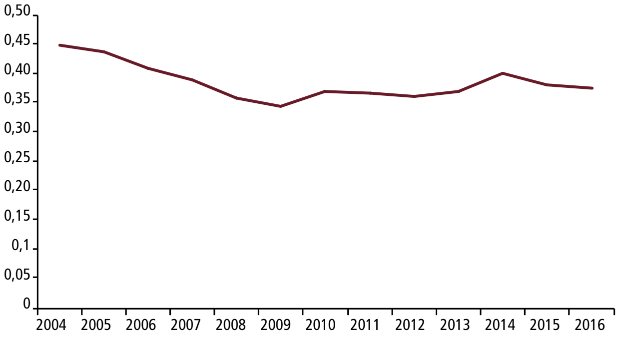
On the one hand, interest income, the main source of revenue for Moroccan banks, posted -for the first time in over a decade- a drop of more than 2.2 percent.

On the other hand, trading income jumped by 25 percent, following an increase in earnings from securities trading, helped by the decline in bond rates.

Structure of banks' NBI (%)



NBI to assets (%)



Source: BAM

Change in trading income (%)

Source: BAM

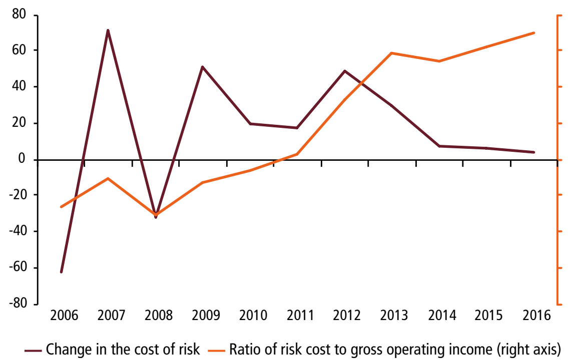
General operating expenses of banks totaled more than 22 billion dirhams, even though their growth slowed to nearly 4 percent. They absorbed almost half of bank revenues, a level comparable to that of the last year and higher than the average for the period 2008-2014.

Average loan to deposit ratio (%)

Source: BAM

Banks' cost of risk, totaling 8.7 billion dirhams, continued to grow, up 4 percent, its smallest increase since 2009. However, this cost absorbed 38 percent of the gross operating income generated by banks, the highest level recorded in the last ten years, due to the decline in this income.

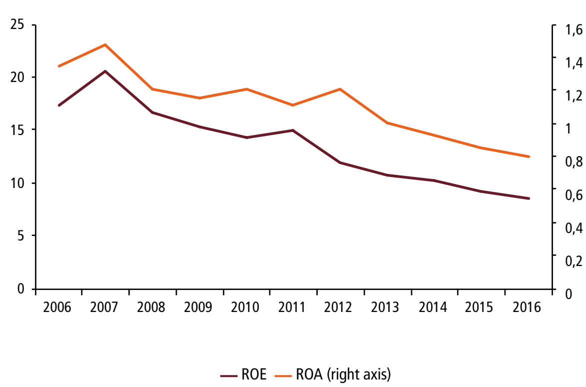
Banks' cost of risk (%)



Source: BAM

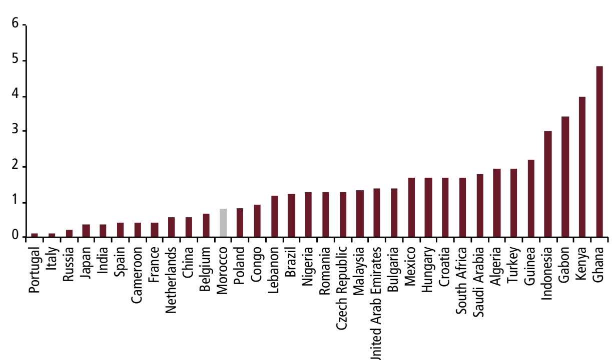
Overall, banks' aggregate net income in 2016 contracted 1.7 percent to 9.2 billion dirhams, after a drop of 6.5 percent a year earlier. In this context, return on assets (ROA) declined slightly but remained around 0.8 percent, and return on equity (ROE) fell to 8.6 percent, as against 9.1 percent in 2015.

Banks' profitability (%)



Source: BAM

ROA benchmark (%)



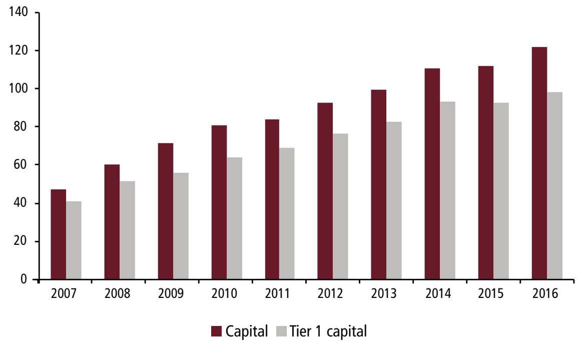
Source: IMF

Moroccan banks continue to hold, overall, capital ratios above regulatory minima

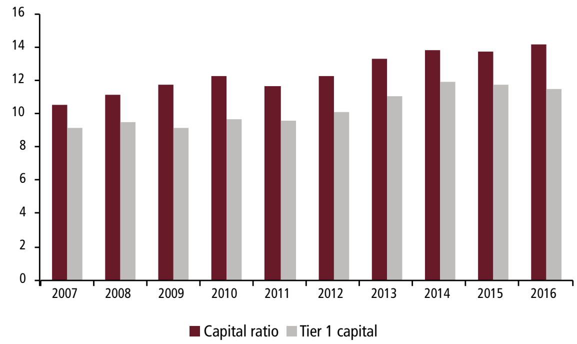
Moroccan banks increased their regulatory capital by 9 percent in 2016 to nearly 122 billion dirhams, as against 112 billion dirhams in 2015. Tier 1 capital represented 81 percent of total capital, as against 86 percent in 2015. Risk-weighted assets increased by 5 percent to 858 billion dirhams, 82 percent of which are for credit risk.

As a result, banks' average capital ratio increased to 14.2 percent. Tier 1 capital fell to 11.5 percent, down from 11.8 percent in 2015, indicating that banks made greater use of Tier 2 capital instruments this year.

Banks' regulatory capital on social basis, in billion dirhams



Banks' average capital ratio on social basis (%)

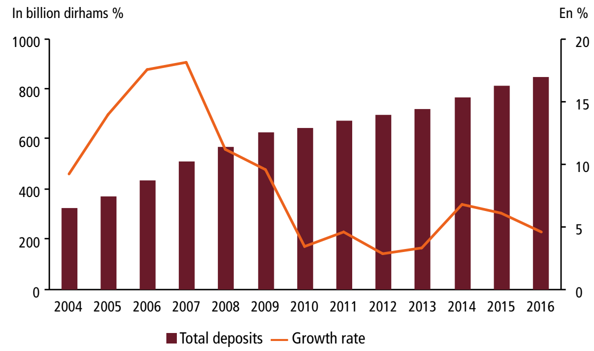


Source: BAM

Bank's liquidity needs eased amid higher foreign exchange reserves

Banks' customer deposits increased 4.6 percent in 2016 to 851 billion dirhams, a rate slower than in 2015.

Change in customer deposits

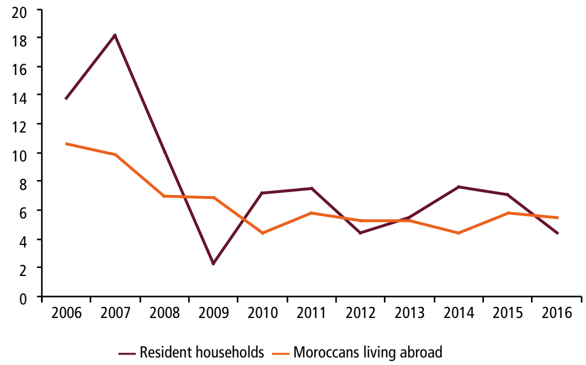


Source: BAM

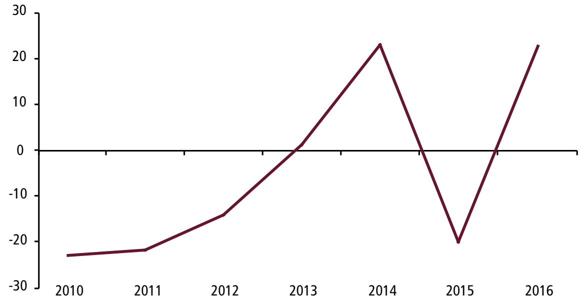
The trend in deposits was mainly driven by household deposits, which represent the most stable and largest component. These deposits were up 5.6 percent year on year, down from 2015, due to the deceleration of deposits collected from both resident households and Moroccans living abroad, which increased by 5.7 percent and 5.5 percent respectively, compared to 7.1 percent and 5.8 percent in 2015.

Deposits collected from other economic units also contributed to the strengthening of deposits, but to a lesser extent. Deposits from financial corporations, the most volatile component, rose by 23 percent to 36.6 billion dirhams, while those collected from private nonfinancial corporations increased by 2.1 percent to nearly 169 billion dirhams.

Change in household deposits (%)



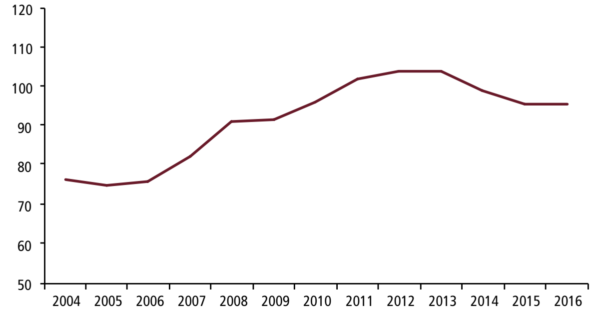
Change in financial corporations' deposits (%)



Source: BAM

As a result of the increase in deposits at the same time as in credit, the loan-to-deposit ratio remained unchanged from 2015, at 95 percent.

Change in banks' loan to deposit ratio (%)

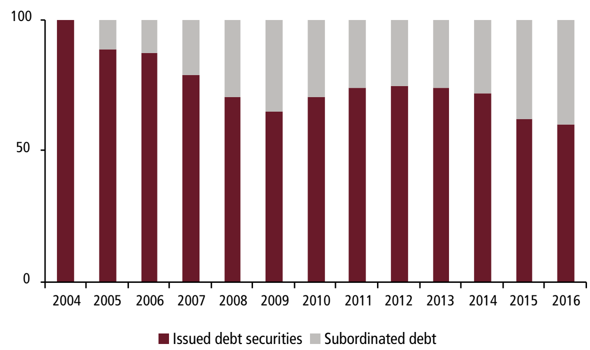


Source: BAM

In parallel with the growth in deposits, banks raised more funds from the bond market. On the one hand, issuances of negotiable debt securities were at a level almost similar to that recorded during 2015, increasing their outstanding amounts by just over 4 percent at the end of the year. On the other hand, subordinated debt issues have more than doubled compared to the previous year, increasing their year-end outstanding by around 12 percent. Most of these subordinated loans were geared to finance domestic and international business development, improve the duration of backed assets and liabilities, and strengthen regulatory capital. Bond refinancing included for the first time green bonds totaling 600 million dirhams, intended to finance eco-responsible and environment friendly projects. These issuances are in line with the objective of mobilizing "green resources" that respond to the environmental and social concerns of the banking sector, as part of the roadmap for aligning the Moroccan financial sector with sustainable development.

Change in outstanding bond debt issued by banks (%)

Change of bond debt issued by banks, in %



Source: BAM

In these conditions, banks' need for liquidity eased in 2016, reflecting lower recourse to advances from the central bank which totaled 15.6 billion dirhams on weekly average, including 6 billion dirhams of secure advances granted under the program of support for the financing of VSMEs, as against 35 billion and 15 billion respectively a year before.

Banks' liquidity coverage ratio averaged 143 percent, above the regulatory minimum target of 100 percent due in 2019.

The results of banks' macro stress tests carried out by Bank Al-Maghrib indicate an overall resilience to macroeconomic shocks

Bank Al-Maghrib regularly conducts macro stress tests to assess the impact of macroeconomic conditions' shocks on the banking sector. For the year 2016, the stress test performed was structured around two scenarios:

- A baseline scenario, built in line with Bank Al-Maghrib's macroeconomic forecast of June 2016, according to which economic growth would strengthen in 2017 and 2018 and remittances of Moroccans living abroad and FDI inflows would increase, due to the recovery of agricultural activity and the improvement of activity in the main partner countries.
- An extreme scenario reflecting a deterioration of the international environment during 2017-2018. This scenario assumes a decline in world trade following the rise of protectionism, which should lead to a weakening of the world economy as well as a drop in foreign demand to Morocco, FDI inflows and expatriate remittances.

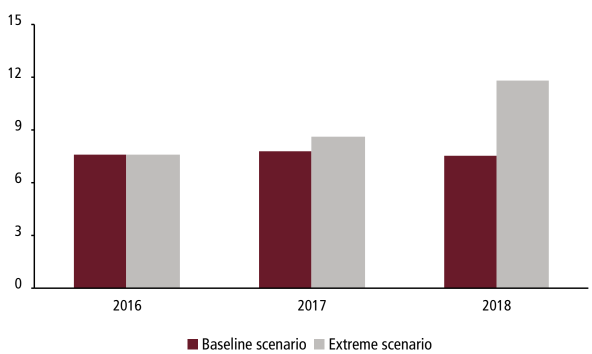
Macroeconomic scenarios

		Observation	Forecast	
		2016	2017	2018
GDP	Baseline	1,2	4,4	3,0
	Extreme	-	1,6	-2,3
Interest rates (Weighted average rate of 52-week Treasury bonds)	Baseline	2,3	2,3	2,3
	Extreme	-	3,5	3,5
Real Estate Price Index	Baseline	0,9	2,6	1,0
	Extreme	-	0,9	-0,4
Foreign capital (remittances of Moroccans living abroad + FDI inflows	Baseline	-5,5	3,0	8,5
	Extreme	-	1,1	-12,4

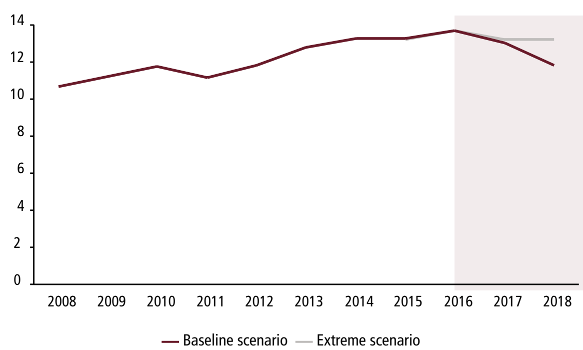
The results of the stress test indicate that the NPL ratio is expected to average between 7.6 and 7.8 percent in 2017-18, based on the baseline scenario. However, the deterioration of economic conditions, as simulated in the extreme scenario, is expected to result in a significant increase in this ratio, ranging from 9 to 12 percent over the same period.

Overall, banks would remain resilient. In the baseline scenario, the capital ratio would average about 13 percent, while in the extreme scenario it would be around 12 percent.

Change in NPL ratio (%)



Change in capital ratio (%)



Source: BAM

Strengthening the macroprudential supervisory framework

In terms of macro-prudential supervision, 2016 was mainly devoted to the calibration of macro-prudential capital instruments included in the Basel III reform.

The first instrument called countercyclical capital buffer (CCyB), introduced in the credit institutions' capital circular in June 2016, aims to protect banks against credit cycle fluctuations and the accumulation of systemic risks associated with excessive credit growth. It is composed of core capital with a range of 0 to 2.5 percent of weighted risks.

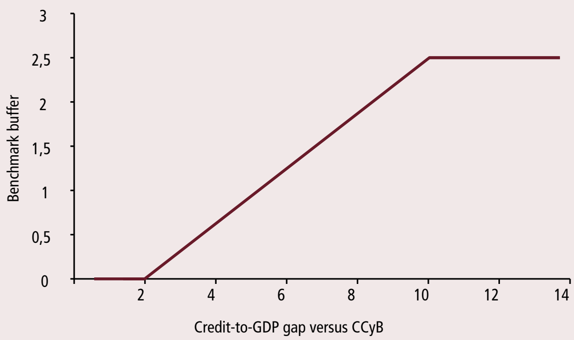
At the end of 2016, the results of the calibration work showed a CCyB at 0 percent.

Box 4: Procedure for setting the level of the countercyclical capital buffer

The calibration of the CCyB requires measuring the credit cycle to determine its level. To do this, the "credit-to-GDP gap" indicator is the one recommended by the Basel Committee and implemented by several central banks.

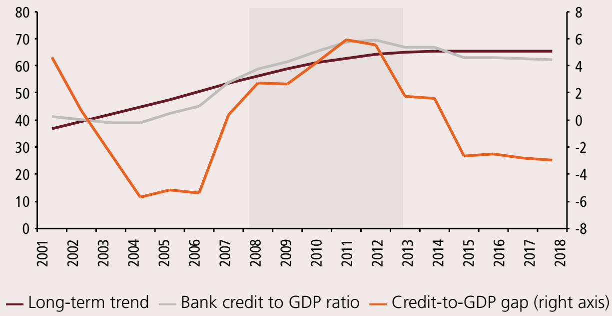
Credit growth is considered excessive when this gap rises faster than its long-term trend, due to a rise in credit at a rate higher than that of GDP. When the gap is less than or equal to two percentage points, the countercyclical buffer is set at zero. When it exceeds this level, the CCyB rate is increased linearly until it reaches the maximum level of 2.5 percent for credit-to-GDP gap levels of ten percentage points or more.

Credit-to-GDP gap versus CCyB



The calculation of the credit-to-GDP gap in Morocco shows a negative ratio. In response, the CCyB is set at zero.

Credit-to-GDP gap (%)



Source: BAM

In line with the recommendations of the Basel Committee, Bank Al-Maghrib continued its work to oversee banks considered to be systemically important, focusing this year on the specific prudential requirements to be applied to these banks. These requirements include, in particular, a capital surcharge in order to provide them with additional capacity to absorb losses.

Box 5: Treatment of systemically important banks

The Basel Committee has published twelve principles to assess systemically important banks (SIBs) at the national level and their loss absorbency capacity.

Assessment methodology

Principle 1: National authorities should establish a methodology for measuring the systemic importance of banks at the national level.

Principle 2: The assessment methodology should reflect the possible impact of the failure of a SIB.

Principle 3: The reference system for assessing the impact of a SIB's failure should be the national economy.

Principle 4: In the case of a bank with subsidiaries abroad, home country authorities should assess the systemic importance of banks at the consolidated level, while the host country authorities should evaluate the systemic importance of the subsidiaries established in their jurisdiction.

Principle 5: The impact of a SIB's failure on the national economy should, in principle, be assessed against the characteristics of the bank: size, interconnectedness, lack of substitutability, complexity or any other criterion considered relevant by the national authorities.

Box 5: Continued

Principle 6: National authorities should conduct regular assessments of the systemic importance of banks in their jurisdiction.

Principle 7: National authorities should make public the documentation describing the methodology used to assess banks' systemic importance in the domestic economy.

Additional loss absorbency requirement

Principle 8: National authorities should document the methodologies and considerations used to determine the level of additional loss absorbency requirement.

Principle 9: A bank's additional loss absorbency requirement should be proportional to its systemic importance.

Principle 10: National authorities should ensure that the arrangements applied to global SIBs are compatible with those applied to domestic SIBs within their jurisdiction.

Principle 11: Home and host country authorities should take steps to coordinate and cooperate with one another when a bank subsidiary is considered systemically important by the host country authorities.

Principle 12: The additional loss absorbency requirement should consist of Common Equity Tier 1 capital only.

II.2 INSURANCE SECTOR

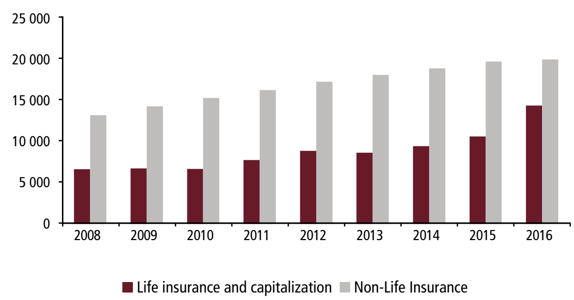
Insurance sector activity continued to grow

In 2016, the turnover of the insurance sector , as measured by issued premiums, recoded a turnover of 35.1 billion dirhams, up 15.4 percent. The penetration rate, corresponding to the ratio of issued premiums to GDP, stood at 3.6 percent.

The main contributor to this growth is life insurance which generated 14.3 billion dirhams of issued premiums, up 35.4 percent. This exceptional increase is due to the entry on the market of a new participant, Mutuelle d'Assurances Chaâbi.

Auto insurance, the largest non-life insurance contributor and second largest contributor in all the categories, generated premiums of 9.9 billion dirhams, up 4.6 percent.

Breakdown of issued premiums by sector, in million dirhams



Source: ACAPS

The risk of specialization remains low

The Moroccan insurance market continues to be dominated by four main categories: life insurance and capitalization, engine land vehicle insurance, bodily injury and maternity health insurance, and insurance for work accidents and occupational disease. These insurances alone account for 85 percent of overall premiums issued.

The distribution of premiums issued by categories of insurance shows that life insurance and capitalization account for 40.7 percent of total premiums, followed by engine land vehicle insurance with a share of 28.4 percent, bodily injury and maternity health insurance with a share of 10.4 percent, and insurance for work accidents and occupational disease with a share of 6.2 percent.

The dominant nature of the four main categories mentioned above does not put the sector at any particular risk.

Indeed, life insurance and capitalization continues to grow despite the downward trend in interest rates, given the development of bancassurance and the lack of investment alternatives.

The turnover of motor vehicle liability insurance and work-related accident insurance has followed a regular trend, owing to their mandatory nature and given the increase in the car fleet and the development of the country's economic fabric.

Therefore, the insurance sector does not seem vulnerable to the risk of specialization.

In view of the low penetration rate of insurance compared to other countries (3.6 percent versus 8.8 percent for OECD countries), the Moroccan insurance market has still significant potential for development. As a result, there is no risk of a significant decline in the turnover of the different insurance categories.

The profitability of insurance companies improved

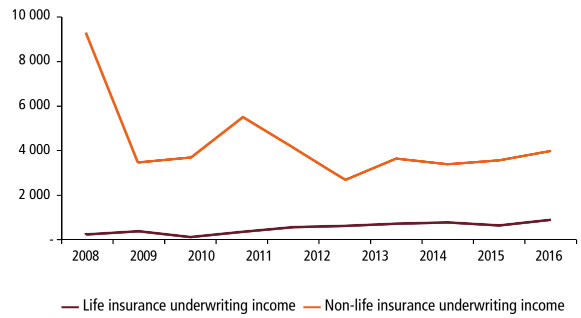
The profitability of the insurance sector increased in 2016, as net profits reached 3.2 billion dirhams as against 2.9 billion dirhams in 2015 (+7.8 percent).

These profits originate from a net underwriting result of 5 billion dirhams, of which 4.1 billion from the non-life insurance sector. Despite a decrease in the operating margin, due to higher cost of claims in auto insurance, the insurance for work accidents and agricultural insurance, the net underwriting result was driven by the financial balance up to 4.6 billion dirhams (3.4 billion in non-life and 1.1 billion in life insurance).

Income indicators of insurance companies

In million dirhams	2015	2016
Operating margin	1 937	615
Financial balance	3 933	4 589
Goss underwriting and financial income	5 870	5 204
Reinsurance balance	-1 528	-194
Net underwriting and financial income	4 341	5 010
Non-underwriting income	-563	-555
Pretax income	3 778	4 455
Corporate tax	817	1 264
Net income	2 961	3 191

Net underwriting income of insurance companies

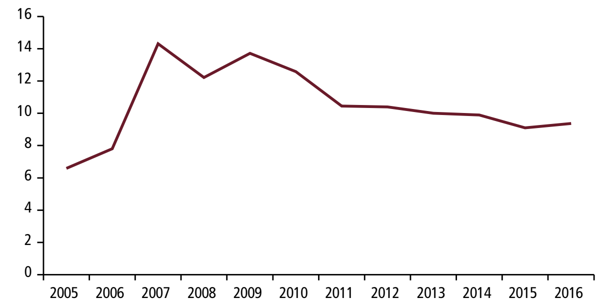


Source: ACAPS

Capital rose by 4.6 percent reaching 34.1 billion dirhams.

Return on equity (ROE) (net income-to-equity ratio) was 9.4 percent, up from 9.1 percent in 2015.

Net income-to-equity ratio (%)

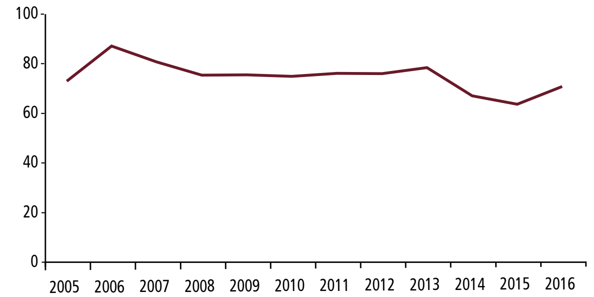


Source: ACAPS

The level of claims compared to premiums worsened

The ratio of claims to premiums increased to 69.4 percent in 2016 from 62.4 percent in 2015. This increase is due to higher cost of claims in auto insurance for work accident and agricultural insurance following the severe drought seen in 2016.

Ratio of claims to premiums (%)



Source: ACAPS

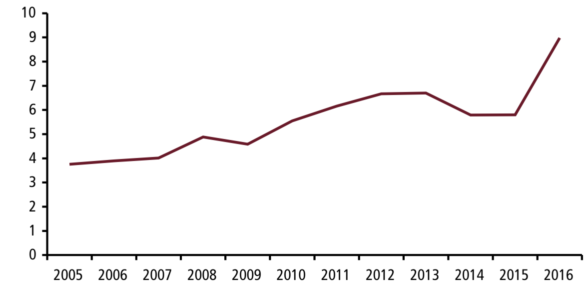
The rise in the level of surrenders should be monitored carefully

Surrenders rose by 66.7 percent in 2016 to more than 5.9 billion dirhams, up from 3.6 billion in 2015 and 3.3 billion in 2014. This increase could be explained by the abolition of the Solidarity Tax in 2016. Contract holders are thought to have delayed the surrender of their contracts until the abolition of this tax.

The downward trend in interest rates would also be responsible for the aforementioned rise in surrenders.

Therefore, the share of surrenders in the mathematical provisions increased from 5.8 percent in 2015 to 8.9 percent in 2016.

Ratio of surrenders to mathematical provisions (%)

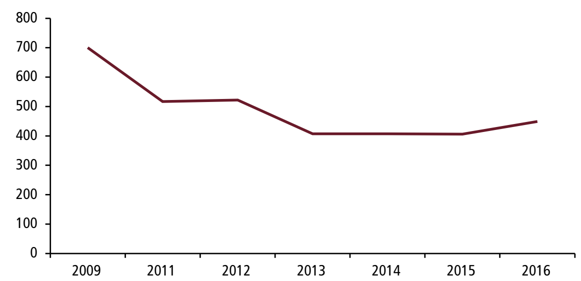


Source: ACAPS

The level of the solvency margin remains above regulatory requirements

The solvency margin increased to 449 percent at the end of 2016 as against 408 percent at the end of 2015. This rise is partly due to the unrealized gains recorded following the stock market performance

Coverage rate of the solvency margin



Source: ACAPS

Although the level of the solvency margin far exceeds the minimum required by the current prudential framework, this margin does not reflect the reality of the sector in terms of hedging risks, since it only covers the underwriting risk.

The risk-based solvency regime, currently being prepared, in line with the latest amendment to the Insurance Act, will strengthen the resilience of insurance and reinsurance companies to the various risks they face.

Box 6: The challenges of Risk-Based Solvency

The purpose of the Risk-Based Solvency project is to ensure the ***solvency of insurers by taking account of all risks to which they are exposed***. It introduces a new approach on how to value the balance sheet and implement a comprehensive risk management system. To optimize performance and reduce risk in the insurance industry, the Risk-Based Solvency project is structured into ***three pillars***:

Pillar 1: Quantitative requirements. This pillar sets out the new rules for determining minimum capital requirements for insurance and reinsurance companies, i.e. the rules for the valuation of assets and liabilities as well as the capital requirements and their method of calculation. The objective is to calculate a solvency margin that reflects the reality of the insurer or reinsurer taking into account all of its activity and all risks it is exposed to; i.e. underwriting risk, operational risk, investment policy, market risks, concentration or counterparty risks, etc.

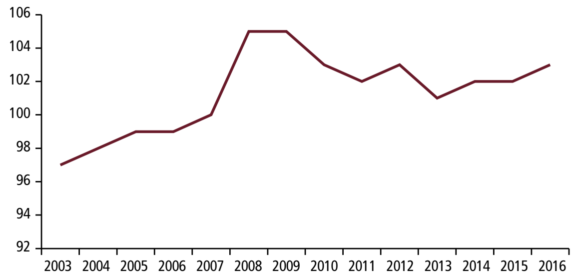
Pillar 2: Qualitative requirements. This pillar aims to strengthen the governance systems of insurance and reinsurance companies and their control of risks through, inter alia, appropriate governance policies, effective audit, internal control and risk management systems and the promotion of key functions (internal audit, risk management, actuarial function and compliance).

Pillar 3: Financial disclosure. This pillar defines the reporting requirements for the public and the Authority. These requirements also relate to information relevance, integrity and reliability. The aim is to promote financial transparency for communication and control purposes.

The insurance market continues to cover its commitments

The coverage of technical provisions by covering assets increased slightly to 103 percent in 2016, compared to 102 percent in 2015.

Coverage ratio of technical provisions by covering assets (%)

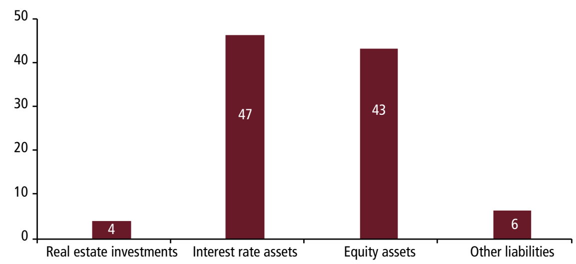


Source: ACAPS

Sector investments remain overexposed to equity risk

Investments[19] of insurance and reinsurance companies rose by 6.2 percent in 2016 to more than 134.7 billion dirhams.

Structure of investments in 2016 (%)



Source: ACAPS

Insurance companies showed good resilience to stress tests carried out on the equity and real estate portfolio

The share of equity in the investments of insurance companies remains significant and reaches 43 percent, the same rate was recorded in 2015.

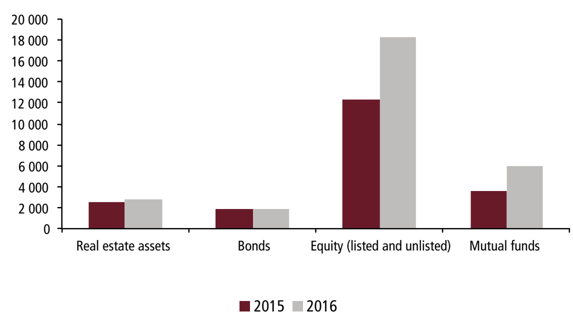
The exposure of insurance companies to market risk was measured through a stress test based on a stock market shock, the level of which was set on the basis of a 10 to 25 percent decline in listed equity prices. The results of these stress tests show that insurance companies respect regulatory solvency requirements.

19 Investments allocated to insurance operations.

Exposure to real estate risk was also assessed through a stress test based on a shock of real estate investments, measured on the basis of a 10 to 25 percent decline. The results of these stress tests also show that insurance companies respect regulatory solvency requirements.

In addition, the total amount of unrealized gains at the end of 2016 amounted to 29 billion dirhams, up 52.3 percent compared to 2015. This change is the result of an appreciation in equity directly held by the sector for an amount of 5.9 billion dirhams and by mutual funds for an amount of 3.5 billion dirhams, following the performance of the stock market in 2016.

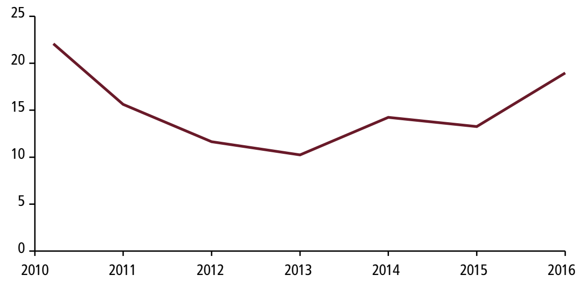
Unrealized gains by type of investment, in million dirhams



Source: ACAPS

The ratio of unrealized gains to total investments increased from 13 percent in 2015 to 19 percent in 2016.

Ratio of unrealized gains to total investments (%)



Source: ACAPS

The insurance sector is exposed to counterparty risk towards some issuers

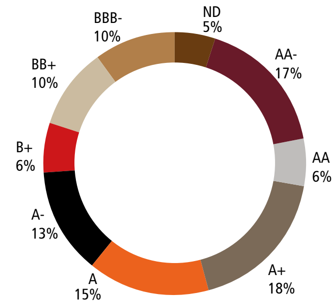
The insurance sector incurs a counterparty risk that stems from its exposure to some issuers in terms of investments. In fact, this exposure per issuer in some cases reaches approximately 30 percent of the sector's equity.

Insurance companies' exposure to counterparty risk towards reinsurers remains low

As regards reinsurance cessions, an average of 28 percent of cessions in insurance companies' liabilities are secured by deposits with the cedents, 66 percent are ceded to the Société Centrale de Réassurance (Central Reinsurance Company), which is guaranteed by the government, and 6 percent is ceded to foreign reinsurers, almost all of which have a BBB rating or above.

69 percent of retrocessions by national reinsurers are carried out with reinsurers rated at least AA-.

Breakdown of reinsurers by rating

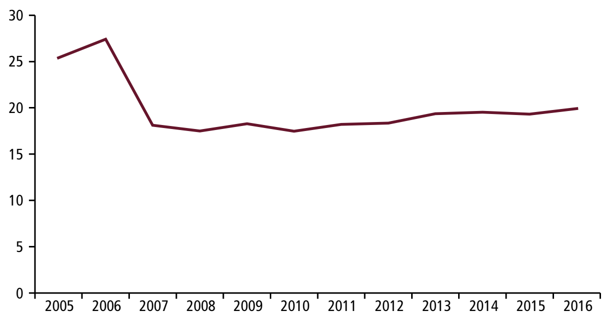


Source: ACAPS

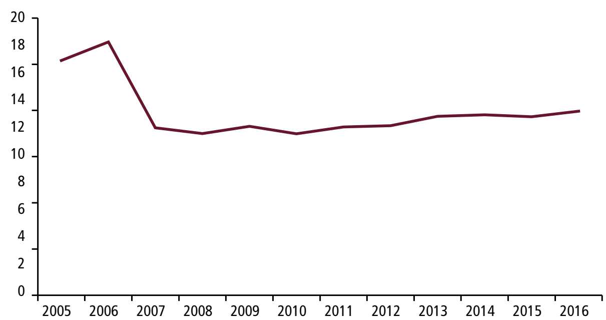
The exposure of insurance companies to the risk of unpaid debts of both insurance holders and intermediaries remained almost stable. Indeed, the share of these unpaid debts in equity reached 19.9 percent and 13.2 percent, respectively in 2016. They represent respectively 2.3 months and 1.5 month of turnover.

The framework for the remediation of unpaid debts of insurance holders and intermediaries will be further strengthened with the entry into force of the ACAPS circular on the insurance sector, currently being approved. This circular modifies the provisioning rules currently applicable to insurance holder's unpaid debts and introduces provisions for of insurance intermediaries' unpaid debts.

Exposure on insurance holders/capital



Exposure on intermediaries/capital

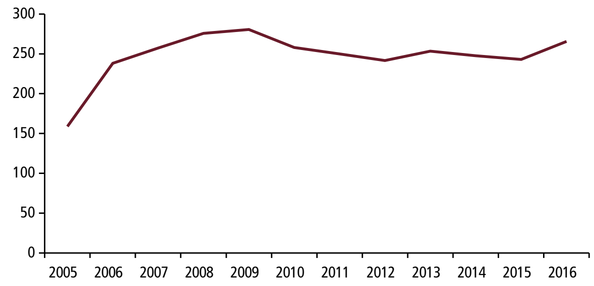


Source: ACAPS

The insurance sector's assets remain liquid enough to cover current liabilities

Liquid assets of insurance companies continue to cover cash outflows. Thus, the liquidity ratio stood at 266 percent in 2016, up from 243 percent in 2015.

Liquid assets-to-liabilities ratio (%)



Source: ACAPS

A continuous process of regulatory reform aimed to strengthen the financial soundness of insurance companies and develop the sector

As part of the continuous review of the regulations governing the insurance sector and in order to foster the development of this industry and improve coverage, the authority focused this year on adapting the regulatory framework governing the profession.

Box 7: Major regulatory reforms

A- Amending the Insurance Act:

The year 2016 saw the publication in the Official Bulletin of the Law No. 59-13 modifying and completing Law No. 17-99 on the Insurance Act. The amendments introduce, among other things, the risk-based solvency regime, improve the governance of insurance and reinsurance companies and enhance their transparency. They also establish a specific legal framework for Takaful insurance and introduce the obligation of construction insurance in certain cases.

B- Establishing the regime of coverage for the consequences of catastrophic events:

The Law No. 110-14 was published in the Official Bulletin in September 2016. It establishes a regime of coverage for the consequences of catastrophic events, combining a system of insurance for insurance contract holders and a benefit system for uninsured natural persons.

Box 7: Continued

C- Ongoing projects:

1- A draft law amending Book IV of the Insurance Act is being examined by the General Secretariat of the Government. This bill aims in particular to review the reference framework for presenting insurance operations and diversify the distribution channels of insurance products to include new technologies.

2- A draft amendment of the Insurance Act is being formulated, as part of implementing the recommendations of the International Association of Insurance Supervisors and the Financial Stability Board. Its objective is to put in place a system for the treatment of systemically important insurers, incorporating regulatory requirements specific to this category of insurers and crisis management measures.

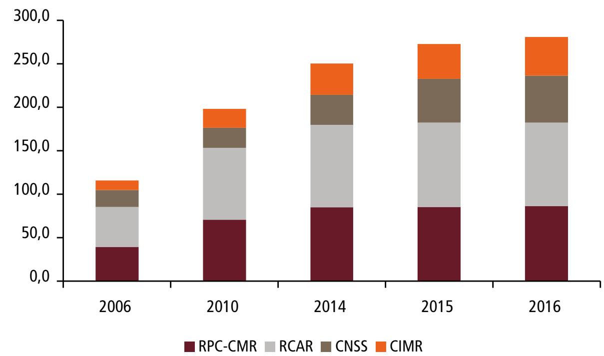
III.3 PENSION SCHEMES

The level of benefits paid by the pension schemes represents 110 percent of the contributions collected

The contributions collected by the pension schemes[20] totaled 44.1 billion dirhams in 2016, or 4.4 percent of GDP, paid by a working population of 4.3 million, or 40.8 percent of the employed labor force[21]. The benefits provided by these schemes amounted to 49.1 billion dirhams, or 4.8 percent of GDP.

Reserves increased by 3 percent to 281 billion dirhams in 2016.

Change in the reserves of pension schemes, in billion dirhams



Source: ACAPS

	Contributions		Benefits		Technical balance	
	2015	2016	2015	2016	2015	2016
CMR	22 046	22 722	25 256	28 811	-3 210	-6 089
RCAR	2 314	2 916	4 762	5 066	-2 448	-2 150
CNSS	9 719	11 844	9 067	10 661	652	1 183
CIMR	6 076	6 572	3 612	4 534	2 464	2 038
Total	**40 155**	**44 054**	**42 697**	**49 072**	**-2 542**	**-5 018**

Source: ACAPS

20 These are the RPC, the RPC, managed by the CMR, the RCAR, the CNSS and the CIMR.

21 Employed labor force in 2016 reached 10.67 million (source: HCP).

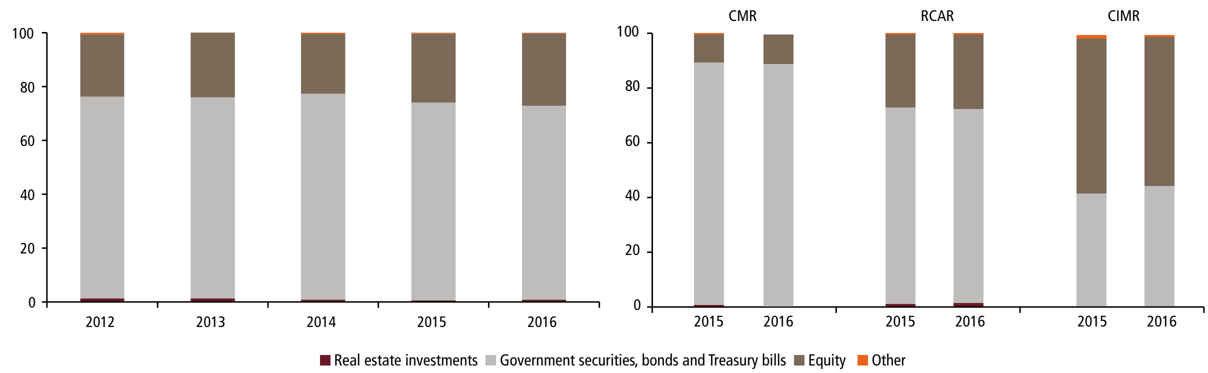
The structure of pension schemes' investments remained stable, with a preponderance of investments in debt securities

The investments made by pension schemes in 2016 amounted to 280 billion dirhams, up 3.1 percent compared to 2015.

Apart from the deposits of long-term social security, made mainly with the CDG[22], the investment structure of the other three schemes[23] remained stable compared to 2015. The bond portfolio in 2016 accounted for 72.3 percent (of which 62.9 percent in Treasury bonds) of total investments versus 26.5 percent for the equity portfolio. CIMR's investments are characterized by the dominance of equity investments, with a share of 54.3 percent. The latter represent only 27.5 percent and 10.9 percent for the RCAR and the RMC-run RPC.

Change in the structure of pension schemes' investments (%)

Structure of investments by pension scheme (%)



Source: ACAPS

The underpricing of pension schemes and the significant cumulative liabilities to their members weigh heavily on their technical balance

The parametric reform of Régime des Pensions Civiles (Civil Service Pension Scheme - RPC) in 2016 helped balance the scheme's pricing regarding the future benefits of its members, but did not absorb the scheme's significant liabilities under past benefits. This resulted in an improvement in the ratio[24] between benefits and contributions from 203 percent to 94 percent, while the pre-financing rate[25] that takes into account the plan's overall liabilities reaches 53 percent instead of 31 percent a year ago. The parametric reform reduced by 53 percent the plan's uncovered liabilities over the projection horizon.

22 The available funds of the CNSS must be deposited with the Caisse de Dépôts et de Gestion, in accordance with the provisions of the Law No. 1-72-184 of July 27, 1972.

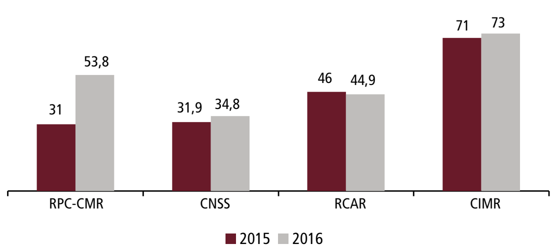
23 These are the RCAR, the RPC-CMR and the CIMR.

24 Ratio calculated according to the average profile of each scheme taking into account its own assumptions in terms of mortality, salary growth, pension revaluation, technical rate, etc.

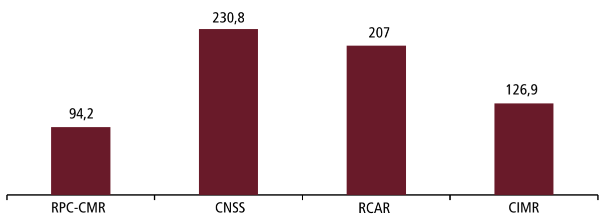
25 Sum of reserves available in the base year and discounted revenues, relative to total liabilities that include discounted future expenditures and liabilities over the horizon of the "closed regime" projections.

Moreover, the inadequacy between the levels of benefits and contributions, for the RCAR and the CNSS, induces low pre-financing rates (35 percent for the CNSS and 45 percent for the RCAR). Regarding the CIMR, although its pre-financing rate is 73 percent, its technical balance remains sensitive to the demographic factor due to the voluntary nature of the scheme.

Pre-financing rate in the open scheme (%)



Ratio of benefits to contributions (%)



Source: ACAPS

Temporary improvement in the RPC's financial situation thanks to the parametric reform adopted in 2016

CIMR reserves should remain positive throughout the projection period. The reserves of compulsory schemes will run out at different horizons. The depletion horizon of CNSS reserves was revised by one year compared to 2015, at 2044 instead of 2043. The reserves of the CMR-run RPC will be exhausted in 2027, an improvement of five years following its parametric reform in 2016, while those of the RCAR will be depleted in 2038.

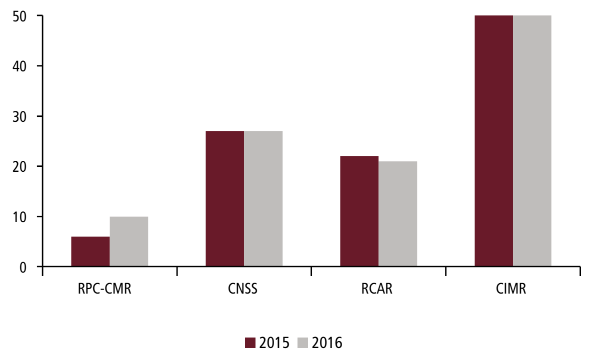
The overall balance[26] of the RCAR and that of the CNSS would remain positive until 2020 and 2027, respectively. The RPC's overall balance, despite the change in its parameters, has posted a structural technical deficit as of 2014.

The RCAR equalization fund, which is the "distribution" component of the scheme, has run out in 2016. It should be noted in this regard that Decree No. 2-77-551 on the terms and conditions for the application of the RCAR general scheme

26 Overall balance = technical balance + financial income from reserves.

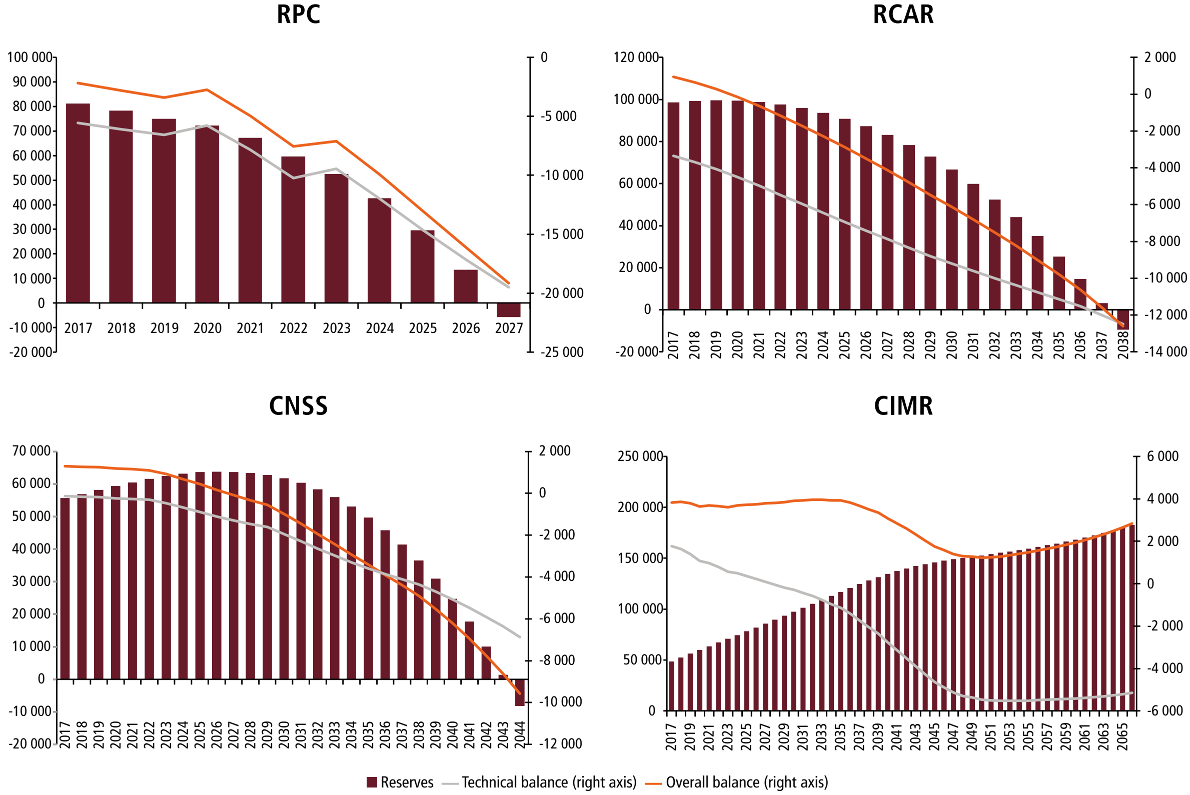
provides in this case for the increase in the contribution rate (employer's share) after prior approval of the Minister of Economy and Finance.

Number of years left until reserves depletion



Source: ACAPS

Change in reserves, technical balance and overall balance, in million dirhams



Source: ACAPS

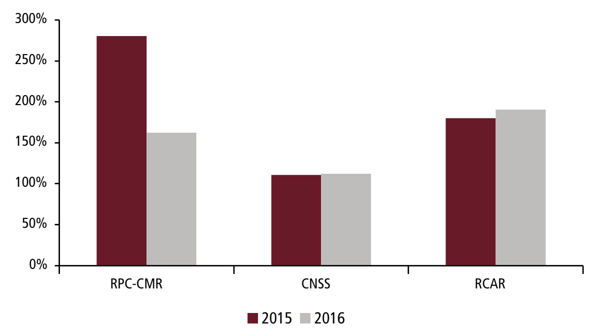
Less room for maneuver to redress imbalances in pension schemes, particularly public sector ones

Extending sustainability horizon by 50 years (to 2066) would require the CNSS, which has a favorable demographic factor, to increase the contribution rate from 11.9 percent to 13.4 percent. Contribution rates in the RPC-CMR and the RCAR should be increased from 28 percent and 18 percent to 45.4 percent and 34.3 percent, respectively, to ensure their sustainability over the same horizon. This shows that the RCAR has little room for maneuver to correct its imbalances, especially as it has few years left before it posts its first deficit. At the same time, the room for maneuver available to the RPC-CMR remains very small despite its recent parametric reform.

Therefore, measures should be taken to strengthen the financial balance of public sector pensions, including in particular:

- accelerating the establishment of the public hub;
- finding the necessary financing to absorb debts resulting from past benefits due.

Ratio of the equilibrium contribution rate[27] to the regulatory contribution rate



Source: ACAPS

Box 8: Extending pension coverage and strengthening institutional savings

Bill No. 99-15 establishing a pension scheme for non-wage earners, currently under discussion in the Second Chamber of Parliament, extends pension coverage to a large segment of the employed labor force. The implementation of this scheme, the draft of which establishes prudential rules able to ensure its long-term sustainability (principle of total provisioning of liabilities), will further strengthen institutional savings and boost financial markets.

27 It corresponds to the contribution rate that ensures reserves' sustainability until the projection horizon (2066).

III.4 LINKAGES BETWEEN FINANCIAL INSTITUTIONS

A. INTERBANK LINKAGES IN THE DOMESTIC MARKET

The interbank contagion stress test confirms the absence of risk of contagion via domino effect, due to weak multilateral linkages between market participants

In 2016, the volumes traded on the money market remain concentrated around a limited number of market participants, especially on the side of loans that are characterized by a high level of concentration. Actually, one bank concentrates on average more than 40 percent of trading.

The interbank contagion stress test, conducted quarterly since 2009 to assess the propagation of liquidity distress from one bank to the other domestic banks, shows that the money market remains resilient. This resilience, perceived through the absence of a plausible domino effect, reflects the weakness of multilateral interconnections between the various participants, which confirms the concentration suffered by the different compartments of the Moroccan money market.

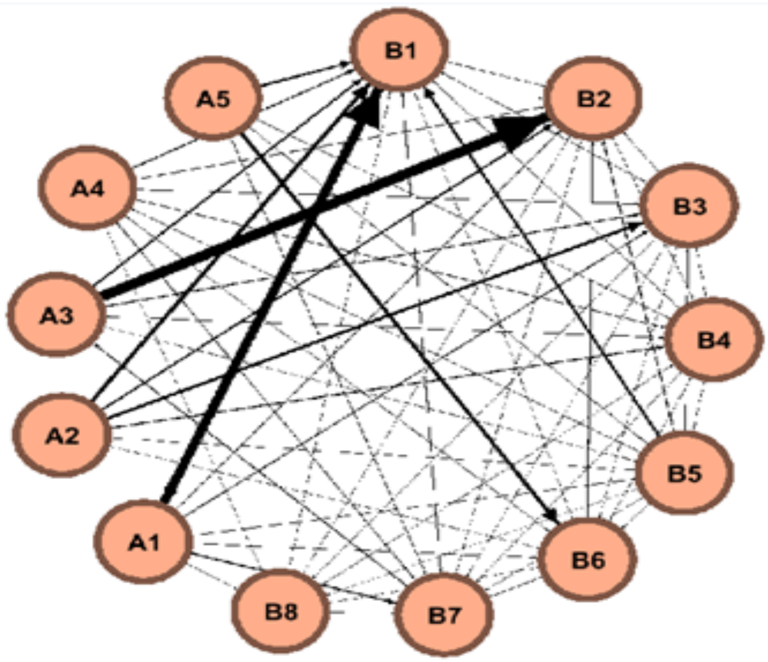
B. LINKAGES BETWEEN BANKS AND INSURANCE COMPANIES

Insurance companies' exposures to banks are more significant than those of banks to insurance companies

Banks' exposures to the insurance sector represent only 0.2 percent of their assets and 0.3 percent of their liabilities. The latter continue to be composed mainly of deposits and debt instruments.

On the opposite, the exposures of insurance companies to the banking sector constitute a significant share of their assets (about 18.3 percent) and 2 percent of their resources.

These assets consist mainly of equity and ownership securities (80 percent), debt securities (11 percent) and deposits (9 percent).



Nodes represent banks and insurance companies. The arrows trace exposures between these institutions. The thickness of an arrow is proportional to the importance of the exposure.

Source: BAM - ACAPS

Stress tests confirm the vulnerability of insurance companies in the case of bank failures

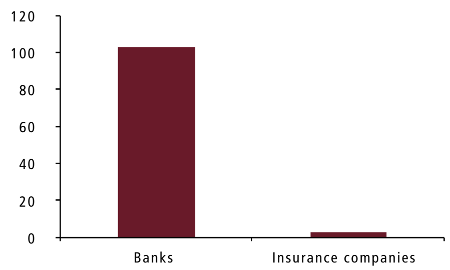
A stress test involving a sample of 8 banks and 5 major insurance companies was conducted to assess the vulnerability of these institutions.

The chosen scenario is based on several simulations, each measuring the impact of a borrowing counterparty's default on the rest of the lending institutions (domino effects).

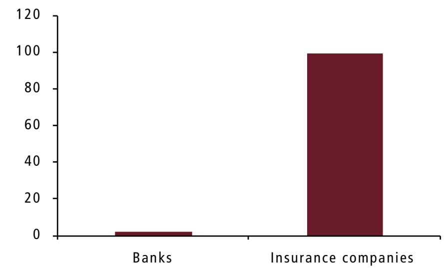
At the end of this stress test, two indicators are determined:

- **a contagion index** measuring the losses incurred by the other institutions in percentage of their capital due to the default of an institution;
- **a vulnerability index** measuring the average loss incurred by one institution in percentage of its capital as a result of the default of others.

Contagion index



Vulnerability index



Source: BAM - ACAPS

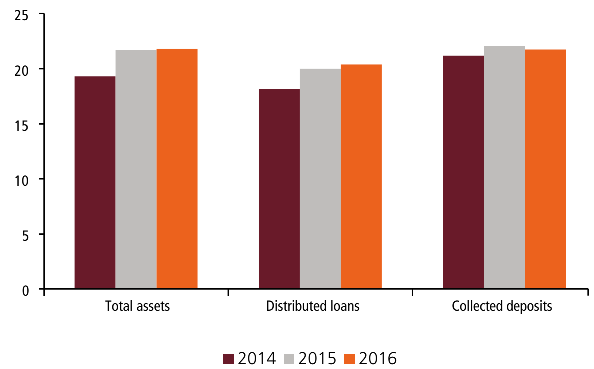
The results of this stress test reveal a high contagion index among banks and a significant vulnerability index in the insurance sector, indicating that the latter would be vulnerable to bank failures.

C. LINKAGES BETWEEN BANKS AND THEIR SUBSIDIARIES ABROAD

The contribution of the foreign activities of the three Moroccan banking groups remained broadly at the same level as the previous year

The contribution of foreign-based subsidiaries to the consolidated business of the three Moroccan banking groups remained at 22 percent. Loans distributed and deposits collected by these subsidiaries also stabilized at the same levels as the previous year, with respective contributions of 20 percent and 22 percent.

Share of international activity to consolidated business (%)

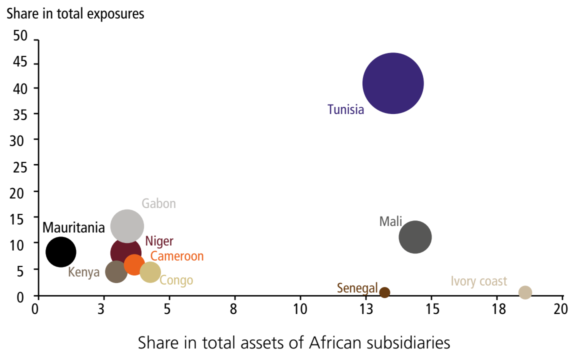


Source: BAM

The risk of cross-border contagion from subsidiaries of Moroccan banks in Africa remains very low

Loans granted by the three banks to their foreign-based subsidiaries remain very limited. These loans are spread over several geographical areas, with a share of 41 percent to Tunisia, 13 percent to Gabon and 10 percent to Mali.

Major exposures of Moroccan banks to their subsidiaries in Africa (%)



Source: BAM

In order to assess the resilience of banks to potential shocks from their foreign subsidiaries, they underwent a stress test assuming a default of the entire subsidiaries that causes a loss of loans granted by their parent companies.

The results confirm banks' resilience to such shocks, in view of their capital base and their low exposure to their subsidiaries abroad.

III.5 CHALLENGES ARISING FROM TECHNOLOGICAL RISKS AND THE DEVELOPMENT OF SUSTAINABLE FINANCE

Internationally, the emergence of digital and technological innovations has given rise to new risks for financial institutions

Internationally, the acceleration of technological innovation in the financial sector is disrupting the traditional system of financial intermediation, by offering diversified, easy to use, accessible and innovative financial services. This new digital era is also marked by the emergence of new non-banking stakeholders, mastering technological financial innovations. These, commonly known as "FinTech"[28] , compete with traditional actors and challenge the terms of supply of certain financial services.

By way of illustration, these innovations have focused on the development of new payment solutions such as "mobile payment", the creation of crowdfunding platforms, the increased use of virtual money and the underlying blockchain technology, the use of "big data"[29] to analyze the behavior of financial services customers, and the management and storage of information on the net via cloud computing platforms[30].

In this environment, the authorities (central banks, supervisors, regulators, etc.) face new risks (cybercrime, money laundering, fraud, consumer protection, etc.) and try to adapt the regulations and supervision mechanisms to ensure financial stability, without hampering the growth of innovations that improve the quality of services provided to clients and constitute real opportunities to strengthen financial inclusion.

In Morocco, work has been undertaken in this direction to control the risks associated with these technological innovations.

28 FinTech (contraction of "financial technology") refers to companies specializing in the implementation of digital and technological innovations for the financial sector.

29 Big data is a new generation of technologies designed to extract and analyze very large volumes of highly diverse data.

30 Cloud computing is the use of the computing or storage power of remote computer servers via a network, usually the Internet. These servers are rented on demand, usually for each use segment according to technical criteria.

In this context, Bank Al-Maghrib has already enacted a circular regulating the activity of payment institutions. A bill on crowdfunding is also being drafted by the Ministry of Economy and Finance.

Box 9: International developments in digital and technological innovation

The most widespread technological innovations include, among others, blockchain, crowdfunding and high-frequency trading.

- **Blockchain:** This is a decentralized information storage and transmission technology that contains a continuously expandable list of transactions and data, gathering all the transaction history that could be compared to a chain to which new elements are continually added. This technology has the particularity to operate without a central control body. It is currently applied in the context of cryptocurrency, but its scope is spreading to other areas.

- **Crowdfunding:** These are sources of funding developed to meet the needs of project leaders (especially small and medium-sized enterprises) through a call for contributions from a large number of people. Projects are presented by their holders and investors choose to finance one or several projects that meet their expectations to the amount that they want to invest. Depending on the project, the "crowdfunder", in other words the funder, gets financial compensation or in-kind contributions.

- **High-frequency trading:** Investment decisions are made partially, if not entirely, by automated algorithms (called robot advisers). It is also recognized that high-frequency trading helps to improve liquidity and information efficiency in the marketplace.

Box 9: Continued

Publications by international authorities[31] and central banks[32] indicate that these financial innovations are certainly promising but involve certain potential risks, notably:

- payment-related risk, which is one of the areas likely to be the most impacted by technological developments. This risk, under the impetus of mobile equipment suppliers and internet or telecom operators, has grown considerably. It could arise, among other things, by the increase in fraud taking advantage of technological vulnerabilities, the worsening of the risk of compromising payment-related data and the emergence of "Bitcoin[33]" type virtual currencies that fall outside the scope of regulation and supervision.

- credit risk resulting from the development of crowdfunding and direct loan platforms based on a peer-to-peer (P2P) system[34], which compete with traditional bank credit. This type of financing may involve risks related not only to the assessment of the quality of the loan project and the financed counterpart but also to the security and sustainability of the platform through which the funds transit.

- cyber-attack risk resulting from the increased use of the internet, the purpose of which may vary according to the motivations of hackers (financial motivations -such as the theft of bank data-, targeted attacks against strategic organizations, political claims, etc.);

31 The Bank for International Settlements and the Financial Stability Board.

32 Financial Stability Review No. 20 of Banque de France, Annual Report 2016 of the U.S. Financial Stability Oversight Council, Financial Stability Review of the Deutsche Bundesbank, and Financial Stability Report of the Central Bank of the Republic of Turkey - November 2016.

33 Bitcoin is a virtual currency (or cryptocurrency) created in 2009 by one or more computer programmers using the pseudonym "Satoshi Nakamoto". Bitcoin is exchanged from person to person (peer-to-peer) on the Internet against other currencies (euro, dollar, yen, etc.), outside traditional banking networks.

34 The peer-to-peer loan (a term derived from the language of computer networks) refers to a private loan system whereby individuals finance others (without going through a financial intermediary).

Box 9: Continued

- with regard to the insurance sector, the massive use of connected objects should have a very considerable impact in the medium and long term on insurance products and could even lead to an in-depth revision of the current coverage models. As an illustration, with the advent of the autonomous vehicle, it is no longer the civil liability of the driver that will be covered, but that of the manufacturer or possibly that of embedded technology software vendors, since the latter have a causal role in the occurrence of the harmful event. Also, the economic model that relies more and more on data collection and control, the development of "big data" in terms of customer quantity and variety could even lead to adjusting the tariff and offering of each insured person, thus challenging the concept of pooling risks in insurance.

Regulatory authorities have adopted a roadmap for aligning the financial sector with sustainable development

With regard to environmental risks, financial sector regulators mobilized in response to the problem of transition to a more sustainable economy. They adopted a national roadmap for aligning the financial sector with sustainable development, which was announced in Marrakech at COP22. This roadmap outlines the process of implementing Morocco's commitment to the development of sustainable finance.

Box 10: Roadmap for aligning the Moroccan financial sector with sustainable development

The Roadmap for Aligning the Moroccan Financial Sector with Sustainable Development is in line with the guidelines of the National Charter on Environment and Sustainable Development and takes into account the main guidelines set by the National Strategy for Sustainable Development in the field of finance.

This roadmap lists the actions and measures that need to be implemented to achieve a coordinated and progressive alignment of the Moroccan financial sector with sustainable development, encompassing banking, insurance and capital market activities. Consequently, it fosters the emergence of a true multidimensional "sustainable finance" in the sense that it must take into account both environmental concerns, in particular those induced by climate, social and governance change.

The roadmap focuses on five major areas:

- Extending risk-based governance to socio-environmental risks;
- Developing sustainable financial instruments and products;
- Promoting financial inclusion as a driver for sustainable development;
- Capacity-building in the field of sustainable finance;
- Transparency and market discipline.

Each of these areas is broken down by activity sector: banks, insurance, capital market and Casablanca Finance City. Some measures are cross-sectoral, affecting all the segments of the financial sector.

CHAPTER 4

CAPITAL MARKETS, MARKET INFRASTRUCTURES AND CURRENCY IN CIRCULATION

OVERVIEW

The year 2016 was marked by the ongoing improvement of bank liquidity due mainly to the increase in net external assets. In this context, the central bank reduced the outstanding amount of its interventions to 19.1 billion dirhams at end-2016 as against 23 billion at end-2015.

Issues of private debt securities in Morocco dropped by 8.7 percent compared to 2015 and remain dominated by issuances of credit institutions. Private debt credit risk is limited and poses no threat to the stability of the financial system. Indeed, debts of issuers in difficulty account for only 3.1 percent of the overall outstanding amount of private debt and these issuers finalized or are in the process of finalizing plans to restructure their debts.

The liquidity of the stock market improved for the second consecutive year, but remains crippled by the weakness of the free float as well as by the restrictive order execution conditions set by customers. Following the significant rise in stock prices during the last quarter of the year, the Casablanca stock market is valued at a high level, driven by investors looking for better profitability in a context of low interest rate market. This situation may represent a risk of instability for the stock market in the event the context of low rates changes. The volatility of the stock market, though rising, remains at a moderate level.

Yet, it should be noted that there seems to be a renewed interest on the part of Moroccan individuals for the stock market.

The Mutual Funds (mutual funds) industry remains dominated in volume by financial institutions, which makes Mutual Funds an important channel for the transmission of risks between capital markets and financial institutions. The overall net assets of Mutual Funds have grown at an average annual rate of 10.6 percent over the past five years and asset management companies are in a good financial position. In 2016, investors in Mutual Funds are looking for profitability but without taking excessive risk. As to individual portfolio management activity, it is given particular attention in order to provide it with a legal and regulatory framework.

Market infrastructures continued to operate smoothly in 2016. At the SRBM (Moroccan Gross Settlements System) level, the rejection rate of processed operations remained very low with a very high average rate of availability. The MITSG also had a high availability rate and did not experience any major incidents during the year.

For their part, Maroclear and the managing company of the Casablanca Stock Exchange have made major progress in areas relating to governance, internal control and I.T security.

In particular, the completion of the major demutualization project of the Casablanca Stock Exchange is likely to have a favorable impact in terms of governance and market development.

In addition, the implementation of a BCP project over the period 2016-2018 should allow the implementation of a "business continuity exercise - place" aimed to verify the simultaneous operability of individual BCPs of FMIs in connection with the SRBM system and, thereby, strengthening such infrastructures.

IV.1 CAPITAL MARKETS

A. MONEY AND BOND MARKETS

Continued improvement of bank liquidity

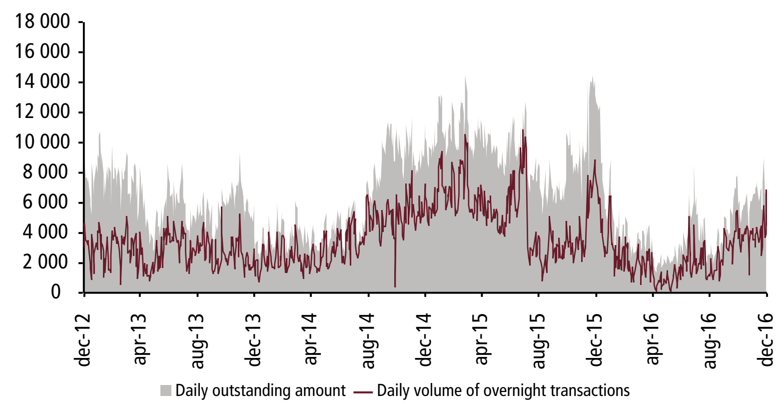
In 2016, the liquidity needs of banks subject to the mandatory reserve requirement decreased to an average daily of 14.7 billion dirhams, compared to 34.2 billion in 2015.

In this context, the central bank reduced its interventions to an average daily outstanding of 15.4 billion dirhams in 2016, compared with 34.7 billion dirhams in 2015.

Lower volumes traded on the unsecured interbank

The improvement in bank liquidity resulted in a decrease in the volumes traded on the unsecured interbank money market, which averaged close to 4.6 billion dirhams, compared to 10 billion in the previous year. Indeed, both day-to-day and forward transactions declined by more than 50 percent, standing at 2.5 and 2 billion dirhams in 2016 from 5.2 and 4.3 billion dirhams a year earlier.

Volumes traded in the interbank market, in million dirhams

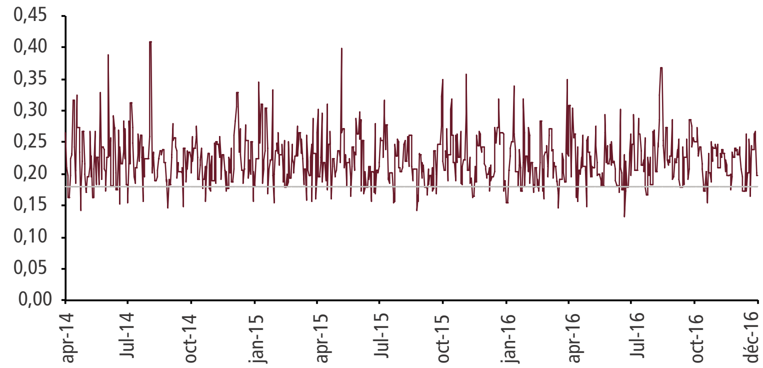


Source: BAM

Persistent concentration on the money market

Bank liquidity remains unevenly distributed among banks, with more than 70 percent of total reserves held by the three largest banks in the market. Thus, as in previous years, the Herfindahl-Hirschman index (HHI) of bank liquidity remains above the threshold of 0.18, reflecting the high concentration of bank liquidity.

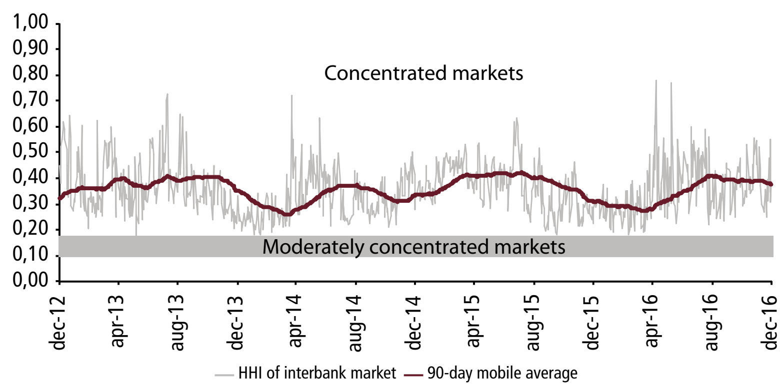
Concentration of bank liquidity



Source: BAM

This structure is also reflected in unsecured loans-borrowings, which remain highly concentrated, particularly on the borrowing side, with an HHI index at 0.36, a banking institution having drained by itself more half the liabilities on this market segment.

Concentration of the overnight unsecured interbank market



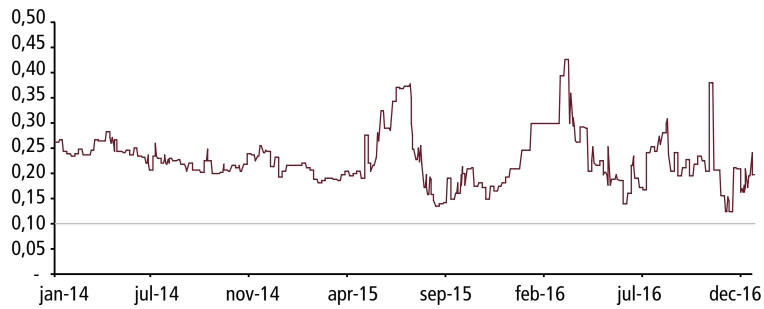
Source: BAM

The Repo market posted a lower concentration compared to the other segments, with an HHI index still at 0.14, thus falling into the category of moderately concentrated markets due to its opening out to other operators, in particular Mutual Funds. However, borrowing on the Repo market remains concentrated around banking institutions with a share of nearly 70 percent of the total volume.

Concentration of refinancing with the central bank

The high concentration of bank liquidity is also reflected in the distribution of central bank injections. Thus, over 80 percent of advances were provided to a limited number of institutions. The IHH level of Bank Al-Maghrib injections thus evolved around 0.29 in 2016, reflecting the high concentration of banks' refinancing with the central bank.

Concentration of refinancing from Bank Al-Maghrib



Source: BAM

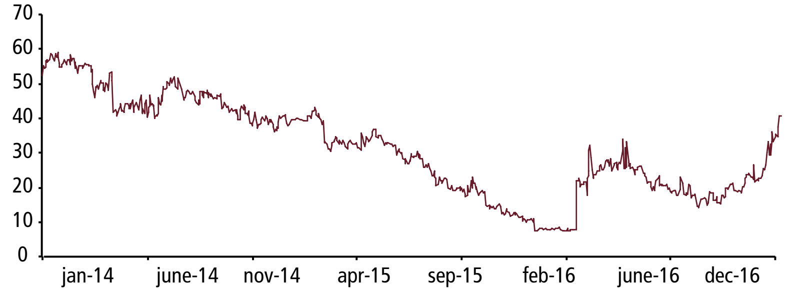
Continued reduction of pressure on collateral[35]

The decline of pressure on collateral continued in 2016. Indeed, the share of collateral mobilized by banks compared to their own eligible assets stood at 18 percent, on daily average, compared to 32 percent in 2015 and 48 percent in 2014.

This development is the result of a significant reduction in the central bank's operations, which reached a level of 6 billion dirhams over the first half of the year as a result of the improvement in banks' liquidity situation.

35 Pressure on collateral is an indicator of banks' ability to refinance from the central bank. The higher this indicator, the greater the risk of pressures on bank liquidity.

Share of banks' collateral (%)



Source: BAM

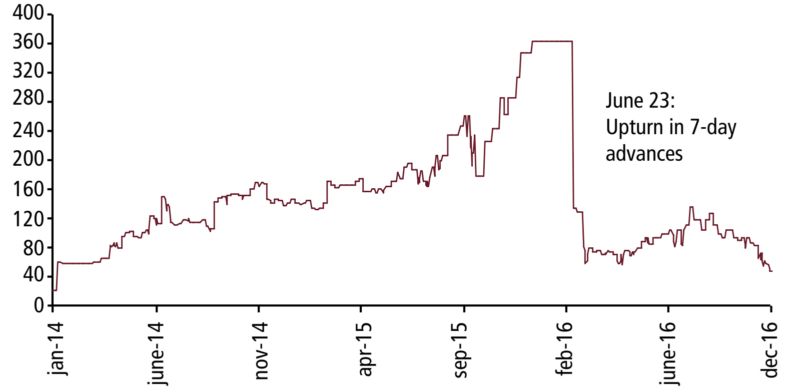
Reduced average period of BAM interventions as of the second half of 2016

The average period of Bank Al-Maghrib's interventions amounted to 9.8 months in the first half of 2016 (from 6.3 months in the second half of 2015) due to the suspension of weekly advances between March and June in a context of better liquidity conditions.

Following the Bank Board's decision to raise the reserve requirement, the average time of interventions decreased as of July 2016. This decision resulted in the resumption of weekly refinancing operations, implying a drop in the average duration of the interventions to almost 3 months.

For the full year 2016, the average duration stood at 6 months.

Average period of BAM interventions



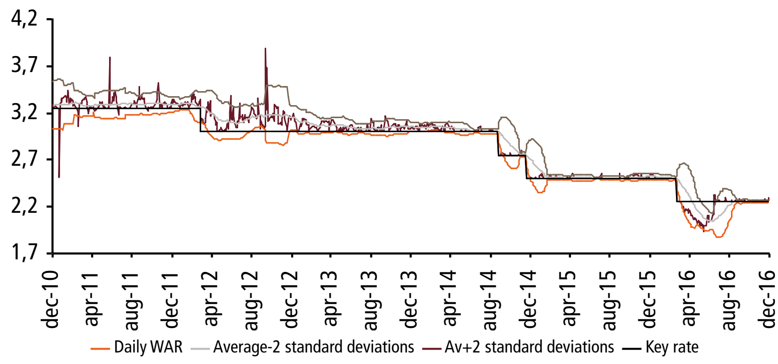
Source: BAM

Decline in money market rates

The improved liquidity conditions, coupled with a decrease in the key rate by 25 basis points to 2.25 percent, resulted in a 24 basis point drop in the weighted average rate (WAR) of unsecured daily interbank operations to 2.265 percent, from 2.509 percent in 2015. Thus, the spread with the key rate increased to 1.5 basis points instead of 1 basis point in 2015.

The interbank rate remained volatile during the year as evidenced by the increase in its standard deviation to 0.03 percent from 0.01 percent in 2015. Thus, the interbank rate broadly fluctuated within a range of 1.93 percent in June to 2.54 percent in January

Unsecured overnight interbank WAR: trend and volatility (%)



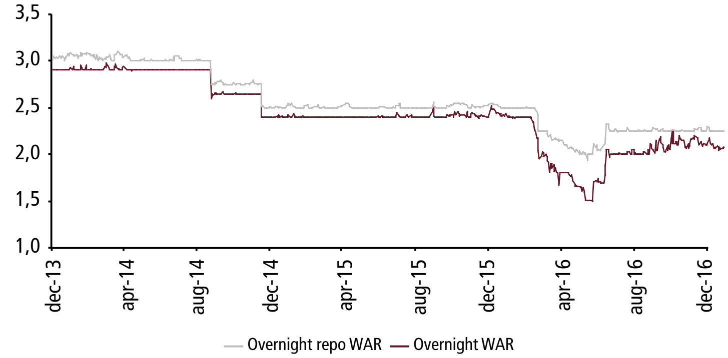
Source: BAM

Efficiency of market pricing in the money market

The spreads between the maximum and minimum interest rates observed on the same day on the unsecured money market increased, from 4 to 5 basis points between 2015 and 2016. In turn, the spreads on the Repo market averaged 16 basis points in 2016 from 2 basis points over the last two years. These changes are due to a drop in the key rate.

In addition, the spreads between financing in the unsecured and secured market were close to 22 basis points in 2016 from 10 basis points a year earlier, in view of the volatility observed in this segment following the drop in the key rate.

Overnight WAR in the repo market and the unsecured interbank market (%)



Source: BAM

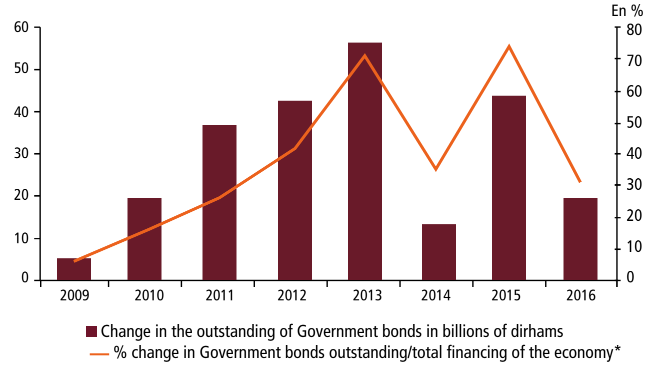
The secondary market for public debt remains not deep enough and quite volatile

The public debt segment remains the first investment alternative for investors, given the security it provides and the lack of investment alternatives.

The Treasury, however, significantly reduced its issuances due to improved cash flow (higher tax revenues and lower subsidy costs), in addition to a decline in Treasury bill maturities by nearly 16 billion dirhams compared to the previous year.

Indeed, excluding securities trading transactions, Treasury issuances decreased by 31 percent compared to 2015 with a volume of 86 billion dirhams. Thus, the average monthly amount stood at 7.2 billion dirhams against 10 billion dirhams a year ago. Thus, the outstanding of Government bonds amounted to nearly 490 billion dirhams at end-2016, up by 4 percent compared to end-2015.

Change in outstanding amount of Government bonds, in billions of dirhams

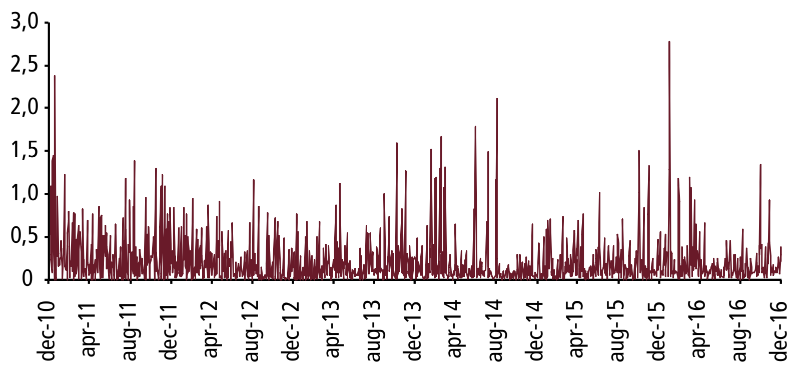


(*) Issuances in the primary market of the stock exchange + change in outstanding of debt securities, FPCT and OPCR + change
Outstanding loans of financial institutions

Sources: Casablanca Stock Exchange, Bank Al-Maghrib, Maroclear and AMMC Calculations

However, the secondary market is still characterized by a lack of depth with a relatively low turnover rate, stabilizing at a level of 0.46 percent. Banks and Mutual Funds are the main players in this segment, accounting respectively for 58 percent and 38 percent of sales and 50 percent and 46 percent of acquisitions made over the year.

Daily turnover rate in Treasury bond secondary market (%)



Source: BAM

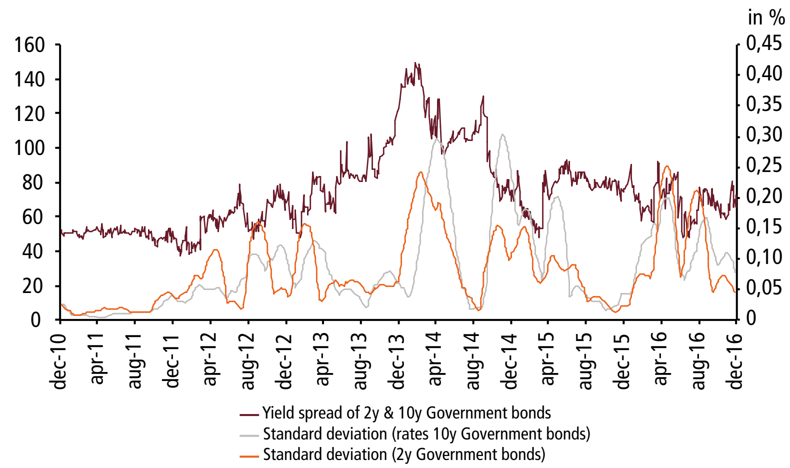
Continued decline in yield rates

The interest rate curve moved downward due to lower yields on all maturities.

In this context, the standard deviation of 2-year and 10-year Government bonds stood respectively at 4 and 8 basis points at end-2016 as against 2 and 4 basis points a year earlier.

In addition, the yield spread between 2-year and 10-year rates stood at 69 basis points in 2016, 7 basis points lower than in 2015, reflecting a marked tightening of the 2-10 years spread, coupled with a flattening of the yield curve.

Yield spread and volatility of 10-year and 2-year Government bonds



Source: BAM

Poorly developed market private debt market, whose outstanding amount remained virtually unchanged

The private debt market is still poorly developed with a very narrow secondary segment that lacks transparency. Indeed, the latter represents 24 percent of total public and private debt and the private bond segment accounts for 63 percent of this market, followed by certificates of deposit with a 28 percent share.

Private debt issuance stood at 52.1 billion dirhams for the year 2016, down 8.7 percent from 2015. This decrease was mainly due to the 65.4 percent drop in issuances of commercial paper. Certificates of deposit rose by 22.8 percent in 2016 and accounted for 51.71 percent of total private debt issuance, as against 31 percent for bonds, 10.44 percent for commercial paper (CP) and 6.84 percent for finance company bills (FCB).

Issuances of private debt by security category

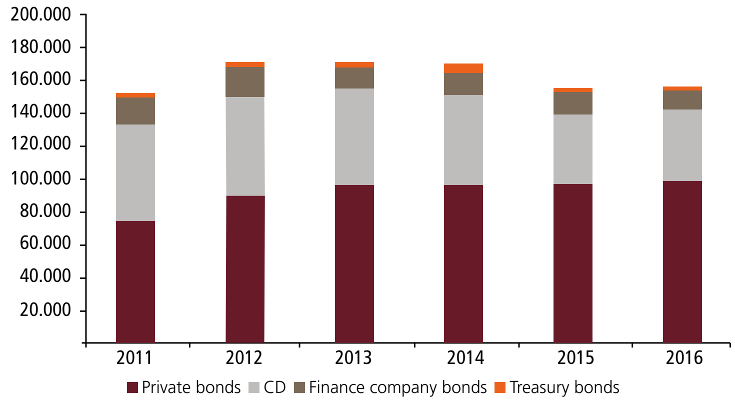
Issuances in millions of dirhams		2015	2016	Variation
Private debt	Certificates of deposits (CD)	21 955	26 967	+22,8%
	Bonds	14 142	16 167	+14,3%
	Finance company bills (FCB)	5 257	3 568	-32,1%
	Government bonds	15 766	5 446	-65,5%
Total private debt		**57 120**	**52 148**	**-8,7%**

Credit institutions (banks and finance companies) remain the main issuers of private debt, accounting for more than three-quarters of issuances in 2016. They are supervised by Bank Al-Maghrib and their debt issuance is aimed mainly at reinforcing stable funding in order to comply with prudential liquidity rules.

The industrial and mining sector and the real estate and hotel sector represented 13 percent and 8.5 percent respectively of private debt issuances in 2016, which were aimed at funding their investments in Africa.

Private debt outstanding amounted to 156 billion dirhams, the same level recorded a year earlier. This quasi-stagnation resulted in particular from the drop in the outstanding amount of finance companies bills and commercial papers, offset by higher issuances of certificates of deposit and corporate bonds.

Outstanding private debt (in million dirhams)



Source: BAM-Maroclear

The credit risk of private debt is limited

Concerning the credit risk relating to private debt at end-2016, two issuers of debt securities operating in the real estate sector reported defaults in the repayment of the maturities of their debts. However, this situation does not represent a major concern insofar as the total outstanding of debt securities issued by these issuers amounted to nearly 5 billion dirhams, that is 3.1 percent of the total outstanding amount of private debt and that a restructuring process for these loans is being finalized.

B. STOCK MARKET

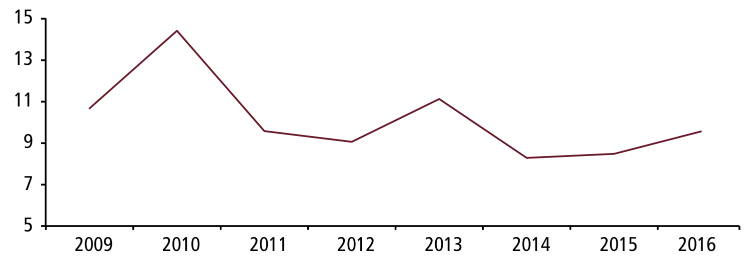
Whilst improving, the liquidity of the stock market remains relatively low, affected notably by the preponderance of strategic holdings which limit the floating factor…

The liquidity[36] of the Casablanca Stock Exchange improved for the second consecutive year. Following the significant increase in volumes processed in the fourth quarter of 2016, the circulation speed reached 9.54 percent in 2016, compared to 8.49 percent in 2015 and 8.25 percent in 2014, which nevertheless remains low. Low liquidity may become an aggravating factor in the event of market tensions, which would increase the cost of transactions and accelerate a possible drop in prices.

36 The liquidity ratio is a moving average of the monthly volume (not doubled) of the central and block markets compared to end-of-month capitalization, calculated year on year.

However, it should be recalled that the calculation of the inventory turnover rate takes account of total market capitalization. The latter is characterized by the preponderance of strategic holdings, which represent close to 75 percent, de facto limiting the turnover rate.

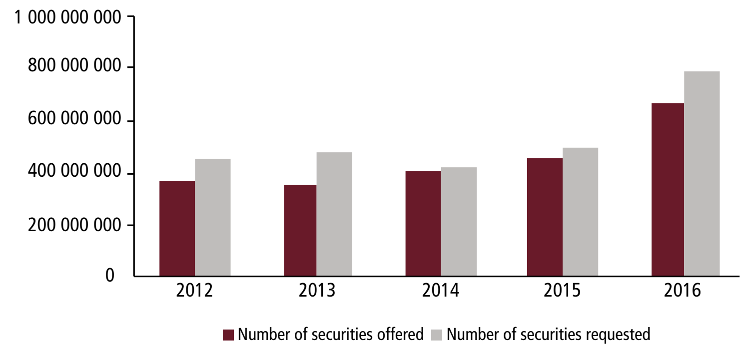
Change in stock market liquidity (%)



Source: Casablanca Stock Exchange

The number of securities offered and requested increased markedly in 2016 at 46 percent and 58 percent respectively. However, this sharp increase did not impact liquidity, which rose by only 12 percent.

Change in the number of securities offered and requested

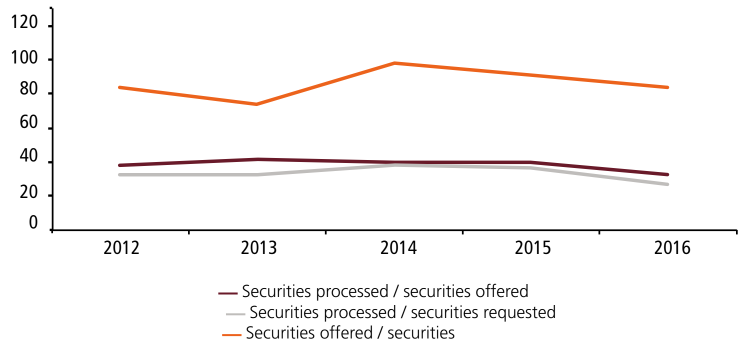


Source: Casablanca Stock Exchange

... as well as by the bid/ask spread

In 2016, the "securities offered / requested" ratio stood at 85.2 percent, which means that the number of securities requested for purchase exceeds the number of securities offered for sale. However, the satisfaction rates of supply and demand for securities at the level of the stock market remain limited in 2016 to 32.5 percent and 27.7 percent respectively. This is due to the large spread between bid and ask prices.

Securities offered Vs securities requested (%)

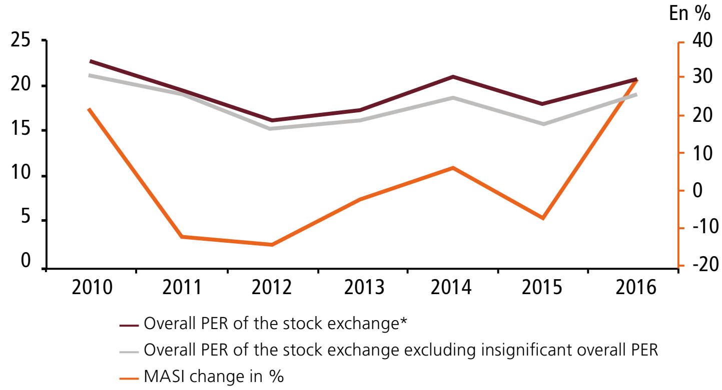


Source: BAM

Stock market valuation reached a high level in a context of search for profitability by investors

The overall valuation level of listed securities, which is an important indicator in the analysis of the stability of a stock market, rose in 2016 (20.4x as against 17.9x at end-2015), following the increase in securities prices on the Casablanca Stock Exchange, as reflected in the rise of the MASI index by over 30 percent. It should be noted that 14 listed securities, representing 4.87 percent of total market capitalization, have insignificant PERs due to their very low or negative net results. Indeed, excluding the aforementioned companies, the PER of the stock exchange would stand at 19.1x at end-2016 from 15.5x in 2015. This increase in the valuation level means that the price increase was higher than that of the results of listed companies. This situation could be caused by the context of low yields in the interest rate market pushing investors to look for more rewarding products. However, this situation increases the risk of instability in the stock market especially if the context of low interest rates would come to change significantly.

Casablanca stock Exchange valuation



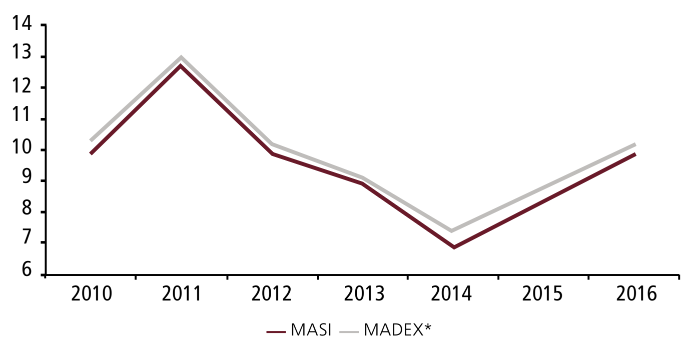
Source: Casablanca stock Exchange data and MCMA calculations (excluding SAMIR for 2015)

(*) Overall capitalization of the Casablanca stock Exchange at the end of year N/ the sum of net results of listed companies in the year N.
(**)Overall capitalization of the Casablanca stock Exchange at the end of year N/ average of the sum of net results of listed companies over the last 5 years.

... and volatility is on the rise while remaining moderate

Another important indicator of stability, the volatility of the Casablanca stock exchange continued its upward trend since 2014. It stood at 9.84 percent in 2016 as against 8.27 percent in 2015 and 6.88 percent in 2014. This last increase may result from the multiplicity of events relating to listed companies, in particular the profit warnings. However, the volatility of the Casablanca Stock Exchange remains moderate in comparison with the main international stock markets.

Annualized volatility (%)



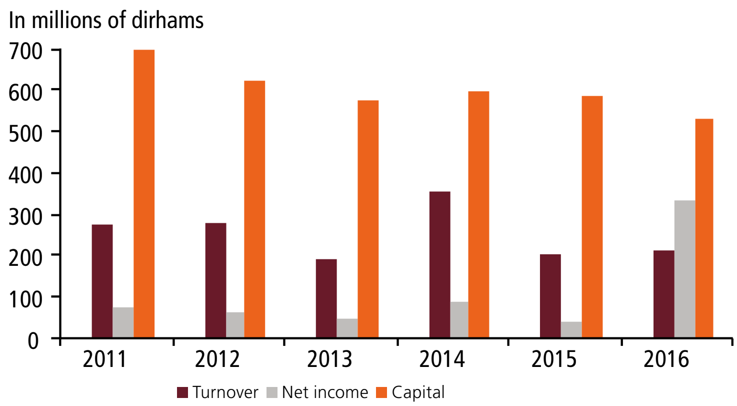
Source: Casablanca Stock Exchange data and MCMA calculations

The activity of intermediaries on the Stock Exchange is characterized by a concentration of the sector amid a context of few IPOs and weakness in the volume of transactions

Revenues of brokerage firms increased for the second consecutive year, along with the improved liquidity in the stock market. The consolidated turnover of brokerage companies reached 197 million dirhams in 2016 from 185 million dirhams in 2015 and 168 million dirhams in 2014.

However, more than two-thirds of brokerage companies posted negative operating results, due to the concentration that characterizes the sector with 4 companies, out of a total of 17, accounting for 60 percent of the sector's turnover.

Change in brokerage firms' consolidated financial results



Source: Brokerage firms

However, the net result of the sector is significantly growing, from 32 million dirhams in 2015 to 317 million dirhams in 2016. This change is due to an exceptional financial result following the distribution of an exceptional dividend by the Casablanca Stock Exchange in connection with the demutualization of its capital. This important net profit could be used by brokerage companies to improve their equity, which declined in 2016. Indeed, the consolidated shareholders' equity of brokerage companies fell from 570 million dirhams to 512 million dirhams due to the reduction of capital by a brokerage company from 80 million dirhams to 20 million dirhams by cancelling shares.

It should be noted that brokerage firms are subject to a comprehensive regulatory framework in order to cover the risks associated with their activities and to protect investors in the stock market (see Box 11).

Box 11: Stock market regulatory and guarantee framework

The framework ensuring the safe functioning of the market is based on the following:

- Prudential rules applicable to brokerage firms:
  - The equity capital of brokerage companies may not be less than the minimum amount of their share capital; the share capital of brokerage companies may not be less than:
    - 1,500,000 Dirhams for those exclusively carrying out transactions in securities on behalf of clients, advising and soliciting clients for the acquisition or selling of securities;
    - 5,000,000 DH for those who, in addition to the above operations, carry out:
      - Trading for its own account;
      - custody of securities;
      - Securities portfolio management under a mandate;
      - Participation in the distribution of securities issued by public offerings .
  - The credit balances of customer accounts must be permanently registered on the assets of the brokerage company by liquid assets.
  - The total value of the net positions taken by brokerage companies for their own account on the different securities issued by the same issuer must be permanently less than 40 percent of the net equity of the said companies. However, this rule does not apply to securities issued or guaranteed by the State.
  - The total value of the net positions of the same customer must be permanently less than 10 times the net equity of brokerage firms.
  - Brokerage companies must permanently observe a risk coverage ratio, defined as a ratio between the risks incurred by brokerage firms on the net positions taken on their own account and the account of their clients and, on the other hand, their net equity. The risk coverage ratio must be permanently below 100 percent.

Box 11: Continued

- A procedure to guarantee the completion of market operations managed by the Casablanca stock exchange and based on margin-calls depending on the trading volumes of each brokerage company;
- Segregation between the client's assets and the custodian's own assets at the level of the central depository "Maroclear".
- A guarantee fund set up with the objective of compensating the customers of brokerage companies put into liquidation. It is financed by the semi-annual contributions of brokerage companies. The amount of such contributions is determined as a percentage of the volume of securities and cash held by each of these companies. At end-December 2016, the total amount of the fund reached almost 42 million dirhams, compared to 39 million dirhams at end-2015 and 37 million dirhams in 2014.

In accordance with the provisions of Article 68 of the Royal Decree on Law No. 1-93-211 on the Stock Exchange, the intervention of the Guarantee Fund is subject to the MCMA's finding of the liquidation of a brokerage company.

To date, the MCMA has not concluded to any default and has not had to activate the guarantee fund.

C. ASSET MANAGEMENT MARKET

Increase in Mutual Funds overall net assets mainly due to new subscriptions searching for profitability with, nonetheless, a moderate risk taking ...

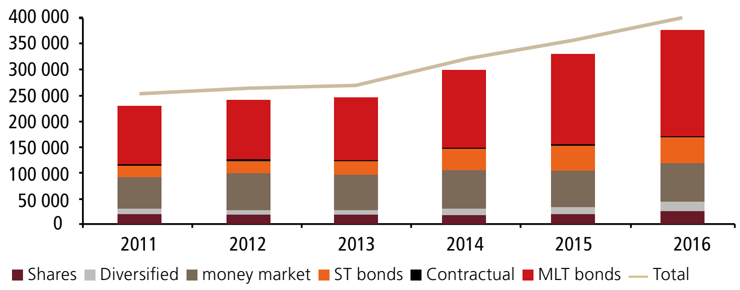
Over the last five years, the overall increase in net assets of Mutual Funds stands at 63.7 percent, representing an average annual growth of 10.6 percent. By the end of 2016, Mutual Funds net assets represented 38.5 percent of GDP compared with 34.2 percent at end-2015, 33.4 percent at end-2014 and 28 percent at end-2013. The number of active Mutual Funds reached 425 at end-2016 (compared to 406 a year earlier) and is divided into 46 SICAV[37] and 379 FCP[38]. With 149 funds, the "OMLT[39]" Mutual Funds remain the most numerous. This predominance is also observed in terms of assets under management since the "OMLT" category has, at the end of 2016, a net asset of 204 billion dirhams, or nearly 54 percent of total net assets.

37 TSICAV (Investment Company with Variable Capital)

38 FCP (Investment Funds)

39 OMLT (Medium and long-term bonds)

Change in the net assets of mutual funds, in millions of dirhams

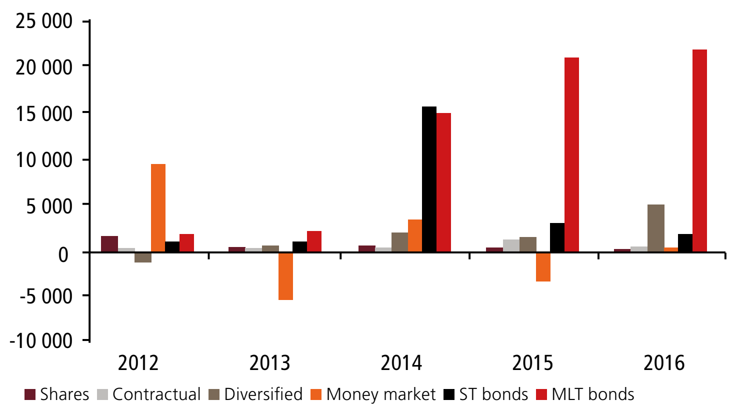


Source: Asset Mutual Funds management companies, MCMA calculations

Mutual Funds net assets rose by 13.78 percent as of December 30, 2016 compared to end-2015, to stand at 375.6 billion, due to the combined effect of the following two factors:

- the positive performance of all Mutual Funds categories, estimated overall at 18.5 billion dirhams.
- net subscriptions, which amounted to 26.9 billion dirhams, mainly in MLT bond Mutual Funds, followed by diversified Mutual Funds.

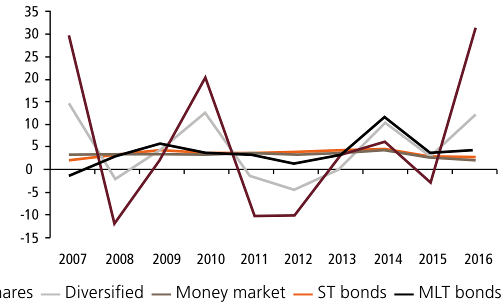
Net subscriptions to Mutual Funds



Source: Asset Mutual FundsAsset management companies, MCMA calculations

Overall, the trend of new subscriptions has shifted towards moderate risk-taking in search for better returns than the one provided by money market funds while avoiding the more volatile equity funds.

Annual performance by Mutual Funds category (%)



Source: Asset Mutual FundsAsset management companies, MCMA calculations

As a matter of fact, the performance of Mutual Funds in 2016 followed diverging trends according to the categories:

- Equity Mutual Funds and, to a lesser extent, diversified Mutual Funds clearly benefited from the good performance of the stock market in 2016. Nevertheless, the annual performance of the latter remains historically volatile.
- The annual performance of money market Mutual Funds and bond Mutual Funds is less volatile but weak. They have been on a downward trend over the last two years, falling respectively from 4.22 percent and 4.68 percent in 2014 to 2.19 percent and 2.8 percent in 2016.
- MLT bond Mutual Funds, which are more sensitive to changes in interest rates, are more volatile compared to money market and ST bond Mutual Funds. After reaching a peak of 11.63 percent in 2014 due to the drop in interest rates, their annual performance in 2016 significantly improved to 4.68 percent from 3.96 percent in 2015.
- With regard to contractual Mutual Funds, the diversity of the financial schemes of the contractual funds excludes any possibility of a performance index for this category of Mutual Funds.

The performance of Mutual Funds is highly dependent on the performance of the debt securities market and the stock market. Indeed, the asset mix of Mutual Funds shows a significant linkage with these markets insofar as they represent respectively 73.5 percent and 7.45 percent in 2016 compared to 74.32 percent and 6.27 percent in 2015.

Breakdown, at end-2016, of the overall assets of mutual funds by asset category

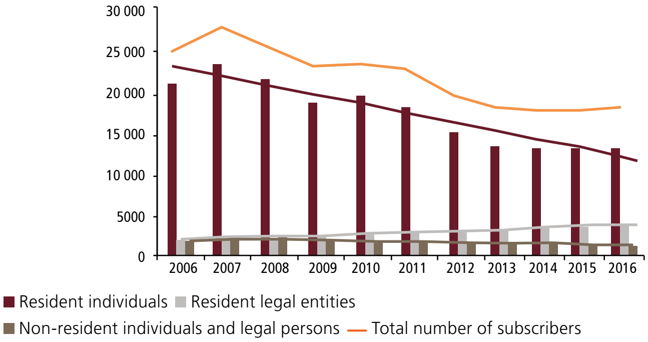
category	Amount	Structure
Listed securities	30 521 063 179	7,72
Shares	29 431 716 511	7,45
Private bonds	1 077 695 511	0,27
Bonds issued or guaranteed by the Government	11 651 271	0 ,00
Non-listed securities	309 128 980 736	78,21
shares	441 214 089	0,11
Private bonds	43 961 050 293	11,12
Bonds issued or guaranteed by the Government	202 231 747 135	51,16
Negotiable debt securities	44 352 016 597	11,22
Mutual fund shares/units LV	18 142 952 622	4,59
Other assets elements	55 626 572 628	14,07
Total assets	395 276 616 543	100,00

Source: Asset Mutual Funds management companies, MCMA calculations

... Nonetheless, the number of investors in Mutual Funds, particularly individuals, remains low

After a sustained downward trend of 35.7 percent in six years (2008-2013), the number of investors chosing Mutual Funds as an investment vehicle seems to have stabilized during the last three years (2014-2016). This situation is mainly due to resident individualinvestors, who represent, however, only 7.2 percent in terms of investment volume. On the other hand, the number of investors of the resident legal entities category has steadily grown over the last 8 years (2008-2016) from 2,108 to 3,660 subscribers, up 73.6 percent over the period.

Structure of Investments in Mutual Funds



Source: Asset Mutual Funds management companies, MCMA calculations

... and financial institutions remain the main investors in Mutual Funds, making these vehicles an important risk transmission channel

Financial institutions largely top the categories of economic agents holding shares of Mutual Funds with a portfolio of 278.8 billion dirhams, or 74.2 percent of the overall volume of Mutual Funds, up 18.7 percent compared to 2015. As a result, Mutual Funds are likely to pass capital market risks to financial companies, which must therefore comply with the prudential limits set under the regulations on portfolio investment.

Conversely, Mutual Funds may also propagate potential defaults of financial companies to the capital markets. In fact, a financial institution facing a financial difficulty would look for liquidity to overcome its crisis, which will force it to make massive redemptions of Mutual Funds shares. These massive buybacks would put significant pressure on the stock market and on the money and bond markets.

Breakdown of net assets by type of investor at December 31, 2016, in millions of dirhams

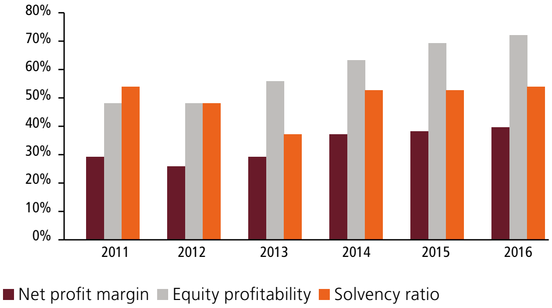
	Equity and diversified funds	Bond funds	Money market funds	Money market funds	Funds total	Share (in %)
Financial corporations, including:	37 165	208 987	32 495	187	278 834	74,2%
Banks, CDG and finance companies	8 258	81 065	12 285	4	101 612	27,1%
Insurance companies and pension and welfare institutions	27 261	113 072	13 337	127	153 797	40,9%
Mutual funds and other portfolio companies	1 609	12 089	5 061	53	18 812	5%
Brokerage firms	5	267	646	1	919	0,2%
Other financial corporations	32	2 494	1 167	2	3 695	1%
Nonfinancial corporations	779	31 411	33 663	1 275	67 128	17,9%
Resident individuals	5 793	15 089	5 873	140	26 895	7,2%
Nonresident individuals and legal entities	1 313	948	491	2	2 754	0,7%
TOTAL	**45 050**	**256 435**	**72 522**	**1 604**	**375 611**	**100%**

Source: Mutual funds depository banks, MCMA calculations

Asset management companies Mutual Fundsbroadly enjoy a sound financial health

Asset management companies continue to show strong fundamentals overall with improved financial indicators. Indeed, the profitability of the sector edged up from 36.12 percent in 2015 to 37.17 percent in 2016. In terms of return on investment, equity shows a profitability of 70.11 percent in 2016 as against 67.65 percent in 2015. In terms of solvency, the financial base was strengthened with a ratio of equity to total balance sheet at 51.86 percent in 2016 and 50.38 percent in 2015.

Change in consolidated financial indicators of Mutual Funds management companies



Source: Asset Mutual Funds management companies, MCMA

Box 12: Mutual Funds risk management framework

In view of the assets which constitute them, Mutual Funds are mainly exposed to market risk, credit risk, counterparty risk , liquidity risk, leverage riskand valuation risk. The regulatory framework set to adresse these risks Mutual Funds is based on the following:

Risk Division Rules:

- A Mutual Funds may not invest more than ten percent (10 percent) of its assets in securities of a same issuer, or 15 percent for listed equity securities whose weighting in the reference stock index exceeds ten percent (10 percent).
- The total value of equity securities that a Mutual Funds may hold with issuers in whom it invests more than ten per cent (10 percent) each may not exceed, in any case, forty-five per cent (45 percent) of its assets.
- AMutual Funds may not invest in:
  - negotiable debt securities issued by legal persons whose securities are not listed on the Stock Exchange;
  - shares of collective investment schemes in venture capital (OCCP);
  - or shares of securitization funds (FPCT),),
  - more than a specific percentage of its assets. This percentage is fixed by order of the Minister in charge of finance, after consulting the MCMA, and it should not exceed 20 percent.

Control Rule:

- A Mutual Funds may not hold more than ten percent (10 percent) of the same class of securities issued by the same issuer.

Box 12: Continued

Rules relating to repurchase agreement operations:

- A Mutual Funds may hold on its assets, the amount of receivables representing the repo operations it carries out as transferee. These receivables cannot represent more than one hundred percent (100 percent) of its assets.
- The exposure of the Mutual Funds to the counterparty risk on the same contractor resulting from the aforementioned repo operations is limited to twenty percent (20 percent) of its assets.

Rules for security lending transactions:

- A Mutual Funds may carry out securities lending transactions up to a limit of ten percent (10 percent) of its assets.
- This limit may be increased to one hundred percent (100 percent) when the borrower delivers cash or securities as collateral. Such collateral may not be issued or guaranteed by the borrower or an entity belonging to the same group as the borrower.
- The value of the collateral must, for the duration of the loan, be at least equal to the value of the lent securities.

Leverage rules:

- Cash borrowings that a Mutual Funds is authorized to contract may at no time exceed ten per cent (10 percent) of the value of its assets.
- When a Mutual Funds carries out:
  - repurchase operations as transferor;
  - - Securities lending transactions as a borrower,

The sum of outstanding debts representing repurchase operations, debt outstanding representing securities borrowed and cash borrowings must not exceed the limit of ten per cent (10 percent) mentioned above.

Rules on foreign investment:

- All Mutual Funds are allowed to make investments abroad up to a limit of ten percent (10 percent) of the value of their assets.
- All the prudential rules to which Moroccan Mutual Funds are subject remain applicable to trans-border investment.

Box 12: Continued

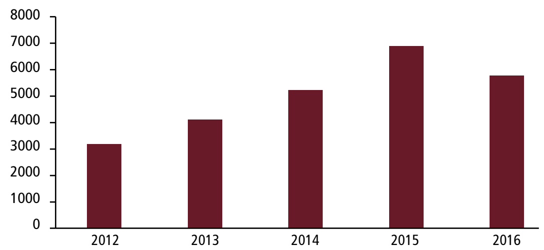
Valuation rules

- Mutual Funds are required, by the regulations, to apply specific valuation methods that reflect the market value of their investments.
  In case of difficulty in valuing its investments ("illiquidity" of a financial instrument, financial difficulties of an issuer, lack of market references, etc.), a Mutual Funds may, after a favorable opinion from the auditor and the approval of the MCMA, suggest the modification of the valuation methods mentioned above.

The limited size of the securitization market is not likely to represent a risk for financial stability ….

The year 2016 saw a slight decrease in the outstanding of Securitization Investment Funds (SIF) despite a new issuance of 2 billion dirhams, and that is due to repayment made for 2.3 billion dirhams and a depreciation of 259 million dirhams.

Change in the outstanding amount of SIF, in millions of dirhams



Source: Maghreb Titrisation

… as well as for venture capital activity

With regard to venture capital, outstanding investment is rising steadily. It reached 6.3 billion in 2016, up 14.5 percent as against 12.2 percent in 2015 and 16.7 percent in 2014 (source AMIC). The source of the capital raised to finance this venture capital activity is composed as follows:

- Moroccan funds up to 46 percent, divided among several categories of investors (insurance companies, pension funds, banks and asset management companies, the State and public bodies, investment and private vehicles) ;
- International development organizations (IFC, EBRD, EIB and others) up to 39 percent;
- Funds from various countries (up to 15 percent).

Ongoing regulatory framework project for Individual portfolio management activity

To date, the activity of managing individual portfolios is not subject to regulatory requirements in terms of reporting and code of conduct, with the exception of that exercised by brokerage firms. A draft law regulating portfolio management activity for third parties is under preparation. This bill is initiated by the Ministry of Economy and Finance in collaboration with the MCMA and market participants.

Pending the approval of the said bill and its effective entry into force, a survey was launched at the end of 2016 by the MCMA to evaluate the volumes of assets under individual management contracts and consequently evaluate their importance in terms of financial stability.

D. SECURITIES LENDING MARKET

Box 13: Presentation of securities lending

The securities lending activity, initiated by Law No. 45-12 on securities lending, published in the Official Journal on February 7, 2013, became effective in November 2014 after the publication of its implementation texts.

The regulatory framework defines the operating mode for processing a securities lending transaction, whether it is on the back end (authorization, eligible instruments, guarantees, etc.) or the front end (exchange of flows, activation of the guarantee, settlement, etc.).

Box 13: Continued

The cornerstone of the operating mode remains the contractual dimension, reflected in the conclusion of a framework agreement, thereby implementing best practices in the exercise of the securities lending activityfor an organized and secure market.

As a fundamental component of global financial markets, securities lending is a contract whereby a lender temporarily hands over securities to a borrower, and where the borrower pledges to give back the securities either on a predefined date or at the request of the lender, in addition to paying a fee based on the value of the securities lent.

The securities that can be lent are limited, by the above-mentioned law, to shares, government bonds, negotiable debt securities and listed bonds.

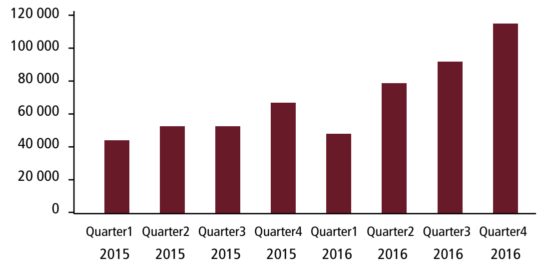
The lending-borrowing of securities is used for various purposes. Either the lender will use its assets to ensure a source of additional income, or the borrower will acquire securities for the purpose of a monetary transaction that will allow him to raise cash as the security represents transferable collateral.

Among the safeguards provided for by the legal and regulatory framework, it should be mentioned that a borrowed security cannot be lent so as to avoid chain failure. In addition, individuals can only intervene as lenders.

A growing security lending market……

During 2016, the volume of securities lending operations reached 325 billion dirhams, up 55 percent compared to 2015.

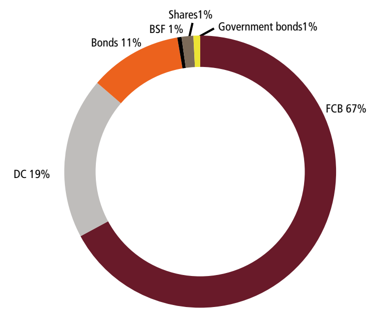
Change in the volume of security lending operations, in number



Source: Banks, MCMA calculations

Securities lending operations concerned mainly government bonds, which account for almost two-thirds of securities lent in 2016. Bonds and certificates of deposit were also the subject of lending transactions with respective shares at 19 percent and 11 percent. Equity Shares lending stood at 1.4 percent of the total volume.

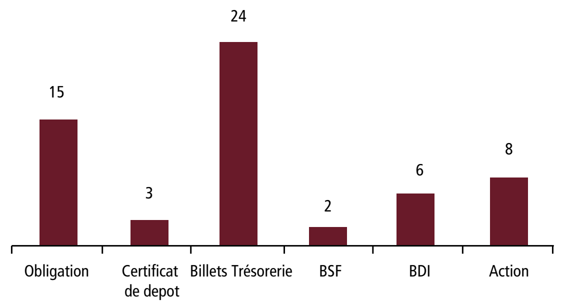
Breakdown of lending operations by security category



Source: Banks, MCMA calculations

The average duration for a security lending operation varies between 2 and 24 weeks depending on the type of financial instrument.

Average duration of security lending by security category, in weeks

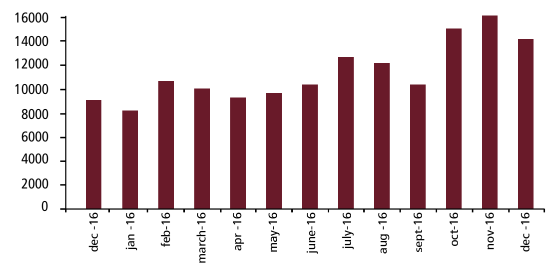


Source: Banques, calculs AMMC

... with a significant operations outstanding increase, enhancing the interconnection of the financial system

At the end of December 2016, the outstanding amount of operations stood at 14 billion dirhams, following a peak of 16 billion dirhams registered in the previous month. This outstanding amount is 56.3 percent higher compared to December 31, 2015.

Change in the outstanding of security lending

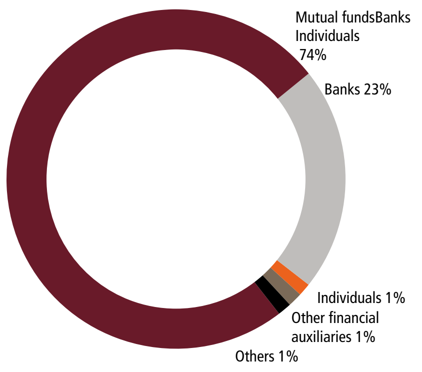


Source: Banks, MCMA calculations

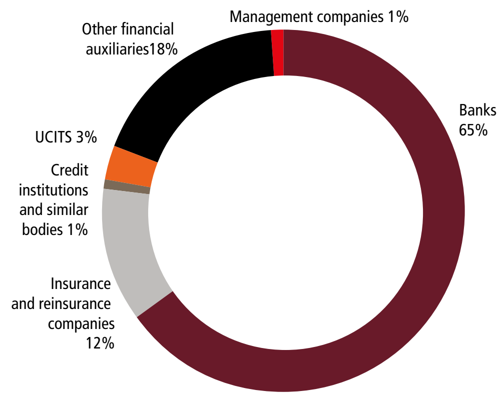
Banks are the main borrowers, while mutual funds are the main lenders. This is due to the fact that banks borrow government bonds Government bonds from UCITS mainly to give them as collateral for cash advances provided by Bank Al-Maghrib.

It should be noted that 97 percent of securities lending operations are carried out without collateral, mostly between subsidiaries of the same group. Given the importance of the counterparty risk and the level of interconnection that this situation represents, the ceiling for unsecured security lending is limited to 10 percent of the assets of the mutual funds and a draft amendment to the law on security lending is under preparation to further organize this activity.

Breakdown of lenders, by economic unit category



Breakdown of borrowers, by economic unit category



Source: Banks, MCMA calculations

E. INVESTORS

An upward trend in the number of investors suggests some renewed interest of Moroccan individuals in the local stock market

The change in the number of securities accounts can be divided into two phases:

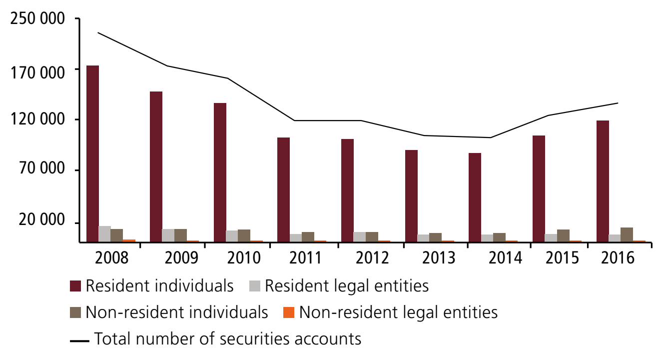
- A first phase characterized by a downward trend that began in late 2008 and spanned a period of 7 years. During this phase, the number of securities accounts dropped by 49 percent, from 204,222 to 103,800. This decline has largely affected Moroccan individuals and could be explained by the low number of IPOs[40] in recent years.

- A second phase during which the evolution of the number of investors slows down its downward trajectory and starts an upward trend with + 21 percent in 2015 and + 12 percent in 2016.

40 Initial public offering is the listing of a company in the stock market.

A rise that concerns mainly Moroccan and foreign individuals whose number of securities accounts stood respectively at 119,957 and 13,463 in 2016, from 86,807 and 8,744 in 2014. This trend suggests a certain renewed interest in the Moroccan financial marketplace, particularly with the good performance of the stock market in 2016 and the context of low yields in the interest rate market.

Structure of securities accounts, by investors category



Source: Mutual funds management companies, MCMA calculations

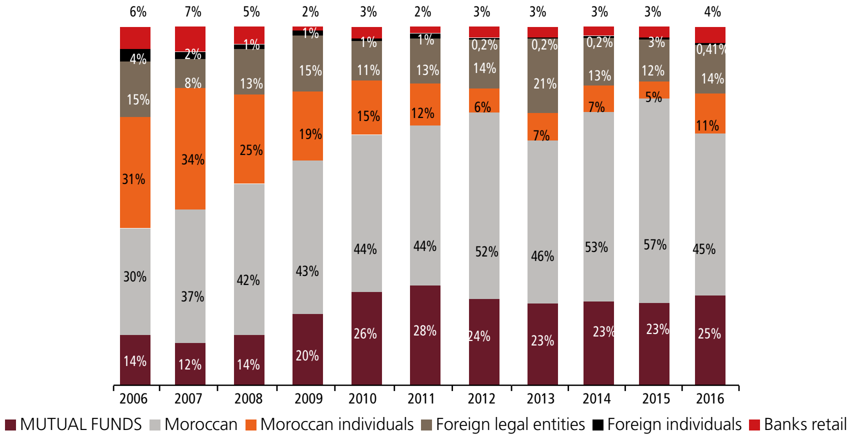
That said, the number of investors in the capital market remains very low at 0.41 percent of the population.

The structure of stock market transactions by type of investors shows a strong growth in 2016 in the number of Moroccan individualsindividuals from 5 percent to 11 percent. However, this level remains three times lower compared to 2006. The share of banks retail customersposted a similar trend, but to a lesser extent.

The share of Moroccan legal entities rose significantly from 30 percent in 2006 to 45 percent in 2016 with a peak at 57 percent in 2015. That of foreign legal entities experienced upward and downward trends during the last eleven years, hovering around 13 percent. Mutual funds remain very active on the stock market with a share representing globally a quarter of the transactions.

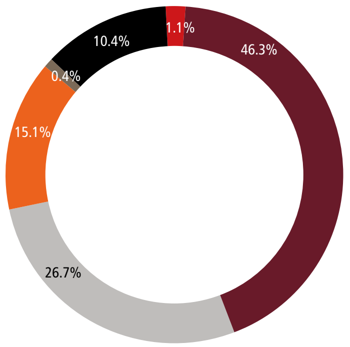
Moroccan individuals and banks retail customers hadhad rather sell positions in 2016, unlike Mutual funds and Moroccan and foreign legal entities who are more in a buying position.

Structure of stock market transactions (*) by type of investors

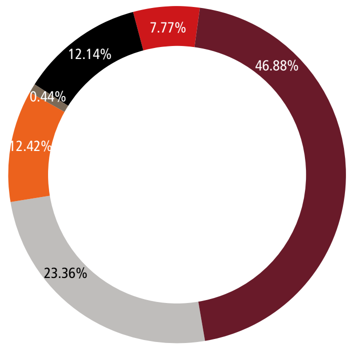


(*) central market

Breakdown of purchases by investor profile



Breakdown of sales by investor profile



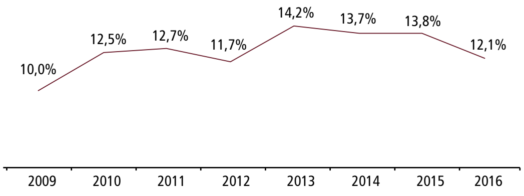
Source: Asset MUTUAL FUNDS management companies, MCMA calculations

Strategic participations Constitute the main foreign investments in the stock market

Foreign capital accounts for 33 percent of market capitalization in 2016. However, the risk of a massive withdrawal in the event of a financial crisis is lessened by the fact that 91.6 percent of foreign investments in the stock market are made as strategic holdings.

When analyzing the floating stock of the stock market in a separate way, foreign investors in 2016 only held 12.1 percent as against 13.8 percent in 2015 and 13.7 percent in 2014. Nonetheless, the impact of a massive withdrawal of foreign capital remains significant.

Share of the floating stock held by foreigners



Source: account holders, MCMA

IV.2 MARKET INFRASTRUCTURES

The year 2016 was characterized by the ongoing efforts to monitor Financial Markets infrastructures (FMIs)[41], in order to prevent the spillover effects or systemic risk and improve the resilience and stability of the financial system.

In terms of on-site inspection, two missions were conducted, with the GMICS (Group for a Moroccan Interbank Clearing System) and MaroClear, with the aim of evaluating these two FMIs in light of the 24 principles, enacted in 2012, by the Committee on Payments and Market Infrastructures and the Technical Committee of the International Organization of Securities Commissions, reporting respectively to the Bank for International Settlements (BIS) and the International Organization of Securities Commissions, regarding market infrastructures of systemic importance.

Concerning permanent control, the project to set up a rating-support system of FMIs was initiated. Based on an international benchmark and in particular on the system of the Federal Reserve "ORSOM", this tool aims to adapt the monitoring to the risks incurred by the market infrastructure, while allowing a better understanding of the risk profile of each FMI. It centers on five risk areas:

1. Organization (Governance and internal control): This involves evaluating the FMI's strategy, objectives and the ability of the administrative and management figures to implement them;
2. Risk management: the objective being to assess the FMI's ability to manage its risks in an integrated and comprehensive manner, including those brought by its participants;
3. Settlement: assessing the FMI's ability to secure the final and irrevocable nature of the settlement and the physical delivery of assets;

41 The systemically important MFIs are four in number: Morocco's Gross Settlement System (SRBM), the Moroccan Interbank Tele clearing System (SIMT), the securities settlementsystem of Maroclear and the clearing system of the Casablanca Stock Exchange.

4. Operational risk and IS: This involves evaluating the operational risk management system put in place by the FMI, including the procedures and controls put in place to identify and monitor risks, the robustness of business continuity plans and physical and information security;
5. Access, communication and transparency: This involves assessing the FMI's ability to ensure an fair access which is open to all participants, and to provide relevant information to participants and audiences.

This tool will also enable assessing the risks to financial stability induced by FMIs.

In parallel, Bank Al-Maghrib began work on the drafting of a bill on the supervision and security of FMIs and means of payment. This project reinforces and clarifies the monitoring procedures for these institutions, in accordance with the international standards in this area.

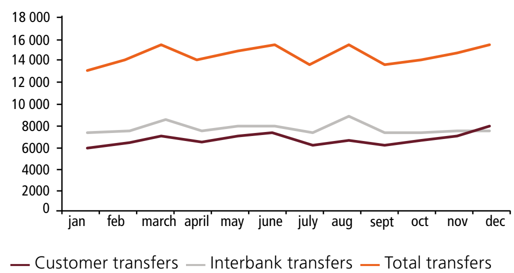
In addition, and in order to further strengthen the resilience of FMIs, a three-year (2016-2018) Business continuity project is being implemented. The objective of this project is to implement a "business continuity - marketplace exercise" aimed to verify the simultaneous operability of the individual BCPs of the FMIs in connection with the SRBM system.

As part of this project, two key actions are implemented:
- monitoring the implementation of switchover and back-up tests by FMIs;
- conducting joint back-up tests between BAM and the FMIs one by one.

A. MOROCCO GROSS SETTLEMENT SYSTEM (MGSS)

At the end of 2016, the MGSS enabled the aggregated handling of 175,041 transfer orders, almost unchanged from the previous year. The overall value of these orders dropped by 33 percent, from 4839 billion dirhams in 2015 to 3226 billion dirhams in 2016. This drop is mainly attributable to the notable decline in interbank transfers by 45 percent at 1,921 billion dirhams in 2016, instead of 3,531 billion dirhams in 2015.

Change in the transfer orders settled in the MGSS in 2016, in numbers



Source: BAM

Very low rejection rate of transactions processed by the MGSS

The transaction's rejection rate in the MGSS, due to unavailable or insufficient funds in the central settlement accounts of the main participants, remains very low and recorded a monthly average of 0.0043 percent in number and 0.016 percent in volume.

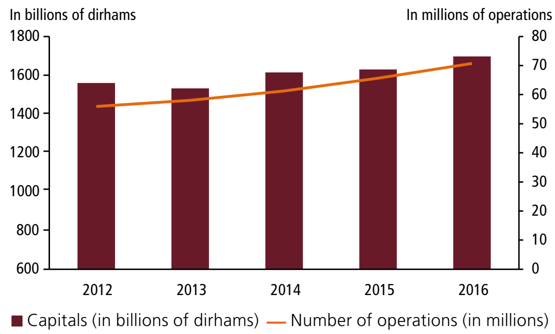
A high availability level of The MGSS Platform

During 2016, 12 technical incidents that impacted the course of the trading day were identified, which set the average annual availability rate at 99.38 percent. Regarding the transfer of the MGSS's technical platform from the main site to the backup site, they were successfully carried out in accordance with the initially agreed schedule.

B. MOROCCAN INTERBANK TELE-CLEARING SYSTEM (MITS)

In 2016, the interbank exchange of non-cash means of payment transiting via the MITS stood at 70.7 million operations for a cleared amount of 1,697.5 billion dirhams, compared respectively to 65.7 million operations and 1,630 billion dirhams in 2015, up 8 percent and 4 percent from one year to the next.

Annual change in interbank exchanges of means of payment 2012-2016

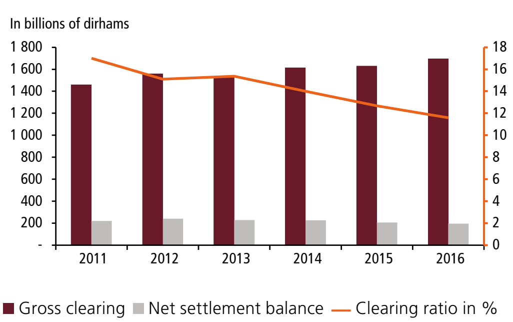


Source: MITSG

A high clearing Level of the system

In 2016, the clearing ratio[42] stood at 11.6 percent, down by 8.6 percent from 2015. This low level reflects a high clearing effect of the system and a drop in liquidity needs for settling participants' commitments by almost 88 percent. Since 2014, the clearing ratio has been on a downward trend, reflecting thereby a substantial drop in funds intended to unwind settlement balances relating to the gross amounts exchanged.

Annual change in the clearing ratio 2011-2016



Source: MITSG

42 The clearing ratio allows evaluating the efficiency and performance of the system in terms of clearing the gross amounts exchanged at its level. It is established by relating the value of thenet settlements to the value of gross transactions. A low clearing ratio indicates that the system carries out a substantial clearing level.

Non-mobilization of the Standing Guarantee Fund

The Standing Guarantee Fund (SGF) set up by the MITSG to keep financial risks in the system under control aims to cover 85 percent of trading days' balances, on average.

The amount of the SGF stood at 403.9 million dirhams and allowed covering 89 percent of clearing days' balances from October 24, 2015 to October 23, 2016, which represents 248 settlement days.

In 2016, no mobilization of the SGF took place, despite the significant debit positions recorded during the year (the maximum debit position of the year reached the level of 1.6 billion dirhams).

Important concentration rate of the five largest participants

In 2016, the five largest banks concentrate, on monthly average, 69 percent of the exchanges in value; therefore, not exceeding the critical edge of 80 percent. The remaining third is shared between the fourteen other banks.

Business continuity and information security

In 2016, the MITSG performance indicators were at satisfactory levels. The MITSG availability rate registered in 2016 a high level close to 99.99 percent. No major incident took place during the year and all minor incidents were resolved within the deadlines.

C. CENTRAL SECURITIES DEPOSITORY (MAROCLEAR)

As the single central securities depository in Morocco, Maroclear stands at the heart of the securities chain as a post-market infrastructure, notably by providing key functions such as the custody of securities registered in accounts and the management of the settlement system which allows the settlement clearing of all transactions made on the securities admitted in the operations of the central depository.

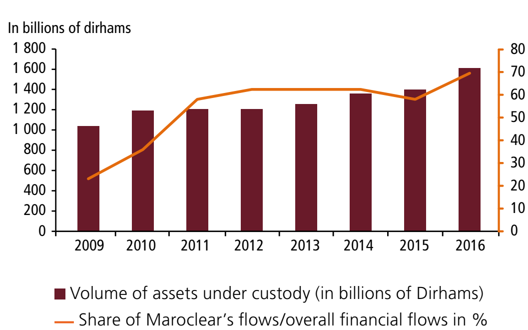
Important volumes of assets and settlement flows leading to a significant systemic risk exposure of the Moroccan financial system

The capitalization of the securities under custody by Maroclear at end-2016 amounted to 1,603 billion dirhams from 1,401 billion dirhams at end-2015 and represents nearly 159 percent of GDP.

This increase is mainly attributable to the rise in the stock exchange capitalization, up by nearly 130 billion dirhams, the increase in MUTUAL FUNDS net assets by 48.2 billion dirhams and the rise of the outstanding of Government BondsGovernment bonds by 20 billion dirhams.

The combined settled flows increased in 2016 , both in terms of number of transactions and of the volume settled. Thus, the number of transactions rose from 2158 in 2015 to 2979, for an average daily value of 40 billion dirhams in 2016 against 32 billion dirhams in 2015. The volumes settled by Maroclear remain largely dominated by the Repo transactions up to 87.5 percent of the total settlementsettlmentssettlement.

Change in Maroclear activity indicators



Source: MITSG

On the other hand, the MGSS settled at end-2016, 84,944 transactions from the Maroclear system, including 22,051 from the OTC sector, with a total value of 1,154 billion dirhams, and 62,893 repo operations, with a total value of 7,735 billion dirhams.

Strengthening the organization for a better governance of the central depository

In 2016, Maroclear reorganized its activities by creating middle management positions and setting up a functional domain related to information security and the quality of information systems.

Settlement platform incidents under control

Since the implementation of the new TCS Bancs platform in 2010, the number of reported incidents has dropped significantly. In fact, the number of incidents recorded in 2016 was limited to 45 incidents, all of which had no consequences on the operations of the settlement system.

Nature of the incident	Description of the incident	Criticality
Systems	4	Moderate
Settlement platform	8	Moderate
	10	Minor
Operations management	11	Moderate
	8	Minor
Others	1	Moderate
	3	Minor
Total	24	Moderate
	21	Minor

In total, the availability rate of the system stood at 100 percent in 2016 and the telecom network load only reached a level of about 11 percent.

A structured internal control system

The central depository has a risk map which is regularly updated. In order to meet all the regulatory requirements for risk management and to further improve the efficiency and continuity of controls, audit activities are separated from the operational activities and audit and risk management committees are put in place.

Certified Security Features and business continuity plan

Maroclear has an information security management system certified ISO 27001. This system is based on the following elements

- Documentation in line with the ISO22301 standard;
- An IT backup plan reviewed regularly;
- Dedicated human, technical and organizational resources;
- External backup (in two copies);
- A distant backup site, located at the headquarters of the Casablanca Stock Exchange, which is tested on a regular basis.

Future projects to strengthen the resilience of Maroclear

Maroclear will launch in 2017 a project on the implementation of a quality management system to obtain ISO 9001 certification.

Similarly, in the context of the continuous improvement of its information security management system (ISMS), Maroclear planned in 2017, an external audit of its nominal and backup data centers as well as business applications.

Finally, as part of testing its Business Continuity Plan (BCP), Maroclear expects to carry out in 2017 switching tests between the main site and the back-up site as well as real switching tests with the MGSS.

D. QUOTATION SYSTEM OF THE CASABLANCA STOCK EXCHANGE[43]

The managing company of the Casablanca Stock Exchange is required to put in place the organizational, material and technical means necessary to ensure the proper functioning of the stock market and secure trading.

As such, the Moroccan capital market authority (MCMA) carries out a close monitoring of the various risks specific to the activity of the stock exchange and particularly the operational risks of the quotation system and completion guarantee of operations. The objective being to ensure that the managing company put in place effective mechanisms to control these risks.

To this end, the MCMA identified seventy-six risks related to the different processes of the stock exchange. Exposure to these risks is assessedmeasuredd regularly by analyzing their inherent criticalities and taking into account the effectiveness of measures put in place to control them. Seventy-four risk management systems are regularly assessed by the MCMA.

Demutualizing capital to improve the governance of the managing company

The year 2016 witnessed several significant achievements in terms of the governance of the managing company, including:

- The demutualization of the capital of the stock exchange, which is now divided between banks, insurance companies, brokerage firms, the "Caisse de Dépôt et de Gestion" and Casablanca Finance City Authority;
- The signing of new specifications that bind the State to the new shareholders of the managing company and the reorganization of the internal committees, including the setting up of an audit and risk committee;
- The adoption of new statutes;
- The enactment of the new byelaws of the Board of Directors and the charter of the director which details the ethical obligations of members of the Board.

43 This paragraph focuses on operational risk aspects; the other aspects are already covered in paragraph IV-1-B on the stock market

A new quotation platform offering new features, more performance and security

The year 2016 was marked by the launch of the new quotation platform, "Millennium", during the month of August. On August 1, 2016, the Casablanca Stock Exchange successfully implemented its new technological platform, provided by Millennium IT, a technology subsidiary of the London Stock Exchange Group (LSEG).

This new platform includes an integrated listing and trading solution (Millennium Exchange) and a market monitoring tool (Millennium Surveillance). It significantly improves the level of automation and operational efficiency and optimizes the processing of operations.

The deployment of this new platform also allowed the introduction of new types of orders and new features, aimed at improving the transparency and liquidity of the market.

In 2016,13 operational incidents occured with no serious impact on the functioning of the market.

Nature of the incident	Number of incidents	Criticality
Systems	1	Moderate
	1	Minor
Clearing system	2	Moderate
	2	Minor
Quotation platform	1	Moderate
	3	Minor
Others	3	Minor
Total	4	Moderate
	9	Minor

A better structured internal control system

The internal control system of the stock exchange was formalized in 2015 with the introduction of permanent and intermittent controls as well as the follow-up of corrective actions. A risk map was prepared. The internal audit and internal control functions were separated while strengthening the workforce through the recruitment of an internal audit manager.

Renewal of IT security certification

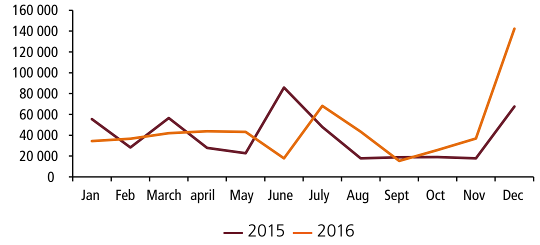
The Casablanca Stock Exchange has an information security management system certified according to the 27001 standard. In 2016, the management company obtained the renewal of this certification and upgraded its electrical architecture.

Regarding the business continuity plan (BCP), the managing company conducted a back-up test in 2016 between the main site and the back-up site. The BCP procedure was updated during the 4th quarter of 2016 given the new features of the MIT platform.

Balances transferred to the SRBM

At the end of 2016, the total amount transferred by the Casablanca Stock Exchange to the MGSS stood at 550 million dirhams, as against 465 million in 2015, up 18 percent.

Balances issued from the CSE and settled in the MGSS 2015/2016, in thousands of dirhams



Source: SRBM

E. CYBER-RESILIENCE

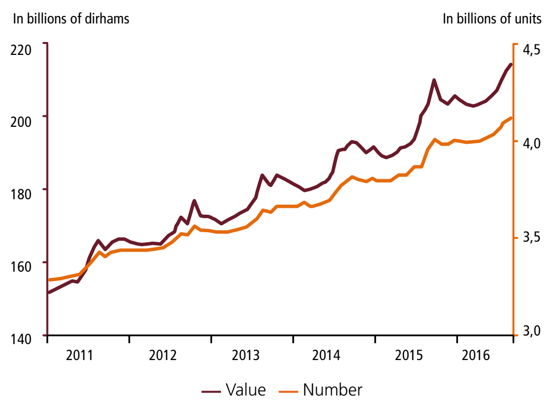
In light of the growing threats of cyber-attacks on FMIs, a draft directive on strengthening cyber security of these infrastructures is being finalized by Bank Al-Maghrib. This project is based on the report "Guidance on Cyber Resilience for Financial Market Infrastructures" published by the CPIM/ IOSCO on June 29, 2016 and on the DGSSI decree No. 2-15-712 of March 22, 2016 setting the protection mechanism of sensitive information systems in infrastructures of vital importance.

IV.3 SUPPLY OF CURRENCY IN CIRCULATION

Increase of currency supply in order to meet the needs of the domestic economy

At end-2016, currency in circulation stood at 216 billion dirham, corresponding to 1.5 billion banknotes and 2.6 billion coins, increasing by 4.8 percent and 2.2 percent, respectively in terms of value and volume, compared to 7.4 percent and 5.3 percent a year ago. Cash remains a preferred means of payment in the Moroccan economy. This is confirmed by an average annual increase in the value of currency in circulation of around 6 percent as well as by its ratio to GDP which reached 21 percent, its highest level over the last 5 years.

Evolution of banknotes and coins in circulation in volume and value



Source: BAM

The structure of the banknotes in circulation, considered in number, remains similar to that recorded in 2015. The 200 dirham banknotes confirm their predominance by representing half of the volume of notes in circulation, followed by the 100 dirham notes with a share of 38 percent. The 20 and 50 dirham notes represent respective shares of 7 percent and 4 percent.

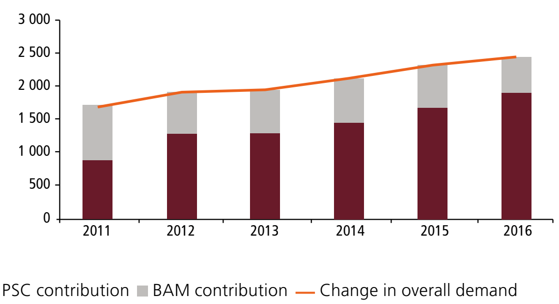
In order to meet the national needs, the overall supply of Moroccan banknotes reached a volume of 2.5 billion notes, up 6.4 percent compared to 2015.

Bank Al-Maghrib accounted for 42 percent of the overall supply thanks to withdrawals from its counters, which amounted to 1.03 billion notes, up 1.4 percent from 2015.

Withdrawals from Bank Al-Maghrib consist up to 36 percent of new banknotes, 20 percent of fit notes issued from the automatic sorting of BAM and 44 percent of fit notes deposited by the Private Sorting Centers (PSCs) to the Central Bank as surpluses of commercial banks. As a result, the direct contribution of Bank Al-Maghrib to supplying the national economy with banknotes stands at 23 percent.

The remainder of supplies, valued at 1.43 billion notes, was provided directly by the PSCs, thanks to the recycling operations carried out within the framework of the delegation granted by BAM. Indeed, their ever- increasing contribution rose from 50 percent to 77 percent between 2011 and 2016.

Contribution of BAM and PSCs in overall outflows, in million notes



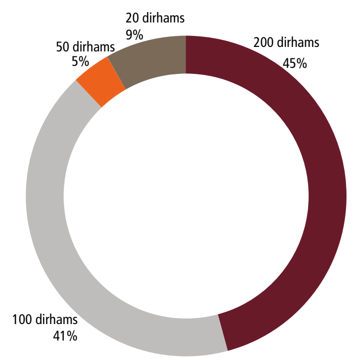
Source: BAM

Out of the 12 regions of the Kingdom, six account for 86 percent of the volume served by BAM. The Casablanca-Settat region occupies the first place with a share of 22 percent, followed by the Rabat-Salé-Kenitra region with 20 percent. The Marrakech-Safi region ranks third with a 13 percent share.

The Fez-Meknes region comes in the fourth place with 12 percent. The Tangier-Tétouan and Sous-Massa region occupy, for their part, the 5th and 6th places with respective shares of 10 percent and 9 percent.

At end-2016, outflows of banknotes at BAM branches show, in their structure, the predominance of 200-dirham and 100-dirham notes with the respective shares of 45 percent and 41 percent. Outflows of 50- dirham and 20- dirham represented 5 percent and 9 percent respectively.

Structure of banknotes outflows at BAM counters in 2016, %

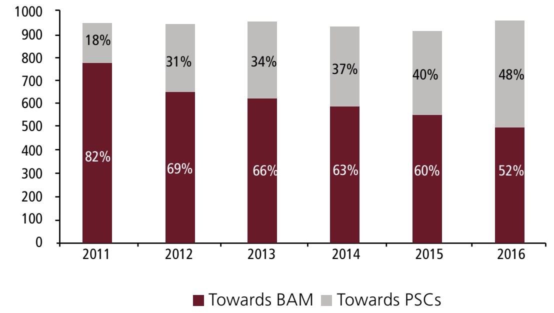


Source: BAM

It should be reminded that the development of the role of PSCs in the fiduciary sector has contributed to stabilizing the flows of banknotes to Bank Al-Maghrib branches. Indeed, the volume of banknotes deposits and withdrawals stood at a nearly one billion banknotes per year.

Overall deposits in Bank Al-Maghrib branches were up 5 percent to 962 million banknotes in 2016, including 465 million fit notes of PSCs.

Evolution in banknotes total deposits at BAM branches in 2016, in millions

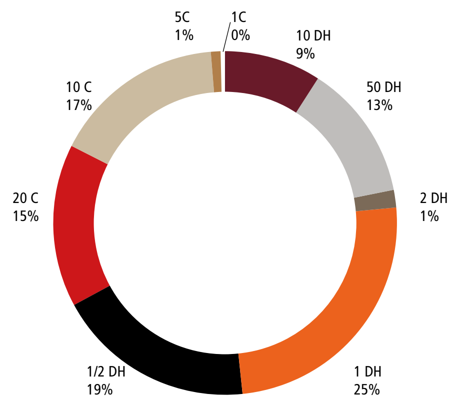


Source: BAM

Just like the supply of banknotes, the need in coins is met jointly by BAM and the PSCs.

In 2016, the overall supply of coins totaled 537 million units, down 3 percent from 2015. A share of 84 percent of this supply was provided by PSCs thanks to direct recycling operations. The remainder, produced by Bank Al-Maghrib, represents a volume of 85 million new coins, down 18 percent compared to 2015.

Structure of outflows of coins from BAM branches in 2016



Source: BAM

In view of the role of the central bank in meeting the needs of the national economy in banknotes and coins, the cash balances of currency in circulation are evaluated thanks to the situation of the operational stocks (OS) allowing the measure of the coverage period, expressed in number of months. This period must ensure a minimum coverage of 1.5 months per denomination.

Designed to meet different risks, strategic stocks of the central bank allow coverage of 6 months of outflows for each denomination.

The counterfeit rate remains low at 8.6 counterfeit notes per million banknotes in circulation in 2016, compared to 7.6 a year earlier. As for counterfeit coins, no counterfeit was detected by BAM in 2016.

LIST OF ABBREVIATIONS

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ACAPS	AUTORITÉ DE CONTRÔLE DES ASSURANCES ET DE LA PRÉVOYANCE SOCIALE (SUPERVISORY AUTHORITY OF INSURANCE AND SOCIAL WELFARE)
AMMC	AUTORITÉ MAROCAINE DU MARCHÉ DES CAPITAUX (MOROCCAN CAPITAL MARKET AUTHORITY)
BAM	BANK AL-MAGHRIB
BCEAO	CENTRAL BANK OF WEST AFRICAN STATES
BCP	BUSINESS CONTINUITY PLAN
BEAC	CENTRAL BANK OF AFRICAN STATES
BIS	BANK FOR INTERNATIONAL SETTLEMENTS
CCIF	COLLECTIVE CAPITAL INVESTMENT FUNDS
CCP	CENTRAL COUNTERPARTY CLEARING HOUSE
CDG	CAISSE DE DÉPÔT ET DE GESTION (DEPOSIT AND MANAGEMENT FUND)
CIFS	COLLECTIVE INVESTMENT FUNDS
CMI	CENTRE MONÉTIQUE INTERBANCAIRE (INTERBANK ELECTRONIC MONEY CENTER)
CPMI	COMMITTEE ON PAYMENTS AND MARKET INFRASTRUCTURES
CPSS	COMMITTEE ON PAYMENT AND SETTLEMENT SYSTEMS
ECB	EUROPEAN CENTRAL BANK
FDI	FOREIGN DIRECT INVESTMENT
IMF	FINANCIAL MARKET INFRASTRUCTURE

GCC	GULF COOPERATION COUNCIL
GDP	GROSS DOMESTIC PRODUCT
GOI	GROSS OPERATING INCOME
HHI	HERFINDAHL-HIRSCHMANN INDEX
IAM	ITISSALAT AL MAGHRIB
ILTB	INTERMEDIATE AND LONG-TERM BONDS
IMF	INTERNATIONAL MONETARY FUND
IOSCO	INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS
IS	CORPORATE TAX
IT	INCOME TAX
LCR	LIQUIDITY COVERAGE RATIO
LE	LARGE ENTREPRISES
MADEX	MOROCCAN MOST ACTIVE SHARES INDEX
MAROCLEAR	THE CENTRAL SECURITY DEPOSITORY OF SECURITIES IN MOROCCO
MASI	MOROCCAN ALL SHARES INDEX
MENA	MIDDLE EAST AND NORTH AFRICA
NDS	NEGOCIABLE DEBT SECURITIES
PER	PRICE EARNING RATIO
SCR	SOCIÉTÉ CENTRALE DE RÉASSURANCE (CENTRAL REINSURANCE COMPANY)
SICAV	INVESTMENT COMPANY WITH VARIABLE CAPITAL

SIMT	SYSTÈME INTERBANCAIRE MAROCAIN DE TÉLÉCOMPENSATION (MOROCCAN INTERBANK REMOTE CLEARING SYSTEM)
SMES	SMALL AND MEDIUM-SIZED ENTERPRISES
SMF	SECURITISATION MUTUAL FUNDS
SRBM	SYSTÈME DES RÈGLEMENTS BRUTS DU MAROC (MOROCCAN GROSS SETTLEMENT SYSTEM)
TB	TREASURY BONDS
TD	TIME DEPOSITS
UCITS	UNDERTAKINGS FOR COLLECTIVE INVESTMENT IN TRANSFERABLE SECURITIES (MUTUAL FUNDS)
VAT	VALUE ADDED TAX
VCIF	VENTURE CAPITAL INVESTMENT FUNDS
VSES	VERY SMALL ENTERPRISES
VSMES	VERY SMALL, SMALL AND MEDIUM SIZED ENTERPRISES
WAR	WEIGHTED AVERAGE RATE

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