



مصرف الإمارات العربية المتحدة المركزي
CENTRAL BANK OF THE U.A.E.

Financial Stability Report

2015

Preface

In this report, CBUAE assesses vulnerabilities and risks in the domestic financial system and covers the key developments that affected financial stability in 2015.

Stability risks have increased at the global and domestic front throughout the year 2015. Lower commodity prices and the appreciation of the US dollar had a major impact on many economies, including the United Arab Emirates (UAE). Those factors have weakened the growth outlook and have increased uncertainties; however diversification of the UAE economy along with strong support from the banking system have helped to cushion the negative impact.

I am confident that sustained banking sector liquidity, large capital buffers, solid earnings and enhanced banking supervision will allow banks to endure the challenging economic conditions ahead.

In 2015, the CBUAE continued to enhance regulatory framework of licensed institutions in response to the changing financial landscape. The priorities are on the introduction of a fully compliant Basel III capital framework, new regulatory framework for non-bank financial institutions and regulations addressing the key risk management requirements in banks.

Major reforms were also undertaken by CBUAE in order to make payment systems more efficient and useful to the end users by promoting the use of electronic payments, reducing cash transactions and at the same time managing the risks more efficiently.

Last, I would like to thank the Securities and Commodity Authority and the Insurance Authority for their contributions to this report.

Mubarak Rashed Al Mansoori

Governor

Objective of this Financial Stability Report

By issuing this report, CBUAE intends to provide key information to major participants in the industry in order to allow them a better understanding of risks in the UAE financial sector.

Definition of Financial Stability

Financial stability describes a steady state in which the financial system, comprising of banks, other financial institutions and financial markets, efficiently performs its key functions, such as allocating resources, spreading risk as well as settling payments, and is able to continue to do so in the event of shocks, stress situations and periods of profound structural changes.

The report is based on data and information available as at 31 December 2015, unless otherwise stated.

Data source is CBUAE unless stated otherwise.

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Executive Summary

Economic growth in the UAE experienced a minor slowdown in 2015. The diversification of the economy has helped to mitigate the impact of declining government spending as evident by healthy, albeit declining, growth of non-oil activities.

Credit growth, continued to expand and remained supportive of the UAE economy. Total domestic credit, which includes loans provided by UAE banks (domestic credit), bonds and lending from abroad grew 6.3%, slower compared to previous years and might slow down further in line with the CBUAE GDP forecasts. At the end of 2015 credit-to-non-oil GDP gap was negative indicating an environment supportive of financial stability.

Despite the challenging economic conditions, the banking system remained solid with strong capital and sustained profitability. Capital adequacy ratio stood at 18.3% while return on assets stood at 1.5%. Liquidity position of the banking system remained resilient despite a decline in government deposit and slower growth in other deposit categories. Capital market funding continued to grow to account for 9% of banks' funding profile. Despite initial concerns, the decline in government deposits had little impact on the banking system as withdrawn deposits were matched by liquid assets abroad.

The Financial Stability Trend Index (FSTI) has been enhanced to include a larger number of indicators representing the UAE banking sector, UAE capital market and domestic economic conditions to arrive at the financial stability stance of the UAE. During the year 2015, the index remained stable around its zero level indicating a limited build-up of vulnerabilities.

Banks' investment portfolio expanded with debt securities holdings amounting to 205 bAED. More than 80% of these securities are investment grade, with concentration in medium and high quality ratings.

The real estate sector poses minimal threat to financial stability. A market correction was registered in 2015 with 11% and 1% drop in sale prices in Dubai and Abu Dhabi respectively. Banks' lending to the real estate sector continues to decline.

Islamic finance in the UAE continued to develop with additional participation of foreign banks offering Islamic services and growth of Islamic banking assets of 15% during the year. Total assets expanded to reach 18.7% of total banking system assets.

Risk to financial stability from the shadow banking industry in the UAE is limited; the asset size remained less than 3 % of the banking system.

Initiatives to strengthen risk management of the payments systems included enhanced contingency planning and strengthened information security management. The CBUAE drafted a comprehensive regulation on digital payments services and continued its active participation at the regional level with the GCC RTGS and Arab Regional Payment System project.

The CBUAE introduced a new liquidity regulation in accordance with Basel III liquidity standards, as part of the plan to introduce a fully compliant Basel III framework.

During 2015, the Insurance Authority issued new standardized financial reporting forms and began in depth inspections of all insurance companies with the goal of enforcing new regulations issued at the end of 2014. The protection of rights of policyholders was developed according to the frameworks applied internationally, in particular ICP No. (15) issued by the International Association of Insurance Supervisors (IAIS).

The Emirates Securities Markets index decreased by 6.5% in 2015. It was driven by the reduction in oil prices as well as the overall growth prospect of the entire region. The total value of trades traded on both the Abu Dhabi Exchange and Dubai Financial Market stock exchanges amounted to 209 bAED in 2015 compared to the 525 bAED in 2014. By launching the Innovation Award for Capital Market Research (90,000 AED), the Securities and Commodities Authority is promoting innovative research with the aim to tap into new ideas and creative thinking for the benefit of the UAE's regulatory authorities.

UAE Economic and Monetary Developments

Summary

Economic growth has slowed down in 2015. However, the diversification of the economy has helped to mitigate the impact of declining oil prices as evident by robust, growth of non-oil activities. The total CPI inflation is driven by housing and utility prices, which account for more than 39% of the consumption basket, giving rise to higher prices volatility in 2015. The fiscal consolidation started in 2015 by reforming electricity and fuel subsidies, intending to strengthen the fiscal sustainability over the medium-term.

Economic Growth

Average oil prices declined by around 48% in 2015 compared to 2014, generating a significant drop in oil revenues. The slowdown of the Chinese economy, a major trading partner of the UAE, has also amplified the oil price adverse shock. On the other hand, relatively higher diversification of the UAE economy has made it less vulnerable to such fluctuations, with a bigger potential for non-oil private sector performance to drive economic growth. In testament to more diversified export structure, net exports have had an increasing contribution to economic growth over time, creating a balanced growth picture, alongside the domestic demand. The contribution of net exports of goods and services to the GDP has increased gradually over time from 6.5% in 2010, to reach around 20% in 2014. In addition, the financial system has deepened substantially in recent years which increased the country's resilience and boosted non-energy economic growth. These financial developments promoted financial stability since they allowed for deeper and more liquid financial sector with diverse instruments that help dampen the impact of shocks.

Based on the recent data release, the total real GDP grew by 3.4% in 2015, in contrast to 4.0% growth in 2014. The real oil GDP surged by around 2.8% in 2015. Concerning the non-hydrocarbon economic activity, the real non-oil GDP growth slowed down in 2015 to reach a growth rate of 3.7% against 5.5% in 2014. The CBUAE is forecasting a further economic slowdown in 2016 (the growth rate of the total GDP is projected to reach 2.5%, driven by a 3% growth in the non-oil GDP) on account of the persistence of low oil prices. On the other hand, the economy is expected to rebound in 2017 in line with the recovery in future oil price, with a total GDP growth projected at 2.9%.

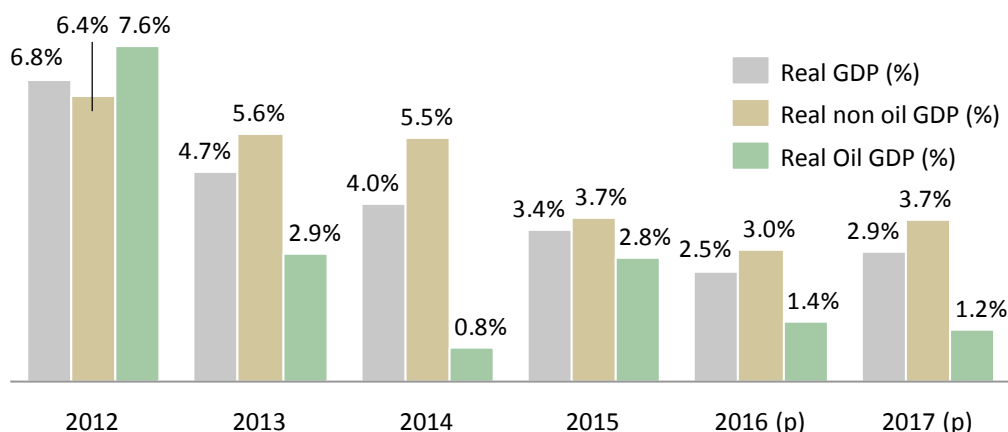


Figure 1. GDP growth and economic activity in the U.A.E. (Source: Research and Statistics Department – CBUAE)

The Purchasing Manager's Index (PMI) and the Dubai Economic Tracker (DET), indicators of the economic activity, based on surveys of the non-oil economic developments in the private sector in the UAE and Dubai, respectively, have decreased significantly in 2015. While the absolute index value remains higher than the 50-threshold during the whole year, the end-of-period PMI declined by 12% in 2015 compared to 2014, signaling slower -but positive- growth in the non-oil private sector. The DET followed a similar path; the end-of-period level declined by around 13% in 2015.

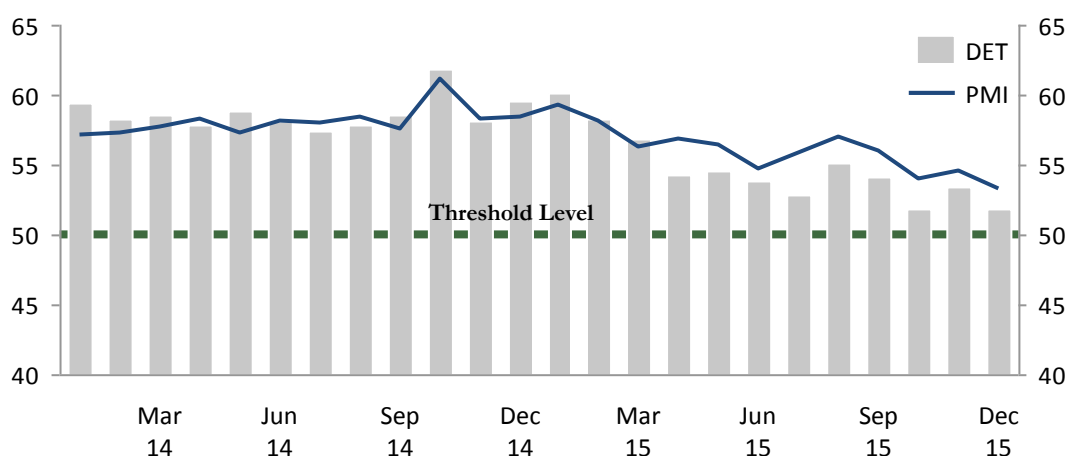


Figure 2. Non-oil economic Activity in the U.A.E (Source: MARKIT & Emirates NBD)

Consumer Price Index and Inflation

The inflation rate reached 4.1% in 2015, against a rate of 2.4% in 2014. The inflation jump in 2015 generated a higher volatility of prices, leading to more uncertainty about the value of collaterals and the financial risk. The inflation volatility is around 1.2¹ in 2015 against 0.6 in 2014. Volatility captures the continued increase in inflation for most of 2015, a trend that was reversed in the last quarter of the year. These developments are driven mainly by the housing inflation. Housing prices, covering rental price, electricity, and water and gas prices

¹ The volatility is measured by the standard deviation

constitute around 39% of the standard consumption basket in the UAE. They increased on average by 8.8% in 2015, with a contribution to the total annual inflation of 3.4%, leading to a total housing price volatility of 4.2 in 2015. In contrast, the housing CPI inflation was only around 3.2% in 2014, with a contribution to the total CPI inflation by 1.2% and a volatility of 2.5. The most volatile component in 2015 was the electricity price (see figure 3.3); which increased by more than 23% due to the electricity subsidy reform in 2015 inducing a volatility level of 8.2, against 2.5 in 2014. Housing rental prices increased by 8% in 2015 due mainly to the widening gap between demand and supply. The volatility of rental prices reached 4.4 in 2015 while it was around 3.4 one year earlier. The price of food and transportation which constitute altogether 24% of the consumption basket increased by 1.2% and 2%, contributing to the total inflation by 0.17% and 0.2%, respectively in 2015. Although education accounts only for 4% in the total consumption basket, its contribution to the total inflation equals 0.15%. The cost of education increased by more than 3.7% in 2015, reflecting higher demand for private schooling.

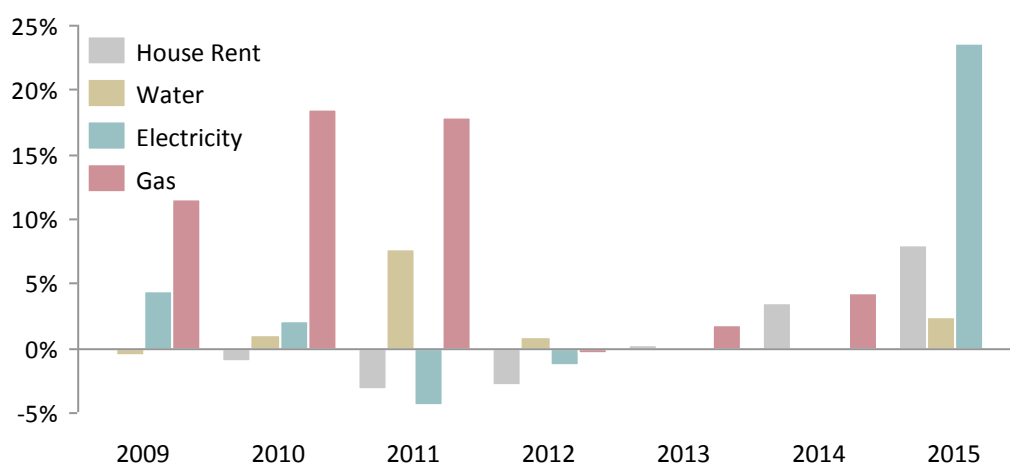


Figure 3. CPI inflation of Housing sub-components (Source: Federal Competitiveness and Statistics Authority)

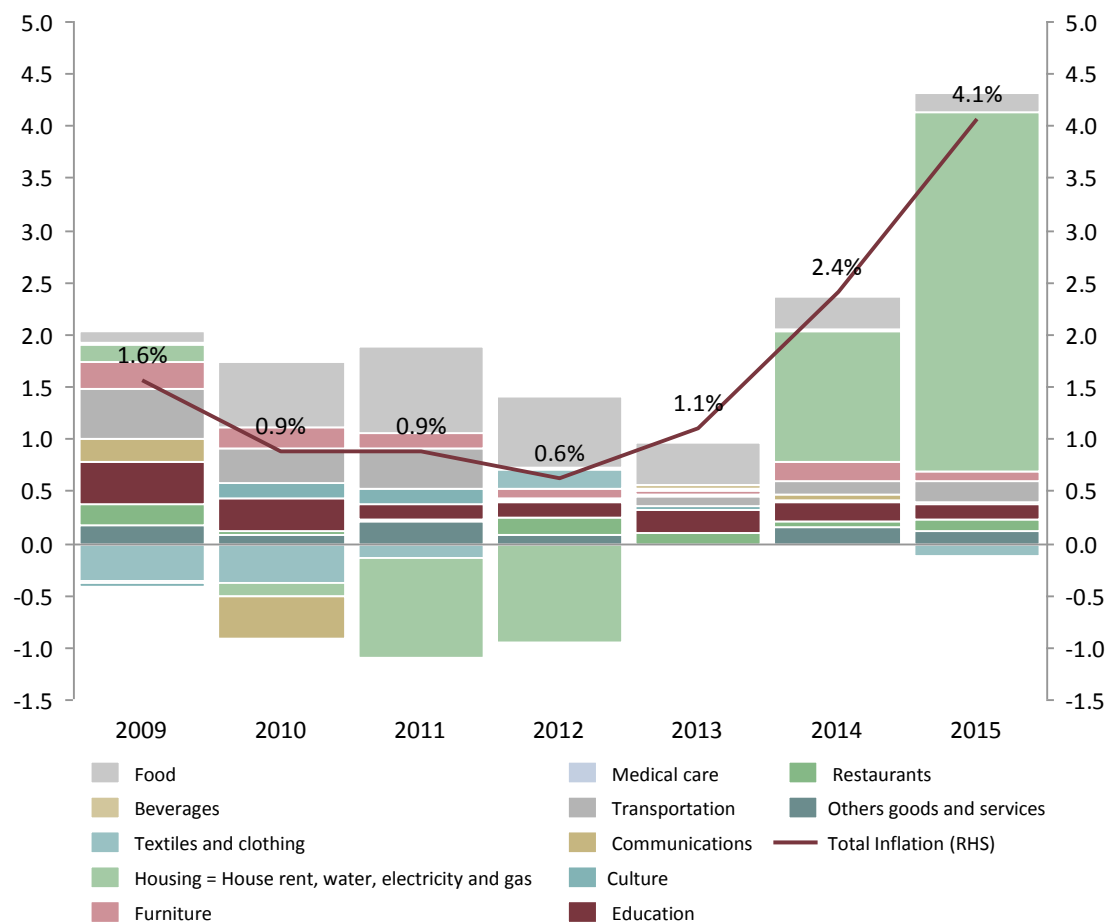


Figure 4. Contribution of different sub-components to the total CPI inflation (Source: Federal Competitiveness and Statistics Authority)

The development of the CPI inflation of different sub-components summarizes the change of the CPI inflation of two major consumption blocks: tradable goods and non-tradable goods. The tradable goods account for around 34% of the consumption basket, while the non-tradable goods account for 66% where housing prices represent 59% of non-tradables. The CPI inflation of non-tradables was the main driver of the total CPI inflation in 2015 and the most volatile component. Non-tradable inflation was around 3.8% in 2015, with a volatility of 1, where the CPI of tradables increased only by 0.3% with a volatility level of 0.5. The contribution of the CPI inflation of non-tradables became dominant and increased significantly during the last three years (0.5% in 2013, 1.7% in 2014).

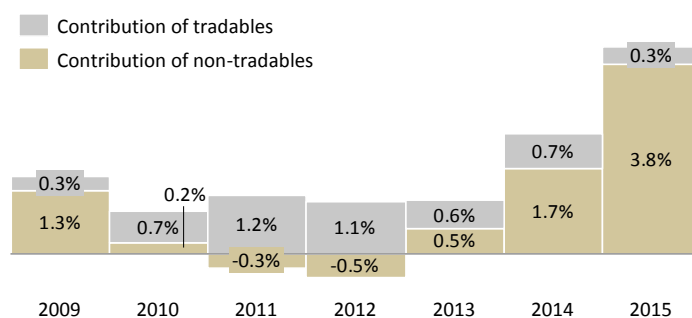


Figure 5. Contribution of tradables and Non-tradables components to the total CPI inflation (Source: Federal Competitiveness and Statistics Authority)

Exchange Rate appreciation and Competitiveness

The nominal effective exchange rate is a weighted average of bilateral exchange rates with respect to major trading partners. Competitiveness is a function of these movements, coupled with relative price inflation between the UAE and major trading partners. Reflecting developments of the US Dollar exchange rate, the effective real exchange rate (REER) of the dirham (taking account of inflation differences with trading partners)² appreciated by around 12% in 2015 compared to 2014, in contrast to a total appreciation by about 15% during the period 2011-2015. Due to the pegging of the UAE dirham to the dollar, these developments were a one-to-one projection of the US dollar appreciation during the year. Nonetheless, the lower oil price and tighter government revenues had a more marked negative effect on deposit growth in the banking sector. In fact, total bank deposits increased by around 3.5% in 2015, a marked deceleration in growth compared to previous years.

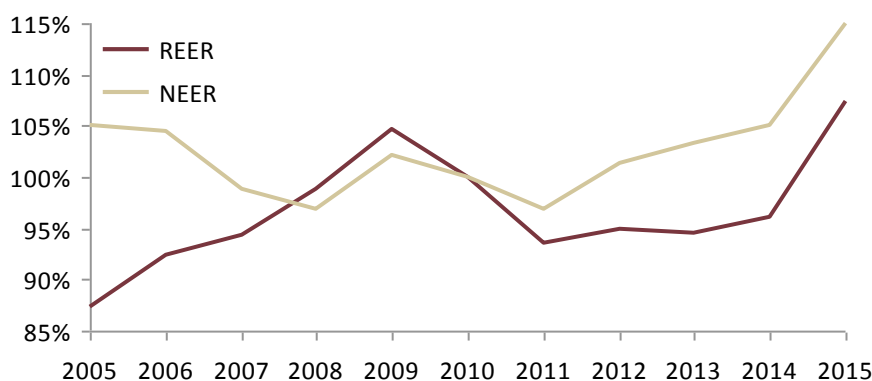


Figure 6. Real and Nominal Effective Exchange rates (Source: Bank of International Settlement (BIS))

On the other hand, the analysis of the bilateral exchange rate with main trading partners shows a continuous appreciation of the Dirham against the currencies of both export and import partners.

² The REER is an average of the bilateral real exchange rates between the country and each of its trading partners, weighted by the respective trade shares of each partner.

Table 1. Dirham appreciation against currencies of top non-dollarized import partners (Source: Federal Competitiveness and Statistics Authority and Bloomberg)

Currency	Share of UAE imports (%)	Exchange rate 2014	Exchange rate 2015	% Change of Currencies per Dirham	% Change of Currencies per Dirham
	2014			2014	2015
Chinese Yuan	11.68	1.6776	1.7110	0.22	1.99
Indian Rupee	9.19	16.6094	17.4621	4.02	5.13
Germany (EUR)	6.09	0.2053	0.2454	0.15	19.53
Japanese Yen	5.55	28.84	32.96	8.50	14.29
UK Pound	3.53	0.1654	0.1782	-5.00	7.74
Swiss Franc	3.38	0.2493	0.2621	-1.19	5.13
Italy (EUR)	3.09	0.2053	0.2454	0.15	19.53
South Korean Won	2.95	286.8252	308.2172	-3.77	7.46
France (EUR)	2.54	0.2053	0.2454	0.15	19.53
Total	48.00				
Weighted Appreciation				0.56	4.45

Table 2. Dirham appreciation against currencies of top non-dollarized partners for non-oil export
(Source: Federal Competitiveness and Statistics Authority and Bloomberg)

	Share of UAE exports (%)		Exchange rate	% Change of Currencies per Dirham	% Change of Currencies per Dirham
Currency	2014	Exchange rate 2014	2015	2014-2013	2015-2014
Indian Rupee	14.85	16.6094	17.4621	4.02	5.13
Saudi Arabian Riyal	8.17	1.0212	1.0213	0.01	0.01
Omani Rial	6.61	0.1048	0.1048	0.01	0.01
Swiss Franc	6.34	0.2493	0.2621	-1.19	5.13
Turkish Lira	5.4	0.5960	0.7424	14.84	24.56
Iraqi Dinar	4.72	318.9919	327.3815	0.51	2.63
Kuwaiti Dinar	4.48	0.0775	0.0820	0.26	5.81
Egyptian Pound	3.65	1.9274	2.0982	2.97	8.86
Chinese Yuan	3	1.6776	1.711	0.22	1.99
Total	57.20				
Weighted Appreciation				1.47	3.18

The weighted exchange rate with respect to the top 9 non-dollarized import partners, which accounts for 48% of total imports, appreciated by 4.5% in 2015, against an increase of only 0.56% in 2014. These developments are a result of a considerable depreciation of all these currencies against the Dirham. The Euro was leading the stream of depreciating currencies against the Dirham. It lost more than 19% in 2015, while it depreciated relative to the dirham only by around 0.2% in 2014. The Japanese Yen lost more than 14% relative to the dirham in 2015. It is worth noting that Germany, Italy, France and Japan represent together a total of 17.3% of the total imports to the UAE. The UK Pound and the South Korean Won lost around 7% each against the Dirham in 2015.

On the non-energy exports side, the weighted average dirham exchange rate variation with respect to the top 9 non-dollarized export partners, which accounts for more than 57% of the total exports, appreciated by around 3.2% in 2015 against a weighted appreciation of the Dirham of 1.5% in 2014. This appreciation is driven primarily by the depreciation of the Indian Rupee and the Turkish Lira. The two countries are contributing altogether by more than 20% to the total Emirati non-energy exports. Both currencies depreciated by around 5% and 25%, respectively. The Egyptian Pound lost also around 8.9% during 2015, against the Dirham.

Fiscal balance

Based on detailed revenues data available from the Ministry of Finance, the revenues covered around 80% of the total expenditures in 2015 against a coverage rate of 92% in 2014. This is due mainly to the decrease of these revenue items by 25%, which remains more proportional than the total expenditure decline (15%).

The revenues' decline is generated by the cut in tax revenues by 37%, reflecting reduction in taxes on oil companies in 2015. Social contributions decreased by 15% compared to 2014. On the expenditures side, except for the compensation of employees and the consumption of fixed capital, which increased by 24% and 17%, respectively, all expenditure items decreased. Subsidies fell by around 84% because of the subsidy reform pressed by the government in 2015, in addition to the decline in transfers to Government Related Enterprises (GREs). The subsidy reform involved electricity and retail fuel subsidies. They were implemented in early 2015 and in August 2015, respectively. Fuel prices were set in accordance with global oil price benchmarks. Although these reforms put an inflationary pressure on housing and transportation prices, they resulted in budget savings of around 3% of total expenditures.

The expenditure decline in 2015 is part of the implementation of a gradual fiscal consolidation, intending to strengthen the fiscal sustainability over the medium-term against the backdrop of persistent decline in the oil price.

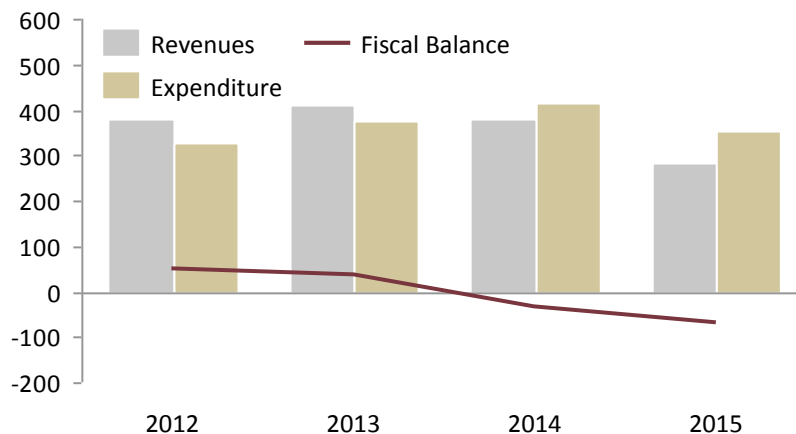


Figure 7. Fiscal Stance (Source: Ministry of Finance)

Assessment of Risk and Vulnerabilities

The Credit Cycle

Credit supply

In 2015 UAE credit cycle continued on a trend of a moderate growth that started after the Global Financial Crisis (GFC). Total domestic credit which includes loans provided by UAE banks (domestic credit) to the economy, bonds and lending from abroad increased at levels similar to the nominal non-oil GDP³ growth. While loans of the banking sector (domestic credit) to UAE based borrowers increased by 8.1% total domestic credit increased by 6.3%.

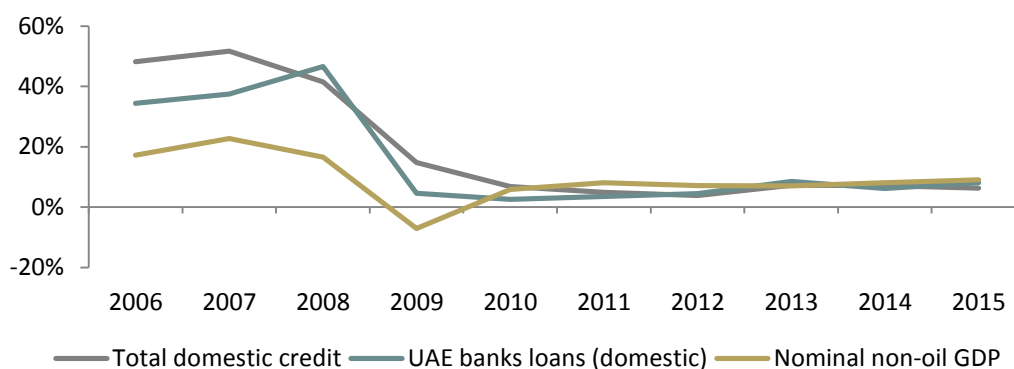


Figure 8. Change in total domestic credit and non-oil economy (Sources: National Bureau of Statistics, Bloomberg and FSU staff estimates)

Total estimated domestic credit supply was 2.2 tAED at the end of 2015, with two thirds of the amount in the form of local banks lending. Outstanding bond and sukuk issues amounted to 16% and estimated loans to banks abroad was approximately 20% of the total debt.

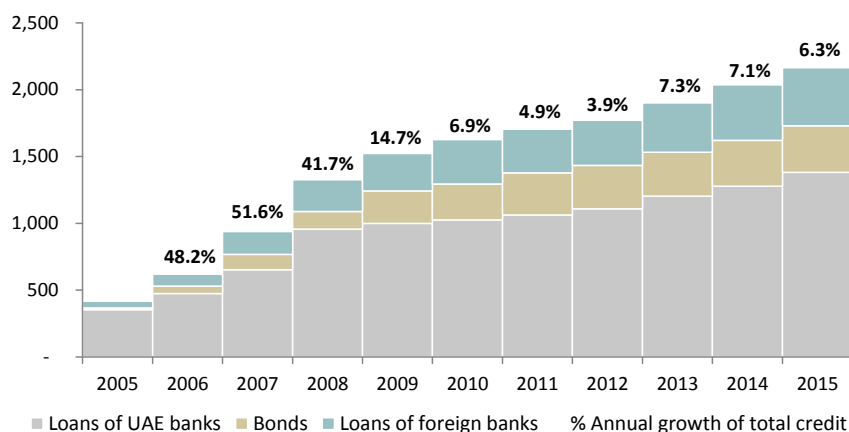


Figure 9. Total domestic credit (in baED) (Sources: Bloomberg and CBUAE estimates)

³ As oil GDP is primarily cash funded and unrelated to domestic credit, non-oil GDP is more relevant as a benchmark in assessing the trend of credit growth.

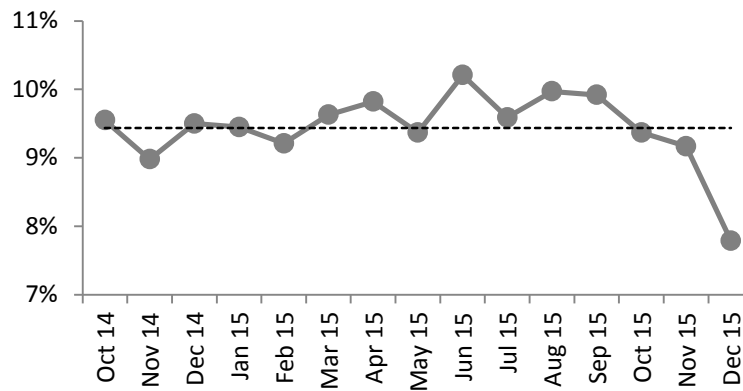


Figure 10. Year-on-year UAE banks' loan growth

Given the economic outlook for the following years, credit growth is likely to slow down. First signs of slowing credit supply can be seen in December figures when year-on-year bank credit growth dropped significantly below average for the previous period. Lower demand and tighter lending standards are both likely to contribute to this trend.

Credit Cycle

The Basel Committee on Banking Supervision (BCBS) has proposed the use of the credit-to-GDP gap to identify stages of credit cycle as the reference point for initiating the process of building up the Basel III countercyclical capital buffers. To remove the effect of cyclical fluctuations, the long term trend of the credit-to-GDP ratio is measured using a one-sided Hodrick-Prescott (HP) filter. When the current credit-to-GDP ratio is compared to its long-term trend, a positive gap is an indication of upwards cycle and potential excess credit building up in the system.

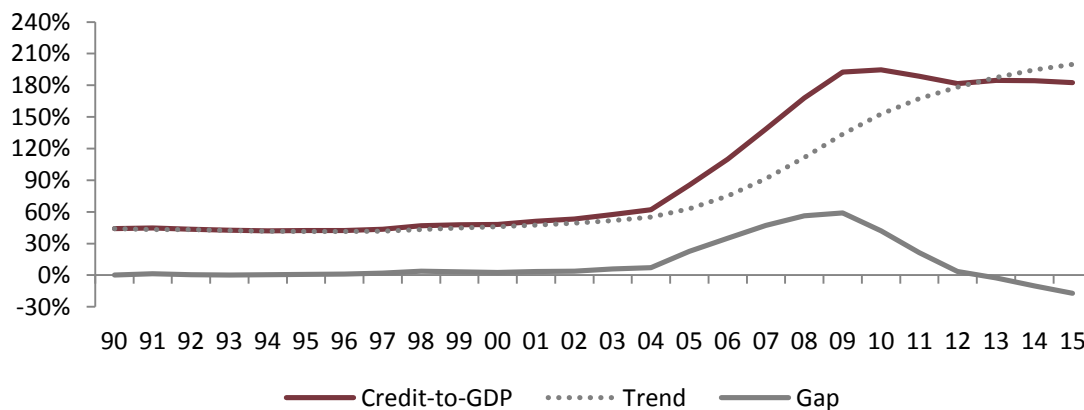


Figure 11. Credit-to-GDP ratio, its trend and credit to GDP gap estimated using one-sided HP (1989 – 2015)

During 2005 to 2009 period credit-to-GDP significantly deviated from the long term trend. After reaching the peak, the credit cycle entered a contraction stage as indicated by a shrinking and subsequently negative credit-to-GDP gap. At the end of 2015 the gap was at minus 17% of non-oil GDP level.

The trend figures are heavily influenced by the period of rapid growth between 2004 and 2009 that could introduce uptrend bias. This suggests that estimated negative gap could be

overstated and current conditions could be closer to normal growth levels than the gap indicates.

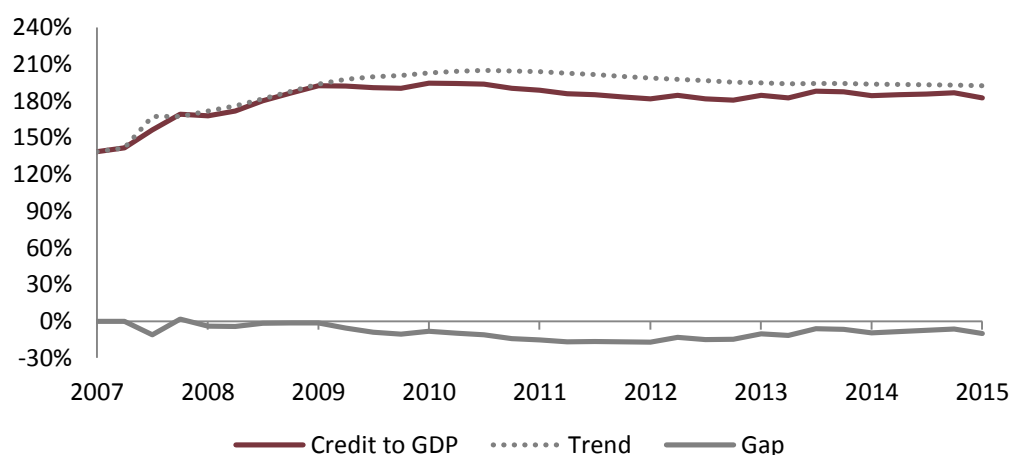


Figure 12. Credit-to-GDP ratio, its trend and credit to GDP gap estimated using one-sided HP (2007 Q4 – 2015 Q4)

Following the evidence that in 2007, due to the effects of financial deepening, the UAE financial system experienced a regime change⁴, the credit-to-GDP gap was recalculated from that year. As in the previous case estimated credit-to-GDP gap at the end of 2015 was negative (-10% of non-oil GDP) – supporting credit downturn hypothesis.

Analysis of the credit cycle using HP filter confirms intuitive conclusion that after six years of domestic credit growth at levels near or below growth of the economy there was no build-up of new vulnerabilities on a systemic level. The risk however remains that not all issues of the build-up preceding the global financial crisis were resolved. Assessment of this risk requires deeper insight into the soundness of the financial system and will be covered in the following chapters.

⁴ See 2013 Financial Stability Review for details.

Liquidity

Summary

Despite initial concerns, financial sector liquidity was not affected by the decline in government deposits which took place in 2015. The deposits withdrawn had been matched with placements abroad which were simultaneously liquidated. This allowed banks' lending growth to corporate and household to remain at the same level as in 2014. Over the past 6 years banks funding growth has largely exceeded lending, allowing for the accumulation of a large funding buffer. The result of a liquidity stress test based upon LCR methodology confirms that banks are holding enough liquid assets to cover un-expected outflows.

While the concept of **liquidity** is commonly used and intuitively understood by many, there is no widely agreed definition. The BCBS defines it as the ability to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses⁵. This definition implies three distinct states of liquidity: (1) normal liquidity where bank is able to perform all defined actions; (2) restrictive liquidity, where bank can meet all existing obligations, but is restricted in extending new credit; and (3) stressed liquidity, when bank cannot meet existing obligation without incurring unacceptable losses. While restrictive liquidity does not threaten survival of financial institutions (incurred cost is in the form of lost opportunities), it impairs capacity of the financial system to perform its functions and in this way is not compatible with financial stability. Sustained stressed liquidity, the most extreme liquidity state, can cause severe losses to financial institutions and even lead to insolvency.

Liquidity risk can be defined as a risk that a bank will not be able to fund increases in assets and meet obligations as they come due. Or, if defined in terms of liquidity states, the risk of leaving state of normal liquidity. In probabilistic terms, liquidity risk refers to distribution of probabilities of future liquidity states.

Primary responsibility for liquidity risk management falls to banks. The major role of central banks is to ensure that banks have robust liquidity risk management frameworks that ensure they can maintain sufficient liquidity. As there are no established reliable measures for liquidity or liquidity risk, the following assessment will be concentrated on the process of liquidity management in the banks, in particular, funding diversification and cushions provided by liquid assets. It will also cover liquidity stress testing performed by the CBUAE, as well as, facilities the CBUAE provides to help the banks meet their liquidity needs.

Funding diversification

Since 2009, banks' funding base has been expanding much faster than lending. The Compound Annual Growth Rate (CAGR) for funding has been strong at 7.3%, compared with a 5.8% CAGR for lending. This difference in the growth rate has allowed the banking system to accumulate a large funding buffer.

⁵ Basel Committee on Banking Supervision, "Principles for Sound Liquidity Risk Management and Supervision", 2008

Despite the growth, the UAE banking system remained primarily deposits funded. In 2015, deposits constituted 91% of the funding base. The remaining 9% were in the form of capital market funding. This alternative source of funding, which grew steadily since 2006, is highly attractive from the liquidity management perspective, as it provides medium term funding with highly predictive outflows.

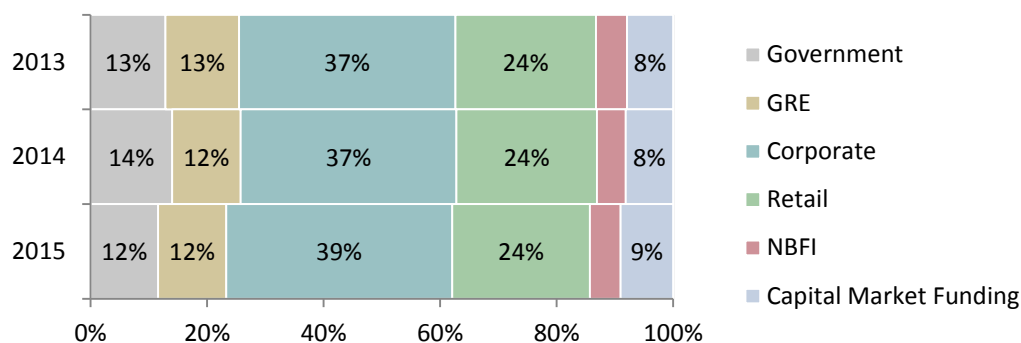


Figure 13. Funding profile of the UAE based banks.

Diversification was also increasing in deposit funding. More concentrated funding sources, such as government and government related entities (GRE), fell below 12% in 2015. Due to stable increase in retail and corporate deposits, the share of private sector continued to increase. Interbank borrowings, while essential for short term liquidity management, are not considered as a funding source. At the end of 2015, net foreign interbank position of the UAE banks was near zero.

The test to the liquidity management of some banks came in 2015 when government withdrew some of the foreign currency deposits (~2% of total funding base). The withdrawal had little impact on the banking system as withdrawn deposits were matched by liquid assets abroad.

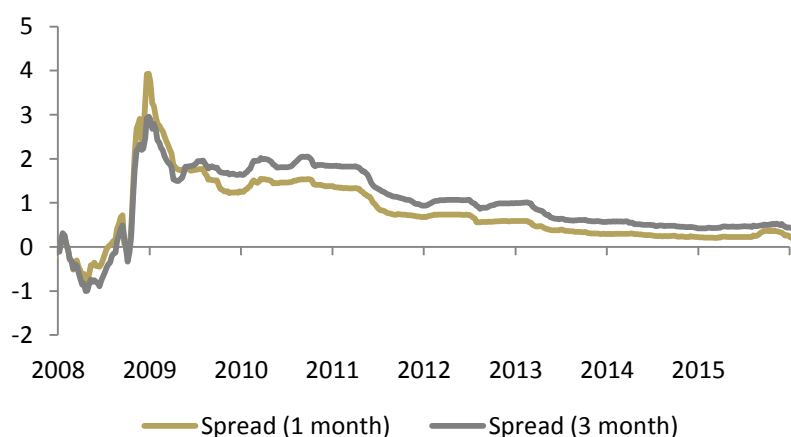


Figure 14. Spread between EIBOR and LIBOR (pp).

A comparison of EIBOR and LIBOR shows that the interest rate differential, representative of interbank liquidity situation, has been continuously shrinking since the GFC. There was a slight increase in the one month maturities during the third quarter of 2015, possibly as a concern of the potential impact of government deposits withdrawal, but by year end the difference was lower than at the end of 2014.

In spite of turbulences in regional capital markets, UAE banks improved their funding profile in 2015. They extended the maturity profile through capital market funding and continued to attract more stable and less volatile retail deposits. Withdrawal of government deposits had very limited impact on the UAE money market.

Liquid assets

The decline in government deposits in 2015 did not have an impact on the liquid assets held by the banks. While figures of December 2015 are distorted by a one-off short term placement at the end of the year, certificates of deposits (CDs) held with the CBUAE fluctuated around of 100-110 bAED in 2015. The CDs, in addition to 15-20 bAED bank current account balances with the CBUAE, are readily available to cover liquidity needs.

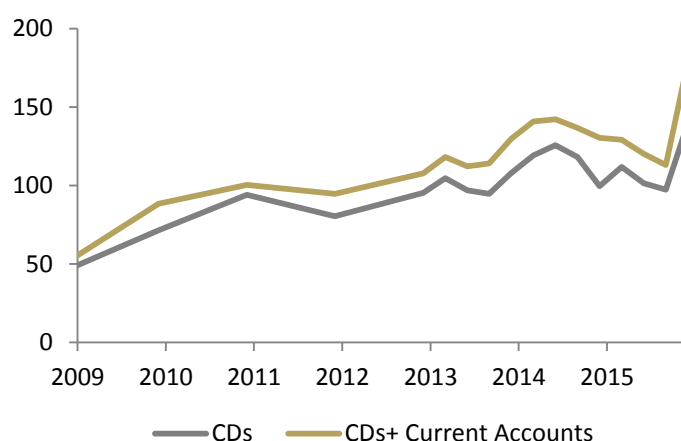


Figure 15. Certificates of deposits and current balances with the CBUAE (in bAED)

More detailed assessment of the liquid assets held by the banks based on the Liquid Coverage Ratio (LCR) methodology⁶ indicates that High Quality Liquid Assets (HQLA) were growing over the 13-month period starting March 2015.

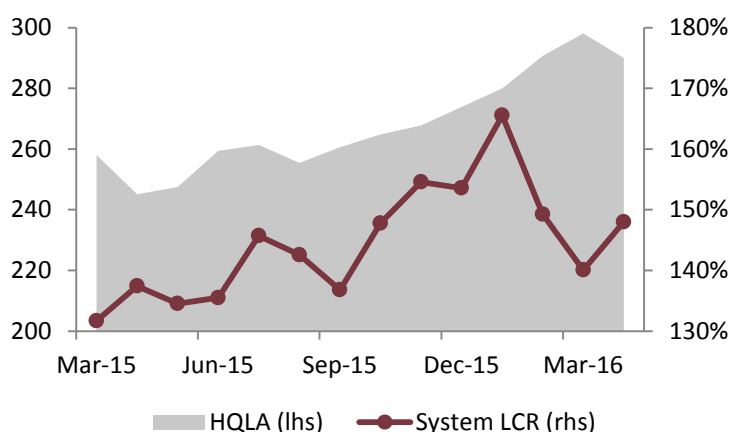


Figure 16. Stock of HQLA and system wide LCR for the UAE based banks

⁶ As no bank has implemented LCR methodology that is approved by the CBUAE, the measurements obtained are only the best estimation done by the CBUAE staff.

While efforts to accumulate liquid assets by the banks can indicate higher perceived liquidity risk, it also suggests prudent efforts of the banks to manage risk.

Liquidity Stress Test

The CBUAE performs an LCR based liquidity stress test on a periodic basis to identify sources of potential liquidity strain in individual banks and at a system level. The methodology broadly follows the methodology of the LCR in base scenario. In a severe stress scenario the stress test includes additional run off for deposits outflows and loans inflows and additional haircuts for high quality liquid assets. In particular, severe stress scenario introduces additional 10% haircut on liquid assets (including local and foreign sovereign debt independently of the rating) and assumes that there are no stable deposits in the system.

Table 3. Liquidity stress test results

	Large banks	Medium banks	Small Banks	Total
Number of banks	5	8	9	22
Base Scenario				
Failing banks		1		1
Liquidity coverage	135%	141%	214%	140%
Coverage in failing bank		99.5%		
Severe Scenario				
Failing banks		1		1
Liquidity coverage	123%	129%	201%	128%
Coverage in failing bank		91.5%		

The liquidity stress test done in March 2015 showed that 4 banks did not have sufficient liquid assets to cover projected outflows. The same test repeated in March 2016, showed only 1 bank falling below the 100% liquidity coverage threshold in both base and severe scenarios. Furthermore, the failure was marginal with liquidity shortage below 50 mAED in base scenario and below 600 mAED in severe scenario.

Central Bank as liquidity provider

While responsibility of liquidity management lies with banks, the CBUAE maintains standby facilities to support liquidity management in the banks and provide emergency liquidity support.

Repo and Early Redemption of Certificate of Deposits

The Certificate of Deposits program (including Islamic CDs) aims to facilitate liquidity management, particularly in dirhams, in the absence of active debt securities market. It allows banks to earn moderate return, while maintaining liquid assets in the banking system.

To mitigate impacts of maturity transformation, the CDs program has built in options that allow banks to access funding liquidity at times of shortages, as banks can either:

- Repo the CDs at prevalent CBUAE's repo rate for periods varying from overnight to 3 months; or
- Redeem the CDs to CBUAE prior to its maturity date.

US Dollar/Dirham Swaps for Dirham liquidity

US Dollar/Dirham swap arrangements involve a simultaneous sale and forward purchase of US Dollars against the purchase/forward sale of equivalent Dirham amount between a bank and the CBUAE. On a daily basis, the CBUAE provides the pricing/forward rates for this facility across the tenure ranging from one week to 12 months.

Emergency Liquidity Support

Interim Marginal Lending Facility (IMLF) and Collateralized Murabaha Facility (CMF) are Dirham funding facilities that were introduced in 2014. The IMLF and CMF allow conventional banks and Islamic banks respectively to access Dirham funding from the CBUAE on an overnight basis by posting eligible securities as collateral via Triparty Repurchase Agreements signed with a Triparty Agent (Clearstream Banking or Euroclear). The eligible securities are classified into five classes that define applied haircut.

Table 4. Eligible Collateral Classification

Class A	Class B	Class C	Class D	Class E
Prime and high grade	Upper medium grade	Lower medium grade	Non- investment grade Speculative	Highly speculative and not rated
UAE Securities <ul style="list-style-type: none">▪ Federal and local Governments and their respective GREs/PSEs securities;▪ Banks & Financial Institutions bonds / MTN programs;▪ Corporate bonds, covered bonds and commercial papers;		UAE Securities only <ul style="list-style-type: none">▪ Federal and local Governments and their respective GREs/PSEs securities;▪ Banks & Financial Institutions bonds / MTN programs;▪ Corporate bonds, covered bonds and commercial papers.		Only securities issued directly by UAE local governments
Foreign Securities <ul style="list-style-type: none">▪ Governments & related-agencies securities;▪ Supranational securities;▪ Banks & Financial Institutions bonds / MTN programs;▪ Corporate bonds, covered bonds; and Commercial Papers.				

Throughout the IMLF and CMF process, the designated Triparty Agent appointed by the banks will be responsible to provide valuation of the eligible collateral posted by the banks in accordance to guidelines stipulated by the CBUAE. Such a process ensures that the necessary funding could be obtained in an effective and transparent manner.

The CBUAE is confident that prudential supervision and regulation are the fundamental tools against funding liquidity risk. The introduction in 2015 of minimum liquidity standards has enhanced the capacity of the UAE financial institutions to manage their funding liquidity risk, without preventing credit from flowing to corporate and household.

Investment Portfolio

Summary

Banks' holdings of debt securities have doubled over the past six years. Of the 205 bAED externally rated securities, 168 bAED or 82% were invested in investment grade debt securities. UAE issuers represent the largest category with 43% of the total amount in banks' investment portfolios. More than 80% of the debt securities held was USD denominated and 68% of the bond portfolios were maturing within five years.

The introduction of Eligible Liquid Asset Ratio (ELAR) and further migration of some banks to Basel III liquidity measures puts more responsibility on the industry in managing their liquidity. In particular it seeks to reduce reliance on the central banks. Security holdings, therefore, are increasingly important tool in banks' liquidity management. The following is a review of the debt security investment portfolios of the UAE banks.

At the end of 2015, banks' holding of debt securities amounted to 205 bAED with 89% rated by at least one external credit rating agency.

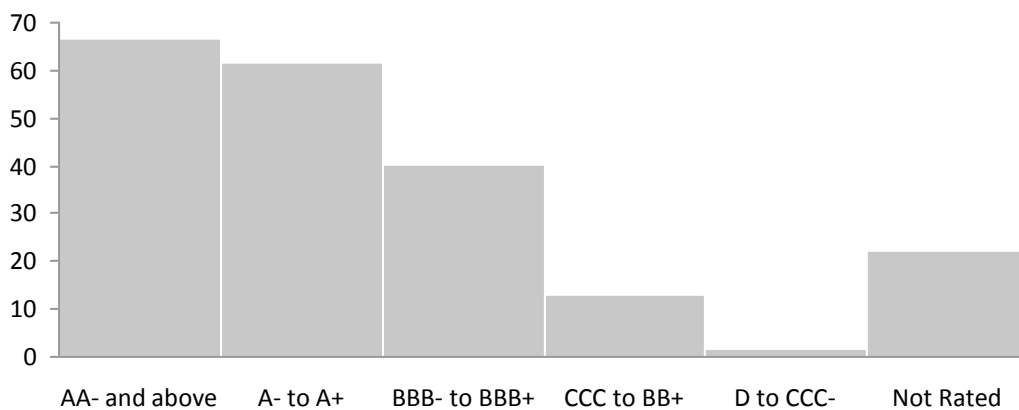


Figure 17. Credit quality of the banks investment portfolio (in bAED)

168 bAED or 82% of the bond portfolio were invested in investment grade debt securities (high or medium credit quality), with most of the holding concentrated in upper middle grade or above.

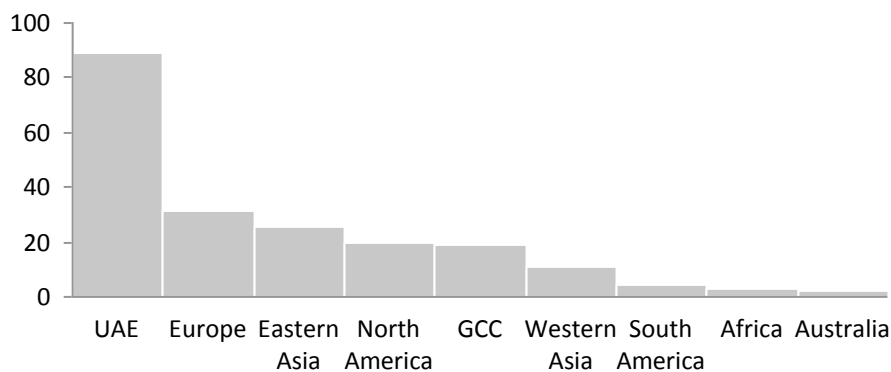


Figure 18. Investment portfolio as per country of issuers (in bAED)

UAE issuers represent the largest category accounting for 43% of the total amount in banks’ investment portfolios. Eastern and Western Asia together represent the second major group followed by Europe and North America.

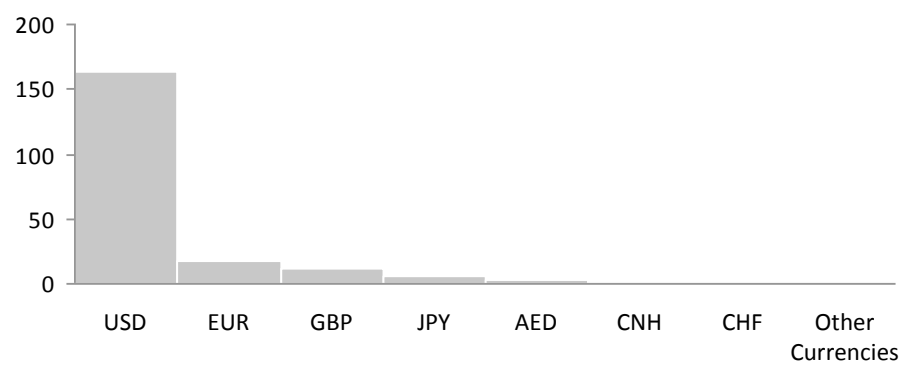


Figure 19. Investment portfolio per currencies of issues (in bAED)

More than 80% of the debt securities held are USD denominated. This includes majority of the papers issued by UAE businesses.

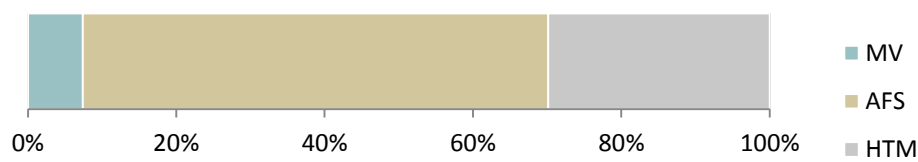


Figure 20. Bond Investments by Purpose

Breakdown of investments reveals that around 70% of banks’ investments are marked-to-market while investments under Held to Maturity (HTM) represent 30%.

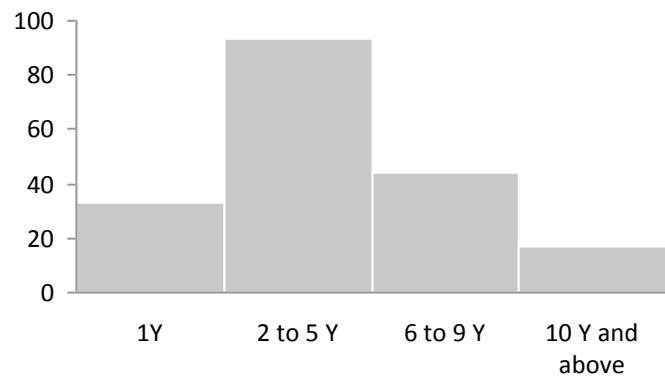


Figure 21. Bond maturity (in bAED)

The maturities of banks bond portfolio is only available for rated bonds. 68% of the bond portfolios are maturing within five years, with 18% alone maturing within one year.

The bulk of the banks’ investments (around 92% as of December 2015) are in fixed income instruments, with the majority in highly rated securities denominated in USD.

Banking Sector Overview

Summary

The UAE banking sector was well capitalised with an average capital adequacy ratio of 18.3% (T1 16.6%). Return on Assets (ROA) and Return on Equity (ROE) were at 1.5% and 11.4% respectively in 2015. Non-performing loans declined by end-2015 to 6.2% and remained fully provisioned. System liquidity remained at comfortable levels with the ratio of eligible liquid assets to total liabilities at 16.6% ⁷as at the end of 2015.

Over the past decades, the UAE has emerged as a major regional financial centre. As part of the country's vision, the financial sector has come to play a significant role in economic activity and job creation. The financial system remains dominated by the banking sector. As of December 2015, the banking sector in the UAE was made up of 53 banks (22 local banks including eight Islamic banks and 31 foreign bank branches).

Assets

Total assets of the UAE banking sector expanded to 2,478 bAED as at December 2015 with an annual growth rate of 7.5%, albeit lower than the growth of 8.5% in 2014.

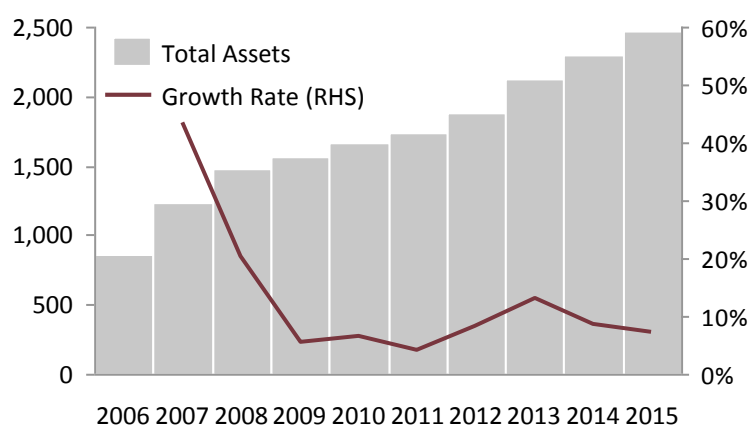


Figure 22. Annual growth in UAE banks' assets (in bAED)

All banks have experienced a slower overall growth in 2015 compared to 2014; foreign banks shrank their assets by 5.7%.

⁷ Liabilities for ELAR calculation = Total liabilities - (Refinancing for housing schemes + Capital & Reserves + General provisions + Subordinated deposits)

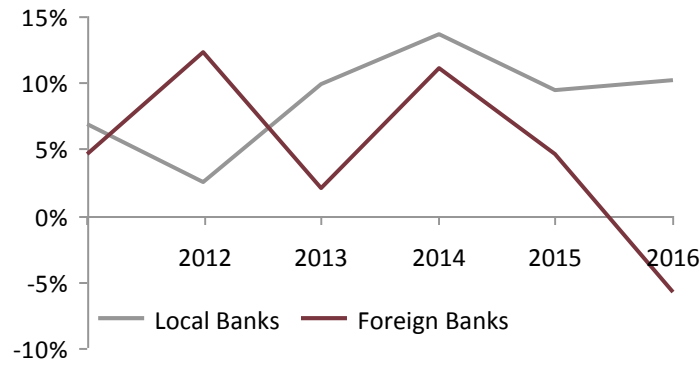


Figure 23. Annual growth rates of total assets in UAE banks

Loans & Deposits

The UAE has experienced moderate growth in its loan book during 2015, growing at 7.8% (2014: 8.0%) which is slightly above the six years CAGR of 5.8%. The non-resident segment of the UAE loan book remained modest constituting 7.0% of total loans as at December 2015.

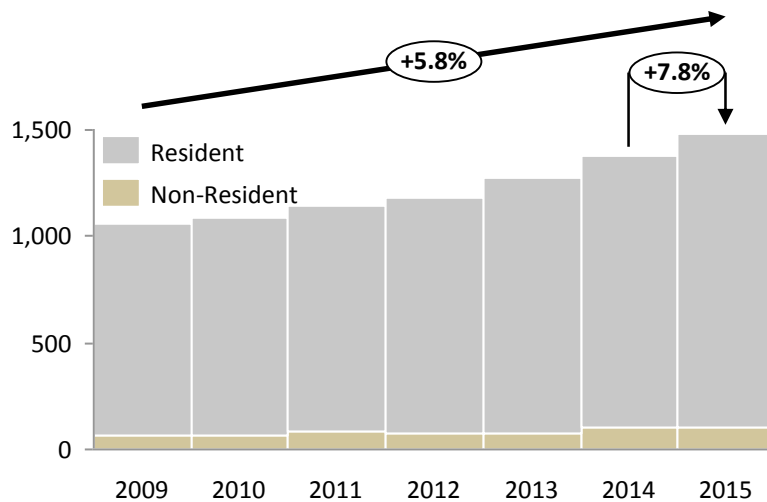


Figure 24. Total loans by residency (in baED)

In 2015, overall funding grew at a slower pace than the loans for the first time since 2012; registering a growth rate of 4.7% compared to a six year CAGR of 7.3% mainly affected by the decrease in the government deposits and a slowdown in the growth of retail sector deposits to just 2.7% in 2015 compared to a 11.4% in 2014, while corporate sector deposits growth remained at similar growth levels to that in 2014. The share of non-resident funding (including capital market funding) remained near its long term average at 16.5% of the total funding in the system.

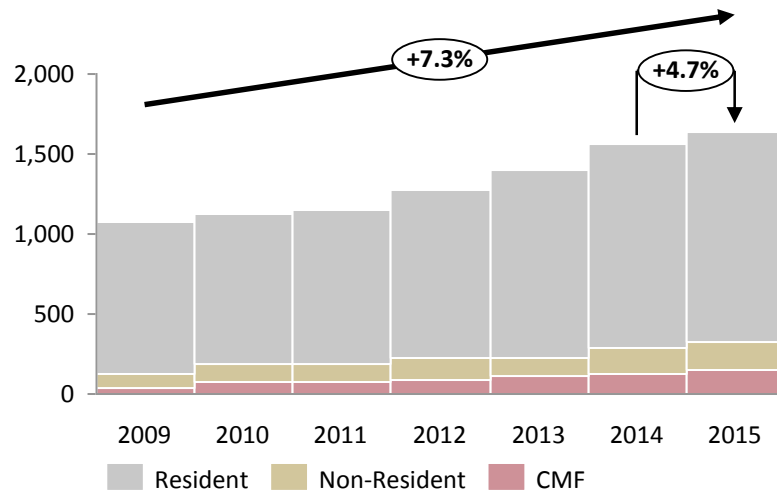


Figure 25. Total funding by residency (in bAED)

Overall, total loans to funding ratio increased modestly during 2015 to 90.6% (2014: 88.0 %). The loan-to-deposit ratio has also reversed its declining trend since 2008 to increase during 2015, reaching 100%. (2014: 97%)

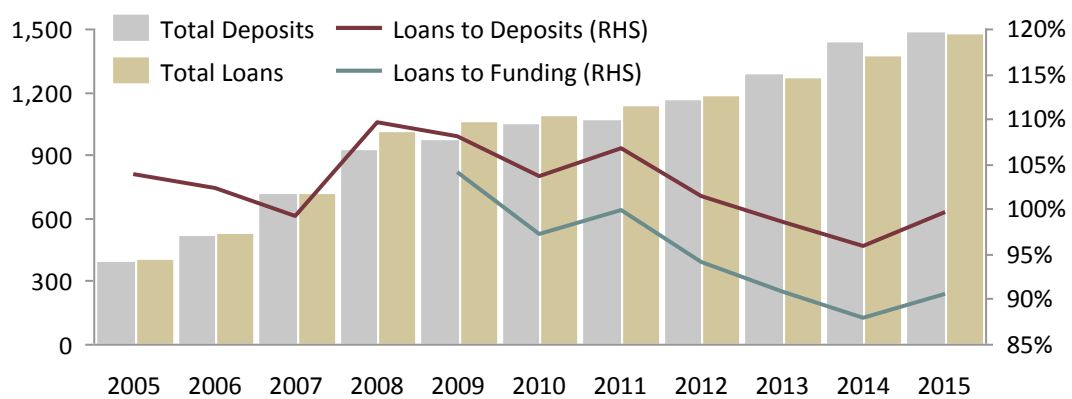


Figure 26. Deposits and loans (in bAED), loan to deposit and loan to funding ratio

The deposit structure has remained largely unchanged with a stronger growth in demand and saving deposits, while time deposits slightly declined.

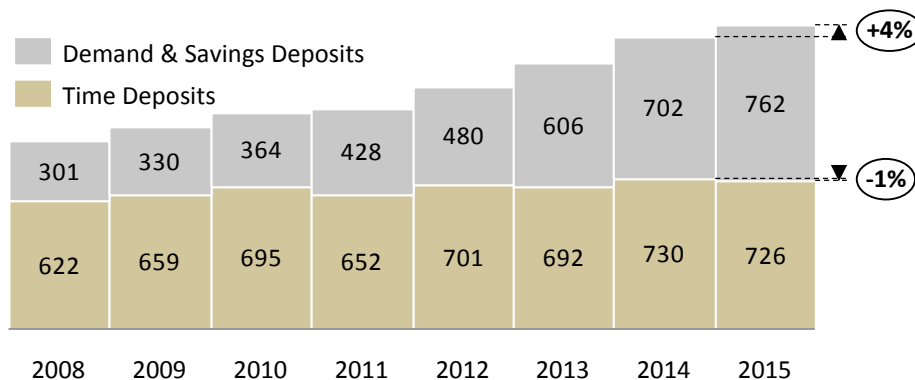


Figure 27. Deposits structure (in bAED)

Financial Soundness Indicators (FSIs)

Summary

FSIs are used at an individual institutional level for micro supervision and on an aggregated basis to capture trends in the UAE financial system. They constitute an important component in the CBUAE's banking sector surveillance framework. Used in combination with other indicators, they are useful in assessing financial stability and detecting the build-up of systemic risks.

Capital Adequacy

UAE local banks remain highly capitalised with a total capital adequacy ratio (CAR) of 18.3% and a Tier 1 ratio of 16.6% as of December 2015. The CAR ratios have slowly declined from their peak reached in 2011. This decline can be attributed to all banks having fully repaid Ministry of Finance Tier 2 capital instruments issued in 2009 as well as the credit growth seen between 2013 and 2015. Current ratios significantly exceed Basel II capital requirements.

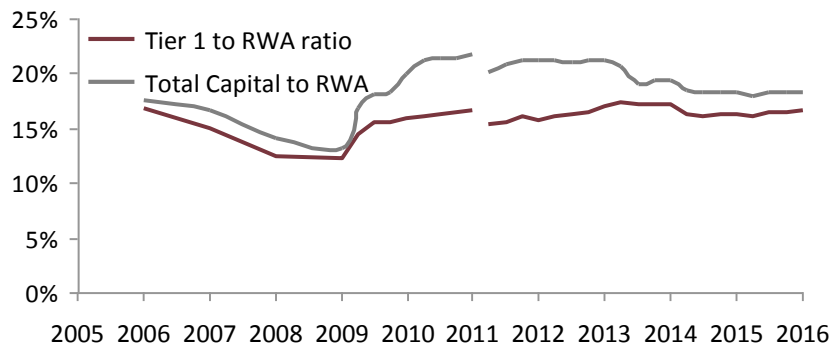


Figure 28. Tier 1 and total capital adequacy ratios (calculated according to Basel I before 2011 and Basel II from 2011 onwards).⁸

Asset Quality

Non-Performing Loans (NPLs)

NPL is a key ratio in measuring asset quality, albeit lagging; it shows signs of deterioration in the asset quality of banks. As at December 2015, the UAE banking system had an NPL ratio of 6.2% representing total classified loans of 93 baED. This was a decline from the 7.0% of December 2014.

The dynamics of the NPL depend on multiple factors (write offs, write backs and new defaults). New defaults have started to increase during the last quarter of 2015 driven by the difficulties faced in the SME sector.

⁸ Local banks only

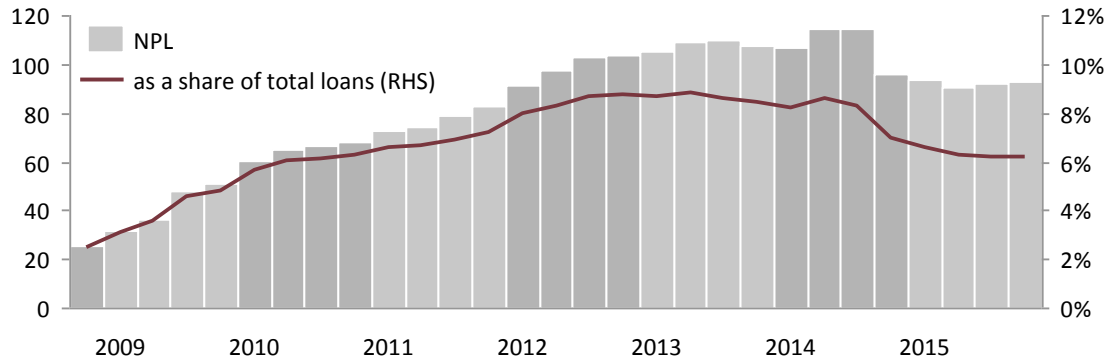


Figure 29. NPL (in bAED) and as share of total loans

Provisions

UAE Banks held total provisions of 102 bAED at the end of December 2015, broadly unchanged from their 2014 levels. The decline in NPLs over the past two years has resulted in an increase in the NPL coverage ratio. It stood at 110% as at the end of December 2015 (2014: 102%).

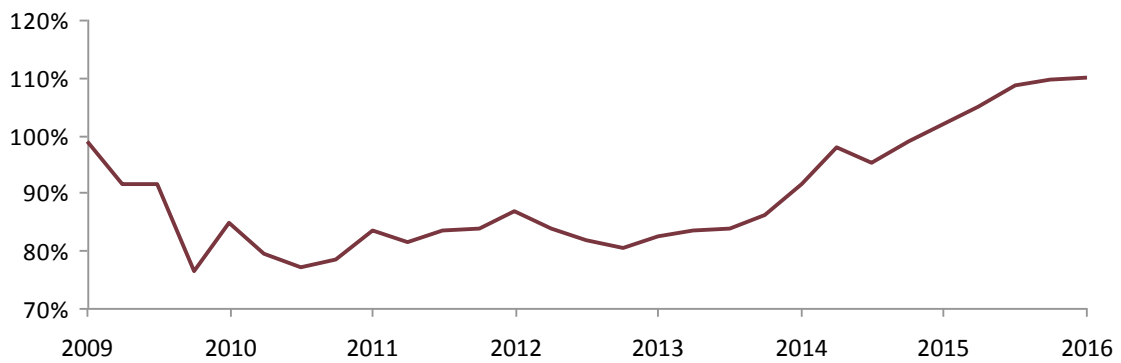


Figure 30. Provision coverage (in bAED)

The marked increase in provision is explained by a December 2015 deadline for all banks to constitute a general provision representing 1.5% of their credit risk weighted assets.

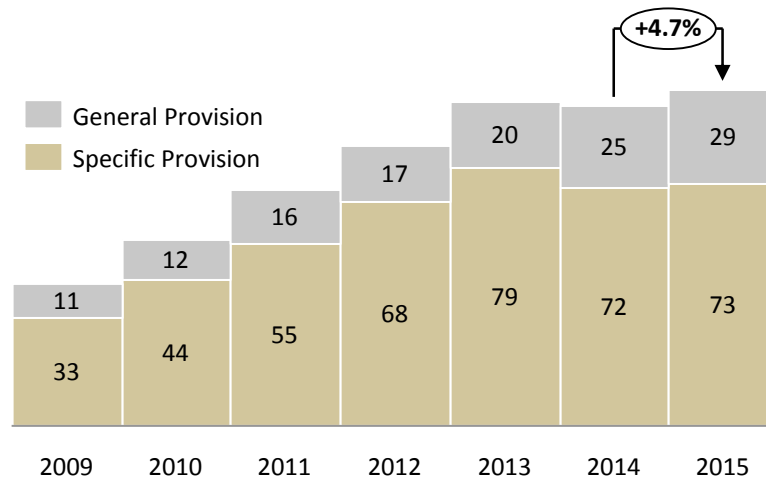


Figure 31. UAE banks stock of provisions

Loan Rescheduling

The CBUAE defines rescheduled loans as loans whose maturity have been extended while the terms (principal and interest) have remained unchanged. This process is usually undertaken in order to accommodate borrowers' temporary cash flow shortfalls and is considered to be part of normal banking business.

Rescheduled loans are not classified as nonperforming. A provision is not required, provided that the borrower has not become delinquent before the rescheduling has taken place, and that the new terms do not offer temporary relief, concealing the need to constitute a provision.

While total rescheduled loans have remained unchanged, there is a divergence of trends between the personal and the corporate categories, reflecting a more challenging business environment.

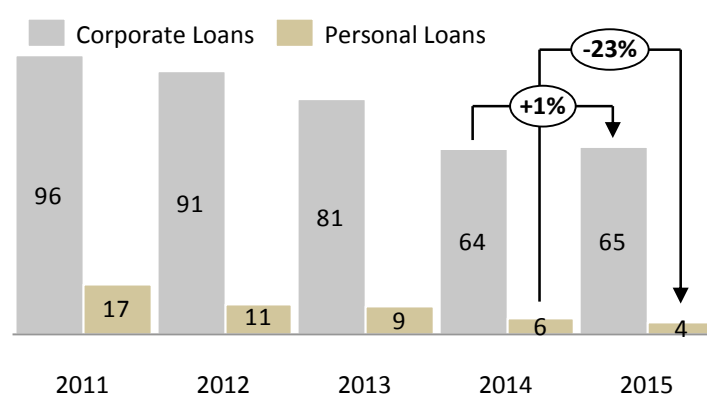


Figure 32. Rescheduled corporate and personal loans (in baED)

Loans rescheduled more than once are also perceived to have a higher risk of default; this category was 25 baED as at the end of 2015 compared to 23 baED in December 2014.

Profitability

Interest Rate Analysis

The steady increase in banks' earnings since 2009 is largely driven by the growth of banks' Net Interest Income (NII), however, it has decelerated from 10.5% in 2014 to 4.7% during 2015. This was attributable to a lower demand on loans which resulted in a lower credit growth and a tighter interest rate spread.

Banks' funding costs have slightly increased over the period which can be explained by the normalization of monetary policy in the US and its impact on EIBOR rate during 2015.

Table 5. Profitability of banks

	2009	2010	2011	2012	2013	2014	2015
NII (baED)	41.7	44.1	48.9	49.1	53.4	59.0	61.8
NII to gross interest income	56.6%	60.8%	64.8%	66.9%	72.4%	75.7%	75.2%
Gross interest income/gross loans	6.9%	6.7%	6.6%	6.2%	5.8%	5.6%	5.5%

The average interest rate earned on loans during 2015 decreased to 5.7% (2014: 5.8%), and the average interest rate paid on deposits during 2015 reached 1.4% (2014: 1.3%), resulting in the spread decreasing by 17 bps to 4.3%. The average interest rate earned (paid) are implicit rates and calculated as the ratios between the 12-month cumulative flows of interest actually received (paid) and the average size of corresponding loans (deposits) during the same period.

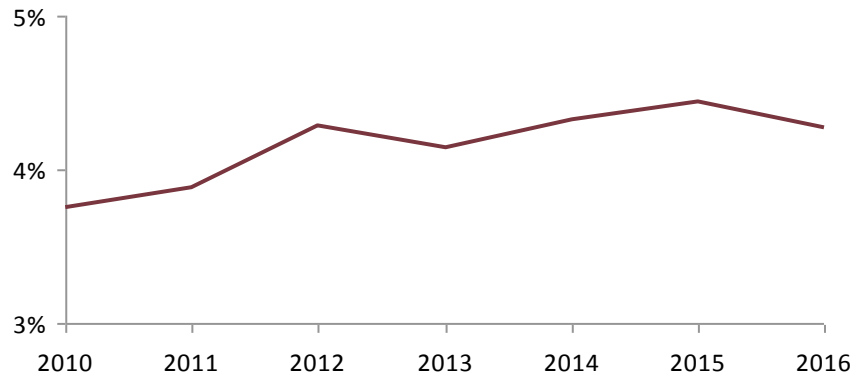


Figure 33. Spread of implicit interest rate earned on loans and paid on deposits

Income Statement Analysis

The ratio of non-interest expenses to gross income is an indicator of banks' operational efficiency; it increased to 38.0% (2014: 36.4%) in 2015. The operating profit before impairment remained unchanged at 55 bAED as at December 2015.

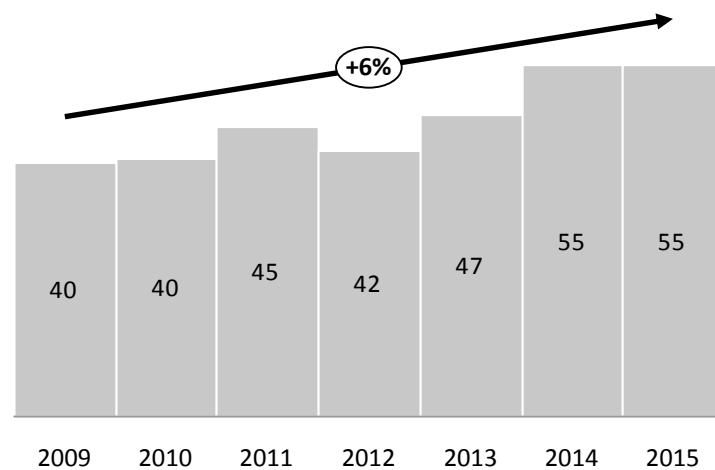


Figure 34. Operating profit before impairment (in bAED)

The level of net provision charge, as a percentage of 2015 net profits, increased to 46% compared to 34% in the previous year. This is explained by the increasingly challenging domestic and global economic environments.

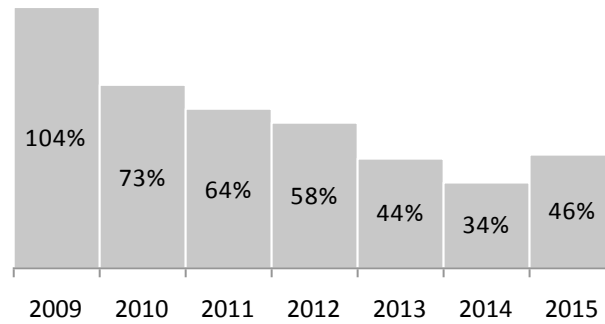


Figure 35. Net provision charges to net profit before tax

Increase in provisions is the main reason for the decline in profits of the banking sector. During 2015, net profit of the banks dropped from 39 baED to 37 baED, reversing the growth trend of 12% for the past five years.

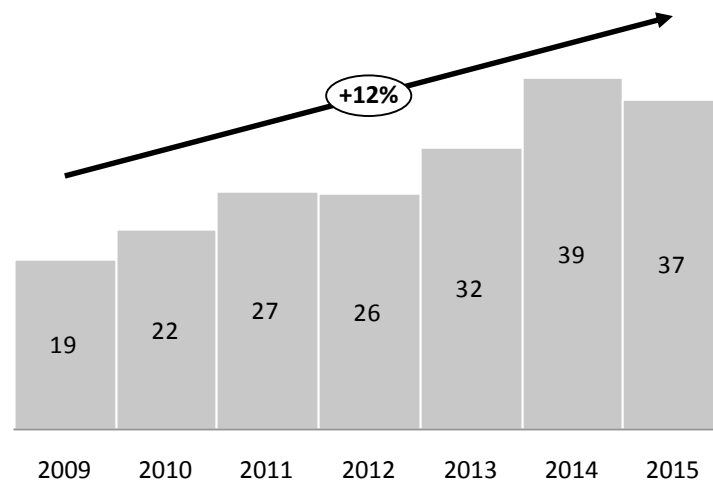


Figure 36. Net banks' profits

Profitability ratios & distribution

Revenues and expenses increased by a similar amount; net provisions have increased by an additional 3 baED during 2015.

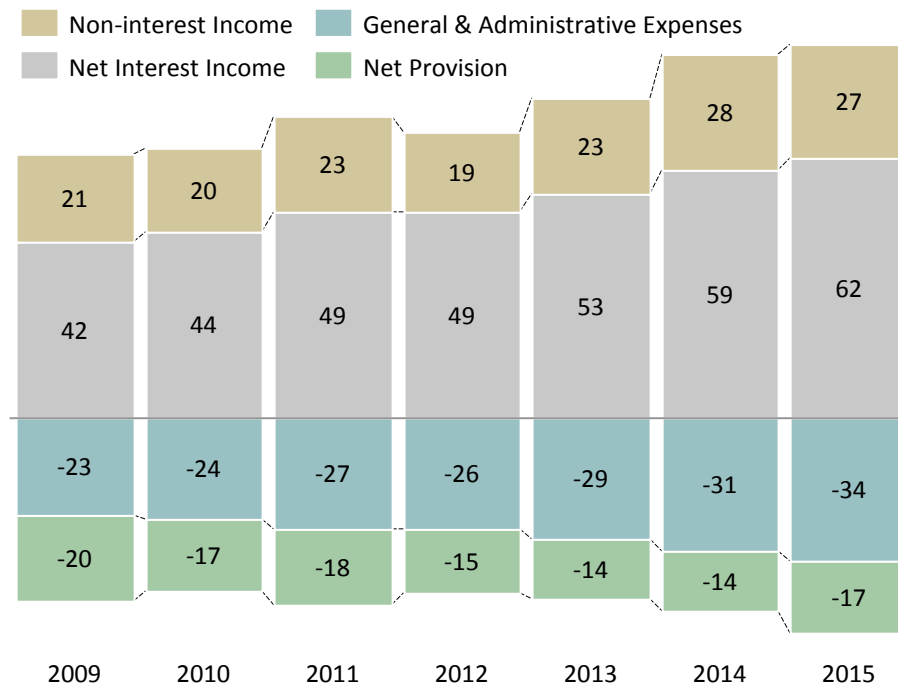


Figure 37. Profitability breakdown of banks in UAE as a percentage of their total assets

Net Return on Assets (ROA) and net Return on Equity (ROE) decreased to 1.5% and 11.6% respectively as at the end of 2015.

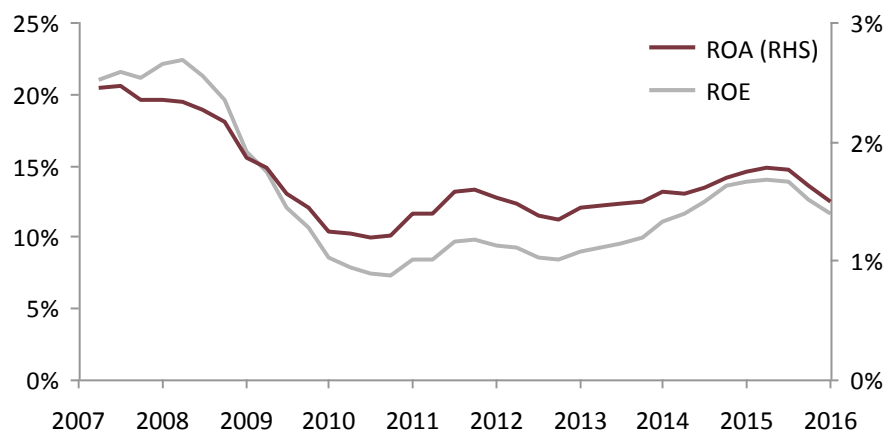


Figure 38. ROA and ROE of the banks in UAE

Liquidity

Ratio of Liquid Assets to Total Liabilities

Liquid assets are defined to include only cash and reserves held at the CBUAE, Central Bank CDs, 0% risk-weighted government bonds (local and foreign) and 0% risk-weighted UAE public sector entities.

The ratio of liquid assets to total liabilities has remained stable showing substantial improvement since 2008, reaching 16.6% as at the end of 2015. The figure is distorted by a one-off short term placement at the end of this year.

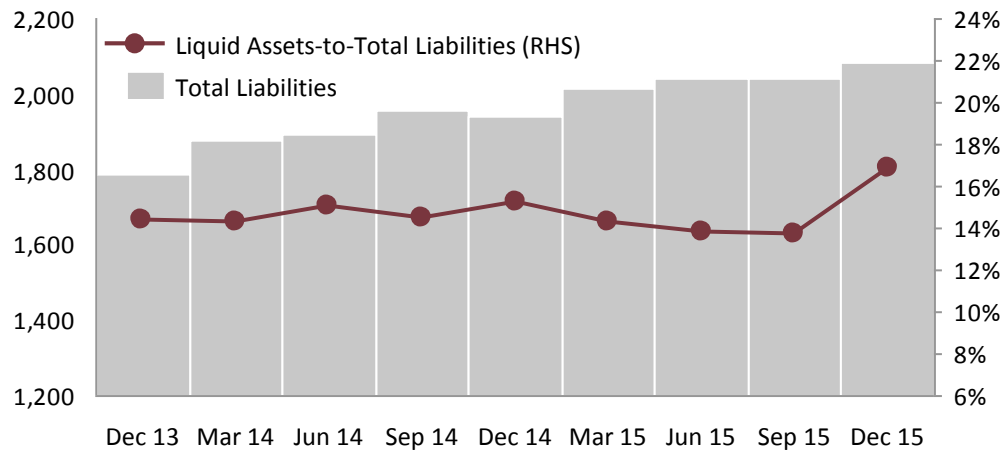


Figure 39. Liquid asset ratio (in bAED)

Lending to Stable Resources Ratio

The Lending to Stable Resources Ratio (LSRR) aims to promote a stable funding profile for banks, in line with the spirit of the Basel III NSFR ratio introduced much later by the BCBS.

The lending comprises of loans and advances net of provisions, financial guarantees issued less guarantees received, and interbank placements with a residual maturity of terms of more than 3 months. Stable resources includes capital and reserves⁹, interbank deposits with a remaining maturity of more than 6 months, 100% of customers' deposits with a remaining maturity of more than six months, 85% of all other deposits. A ratio below 100% indicates that the banking system is funding its loans using stable funding sources.

This ratio as of December 2015 stayed at 87.1% at its ten year average. The current resources buffer is at 229 bAED.

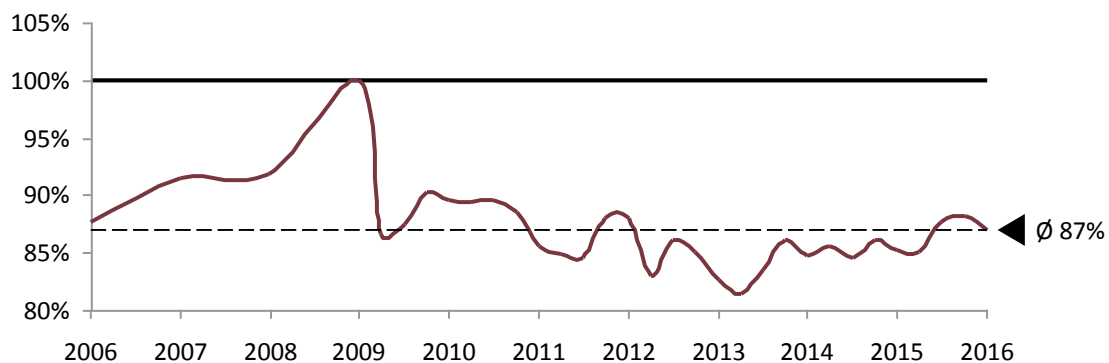


Figure 40. Lending to stable resources ratio

⁹After deducting goodwill and other intangible assets, fixed assets, unquoted investments and investments in subsidiaries and affiliates

Interbank

Domestic Interbank

Analysis of the banks domestic interconnectedness is used as criteria for identifying Domestic Systemically Important Banks (D-SIBs).

There are a number of banks that play a centric role in the system; five banks appear to have large number of interbank relations either as a lender or a borrower.

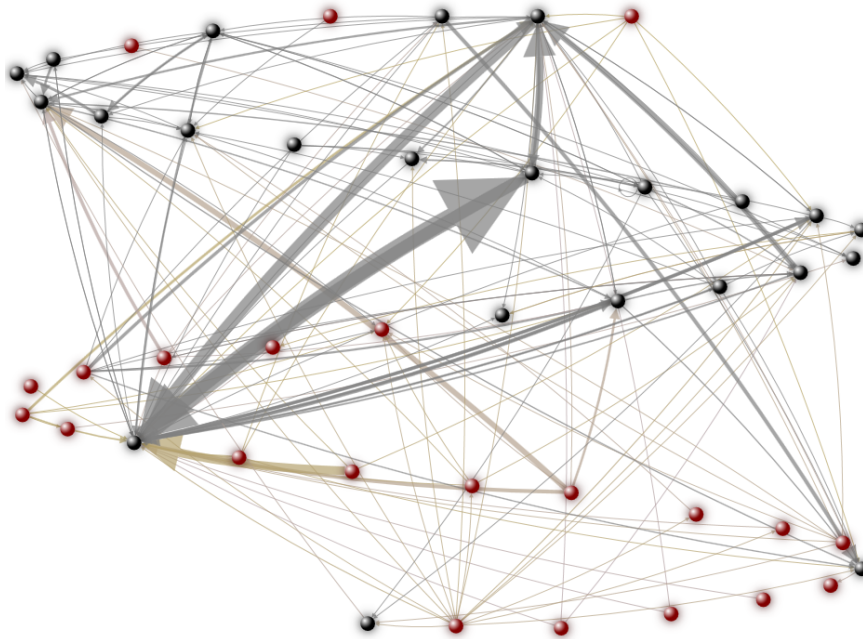


Figure 41. Domestic Interbank interconnectedness - *Banks are represented in nodes, the links between them represent the existence of a bilateral interbank exposure, while the thickness of each link represents the relative size of that exposure. Local banks connections are illustrated in grey while foreign banks are illustrated in light brown. Black nodes are for local banks while maroon ones are for foreign banks.*

Foreign Interbank Funding¹⁰

Foreign interbank funding includes lending to banks abroad and to foreign branches of local banks. As a result of partial government deposits withdrawal and repatriation of liquidity held abroad, local banks have a neutral position in the foreign interbank market (2014: +82 bAED).

¹⁰ Local banks only

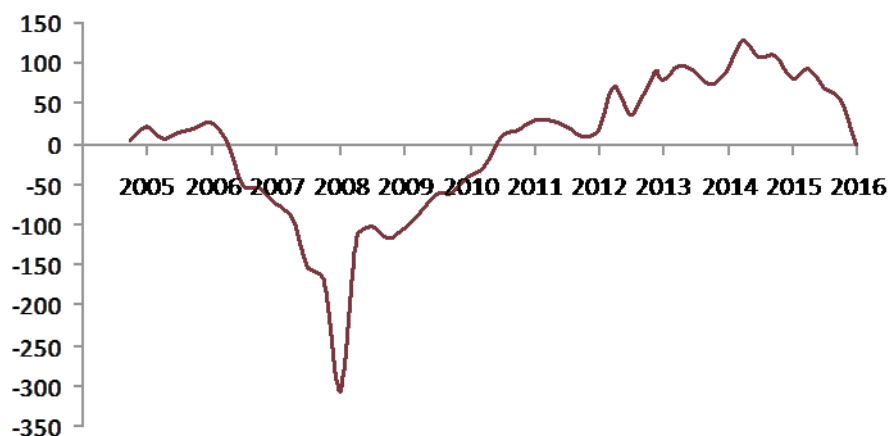


Figure 42. Net interbank lending by local banks (in bAED)

Capital Market Funding

In the absence of a developed dirham bond market and long term domestic institutional investors, foreign capital markets are the predominant channel for national banks to raise medium to long term funding. Historically low interest rates created a favourable environment for long-term funding in 2015. As a percentage of total funding, capital market funding reached 9.0% (2014: 8.1%).

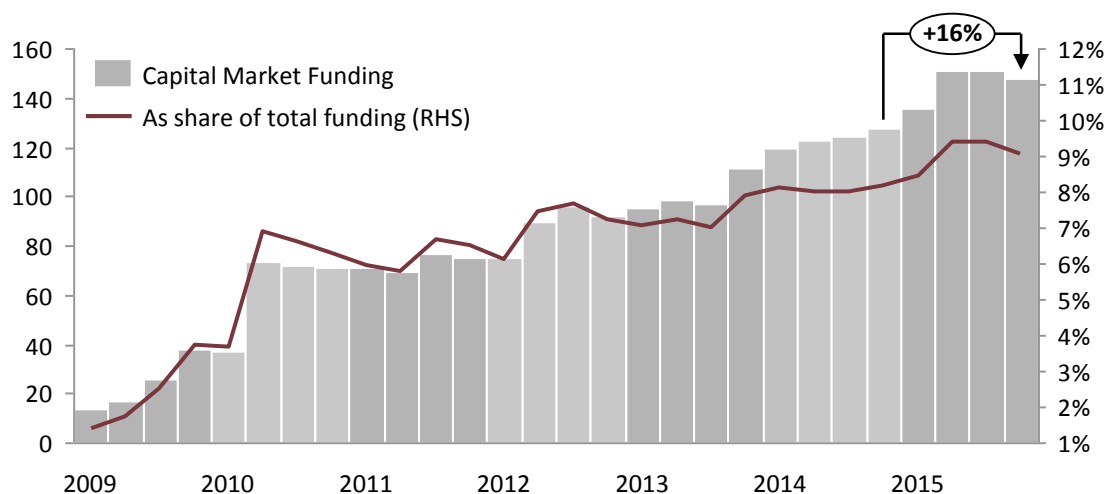


Figure 43. Capital market funding (in bAED)

Net Liquidity at the CBUAE

The CBUAE monitors two indicators to assess the liquidity of the banking sector: net total liquid assets placed by banks with the CBUAE and total collateralised funding provided by the CBUAE.

Net Total Liquid Assets

The net total liquid assets placed by banks with the CBUAE revealed a rising trend in line with comfortable liquidity levels in the market. At the end of December 2015, banks' net liquidity with the CBUAE stood at 295 bAED which represents 11.9% of the banks' total

assets. December 2015 figures are distorted by a one-off short term placement at the end of the year upwards as the level went down again to its historical levels early in 2016.

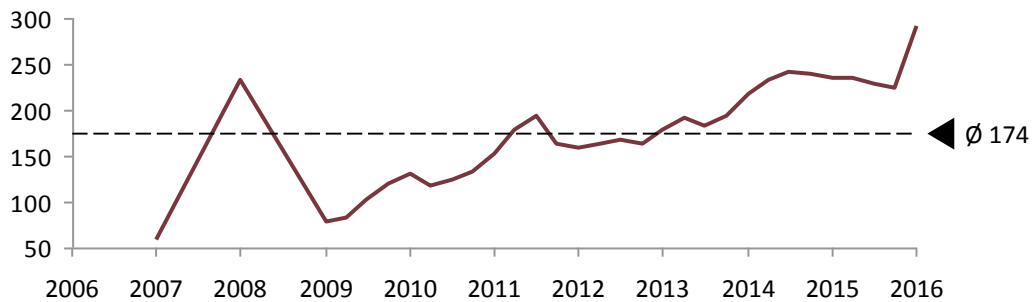


Figure 44. Net liquidity of the banks (in bAED) defined as current account balances, reserves requirements and CDs (net of repoed CDs or any use of CBUAE liquidity facility)

Collateralised Funding by the CBUAE

Since early 2012, the usage of collateralised funding by the CBUAE has been marginal due to the comfortable liquidity position enjoyed by the banks operating in the UAE; this has been reassured during 2015 as this facility has not been used at all, apart from the occasional testing carried out by a few banks.

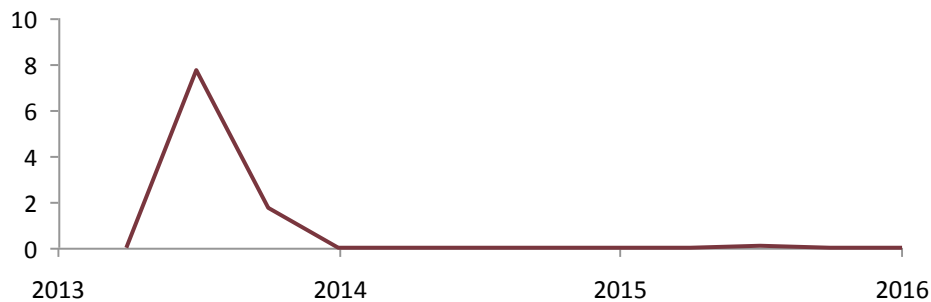


Figure 45. Collateralised funding end of quarter position (in bAED)

Financial Stability Trend Index

Summary

The CBUAE has improved and updated the Financial Stability Trend Index (FSTI) which measures risks to financial stability. FSTI combines now seventeen indicators that represent the UAE banking sector, UAE capital market and domestic economic conditions to arrive at the financial stability stance of the UAE. During the year 2015, the index remained stable around its zero-level indicating a limited build-up of vulnerabilities.

Overview

The FSTI was first developed during 2014 and consisted of nine indicators that were aggregated together into one index representing the United Arab Emirates (UAE) financial stability trend and served as a part of CBUAE Early Warning System.

Assessment of financial stability is based on the combination of a broad set of economic and financial indicators computed over a long time horizon and from a large sample of indicators of different frequencies. They are primarily based on the financial soundness indicators (FSI) defined by the International Monetary Fund (IMF) in 2006.

The index intends to show whether the current environment is supportive of financial stability. It does not intend to predict the occurrence of a crisis but rather helps to detect the build-up of vulnerabilities in the financial sector at an early stage. The individual variables, alone might not provide a complete picture of financial stability but indicate a potential threat to financial stability when combined. As part of building up an indicator for the UAE, indices developed by other central banks and the IMF were reviewed, combining many mean reverting variables related to credit, liquidity, foreign exchange, equity and interbank markets.

Composition of the FSTI

The FSTI included in the 2014 FSR was preliminary and included only nine variables, while, the current FSTI comprises 17 variables capturing a wider array of information that could contribute to a build-up of vulnerabilities in the financial sector, especially market risk.

The indicators used in the FSTI were grouped under three sub-indices covering the banking sector, the economy and the capital market, which were then combined to create the FSTI representing stability stance of the UAE financial system for the past ten years.

Table 6. FSTI Sub-indices

Sub-index	Number of indicators
UAE Banking Index	10
UAE Economy Index	4
UAE Capital Market Index	3

The Selection of Variables

The current FSTI consists of the nine variables from the FSTI developed last year and eight new ones. The following set of variables or raw indicators currently comprises the FSTI for the UAE¹¹.

Table 7. Indicators of FSTI

Sub index	Category	Indicator	
Banking Index	Capital Adequacy	Capital adequacy ratio (CAR)	I_{b_1}
	Asset Quality	Ratio of impairment charge-to-total assets (IL)	I_{b_2}
		Y-o-Y growth of non-performing loans (NPL)	I_{b_3}
	Liquidity	Ratio of net foreign interbank-to-total loans	I_{b_4}
		Ratio of liquid assets-to-total liabilities (LAR)	I_{b_5}
		Ratio of total loans-to-total deposits (LTD)	I_{b_6}
	Profitability	Return on assets (ROA)	I_{b_7}
		Ratio of non-interest expense-to-gross income (NE)	I_{b_8}
	Market Information	Index for market implied probability of default for banks	I_{b_9}
		Volatility of banking sector-to-overall stock market volatility	$I_{b_{10}}$
Economy Index	Real Sector	Deviation of real estate prices from long term trend (Dubai)	I_{e_1}
		Ratio of current account balance-to-GDP	I_{e_2}
		Y-o-Y change in spot oil price	I_{e_3}
		One year forward rate of USD/AED	I_{e_4}
Capital Market Index	Equity Market	Price – earnings (PE) ratio	I_{s_1}
		Realized market volatility – 90 days	I_{s_2}
	Credit Market	Five year credit default swaps (CDS) for government bonds	I_{s_3}

The variables related to the banking index were selected based on the following rationale:

- Capital Adequacy Ratio: The capital adequacy ratio (CAR) represents the cushion (Capital buffer size) a bank has at its disposal against unexpected risks. It measures banks' ability to absorb unexpected losses.
- Ratio of Impairment charge-to-total assets: The ratio shows the amount of impairment loss (charge) the banks are taking due to the deterioration of the credit quality of their portfolio.
- Y-o-Y growth of non-performing loans: The year-on-year growth of NPL is an indicator of asset quality.
- Ratio of net foreign interbank-to-total loans: A negative net foreign interbank position shows dependency on foreign sources.

¹¹ For reference to the variables comprising the previous FSTI please refer to FSR 2014.

- Ratio of Liquid assets-to-total liabilities: The ratio of liquid assets to total liabilities measures banks' ability to withstand tight liquidity conditions.
- Ratio of Total loans-to-total deposits: The loan to deposit ratio shows banks' transformation of customer deposits.
- Return on Assets: ROA is a bank profitability indicator.
- Ratio of Non-interest expense-to-gross income: non-interest expense-to-gross income measures the banks' efficiency in using their resources.
- Index for market implied probability of default for banks: The probability of default (PD) is based on total liabilities weighted 13 UAE banks PDs. (*Source: Bloomberg and CBUAE staff*).
- Volatility of banking sector –to- overall stock market volatility: This ratio is calculated as the volatility of a free-float weighted index combining both of the banking indices of ADX and DFM divided by the volatility of free-float weighted indices of both ADX and DFM.

The variables related to the economy index were selected based on the following rationale:

- Deviation of real estate prices from long term trend (Dubai only): Persistent deviation of real estate prices from long term trends negatively affect financial stability.
- Ratio of current account balance-to-GDP: Significant trade deficits affect the financial situation of the country.
- Y-o-Y change in spot oil price: Year-on-year change in spot oil price is an important variable given the significant dependence on oil revenues.
- 1-year forward rate of USD/AED: The forward rate is a good reflection of the pressure on the currency.

These variables related to the securities index were selected based on the following rationale:

- Price – Earnings (PE) Ratio: PE Ratio is a general indicator of market sentiment. A high PE ratio can potentially signal an overpriced local stock exchange market.
- Realized Market Volatility: The 90-day realized volatility of the UAE MSCI Index. Increased stock market volatility reflects increased risk in the market.
- Credit default swaps (CDS) for the local government bonds: CDS is a good measure of perceived credit risk.

Representation of the FSTI and its evolution



Figure 46. The UAE FSTI sub-indices

The three sub-indices are calculated as a simple average of the indicators after statistical normalization. The aggregation of the indicators makes a better gauge of the current state of financial stability.

The FSTI ranges between 1 and -1, zero being the neutral level indicating that stability is constant. The FSTI currently stands at -0.08.

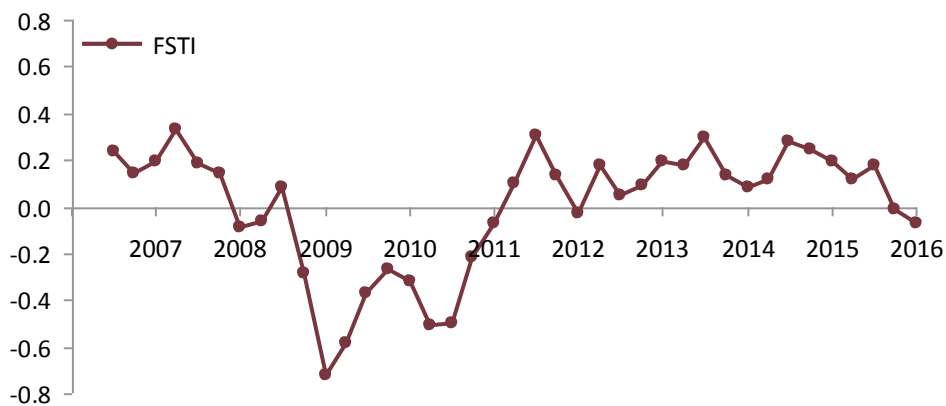


Figure 47. The UAE FSTI

Analysis of the FSTI

January 2014 to December 2014:

Data show a marginal improvement in the first half of the year, driven mainly by healthy profit margins by the banks and a growing funding base and reflected well in other related banking indicators. However, in the second half of the year, some indicators started pulling the FSTI in the negative direction. The main drivers of change were the variables linked to volatility in the stock market and the continuous fall in the oil prices.

January 2015 to December 2015:

Data show a marginal deterioration in the banking index during the year 2015 due to a slight increase in net foreign interbank ratio and the loan to deposit ratio combined with a decrease in the banks' profitability. Furthermore, continued decline in oil prices, which affected the sentiment of investors and the overall growth potential of the economy as well as a slowdown in the rate of NPL improvement, led the index slightly in negative territory.

Real Estate Markets

Summary

After a sharp rise in property prices in both Abu Dhabi and Dubai in 2013 and the first half of 2014, there was a mild market correction (11% in Dubai and 1% in Abu Dhabi) in 2015. Participation of the banks in the sector remains subdued.

Residential Real Estate

In 2015, average residential sales prices in Dubai decreased 11% to approximately 14 tAED per sq. m. Housing prices in Abu Dhabi remained stable since the second half of 2014. It decreased by less than 1% in 2015 and was 12 tAED per sq. m. In the first quarter of 2016 prices remained relatively stable with fluctuations below 1%.

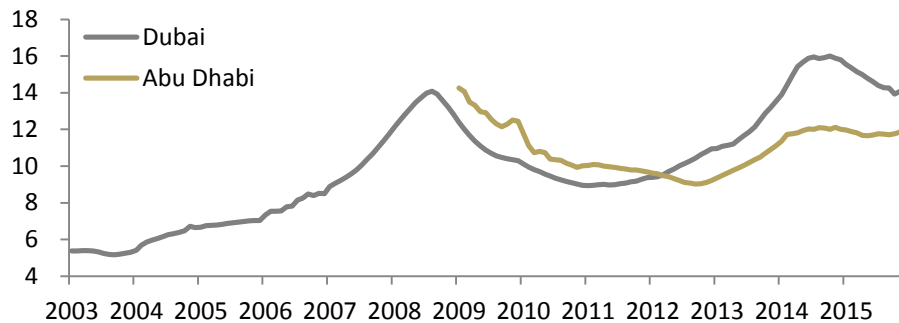


Figure 48. Average monthly prices of residential properties (tAED /Sq. m.) (Source: REIDIN)

Analysis of historical data suggests that new rent prices were less volatile than sales prices. However, rent prices tend to react faster to changing market conditions. This was not the case in 2015 when rent prices continued growing until the middle of the year. The rent prices in Dubai and Abu Dhabi fell by 4% and 3% respectively in 2015.

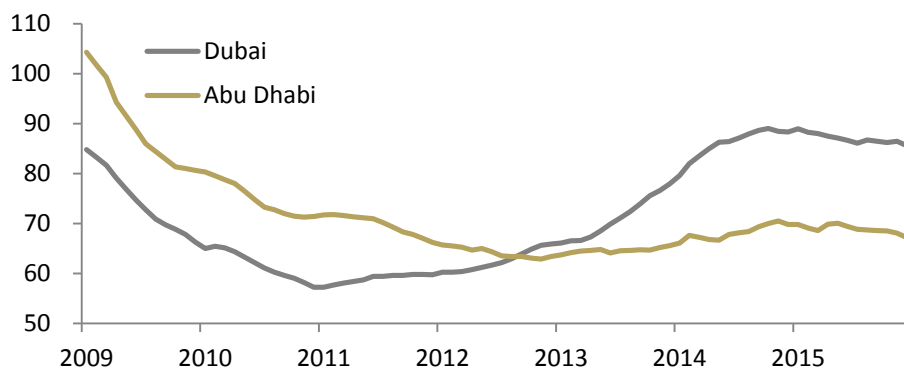


Figure 49. Monthly residential rental prices (AED/Sq. m.) (Source: REIDIN.com)

As at December 2014, rental yields were 7.6% in Dubai and 7.0% in Abu Dhabi. For the first time since 2009 Dubai rental yields were above Abu Dhabi for a sustained period of time.

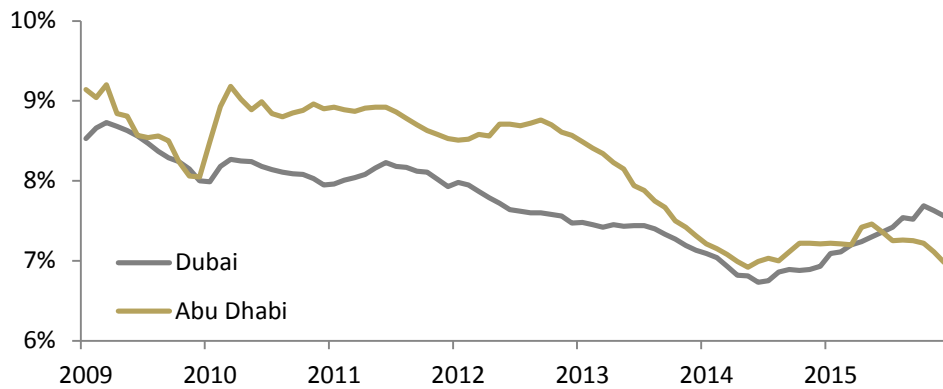


Figure 50. Residential rental yields (Source: REIDIN)

2015 ended with real estate transaction volumes in Dubai moderately above 2014 levels. It suggests that in spite of decreasing sale prices market remains relatively active.

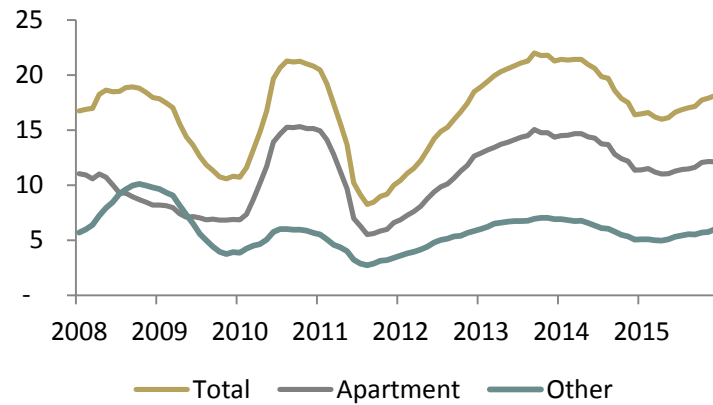


Figure 51. Number of residential property transactions per year in Dubai (t of units) (Source: REIDIN)

Increase in supply of residential units in Dubai was moderate and only slightly above 2013 level - lowest point registered. Despite that, vacancy rates increased to nearly 10%.

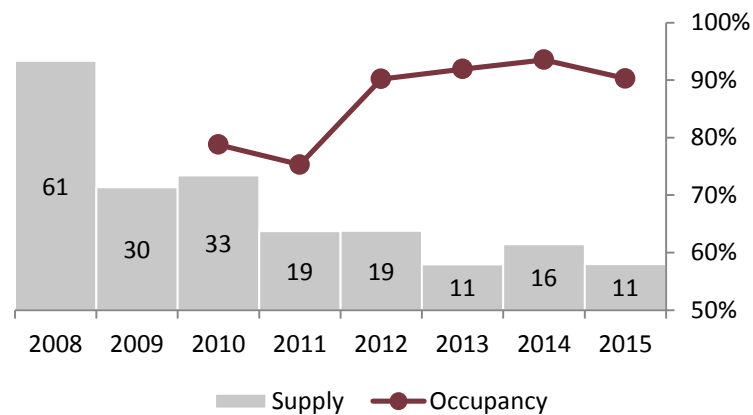


Figure 52. Dubai residential property occupancy rates (%) and newly added supply (th of units) (Source: REIDIN).

Non-residential Real Estate Markets

Commercial property and property development are generally considered to pose greater risk to financial institution's balance sheets. UAE non-residential markets remain highly stable since 2010. Office space rent prices in Dubai remained unchanged in 2015 after an increase of nearly 13% in 2014. Occupancy rates continued to fluctuate at around 80% - the range it stayed in since 2013.

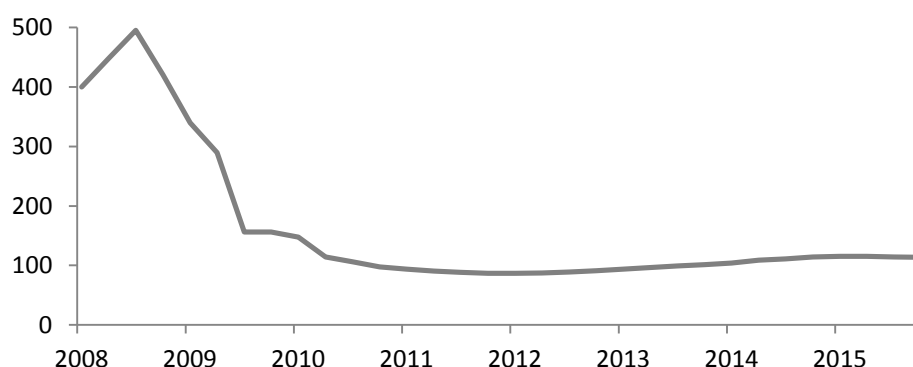


Figure 53. Dubai average monthly office space rent prices in AED per sq. m. (Source: REIDIN.com).

The Dubai hotel market remained relatively stable in 2015 with total revenue continuing to grow. Due to increasing supply average daily revenue per room has dropped by nearly 10% reaching 619 AED, Abu Dhabi hotel revenue per room remained unchanged at 389 AED.

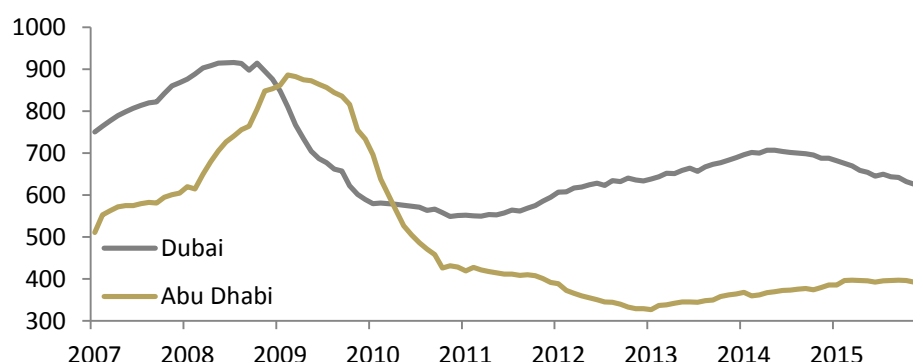


Figure 54. 12 month average daily revenue per hotel room in AED (Source: Smith Travel Research, Bloomberg)

The data suggest that the hotel market, especially in Dubai, might be facing supply pressure. It could also indicate market expansion in the segments oriented towards more budget sensitive travellers.

Property Market Risk Assessment

Small fluctuations in the real estate market have little impact on the financial stability of the financial system. The aim of this part of the analysis is to evaluate how the risk of a significant decrease in real estate prices could impact economic activity and thus, directly or indirectly, harm the functioning of the financial system.

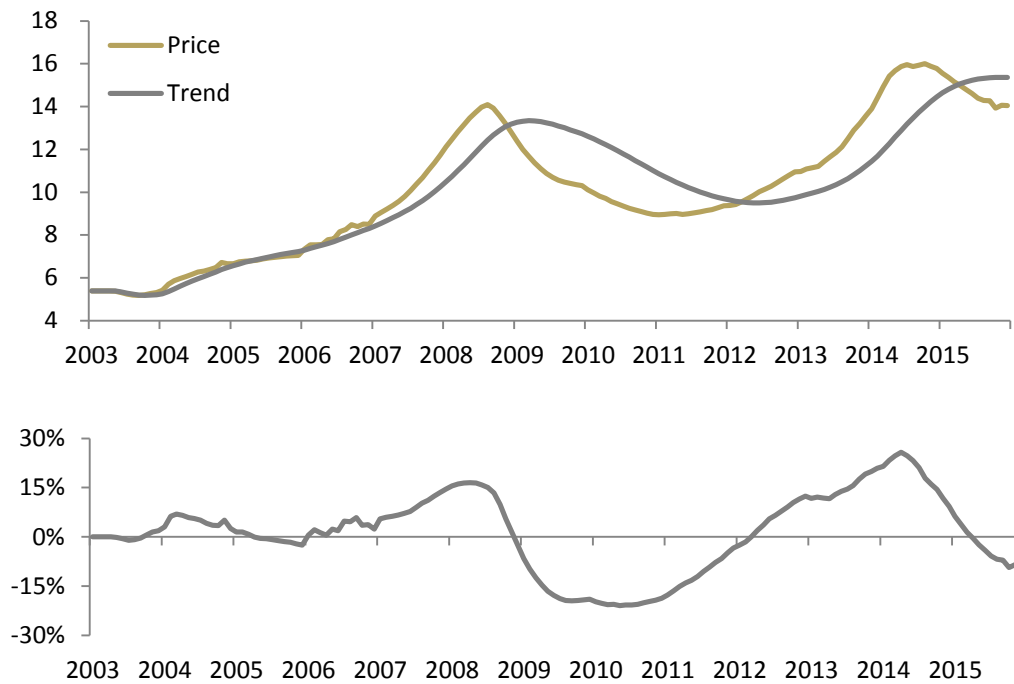


Figure 55. Top: Dubai average residential real estate sale price (AED Th / sq. m) and long term price trend. Bottom: deviation from long term trend.

In the absence of affordability indicators, a one-sided Hodrick-Prescott (HP) filter was used to determine an equilibrium value by decomposing the movement of real estate prices in Dubai into cyclical and long term trend components.

The gap between real estate prices and its long term trend turned negative in 2015. At the end of 2015 it indicated that a market price was nearly 9% below long term trend. Overall, it indicates low probability of a significant financial shock emanating from the real estate sector.

Bank Real Estate Lending

While previous up-cycle (2005-2009) in real estate markets was marked by strong credit growth, the most recent episode (2011-2015) was not. Since 2014, real estate lending by UAE banks fell by almost 5%.

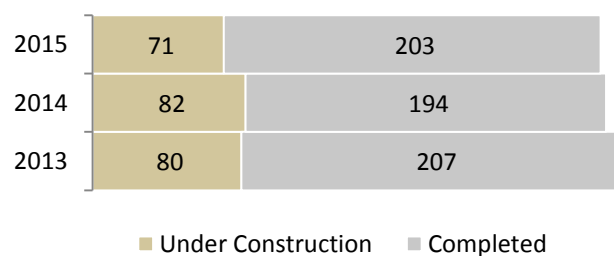


Figure 56. Bank real estate lending (in bAED)

Lending related to completed properties increased 4% to 203 bAED in 2015. On the other hand, lending to properties under construction has decreased by 14%. The decline was evident in wholesale portfolio, while retail lending increased by 1%. This suggests that banks' participation in financing real estate demand continues to be very limited.

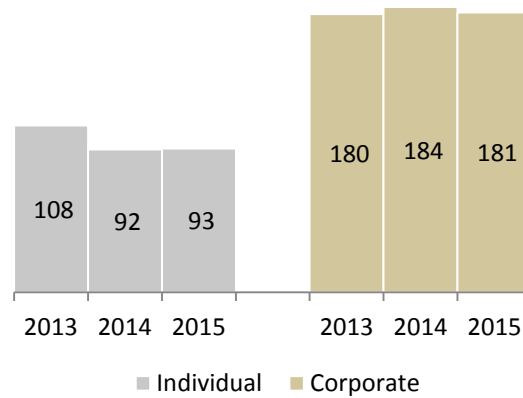


Figure 57. Real estate related lending by borrower type (in bAED)

While overall corporate borrowing for real estate decreased, the major decrease came from commercial property related lending, while hotel related businesses and developers increased their borrowing by 5%.

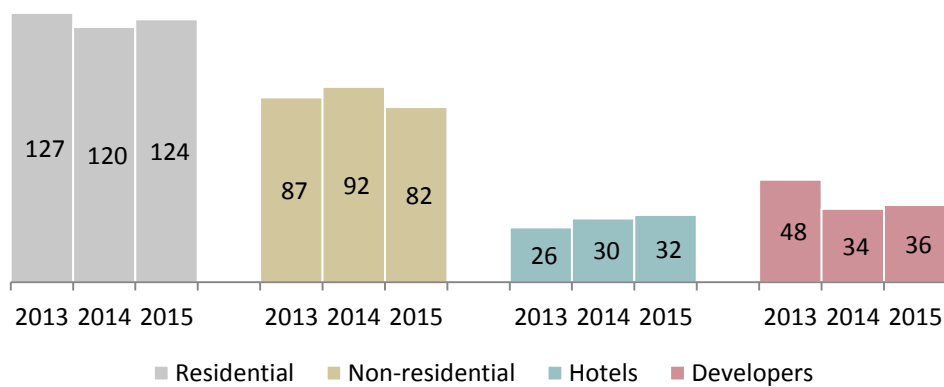


Figure 58. Real estate related borrowing by type of property (in bAED)

UAE banks' financing of residential property increased by 4 bAED (3%) in 2015, while financing of commercial properties (offices, retail, hotels, etc.) decreased by 8 bAED (6%).

Most recent changes in banks' real estate lending reveal limited impact of the market conditions on the banks' balance sheets. Lending decreased during the market recovery and continues the downtrend during the market correction without any impact on asset quality. Furthermore, bank lending is shifting towards completed properties and as such, becoming less exposed to fluctuations in the residential market and more influenced by general economic conditions.

Shadow Banking

Summary

The relatively small size of UAE shadow banking industry does not currently pose risks to financial stability. Credit intermediation activities of finance and investment companies remained small, with loans continuing to decline by 3.4% in 2015 (2014: -1.2%).

Overview

The Financial Stability Board (FSB) defined shadow banking as “credit intermediation involving entities and activities outside the regular banking sector”. The definition does not include other types of financial intermediation (foreign currency exchange and equity) and places shadow banking outside bank specific regulation. The four key aspects of intermediation are maturity transformation, liquidity transformation, leverage and credit risk transfer. In 2015¹², the FSB expanded its analysis to better assess potential risks.

Table 8. Economic functions within FSB shadow banking framework. (Source: Financial Stability Board Report 2015)

Economic function	Typical entity type
Management of collective investment vehicles with features that make them susceptible to runs	Fixed income funds, mixed funds, credit hedge funds, real estate funds
Loan provision that is dependent on short-term funding	Finance companies, leasing companies, factoring companies, consumer credit companies
Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets	Broker-dealers
Facilitation of credit creation	Credit insurance companies, financial guarantors, monolines (bond insurers)
Securitisation-based credit intermediation and funding of financial entities	Securitisation vehicles

This report covers two economic functions stated by the FSB which are represented by investment and finance companies. This part of shadow banking in the UAE is relatively less complex and smaller than the banking system with asset size less than 3% of banking system assets.

¹² Framework published in FSB's November 2015 Global Shadow Banking Monitoring Report

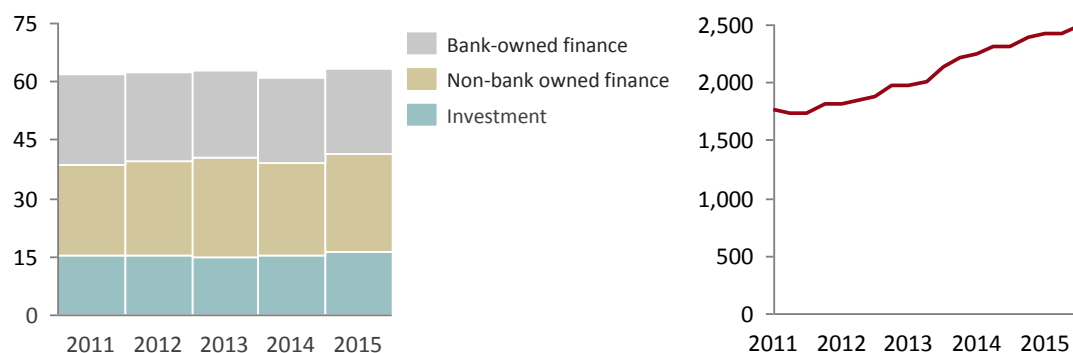


Figure 59. Left: Finance and investment companies' assets (in bAED) Right: Banking system assets (in bAED)

The growing size of the industry, albeit small may create risks to financial stability. Transmission channels through which risks may have potential spillovers is through credit intermediation.

Finance companies

Finance companies in the UAE shadow banking system undertake maturity transformation activities, mainly in loan origination. The assessment will continue by distinguishing two fragments of the sector, two major players primarily involved in real estate lending and the rest. The rest are then classified into non-bank and bank owned companies. Loan portfolio of the major players declined by 21.4 % in 2015 compared to 20% in 2014, driving the sector decline.

Excluding the major players, other finance companies' loan portfolio composition was well diversified and grew at 6.7% in 2015 (2014: 13.9%). Lending was well dispersed across categories for bank owned finance companies' while exposures for non-bank owned were more concentrated in business financing.

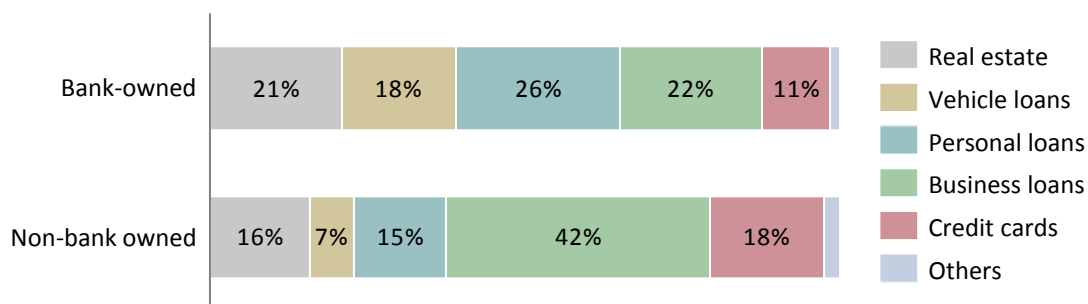


Figure 60. Finance companies' loan portfolio composition (excluding major players)

Funding structure of bank-owned finance companies remained largely in equities while non-bank owned companies, have more reliance on deposits constituting 40% of funding portfolio. Risks for non-bank owned finance companies may be eminent from the reliance on short term deposits to finance long-term loans. Deposits maturity on average is 0-1 year, while loans in particular mortgage and business are on average of more than 10 year tenures.

Capital market funding remained small, constituting less than 3% of the portfolio, led by one major player. The limited share of capital market funding is mainly attributed to the creditworthiness (unrated position) of many of these institutions to issue bonds.

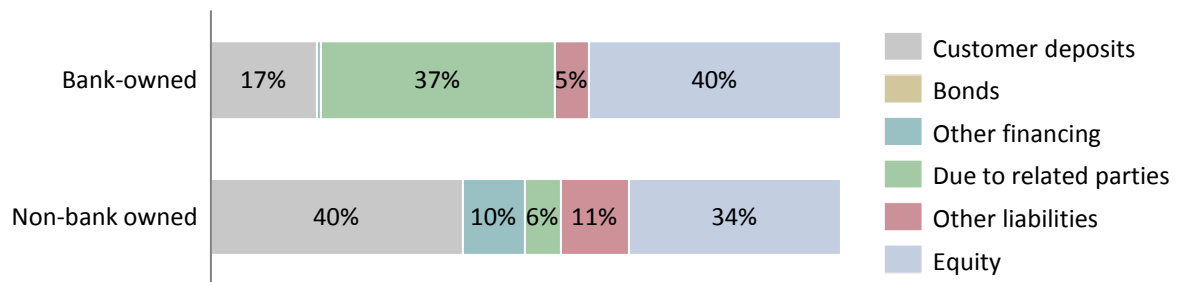


Figure 61. Funding structure of finance companies (excl. major players)

Asset quality of finance companies have slightly deteriorated at the end of 2015 with non-performing loans (NPL) ratio increasing to 11.5% (2014: 11.1%). Excluding major players, overall NPL stood at 7.3% (2014: 5.3%). The higher NPL ratio was driven by non-bank owned finance companies which registered an increase of 2.8 percentage points while bank-owned by only 0.5 percentage points. The difference is attributed to non-bank owned finance companies' lending portfolio structure where lending to riskier asset classes (business loans) is more prominent.

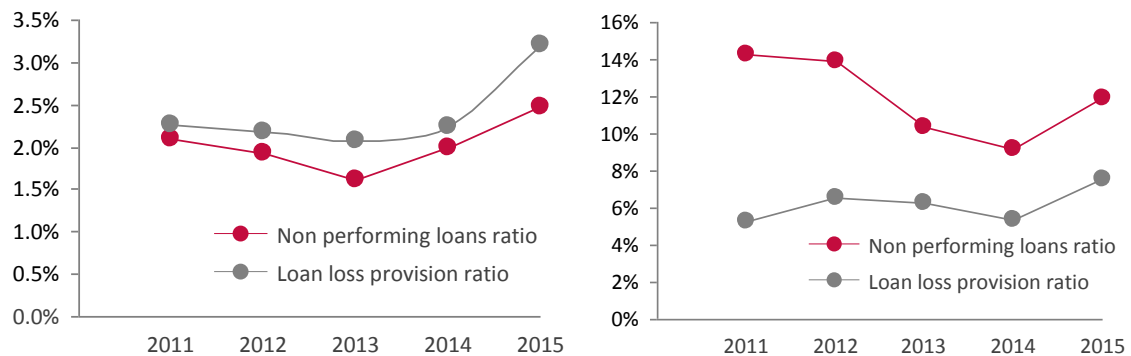


Figure 62. Left: Asset quality of bank-owned (excl. major players). Right: Asset quality of non-bank owned (excl. major players).

Capital position of finance companies (excluding major players) continues to remain strong, although slightly decreased in 2015 with capital adequacy ratio of 32.7%. (2014: 35.4%) Leverage position was also improving since 2011, but recorded an increase in 2015 standing at 1.9.

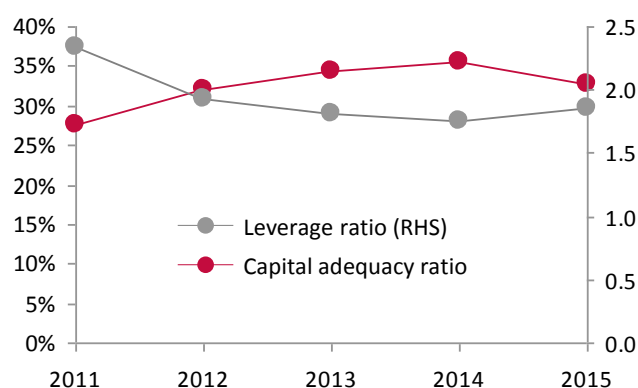


Figure 63. Capital and leverage position of finance companies (excl. major players)

Investment companies

Investment companies' business model can be distinguished into two categories; operating savings schemes and the other providing asset management, investment advice and similar services. In the UAE, only one company runs a saving scheme where it operates as an outlet for retail investors to invest in short-term instruments. The assessment in this section will focus on investment companies offering asset management and advisory services.

Investment companies' assets continued to expand in 2015 by 4.8% (2014: 2.4%), supported by an increase in long-term investments. While investments grew, asset composition remained stable with no significant shifts in asset categories, reflecting no adverse risk taking behaviour by investment companies to seek higher investment yields.

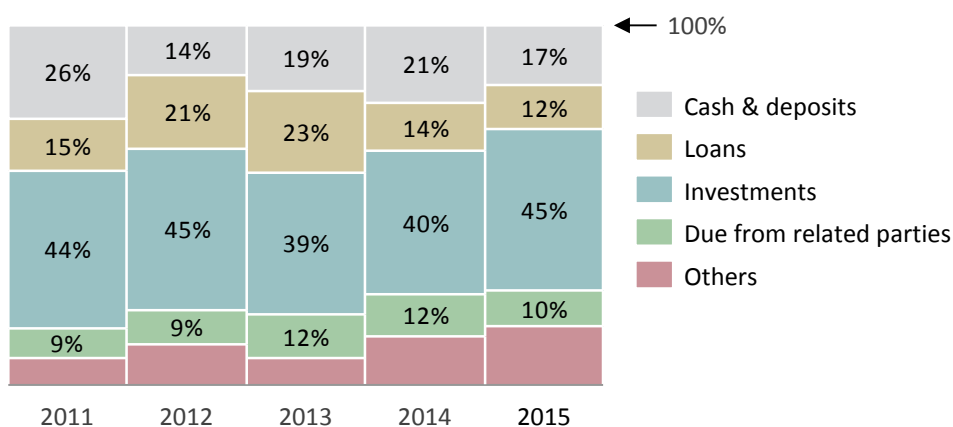


Figure 64. Asset composition of investment companies

Profitability of investment companies deteriorated in 2015 with operating income decreasing by 38%, mainly driven by more than 50% lower gains on investment and fee, reflecting volatile financial markets and asset prices.

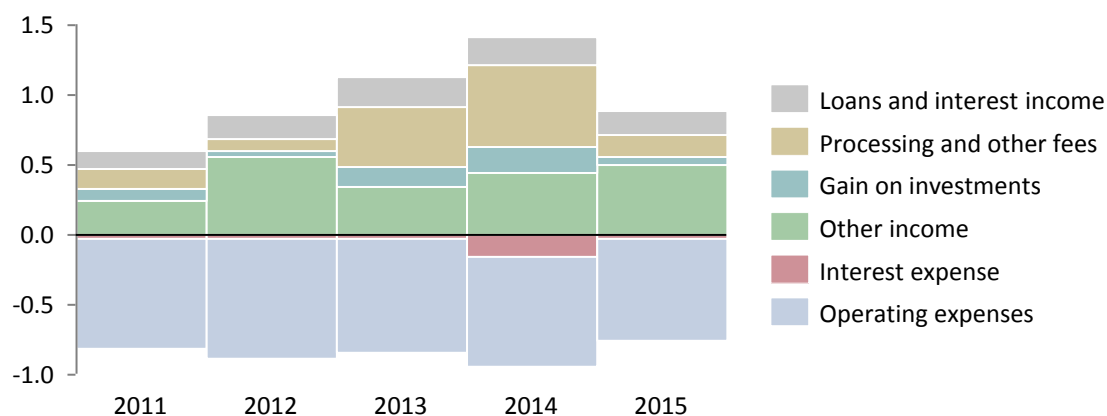


Figure 65. Investment companies' profitability components (in bAED)

Risk assessment

Interconnectedness to the banking system and domestic capital markets is low for the UAE shadow banking industry. Impact of movement in deposits to the banking system is limited as deposit placements by finance and investment companies remained low at less than 5% of total deposits.

UAE investment companies have increased exposure to the domestic bond market while shrinking its exposure in foreign equities. This suggests growing interconnectedness to participants in the domestic capital markets but limited as more than 50% of investments are in foreign bonds.

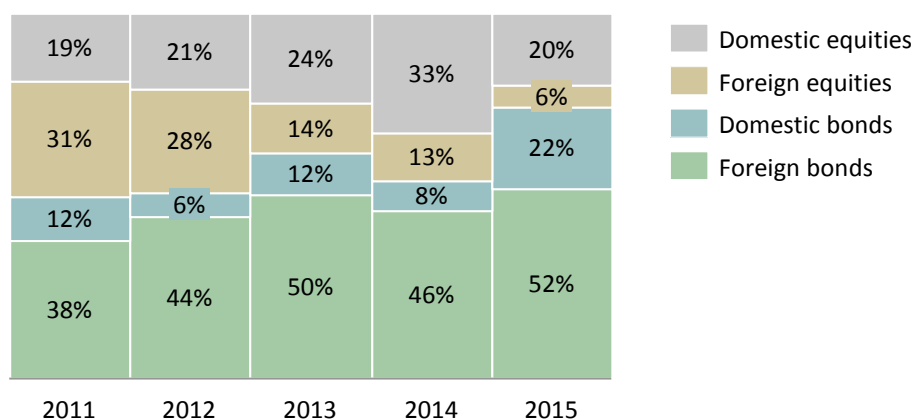


Figure 66. Investment companies' domestic investment portfolio composition

Recent Developments

Regulatory Developments

Introduction

In line with the CBUAE's strategy, the Regulatory Development Division is continuing to develop the regulatory framework for financial institutions licensed by the CBUAE. Over the next number of years, the UAE regulatory framework will continue to be progressively enhanced in line with international standards and best practice.

The CBUAE is working closely with the banks and other licensed financial institutions in shaping this new regulatory framework. All new regulations are being consulted on with the industry. The CBUAE is also focusing on ensuring that the institutions are preparing for the forthcoming changes to the regulatory system to enable smooth transition towards the new requirements.

Developments in 2015

Liquidity

The CBUAE introduced a key new regulation in relation to liquidity in 2015. The 'Regulation regarding Liquidity Requirements for Banks' is integral to the prudential management of banks in terms of liquidity portfolio governance, risk management and practices and is a cornerstone in our new regulatory framework. This regulation and accompanying guidance manual provides the framework that the CBUAE requires banks to implement in order to effectively manage liquidity risk. It introduces the requirement for banks to hold eligible liquid assets in case of funding shocks. Equally important, it provides a glide path for those banks required to manage their liquidity in accordance with the Basel III liquidity standards (Liquidity Coverage ratio and Net Stable Funding Ratio) to become fully compliant by the effective Basel dates in 2018/2019.

Digital Payments

The CBUAE recognizes that Fintech development will play an important role in shaping the future of the financial services industry in the UAE. In 2015, the CBUAE worked on the development of a regulatory framework to assist in shaping the digital payments industry in the UAE. A study of the digital payments landscape and infrastructure in the country and researched digital payments operations and practices in other international jurisdictions was undertaken. The objective is to create a national vision and an associated regulatory framework that enables and supports the development of digital payments services in the UAE, and that also ensures the safety of the payments systems fosters prudent and robust service providers and has built in consumer protections.

In designing the new regulatory framework and drafting the new regulations, we consulted extensively with all of the key stakeholders involved in digital payments and we have been guided by best international practice in this area.

Risk Management

A significant amount of ground work was also undertaken in 2015 in drafting a set of new risk management regulations aimed at bringing the CBUAE's regulatory framework up to date in this area. There are five regulations in the set, which cover; Risk Management; Market Risk; Interest Rate Risk in the Banking Book; Operational Risk; and Country and Transfer Risk. These new regulations are designed to amalgamate, replace and bring up to date existing regulatory requirements for risk management.

Regulatory Priorities for 2016

In 2016 the CBUAE will continue the work towards implementation of the new regulations developed in 2015. This coming year will see the issuance of these important new regulations as well as continued progress on finalising drafting of certain other regulations with the intention to consult on and issue these regulations in 2017.

Amongst the key priorities for 2016 are:

Capital

In accordance with Basel III capital requirements, the timeframe for full implementation of the new capital regime is end of 2018. The regime includes new definitions of capital, new capital buffer requirements and better quality of capital in terms of loss absorption. The CBUAE has developed an implementation program to begin the engagement process with banks towards implementing the new Basel III capital requirements for banks operating in the UAE from 2016 onwards. This is now in progress.

Risk management

The five regulations related to risk management in banks and five supporting standards were completed in 2015. These regulations were consulted on with the banking sector in the first quarter 2016 and are currently being finalised. The CBUAE intends to issue these regulations in the second half of 2016.

Digital Payments

The CBUAE has developed a new vision and blueprint for digital payments services in the UAE. The new regulations are in final draft form. We are currently reviewing the responses to the industry consultation and intend to finalize the new regulations in the second half of 2016.

Non-Bank Financial Institutions

The regulatory framework for non-bank financial institutions (NBFIs) is also currently under review, with a view to enhance their organization, development, regulation and supervisory oversight. This is now in an advanced stage of readiness and the intention is to engage with the industry on this subject in the second half of 2016.

Other regulations

The CBUAE is also drafting other important regulations in 2016 with the intention of bring these forward for consultation with the industry in 2017. These include regulations on Outsourcing, Financial Reporting, Internal Controls, Compliance and Internal Audit.

Islamic Finance

Summary

The UAE has continued to develop its Shari'ah compliant financial sector in 2015 building on its pioneering role in establishing Islamic based financial institutions. Islamic banks grew at 15% per annum in the past year and reached total assets of 464 bAED; they constituted 18.7% of banking system assets and 20.6% of banking system lending.

Islamic Finance in the UAE

Islamic financial services in the UAE continued to strengthen. The industry expanded with additional participation of foreign banks offering Islamic services through Islamic windows. Islamic banking services industry, at end 2015, covers participation of 47 Institutions offering Islamic Financial Services (IIFS) with 8 fully-fledged Islamic banks. Total asset size of full-fledged Islamic banks grew 15% in 2015 (2014: 11%) reflecting the expansion of the UAE Islamic finance industry.

Table 9. Breakdown of IIFS in the UAE as at 31 December 2015

Type of Institution	Number
Islamic Banks	8
Islamic Windows	26
Local Banks	13
Foreign Banks	13
Islamic Finance Company	12
Islamic Investment Company	1
Total	47

The CBUAE provides Sharia'ah compliant instruments aimed at facilitating Islamic Banks access to high quality liquid assets.

For short-term liquidity management by Islamic banks and other Islamic financial institutions the CBUAE created a Shari'ah compliant certificate of deposit (CDs), which has been successful since inception in November 2010. As at 31 December 2015, outstanding Shari'ah compliant CDs stood at 20.9 bAED.

For emergency funding, effective from 1 April 2015, the CBUAE extended the spectrum of eligible collateral for the collateralised Murabaha facility to include Shari'ah-compliant securities¹³ other than the Islamic CDs issued by the CBUAE. This service was enhanced to ensure that Islamic banks also have access to emergency funding facilities through the CBUAE's Interim Marginal Lending Facility.

At the international level, the CBUAE is a member of both the Islamic Financial Services Board and the International Islamic Liquidity Management Corporation. Such participation will enhance (a) cross-sectorial and cross-border policy cooperation, (b) convergence on the prudential framework, and (c) macro-prudential surveillance at the international level in the area of Islamic finance.

¹³ Guidelines for Collateral Management Under the CBUAE's Collateralized Murabaha Facility

Governing Law and Application of Shari'ah for the IIFS in the UAE

The UAE is governed by a civil law system. All relevant underlying commercial and banking laws are, to a large extent, codified. There is no separate legislation within the UAE which codifies Shari'ah law for commercial transactions or a Shari'ah court that hears disputes arising out of Shari'ah financing transactions. Many aspects of Shari'ah rulings have been incorporated into the civil law and it can be said that large portions of the UAE commercial laws are underpinned by Shari'ah elements and are therefore compatible with Shari'ah principles. The courts are also permitted to refer to the Shari'ah in the absence of clear legislation and established customary business practices. This is reflected in the approach taken by the Federal Law No. 5 of 1985 concerning Civil Transactions, which, together with the Federal Law No. 18 of 1993 concerning the Commercial Transaction Law, sets out the main provisions for civil and commercial transactions in the UAE.

There are also legal frameworks specific for the operation of the IIFS. The UAE Federal Law No. 6 of 1985 specifies a broad Shari'ah governance framework at both the national and institutional level. In addition, the CBUAE Board of Director's Resolution No. 165/6/2004 sets out specific conducts of Islamic finance companies.

Higher Shari'ah Authority (HSA)

In order to address the gap in the application of the Federal Law, the CBUAE developed a charter that specifies the terms of reference and operational process for the Authority. The CBUAE is appointed to oversee the running of the recently approved authority and work is underway to further strengthen the establishment. Following are the key objectives of the HSA:

- Issue fatwa and ensure legitimacy of the products, services and activities of IIFS.
- Introduce new or adapt existing international Shari'ah standards and standard documentation for best practice for the IIFS.
- Advise CBUAE on Shari'ah matters on prudential regulations relating to IIFS, and on Shari'ah-compliant instruments developed for conducting its monetary management function.
- Conduct and support Shari'ah research in Islamic finance.
- Liaise and cooperate with other international organisations currently setting Shari'ah standards for IIFS.

Performance of the Islamic banking industry

Full-fledged Islamic bank assets have been growing year-on-year at 15% (2014: 11%) to reach 464 bAED as at end 2015. Assets of the Islamic banks constituted 18.7% (2014: 17.5%) of banking system asset and 20.6% (2014: 19.2%) of banking system lending.

Deposit mobilized rose by 16.6% (2014: 15.8%) to reach 332 bAED and accounted for 22.6% (2014: 20%) of the overall banking system deposits.

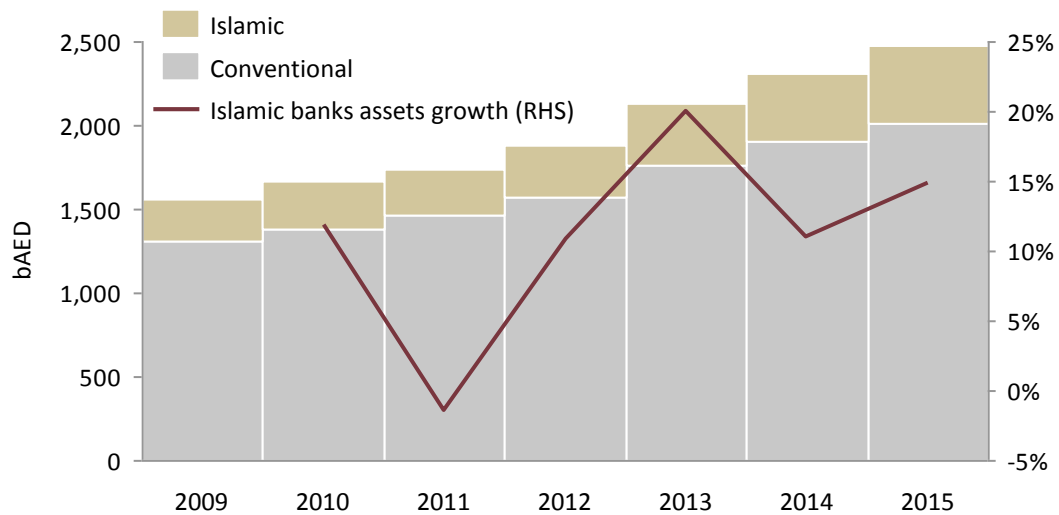


Figure 67. Growth of Islamic banks assets (in bAED)

The capital adequacy ratio (CAR) of Islamic banks experienced a decline to 15.6% at the end of 2015 (2014: 15.8%) and the Tier-1 capital ratio remained unchanged at 15.0% in 2015. Although at a satisfactory level, they are below the levels recorded by conventional banks.

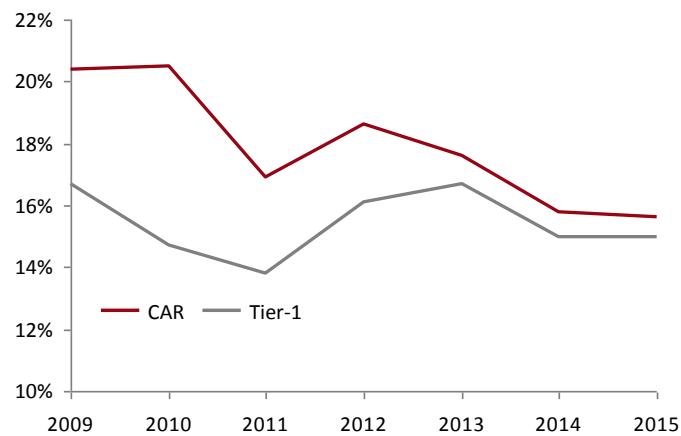


Figure 68. Islamic banks' capital adequacy: Capital Adequacy ratio and Tier 1 capital ratio

The ratio of financing (loan) to deposits marginally decreased from 2014 to 92.2% in 2015. (2014: 92.9%)

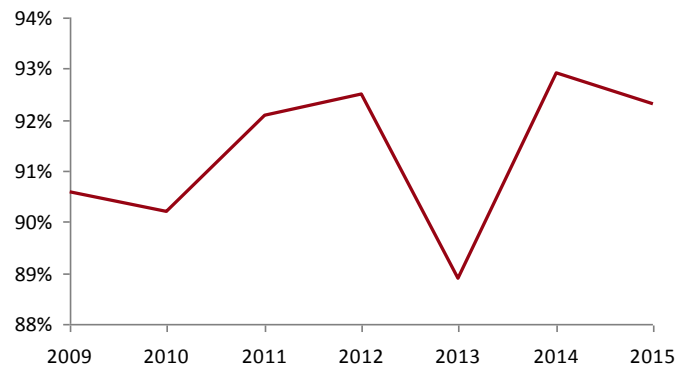


Figure 69. Islamic banks' financing to deposit ratio

The return on assets for Islamic banks decreased to 1.5% as at end 2015, down from 1.6% in 2014, while the return on equity increased from 13.5% to 14.0% as at end 2015 indicating higher profitability relative to conventional banks attributed partly to higher leverage.

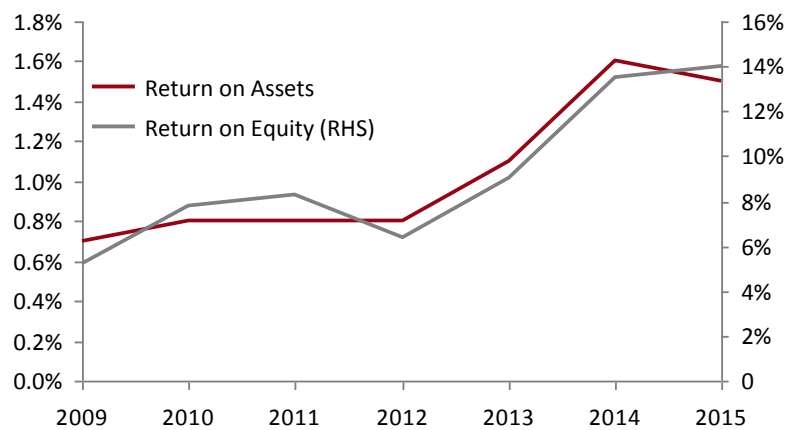


Figure 70. Returns on equity and return on assets of Islamic banks

Outlook for the Islamic Finance in the UAE

The UAE and Dubai in particular, has an ambitious plan to be a global hub for Islamic finance within the next few years. The CBUAE supports this initiative by making it one of its core responsibilities in its organisational strategy. 2015 saw the Dubai Exchanges (the Dubai Financial Market and Nasdaq Dubai combined) overtook Malaysia in terms of international sukuk issuances.

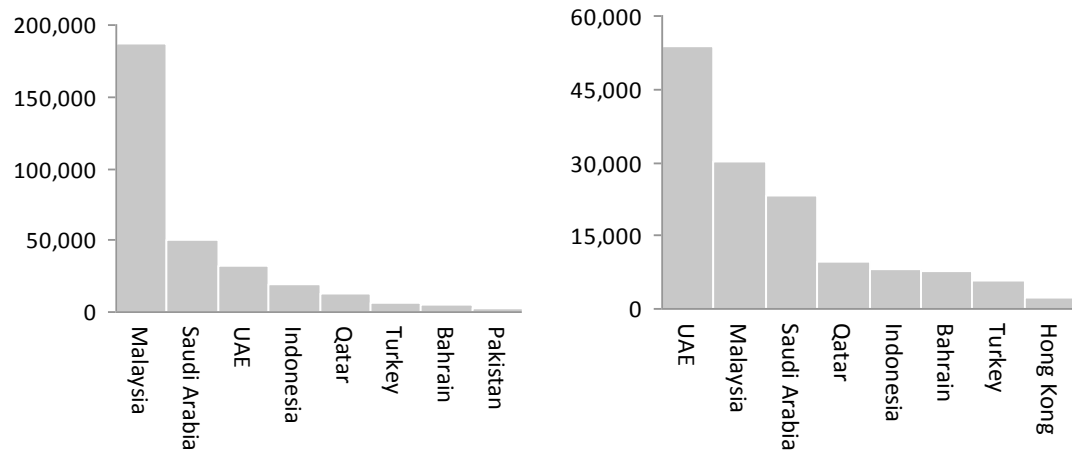


Figure 71. Left: Global sukuk outstanding as at December 2015 (in mUSD). Right: International sukuk issuance outstanding as at December 2015 in (mUSD) (Source: IIFM Sukuk Report 2015)

Islamic finance faces challenges mainly relating to legal and financial infrastructure, Shari'ah governance, prudential regulation and consumer awareness. The CBUAE continues to work with the industry to address these challenges and promotes the development of Islamic finance within the UAE as well as globally.

UAE Stock Markets

Regulatory Developments by The Securities and Commodities Authority

Performance of UAE Listed PJSCs 2015

The total number of public shareholding companies listed in Abu Dhabi Securities Exchange (ADX) and Dubai Financial Market (DFM) is 125 companies (110 UAE incorporated companies plus 15 foreign companies).

The total net profit “attributed to shareholders” achieved by the UAE listed companies is 62.8 baED in 2015 compared to 62.8 baED achieved in 2014. The net profit is supported by profit generated from the banking sector since it has been increased by 8% from 35.1 baED in 2014 to 37.9 baED in 2015. The Revenues has increased by 1.5 baED in 2015 compared to 2014 and by (0.6%).

Table 10. Net profit of UAE listed companies in ADX and DFM by sector (in maED)

Sector	2014	2015	Change (value)	Change (%)
Banks	35,076	37,863	2,787	%8
Consumer Staples	431	418	(12)	%(3)
Energy	(2,553)	(1,265)	1,288 decrease in Loss	%50 decrease in loss
Industry	865	1,077	212	%24
Insurance	800	(140)	(941)	%(118)
Investment and Financial Services	3,946	1,783	(2,163)	%(55)
Real Estate	11,461	10,528	(933)	%(8)
Services	1,181	1,458	277	%23
Telecommunication	10,710	10,204	(506)	%(5)
Transportation	881	843	(39)	%(4)
Total ESM	62,800	62,769	(31)	%(0.05)

The banking sector has contributed (60%) of total net profit achieved in 2015 followed by real estate sector with has contributed (17%) of total net profit then telecommunication sector (16%) and then investment and financial services sector (3%).

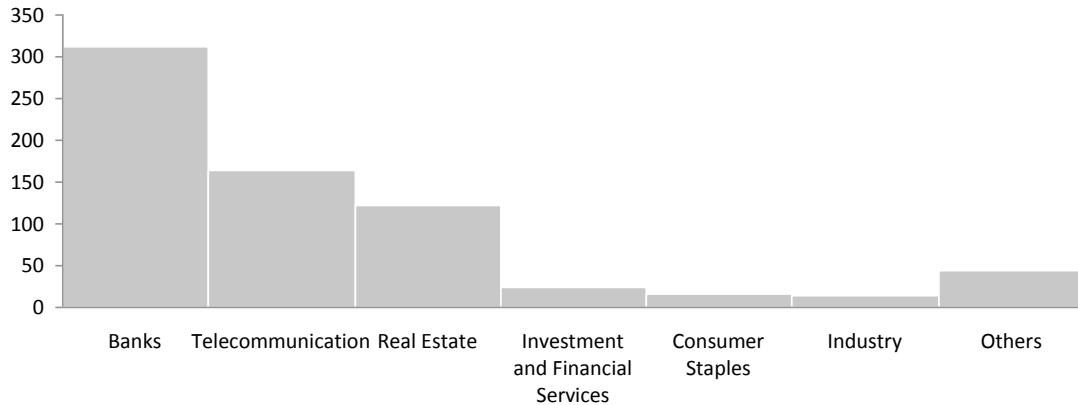


Figure 72. Market capitalization of sectors in ESM in 2015 (in baED)

The banking sector in the UAE has contributed the majority towards total market capitalization representing 45% or 311 baED as at December 2015. Telecommunications has contributed 24% or 163 baED and finally the real estate sector, in third place, contributes 17% at 121 baED in 2015. Total market capitalization as at December 2015 was 693.8 baED.

The following figure shows the net profit achieved by UAE listed companies in Emirates Stock Market (ESM) and the market capitalization for those companies during 2011 to 2015.

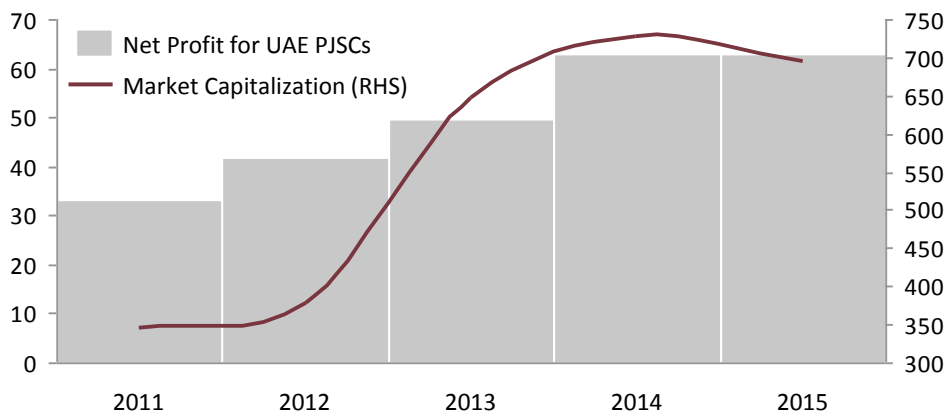


Figure 73. Net Profit and Market Capitalization for UAE listed publicly joint companies in Emirates Stock Market (in baED)

Performance of the Emirates Securities Market 2015

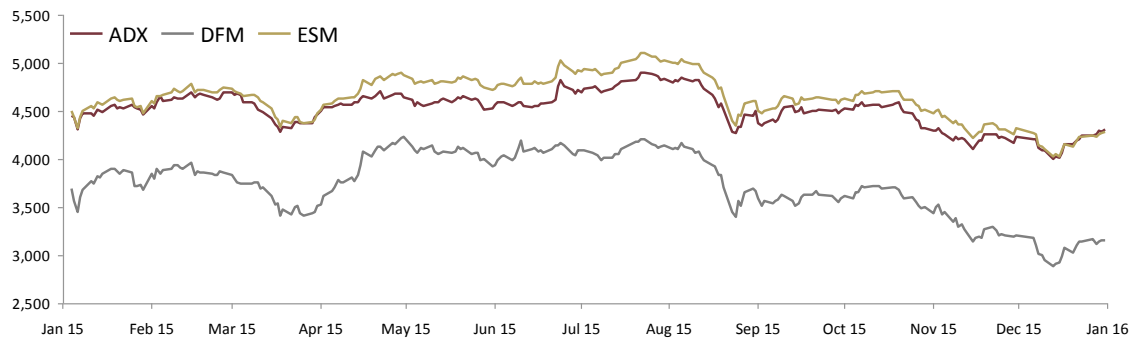


Figure 74. Performance of the Emirates Securities Market (ESM), Abu Dhabi Exchange (ADX) and Dubai Financial Market (DFM)

The ESM index opened on 4th January 2015 at 4,580 points and closed in YE Dec 31st 2015 at 4,279 an over decrease in the performance of the index of 6.5%. The upside has been significantly reduced as a result of 2015 dramatic global events such as the drop in oil prices as well as the negative overall growth prospects of the entire region.

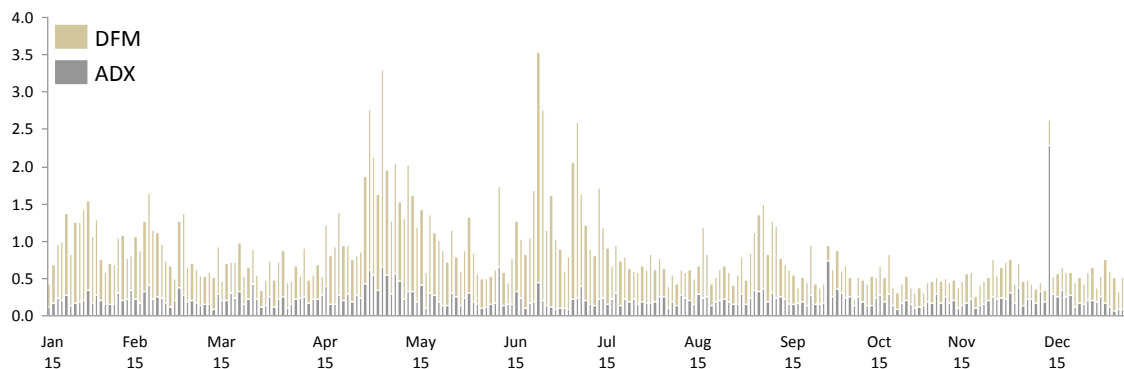


Figure 75. Total value traded on both DFM and ADX during 2015 (in baED)

Dubai (DFM) and Abu Dhabi (ADX) stock exchanges volatility (annualized) 2015

Monthly volatilities on DFM stock market have declined from 81% in December 2014 to 27% in December 2015, whereas the monthly volatilities on ADX stock market have declined from 49% in December 2014 to 17% in December 2015 as markets start to overcome the effect of drop in oil prices to constant levels and the new developments in global economic growth.

DFM stock market exhibits higher volatility than ADX. On average, monthly volatilities on ADX stock market have followed the same path of DFM. The August 2015 peak in volatility was 24% for the ADX instead of 37% for the DFM.

It is evident from the chart that trading is heaviest in Q1/Q2 periods with a significant cooling down period towards the end of the year. Furthermore, traded values on the DFM are greater than those on the ADX and contribute the majority of trading activity in the UAE.

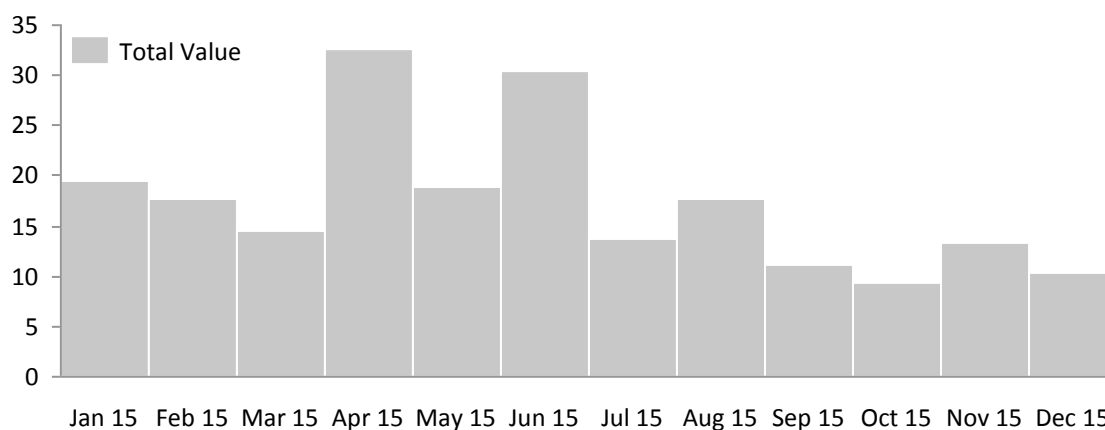


Figure 76. Total value of trades on both ADX and DFM stock exchanges during 2015 (in baED)

The total value of trades traded on both the ADX and DFM stock exchanges amounted to 209.4 baED from the beginning of January up until Dec 31st 2015 compared to the 525 baED during the same period in 2014. Heaviest trading took place during the month of April and June 2015.

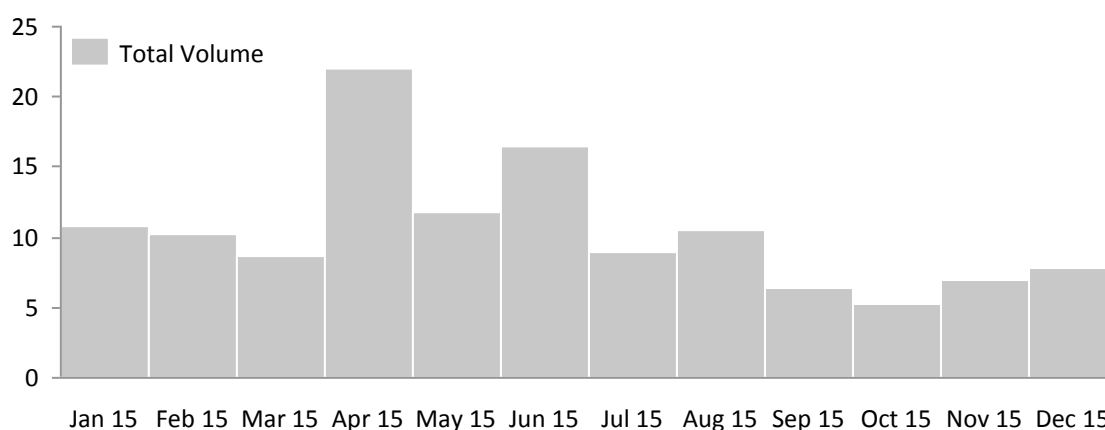


Figure 77. Total volume of trades on both ADX and DFM stock exchanges during 2015 (in baED)

The total volume of shares traded from January 2015 up to December 31st 2015 was 125.6 baED compared to 217 baED volume of shares during the same period in 2014.

22 baED total volume traded was recorded in April 2015 with the lowest volume traded recorded in October 2015 at approximately 5 baED.

Regulatory Developments by the SCA

New regulation issued by SCA in 2015:

1. Clearing Operations in Commodities Markets.
2. Registration of Auditors of Public Shareholding Companies and Mutual Funds.
3. The Controls and Procedures regarding the Company Buying back its Shares.
4. Dormant Accounts of the Brokerage Firms' Clients.
5. The Accounting System Controls and the Formation of Debt Provision for Brokerage Companies.

6. The Controls and Procedures of Conciliation in Offenses Relating to Public Shareholding Companies.

The regulations which have been amended in 2015:

1. The Regulations as to the Functioning of the Market.
2. The Regulations as to Trading, clearing, Settlement, Transfer of Ownership and Custody of securities.
3. The regulation concerning Brokerage in Securities.
4. Lending and Borrowing of Securities.
5. The Fees due to the Authority from Dubai Gold and Commodities Exchange.
6. The Regulations as to Disclosure and Transparency.
7. Amendments of guidelines and procedures of implementing Article (168) from Companies Law

New Regulations to be issue in 2016:

1. Investment Fund.
2. Initial Public Offerings.
3. Corporate Governance.
4. Merger and Acquisition.

SCA capital market news and developments in the UAE 2015

SCA issues controls for newly-incorporated public joint-stock companies

As part of its efforts to develop and improve public joint-stock companies' controls, the Securities and Commodities Authority's (SCA) board of directors agreed to approve specific controls for offering and listing the shares of newly-incorporated public joint-stock companies thus boosting investor confidence, promoting investor protection and improving the UAE securities markets.

SCA board takes actions to raise country's competitiveness

The board of directors of the Securities and Commodities Authority (SCA) approved amendments to the Regulations concerning Disclosure and Transparency and those concerning Trading, Clearing, Settlement, Transfer of Ownership, and Custody of Securities, as well as other amendments to the regulatory controls and procedures as to the application of Article (168) of the Commercial Companies Law.

Amendment of Governance Rules and Corporate Discipline Standards stresses the requirement to nominate women to Boards of Directors

The Chairman of the Securities and Commodities Authority (SCA), issued Ministerial Resolution No. (225) of 2015 amending certain provisions of the Ministerial Resolution No. (518) of 2009 concerning Governance Rules and Corporate Discipline Standards. The Articles of Association shall determine the method of formation of the board of directors, the number of board members and term of membership. It should be observed that the candidates for membership of the Board of Directors must include at least one female candidate. The company shall disclose the reasons for not having any female candidates for

the Board, and shall also disclose the percentage of female representation in the Board of Directors in its Annual Report on Corporate Governance.

SCA signs MoU with DMCC

SCA signed an MOU with the Dubai Multi Commodities Center (DMCC) aimed at fostering collaboration, attracting foreign investment and promoting investor protection to better serve the UAE national economy.

SCA to offer Claritas Investment Certificate offered by the CFA Institute

Approval has been given to go ahead and teach the Claritas Investment Certificate offered by the renowned CFA Institute in October 2015. This certificate will be part of SCA's internal program. The course duration is thirteen months and serves SCA staff across all departments. The Claritas Program covers the essentials of finance, ethics, and investment roles, providing a clear understanding of the global investment industry.

SCA Board has approved "Continuous Professional Development" (CPD) for SCA registered professionals

SCA's Board of Directors has approved a CPD program for all SCA registered professionals. Implementation of the program is expected to be announced in due course. All industry professional registered with and licensed with SCA will be expected to comply with this directive.

SCA Issues First Securities Lending and Borrowing Agent Approval

As part of its sustained efforts to develop local capital markets and meet the needs of investors and all strategic partners, the Securities and Commodities Authority granted the National Bank of Abu Dhabi (NBAD) approval to engage in securities lending and borrowing activities.

Dormant Accounts of Brokerage Firms' Clients

SCA Board of Directors approved that brokerage firms shall convert clients' accounts to Dormant Accounts after a three year lapse without of not making any transactions through his account or without updating data requirements properly. The notification shall require the client to update his data with the company, or to use the account within thirty (30) days from the date of notification.

Accounting System Controls

SCA has approved that brokerage firms provide a special electronic accounting system for the management of their own accounts and the accounts of their clients, provided that the system satisfies certain technical requirements for the archiving and storage of sensitive information.

SCA Meets Japanese Financial Services Agency, Tokyo

As part of the visit made by H.E. Eng. Sultan bin Saeed Al Mansoori, Minister of Economy, to Japan to promote bilateral cooperation in economy, commerce, and investment, a SCA

delegation held thorough discussions and meetings with the Japanese counterpart to discuss mechanisms and initiatives and review the necessary procedures to realize SCA's strategic plan to promote the UAE markets from emerging to developed over the next five years.

SCA Announces Innovation Award for Capital Market Research

H.E. Sultan bin Saeed Al Mansoori, Minister of Economy and Board Chairman of the Securities and Commodities Authority, announced the launch of the Innovation Award for Capital Market Research and said that the award aims to promote innovative research in securities and commodities. He added that the award, worth a total AED90,000 aims to gain momentum and recognition by tapping new ideas and creative thinking that will work to the benefit of the UAE's regulatory and licensing processes, regulation-drafting processes, supervisory functions, awareness campaigns, as well as other capital market operations.

The Insurance Sector

Insurance Authority continues the Regulatory Development in the Insurance Sector in UAE.

At the end of 2014 Board of Directors of the Insurance Authority, issued Decision No. (25) Of 2014 Pertinent to Financial Regulations for Traditional Insurance Companies and Decision No. (26) of 2014 Pertinent to Financial Regulations for Takaful Insurance Companies, which regulate the financial, technical, investment, and accounting operations of Traditional and Takaful insurers operating in the UAE.

These Financial Regulations which cover the financial, investment, technical and accounting operations of UAE insurance companies were seen as a significant move ahead in developing the regulatory principles and technical rules for the development of UAE insurance market performance, and to protect the rights of policyholders and shareholders; and they represent an advanced and key step toward regulating the operations of Traditional and Takaful insurance companies operating in the UAE and boosting their performance as per the best competitive standards worldwide.

The issuance of the Financial Regulations put the UAE at the forefront of the Middle East with regard to adopting the latest solvency requirements similar to the European model.

The Financial Regulations require a significant upgrade of almost all internal systems and procedures for insurance companies operating within the UAE and in recognition of this there are alignment periods of from one to three years for various components of the regulations. While companies must demonstrate progress with all areas of the regulations, the portions of the regulations with a one-year alignment period are focused on accounting records and policies which impact all financial reporting beginning with year-end 2015. The two-year alignment period is focused on investment limits (other than Real Estate) and full compliance with the technical provisions. The three-year alignment period is focused on the new Solvency requirements, which includes determination of admissible assets, and investment limits for Real Estate.

During 2015, the Insurance Authority held numerous workshops for the Industry, issued new standardized financial reporting forms (eForms), and began more in depth inspections of all insurance companies with the goal of helping companies comply with the new regulations. During 2015, all companies needed to update their External Auditor requirements, appoint an Actuary, establish an Internal Audit department, and appoint a regulatory compliance officer, so that they were ready to publish financial statements for year-end 2015 in compliance with the Accounting aspects of the new regulations.

Takaful insurance business

In view of the special nature of the Takaful insurance business, separate Regulations were developed for Takaful insurance companies operating in the UAE that are compatible with the Takaful insurance Regulations applicable in the UAE and in line with the Islamic Sharia. The Regulations identified the policies that should be adopted in such companies in terms of the Wakala model or Wakala & Mudaraba Model, in addition to provisions pertaining to

the distribution of surplus on participants in Takaful insurance business and the importance of separating the assets of participants' accounts and shareholders' accounts in the company.

Such Regulations come in line with the Insurance Authority's continuous efforts and endeavor to regulate the UAE insurance sector and enhance the performance of the local insurance market and all entities working therein based on robust legal, technical and financial principles and upgrade the competitiveness of the insurance sector at the regional and international levels as per the best practices prevailing worldwide.

New investment rules to protect the rights of policyholders and companies against risks.

Regulations on The Basis of Investing the Rights of the Policyholders aim at protecting the rights of policyholders and shareholders of insurance companies alike, in addition to protecting the companies themselves against future potential risks by the regulation and control of the investment activities of the insurance companies.

Such principles are intended to establish controls for investment activities of the insurance companies to ensure liquidity, profitability, safety, and diversity without engaging in investments incompatible with the nature of the company's activities and business, which may undermine its financial position. They also aim to direct the insurance companies to focus and give priority to developing and promoting their main operational activity, namely the insurance business.

The Regulations adopted the frameworks applicable internationally, in particular ICP No. (15) issued by the International Association of Insurance Supervisors (IAIS) concerning the investment of policyholders' rights, in terms of management of insurance companies' investment and selection of suitable investment instruments by emphasizing diversity of investments, minimizing focus on reducing risks while considering the limited scope of local investments, and setting determinants on high-risk or inappropriate investments such as unlisted shares, real estate investments and foreign investments.

The Regulations include provisions that boost the role of Boards of Directors of the companies in supervising the investment performance and promoting the role of specialists such as the actuary, and consequently, emphasizing the principles of corporate governance, activating risk management, and adopting stress tests when developing, implementing and evaluating the investment policy of the company.

These Regulations enforce the insurance companies to assess risks and evaluate their solvency in key risk areas, including risks related to underwriting, investment, credit, liquidity and operational risks, under the risk management framework system.

General Requirements for Investment

The Regulations include the general requirements for the investment of policyholders' rights through compliance by the insurance companies with certain rules in their investment operations, including the diversity and distribution of assets in a manner that enables the company to efficiently respond to the changing economic conditions including the developments taking place in the financial markets and real estate markets. The companies

should assess the extraordinary impact of the market conditions on their assets. They should diversify their assets in a manner that mitigates such impacts.

The Regulations stipulate that investing in products or instruments issued by the same issuer affiliated with the same group as the insurance company should not expose the company to high-risk concentration; and thereby, the prescribed limits for related assets and related parties should be observed. The company must create an investment committee that ensures adequate separation of functions between implementation, registration, delegation, settlement and related auditing activities.

Assets must be in an adequate amount, in a current currency and for an appropriate term to ensure cash flows generated from such assets are enough to meet the expected cash out-flows for the company's liabilities when they are accrued.

General Rules for investment policy

The Regulations set the general rules for the investment policy. Most significantly, each insurance company shall develop a special policy for investment and risk management that complies with the risk tolerance level determined by the Board of Directors of the company to ensure sound investment of the company's funds. The investment and risk management policy shall be approved and reviewed on an annual basis by the Board. Such policy shall cover the general investment strategy and appropriate risk management regulations, including the mechanism to control such regulations. The risk management regulations shall cover the risks pertaining to investment operations that might impact the fulfilment of insurance and capital adequacy obligations. The key risks include market, credit, and liquidity risks. Appropriate procedures shall be taken to control and ensure compliance with limits of assets and limits of corresponding parties. The assessment of the credit solvency of related parties which the company is exposed to their significant transactions shall be adequately reviewed.

The companies must set a policy and a framework for stress tests of all its investments to be conducted once a year as per the company's policies. Foreign insurance company branches shall prove to the Insurance Authority in all cases that the frameworks and policy of investment stress tests related to operations implemented within the UAE are in place at the company's head office level in a manner that shows operations within the UAE.

The company shall also adopt a separate investment strategy for insurance of persons and funds accumulation operations on the one hand and property and liability insurance operations on the other hand, especially in the cases where the company practices both types of insurance.

Limits of Investments

The Financial Regulations determine the limits of distribution and allocation of invested assets permitted for insurance companies, as it is determined in the schedule:

Table 11. Distribution and Allocation of Invested Assets of insurance companies

Type of Invested Asset	Maximum limit for aggregate exposure in a particular asset class	Sub-limit for exposure to a single counter-party
Real Estate	30%	None
Equity instruments in listed and not listed companies within UAE.	30%	10%
Equity instruments issued by companies listed and not listed outside UAE.	20%	10%
Government securities/instruments issued by the UAE and/or by one of the Emirates in the UAE.	100%	25%
Government securities/instruments issued by (A) rated countries.	80%	25%
Cash and deposits with Banks in the UAE (e.g. current account, demand deposits, term deposits, notice deposits, certificates of deposit, etc.)	5% minimum	50%
Loans secured by life policies (excluding unit-linked funds' related policies) issued by the Company.	30%	None
Financial derivatives or complex financial instruments used for hedging purposes only.	1%	None
Secured loans, deposits with non-banks, debentures, bonds & other debt instruments, which are rated strong or very strong by reputed and independent rating agency.	30%	20%
Other Invested Assets	10%	None

Regulations on Solvency Margin and Minimum Guarantee Fund

The Solvency Margin bears paramount importance in the insurance industry as it serves as an additional parameter for control and oversight and a tool to verify the company's ability to meet its obligations in the manner that ensures maintaining the soundness of the insurance companies' financial positions and detecting any flaw that may occur in such positions. Furthermore, the Solvency Margin serves as an ancillary indicator that directs the risk tolerance policy of the company, in addition to the prudent corporate management's endeavor to enhance the Solvency Margin as a key goal pursued to ensure the continuity of the company, since the higher the Solvency Margin of a company is, the safer, more secure and more reputable the company will be, which increases its opportunities to get a larger market share.

This section of the Regulations was developed based on the key principles of Solvency II (in Europe), which measure the key risks that may compromise the ability of companies to meet their obligations, due to the international requirements imposed by the IAIS, where

the UAE is an active member, in addition to the multiple and diversified risks that the insurance companies are exposed to.

One of the most important objectives of issuing these Regulations is to provide an early warning system to detect flaws in the companies' financial conditions, which would increase the potentials for addressing such financial flaws in the early stages, which in turn would help fortify the control and monitoring regulations over the insurance companies. Additionally, these Regulations aim at enhancing the ability of insurance companies to accommodate potential financial shocks and crises, and thereby creating a reliable insurance market and help the financial stability in this market.

The Regulations include provisions related to the Solvency Margin which include Minimum Capital Requirements (a fixed lower limit under the Law), Solvency Capital Requirements (a risk adjusted limit based on Solvency II), and Minimum Guarantee Fund (a risk adjusted limit based on Risk-Based Capital requirements). These three limits work in combination to gradually increase the Solvency Margin requirements for each company based on their individual risk profile.

Principles of Solvency Margin Forms

The Solvency Margin Forms (included with the eForms) approved by the IA are based on many principles, the most important of which is to calculate the Solvency Capital Requirements based on the assumption that the company will continue operation on going concern basis. Solvency Capital Requirements shall be calibrated to make sure that the company observes all measurable potential risks, provided that this includes both current business and new business that the company is expected to write within the next twelve (12) months.

The Solvency Capital Requirements cover underwriting, market, liquidity (investment risks), credit and operational risks. All companies must comply at all times with the Solvency Margin to ensure maintaining Own Funds that meet the higher amount of the Minimum Capital Requirement, Solvency Capital Requirement, and Minimum Guarantee Fund. A Company must immediately report to IA in the event of non-compliance with maintaining the Minimum Capital Requirement, Solvency Capital Requirement, and Minimum Guarantee Fund.

A qualified actuary is accredited for every insurance company operating in the UAE

The Financial Regulations related to the basis of calculating technical provisions are issued in line with the international trends in the insurance industry that the companies must maintain adequate and appropriate technical provisions that reflect the nature of operations of the insurance companies, and to avoid variance in the estimates of technical provisions made by the companies and the corresponding underwriting obligations, whether in terms of their value or time of occurrence. These include the technical provisions that must be created by the insurance companies operating within the UAE and that should be maintained within the UAE, in addition to determining the methods to calculate the technical provisions so that they are consistent with the international best practices used in the calculation of technical provisions.

These Regulations aim at regulating the technical principles of calculating technical provisions and standardizing them for all companies in order to attain fair comparison, and objective control and analysis of the positions of companies by the IA and in order to provide fairer financial statements that reflect the financial positions of the companies.

Furthermore, binding the companies to have an assessment for their technical provisions by an Actuary is the starting point towards directing the companies to work in accordance with sound technical foundations and avoid price competition that leads to non-technical products. Besides, having an Actuarial Report on the assessment of technical provisions increases the fair presentation of financial statements that match the actual financial positions of the companies.

Risks Facing the Insurance Industry

During this first alignment year, most companies have fully complied with both the letter and spirit of the new Financial Regulations, but there is a risk that some of the weaker companies may either need to discontinue operations or look to merge with or be acquired by a stronger company. In general, both the Motor and Medical markets remain the two largest segments in terms of premium volume, yet they are also the most competitive which has led to underwriting losses for many companies which will threaten their continued financial strength if left unchecked.

For year-end 2015, and perhaps again at year-end 2016, the Insurance Authority expects that the requirements for technical provisions force companies to strengthen their balance sheets. In the longer run, this will improve the financial strength and stability of the entire market as it will help companies recognize all costs as they improve underwriting practices and pricing policies.

Financial Market Infrastructure and Payments

Introduction

Financial Market Infrastructure is an essential component of a financial market as it facilitates safe and smooth flow of funds and other financial assets in the economy.

The UAE payments ecosystem is well established and diversified. Major reforms were undertaken by the CBUAE in order to make payment systems more efficient and useful to the end users by promoting the use of electronic payments, reducing cash transactions and at the same time managing the risks more efficiently. The CBUAE is working on Digital Payments Regulatory Framework to support the Smart Government initiative.

The overall assessment conducted by the CBUAE of the major payment systems shows that these systems are sound, and are not a source of any major risk to the stability of the financial system in the country. Nevertheless, certain operational aspects of payment systems need to be strengthened in order to increase the security and efficiency of the UAE payment systems.

UAE Payment Systems landscape

During the past 10 years, the UAE authorities have diversified the payment systems and increased the number of options available to the individual and corporate stakeholders. The CBUAE has played a key role in this development, managing and operating various payment systems, and coordinating payment systems innovation and development.

The CBUAE currently operates the following payment systems:

1. UAEFTS (UAE Funds Transfer System- the retail & large value payment system - the only Real-time gross settlement (RTGS) system).
2. ICCS (Image Cheque Clearing System)
3. UAEDDS (UAE Direct Debit System)
4. WPS (Wages Protection System)
5. UAE Switch (ATM withdrawals with debit cards issued by different banks in the country).

In 2015 the CBUAE has initiated a process to issue a comprehensive regulation on Digital Payments. The regulation passed the process of consultations and will be issued before the end of 2016.

At the regional level, the CBUAE continues its involvement in the regional payment initiative i.e. GCC-RTGS project. This project aims to enable a real-time processing of cross border payments among GCC countries using their domestic currencies.

The CBUAE continues to support the efforts to create the Arab Regional Payment ecosystem. As part of the effort it participates actively in the Arab Regional Payment System project that seeks to integrate the clearing and settlement of cross-border payments in the Arab region by enabling the substitution of the existing correspondent banking system with a new centralised system for clearing and settlement of intra-regional cross border payments.

The CBUAE has planned to introduce the following new initiatives for the year 2016:

- A Payment Gateway Services will be launched by the CBUAE to provide an infrastructure to bring together merchants and the residents of UAE with an automated e-commerce payment method. It is an internet based payment tool facilitates easy transfer of funds to the accounts of merchants and participant banks by debiting the current and savings accounts of end customers. This system, once introduced, will remove the time delay and cumbersome process of establishing multiple mesh type of direct connections between different merchants and their banks so as to realize the payments initiated by end customers.
- A domestic Point of Sale through which the UAE Switch will be handling all POS transactions initiated by the merchants within the UAE without a need for routing domestically initiated transactions to international gateway such as Visa, MasterCard etc.
- Enhancement of contingency planning to encompass the management of operational risk more broadly, and particularly, cyber risk. In 2016, the CBUAE has planned to strengthen its Information Security management program in line with the directives issued by the National Electronic Security Authority of UAE (NESA) with special focus on mitigating risks due to potential online attacks on systems and infrastructures.

Central Bank's role as overseer of Market Infrastructures

In its capacity as the authority in charge of ensuring the stability of the financial system of the country, the CBUAE is acting as the primary overseer of the payment, clearing and settlement systems operating in the country with the objective of supervising the efficiency, security, effectiveness and consistency of these systems.

The CBUAE has identified two systems i.e. UAEFTS and ICCS as systemically important and started implementing various risk management measures in order to render them safe, resilient and sound. A disruption in the normal functioning of the above two payment systems might trigger a major interruption in payments between the major market participants and jeopardise financial stability.

In 2015, the CBUAE conducted the assessment of the two systems based on the assessment methodology introduced by the BIS. The assessment revealed certain gaps and areas of improvement, and provided certain recommendations to mitigate the risks identified in the areas such as Legal, Governance and Risk Management. The CBUAE is working with the relevant departments in fixing the gaps.

In 2016 the CBUAE will conduct assessments of other payment systems: UAEDDS (UAE Direct Debit System), and the WPS (Wages Protection System), in addition to a review of the first assessment to ensure that the required changes, enhancements and reform have been properly implemented.

Safety & Soundness of the UAE payment systems

Based on the outcome of the assessment performed by the CBUAE, the UAE payment systems are sound and secure with no major vulnerabilities that could affect the stability of the financial system of the UAE.

The following actions were taken:

- The operating time window for the RTGS- UAEFTS was extended significantly with which the retail customers can make funds transfer up to 4.30 PM on a working day and the interbank funds transfer can be completed up to 5.30 PM.
- All other net settlement systems including the ICCS system shall close before UAEFTS settles.
- The deadline for participants to avail intraday credit facility including overdraft in their current accounts maintained with the CBUAE has also been extended up to 5.30 PM.
- The CBUAE has implemented a comprehensive default management procedure for ICCS to avoid any systemic disruptions in payments even in the case of a bank failing to meet its commitments under ICCS. Such procedures for the RTGS system (UAEFTS) will be introduced in the year 2016.
- In order to discipline the participants who are in breach of the rulebook terms and conditions of each payment system, the CBUAE has started levying a noncompliance fee for each occasion of such violation.

Performance of Central Bank's payment systems

UAE Funds Transfer System (UAEFTS)

UAEFTS is the 100% CBUAE owned RTGS system that was launched in August 2001 with a facility to automate the transfer of funds between participants' accounts held at the CBUAE. Currently the transfers are restricted to UAE dirhams whereas the system has the capability to carry out funds transfer in other international currencies. Straight through processing (STP) was introduced in March 2012. With this facility, the customers of member institutions can send and receive remittances in AED using different channels. Currently access to the UAEFTS is restricted to the licensed banks, certain non-banking institutions engaged in WPS remittances, money exchange houses licensed by the CBUAE and UAE Government ministries and agencies.

At present, the UAEFTS system handles only the cash remittances initiated by the participants and their customers whereas the cash leg settlement of securities traded at the Dubai Financial Market (DFM) and Abu Dhabi Securities (ADX) are being handled by two commercial banks.

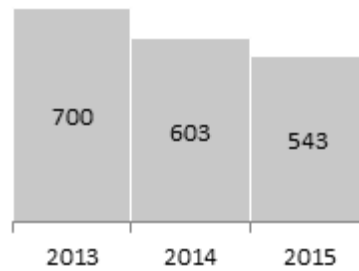


Figure 78. The amount of intraday overdraft used by the participant banks

The amount of intraday overdraft used by the participant banks has declined significantly over the past three years. In 2015 it has dropped to 542.5 bAED (2014: 602.5). Changing the UAEFTS settlement time to 5.30 PM is one of the reasons for the fall in overdraft availed by the participants as liquidity level of banks improved with extension of UAEFTS closure time.

The system reached 100% availability in 2015. The total number of bank-to-bank transfers was around 413 thousand with a turnover of 6.5 TnAED. The volume showed a marginal increase of 0.7% over the previous year whereas the total value was 4.4% more than in 2014.

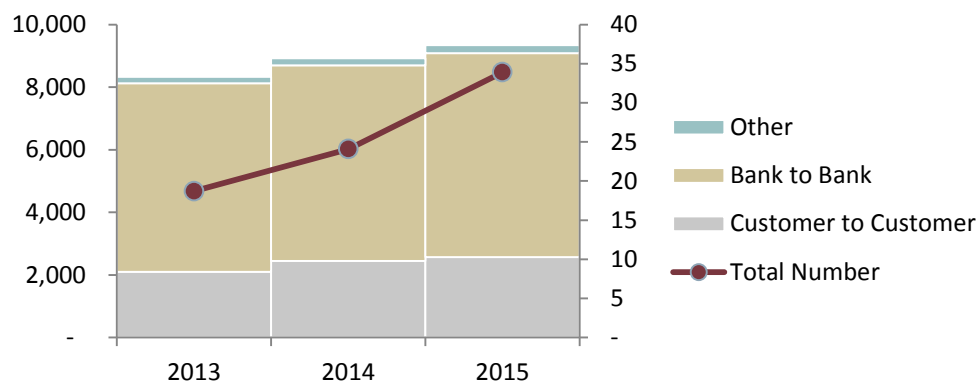


Figure 79. Value (in bAED) and number (RHS in millions) of transaction in FTS system

Image Cheque Clearing System (ICCS)

ICCS was introduced in July 2008. It provides a safe, secure, efficient and robust payment mechanism in the United Arab Emirates. Banks will settle cheques issued on accounts held by them based on electronic images of these cheques. ICCS reduces the dependence of the payment infrastructure on the physical movement of paper, and therefore facilitates shorter clearing and settlement cycles. It also facilitates quicker realization of funds on these items.

CBUAE also acts as the national central archive for all items delivered via the Image Cheque Clearing System (ICCS). The ICCS Cheque Archive is available to all banks, providing access to the images of cheques cleared via ICCS. Individual items within the archive will be available to the Presenting Bank, the Issuing Bank and the Clearing House.

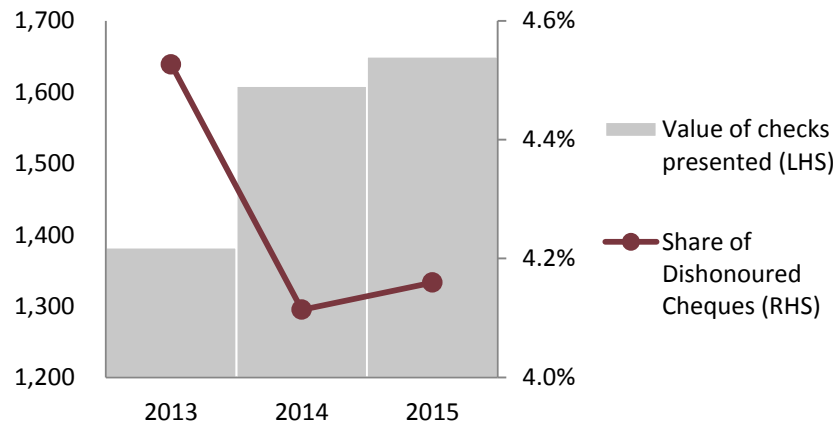


Figure 80. Performance of the ICCS system: total value if presented checks (in baED) and share of dishonoured checks (%)

Cheques

The number and value of bounced cheques went up by 3% and 31% respectively during 2015. The value of bounced cheques due to insufficient funds has reached 39 baED while the value remained largely unchanged for other reasons at around 25 baED.

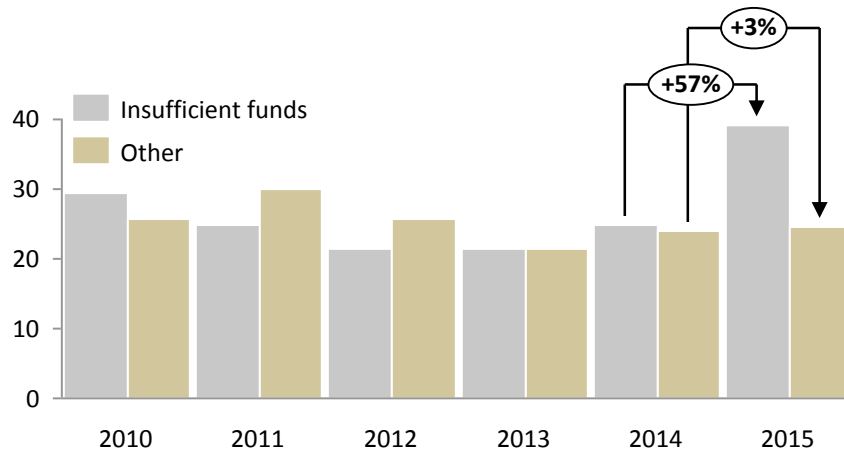


Figure 81. Value of bounced cheques

The ratio of bounced cheques as a percentage of total cheques processed has also moved upwards to 3.9% in 2015 (2014: 3.0%).

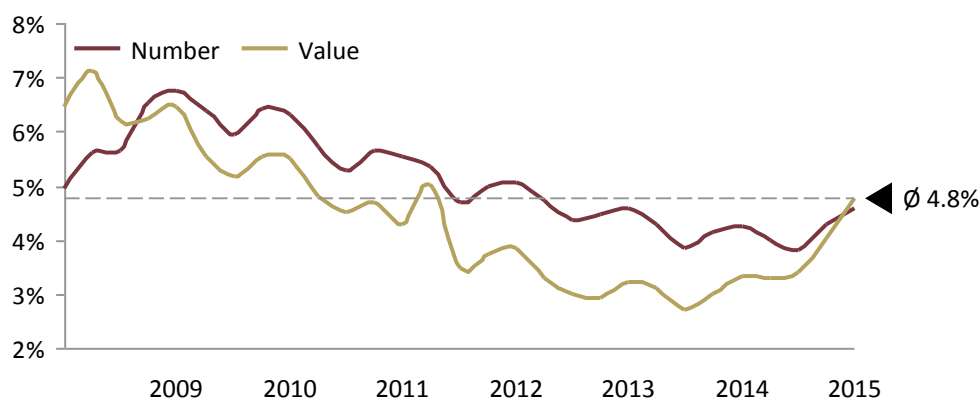


Figure 82. Percentage of bounced cheques to total cheques presented

UAE Direct Debit System (UAEDDS)

The system was introduced in the year 2013 as a safe and convenient method for regular payments with fixed or variable amounts. The value of presented claims increased to 11 bAED in 2015 (2014: 2 bAED). Share of dishonoured claims has also increased and exceeded 25% (2014: 18%).

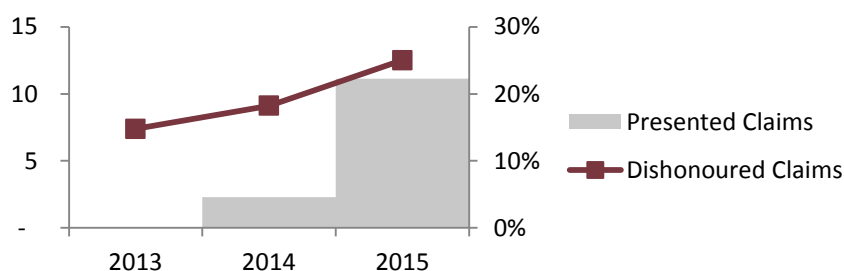


Figure 83. Presented claims (in bAED) and share of dishonoured claims (RHS, %) in the DDS

Wages Protection System

The Wages Protection System (WPS) was implemented in cooperation with the Ministry of Labour (MOL) to streamline the timely payment of wages to employees in October 2009.

Salary information flows from the employer to one or more of the contracted agents for payment of the wages to their employees. Funds from the employers are secured by the CBUAE prior to dispatching the wage information to the agents. As at the end of 2015, a total of 108 entities participate in the system.

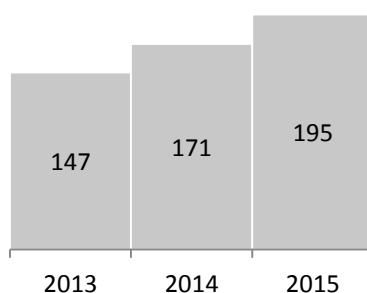


Figure 84. Value of transaction on WPS (in bAED)

UAE Switch

Launched in 1996, the UAESWITCH scheme now comprises 43 member banks and over 4,500 ATMs. Through its connection to GCCNET, UAESWITCH allows cardholders to obtain service at ATMs throughout the Gulf region.

The use of the network has grown over the years so that during 2015, monthly transaction volumes are over 1.4 million balance enquiries and 7.4 million cash withdrawals (2014: 6.6 million) worth 11 baED (2014: 10 baED).

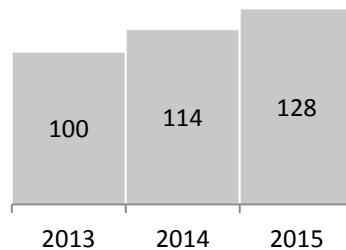


Figure 85. Cash withdrawals made by UAE card holders in the UAE (in baED).

Payment Cards

In 2016, the CBUAE mandated that all cards issued in the UAE must comply with EMV standards. Almost all the backend systems and POS terminals have become fully compliant with EMV requirements. The number of EMV compliant cards issued has increased to 79% in 2015 (2014: 57%).

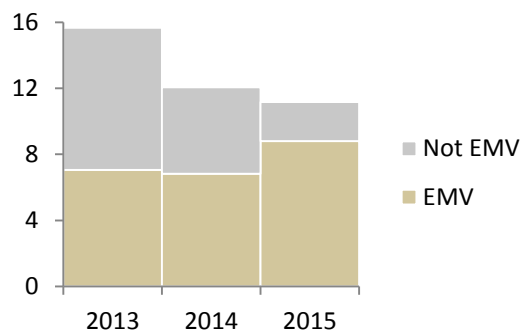


Figure 86. Number of EMV and not EMV compliant cards issued (credit, debit and prepaid) in millions

Similarly, the value of Point of Sale transactions made through UAE merchants using payment cards increased by 7.4%, while the number of PoS Terminals increased by 30 thousand terminals in 2015.

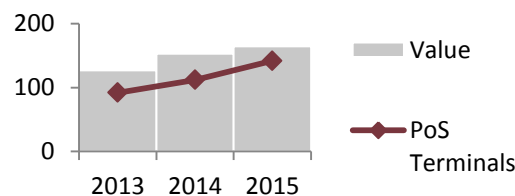


Figure 87. Value of PoS transactions (in baED) and number of PoS terminals (th)

Appendices

Annex: Key Financial Stability indicators

Table 12. Key financial stability indicators (in bAED or ratio)

Financial Stability Indicator	2009	2010	2011	2012	2013	2014	2015
<u>Banking</u>							
Total assets	1562	1662	1734	1877	2124	2305	2478
Total loans and advances	1061	1088	1143	1184	1276	1378	1485
Total deposits*	983	1050	1070	1168	1294	1439	1491
Lending to stable resources ratio	90%	86%	88%	83%	85%	85%	87%
Net total liquid assets	131	153	159	178	217	234	245
Collateralised funding by the CB	6.7	1.4	1.3	0.5	0.5	0.5	0.2
Net interbank lending by local banks	-40	30	16	78	88	82	0
Capital market funding	68	71	75	92	111	154	148
Non-resident deposits	89	120	112	134	115	154	172
Capital adequacy ratio	20%	22%	21%	21%	19%	18%	18%
Tier-1 capital ratio	16%	17%	16%	17%	17%	16%	17%
Classified loans	51	68	82	103	107	96	93
Provision coverage ratio	85%	84%	87%	83%	91%	102%	110%
Rescheduled loans (corporate)			96	91	78	64	65
Rescheduled loans (personal)			17	11	9	6	4
Net banks' profits	19	23	27	27	32	39	37
Net provision charges to total profit ratio	106%	76%	66%	57%	45%	36%	48%
Net Return on Assets	1.2%	1.4%	1.5%	1.4%	1.5%	1.7%	1.5%
Net Return on Equity	9.8%	11.6%	12.5%	11.2%	11.9%	13.6%	11.4%
<u>Non-banking financial institutions</u>							
Total assets of finance companies			48	49	50	45	47
Total assets of investment companies			15	14	14	15	16

*Total deposits include refinancing for housing scheme

Annex: FSTI Methodology

The FSTI is an average of the normalized quarterly variables selected at the end of each quarter for the period covered, unless mentioned otherwise.

Definition of the transformed variables

- I_{b_1} is calculated as Bank's Capital (Tier 1+2) / Risk Weighted Assets (RWA).
- I_{b_2} is calculated as the total Impairment loss (trailing 4-quarters period) / average total assets (for past four quarters).
- I_{b_3} is calculated as the annual growth of end of quarter balance of NPLs.
- I_{b_4} is calculated as the Lending-borrowing (net lending) from banks abroad / Total Loans.
- I_{b_5} is calculated as the liquid assets to total liabilities ratio of all banks.
- I_{b_6} is calculated as the ratio between loans-to-deposits of all banks.
- I_{b_7} is the trailing net profit after tax for all banks for the past four quarters / average assets of all banks for the past four quarters.
- I_{b_8} is calculated as the non-interest expense for all banks/ total gross income for all banks.
- I_{b_9} is calculated as the liability weighted average market default risk calculated by Bloomberg for 13 local UAE banks.
- $I_{b_{10}}$ is calculated as the free float weighted average 90 day volatility of DFIBANK & ADBF Indices / free float weighted average 90 day volatility of DFMGI & ADSMI Indices.
- I_{e_1} is built by using the function $-(RE_t - REHP_t)$ if $RE_t > REHP_t$, $RE_t - REHP_t$ otherwise, where RE_t represents the average price of Dubai real estate at the period t and $REHP_t$ represents the value at t of the two-sided HP filter applied on RE_t for the period Q2 2006 - Q4 2015.
- I_{e_2} is the ratio of current account balance to GDP.
- I_{e_3} is calculated as the end of quarter Brent Spot Price / end of quarter Brent Spot Price of the previous year) – 1.
- I_{e_4} is calculated as the logarithm of mean absolute deviation of the value of one year forward rates of USD/AED on a quarterly basis.
- I_{s_1} is the PE ratio of the composite MSCI UAE index.
- I_{s_2} is calculated as the 90 days market volatility for the composite MSCI UAE index.
- I_{s_3} is calculated as the average of 5 year CDS premium for all traded government bonds of Dubai and Abu Dhabi Emirates.

Normalisation and calculation of the FSTI

All variables are statistically normalized as per the below formulae:

$$Z_t = \frac{I_t - m}{\sigma}$$

Where I_t – the observed variable at the period t , \mathbf{m} – its sample mean and σ – its standard deviation for the period June 2006 – December 2015.

The computational definition of FSTI is:

$$\mathbf{FSTI} = \frac{\sum_{j=1}^{10} Z_{s_j} + \sum_{j=1}^4 Z_{v_j} + \sum_{j=1}^3 Z_{r_j}}{17}$$

It is worth noting here that indicators that have a negative relationship to financial stability were taken in their reciprocal value or in some cases simply multiplied by (-1).

Annex: List of Acronyms

Table 13. List of Acronyms

Acronym	Description
AED	Arab Emirates Dirham
BCBS	Basel Committee for Banking Supervision
BIS	Bank for International Settlements
BoJ	Bank of Japan
BPS	Basis Points
BRFs	Bank Reporting Forms
BRICS	Brazil, Russia, India, China and South Africa
BSI	Banking Sector Index
CAR	Capital Adequacy Ratio
CBUAE	Central Bank of the UAE
CDS	Credit Default Swap
CPI	Consumer Prices Index
CSS	CBUAE's Credit Sentiment Survey
ECB	European Central Bank
EIBOR	Emirates Interbank Offered Rate
EWS	Early Warning System
FOMC	Federal Open Market Committee
FSIs	Financial Soundness Indicators
FSR	Financial Stability Report
FSTI	Financial Stability Trend Index
GBP	Great Britain Pound
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GREs	Government-Related Entities
IMF	International Monetary Fund
JPY	The Japanese Yen
LGD	Loss Given Default
M1, M2, and M3	Monetary Aggregates
MROs	ECB's Main Refinancing Operations
NBS	UAE National Bureau of Statistics
NEER	Nominal Effective Exchange Rate
NII	Net Interest Income
NIM	Net Interest Margin
NPLs	Non-Performing Loans
OECD	Organisation for Economic Co-operation and Development
PMI	Purchasing Manager' Index
ROA	Return on Assets
ROE	Return on Equity
RWA	Risk Weighted Assets
SHIBOR	Shanghai Interbank Offered Rate
SMEs	Small and Medium Enterprises
T1	Tier Capital 1 ratio

UAE	United Arab Emirates
UAEEI	UAE Economic Index
UAESMI	UAE Stock Markets Index
UK	United Kingdom
US	United States of America
USD	The US Dollar
