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# 1. Introduction

This note was prepared for the BIS Meeting of Deputy Governors of Emerging Market Economies held in Basel from 28 to 29 January 2010. It captures the experience of the Saudi Arabian banking system during the global financial crisis, which has ravaged the global financial markets since mid-2007. The paper focuses on international banking and the role of domestic financial intermediation – the main subject discussed at the meeting.

In this context, it is important to note that, due to the structure of its economy, its sound economic conditions, prudent and conservative supervisory framework, countercyclical fiscal and banking system policies, and other macroeconomic reasons, Saudi Arabia was not materially affected by the global financial crisis. In fact, while many economies around the globe, especially developed countries, were severely and negatively affected by the crisis in 2008 and 2009, the Saudi economy continued to show resilience and strong economic growth. Consequently, the Saudi Arabian experience of international banking and domestic financial intermediation during this tumultuous period was relatively positive. Although Saudi banks were moderately affected by the deteriorating conditions in the global financial markets, the Saudi domestic financial market continued to function effectively and efficiently without any hiccups.

# 2. Economic developments in Saudi Arabia in 2008 and 2009

To put this paper in its proper context, it should be noted that during the five-year period 2004–08, the Saudi Arabian economy fared well by international standards, with an average real GDP growth rate of 4.4%, and an average government fiscal surplus of 19%. This mini boom propelled all economic sectors, but especially the banking sector, which benefitted greatly from surging economic activity and a high rate of government spending. In summary, these positive economic conditions underpinned the strong performance of the banking sector in 2008 and 2009, the highlights of which are as follows:

- Real GDP grew by 4.5% in 2008 (3.3% in 2007), on the back of strong oil sector growth of 4.8%. The non-oil private sector, which represents 47% of GDP, also grew at a healthy rate of 4.7%.
- Saudi Arabia enjoyed a current account surplus of 28% of GDP in 2008 and a record trade surplus of 45% of GDP.
- The country continued to be a total net external creditor; external debt, according to BIS statistics, is estimated to be 15.4% of GDP. However, there is no external government debt.
- During 2008 and 2009, inflationary pressures continued to decline, with inflation in 2008 at 9.87%, subsequently declining on a year-on-year basis to 4.4% by September 2009.

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# 3. The strength of the Kingdom's banking sector

A major factor affecting the experience of international and Saudi banks during the tumultuous period of 2008 and 2009 was the sound performance of the Saudi banking sector, which continued to show strong profitability and growth during that period. The rate of return on average equity for 2008 was 20%, and for the nine months to September 2009 it stood at 16%. These solid returns in a period of turbulence and volatility are very positive and satisfactory.

Saudi banks are well-capitalised by international standards, and showed an average Basel capital adequacy ratio of 16% in 2008 (15.9% in September 2009). It is noteworthy that almost all the capital of Saudi banks is Tier 1 capital. In addition, the quality of Saudi banks' assets remained strong, with non-performing loans (NPLs) amounting to 1.4% of total loans and advances at end-2008, while provisions coverage was at 153%. NPLs remained below 3% at September 2009. Banks continued to be highly liquid, with liquid assets representing an average of 34% of total customer deposits in 2008. The healthy situation prevailing at end-September 2009 has continued unabated, with a liquidity ratio at over 30%.

## 4. Cross-border lending to and from Saudi Arabia

There is not much evidence of a decline in lending to Saudi Arabia from international banks reporting to the BIS. The BIS statistics contained in the March 2009 *BIS Quarterly Review* showed a strong growth (92%) in extension of credit to Saudi banks in 2007, when total credit reached USD 69 billion from USD 36 billion at end-2006. Thereafter, the growth rate (7%) tapered off and the credit extended to Saudi banks increased to USD 74 billion by end-September 2008. Loans to the non-banking sector increased from USD 17 billion in December 2006 to USD 31 billion at end-2007 (growth of 82%), subsequently tapering off to USD 36 billion by September 2008 (growth rate of 16%) (BIS data are not yet available after this period).

On the liabilities side, international banks' deposits from Saudi Arabia grew rapidly from USD 105 billion (December 2006) to USD 185 billion by September 2008 (growth of 76%) (BIS data for the period September 2008–September 2009 are not yet available). Nevertheless, the above information reflects the expected conditions of the international market in that:

- a. Financing by international banks of banking and non-banking counterparties in Saudi Arabia grew strongly in 2007 but, due to the deteriorating conditions in the global financial markets, they tapered off in 2008 and 2009.
- b. Saudi counterparties continued to place deposits or invest with international banks. In fact, the increase in deposits reflects the conditions of excess liquidity in the domestic market, which was being channelled to the international markets.

The BIS statistics are confirmed by the Saudi Arabian Monetary Agency's (SAMA) banking system statistics, which indicate a decline in funding provided by international banks to Saudi banks (domestic operations only). There was a reduction from SAR 64 billion (December 2007) to SAR 40 billion (September 2009) (see Annex 1, Table 1). This decrease in funding can be attributed to the following:

• On the supply side, following the collapse of Lehman Brothers, international banks became reluctant to fund even the strongest emerging market banks due to their own need to build up liquid assets. In fact, during 2008, major international banks were replenishing their liquidity from overseas, including many emerging markets. Consequently, it was hard to find dollar liquidity in the global and regional interbank markets during the first half of 2008. By end-2008, the situation had eased somewhat, and while the cost of dollar liquidity remained high, it was available for shorter maturities and with sizeable risk premia.

- On the demand side, the need for international funding was in turn affected by the fact that Saudi banks had excess liquidity due to high levels of government expenditure, as well as by the slowing down of growth in domestic credit extension and the few opportunities for Saudi banks to invest in turbulent international markets. These factors led to a significant increase in bank funds placed with the SAMA. It was evident that, in 2008, Saudi banks did not need international liquidity, which had become very expensive.
- There is anecdotal evidence that the funding from international banks to Saudi counterparties changed in terms of maturities (eg interbank funds from a 90-day to a 30-day maturity) and the cost of USD funds increased by between 150 and 300 basis points (bp) to reflect the additional risk premia. There is no evidence of other significant changes in terms of demand for more collateral, guarantees or margins for derivatives contracts, etc.

## 5. Domestic bank funding

Notwithstanding the global financial crisis, domestic funding of Saudi banks continued to be strong, with total deposits growing by 16% in 2008 and 10% (per annum) up to September 2009 (see Annex 1, Table 2). There was significant growth in deposits from households and non-financial corporations. The underlying reasons for this include:

- As part of its expansionary fiscal policy, the Saudi Government continued to spend at a high level in 2008 and 2009, thereby providing funds to local market participants. Furthermore, due to the buoyant economic conditions, Saudi banks were taking advantage of the opportunities in the domestic economy and were therefore maintaining liquid assets within the local economy.
- Many corporations and companies had slowed down or cut back their international investment programmes due to uncertainties in the global financial markets and a lack of suitable investment products and opportunities.
- These enterprises, which were flush with liquidity, had become more risk-averse and consequently preferred to place their excess liquidity with domestic banks.
- Funding from other domestic financial institutions increased from SAR 16 billion (at end-2007) to SAR 26 billion (60% growth) at end-2008, and to SAR 39 billion (50% growth) by September 2009, mainly due to the increase in the number of new financial institutions licensed as securities firms and insurance companies. This also indicates that the domestic financial institutions had decided to park their funds with Saudi banks which were less risky than international and regional counterparts.

## 6. Domestic bank lending

On the bank lending side, the increase was spectacular in 2007 (growth of 20%) and 2008 (growth of 25%), but levelled off in the first three quarters of 2009 (growth of only 1%) (see Annex 1, Table 3).

Household lending in the Kingdom was stable during the period September 2007–09 at between SAR 180 billion and SAR 190 billion due to domestic factors following the adjustment in the local stock market in 2006. Other factors include regulatory changes and stricter lending criteria applied by banks. Consequently, there was no noticeable growth in household lending during the period 2007–09.

Corporate sector lending by banks rose sharply during the period 2006–08 from SAR 274 billion to SAR 529 billion, a growth of almost 93% over a three-year period. This was due to a variety of reasons, including rapid economic growth in the oil sector and non-oil private sector. The overall economy was buoyant, reflecting conditions of positive growth, and bank lending to the corporate sector was booming. There was strong growth in lending to almost all sectors, which showed high growth percentages: commerce (68%); manufacturing and processing (120%); transport and communications (400%); services (95%); and building and construction (45%). The only sector where there was a significant downturn in lending was the financial companies sector, which declined by 70%.

However, lending conditions changed in the nine months from January to September 2009, during which the overall growth in corporate loans was less than 2%. This turnaround reflected the shifting sentiment in the banking sector due to the deteriorating conditions affecting the global markets. Consequently, both the supply and the demand sides were affected in 2009.

The factors affecting the demand side were as follows:

- a. There was a slowdown in demand for credit from the corporate sector as many companies in 2008/09 were re-evaluating their business strategies and plans in light of reduced global demand for their products and services.
- b. There was also a slowdown in certain industrial sectors such as steel, transport and consumer products due to lower consumer demand in the domestic and regional markets.
- c. Additionally, there was a slowdown in demand for credit from mega projects, many of which re-estimated their spending plans in 2008/09 in light of the global financial crisis, economic slowdown and higher costs of securing international financing. This had implications on their requirements for financing from local banks.
- d. The decline in the cost of raw materials in the global markets also incentivised businesses and mega projects to rework their estimates and budgets, leading to delays in the planning and implementation of projects, which resulted in a reduced need for credit.

On the supply side, banks also became stricter in their lending criteria: they re-evaluated their existing credit lines and revised their pricing upwards in line with global and regional trends and also shortened their maturities for loans.

The picture of domestic lending would not be complete without reference to a few public credit institutions that also stepped up their efforts to support credit availability. The Saudi Government announced plans to inject SAR 40 billion into specialised credit institutions in 2008 to ease credit conditions as private sector banks reassessed their credit extension in light of global market conditions. Of this amount, SAR 25 billion was granted to the Real Estate Development Fund over a five-year period, starting in 2008, to help the nascent housing market, and SAR 10 billion was provided to the Saudi Credit and Savings Bank (non-deposit taking institution) to be used as loans for low-income citizens.

## 7. Foreign bank lending in Saudi Arabia

The share of foreign bank branches in the Saudi banking system is still not significant: their total assets at end-September 2009 stood at 2.5% of the total assets of the banking system. While foreign bank branches were vigorously competing for business with Saudi banks in 2009, they were also affected by funding constraints and guidance on stricter lending criteria from their head offices (HOs). In addition, on the demand side, they reviewed their relationships and credit lines, increased their prices and reduced the maturity of loans, etc.

The supply side constraints of foreign bank branches also affected their extension of credit in 2009. There is some anecdotal evidence that cross-border funding in 2009 was negatively impacted as international banks showed a reluctance to lend. Additional factors such as price and maturity also became far more significant in 2008. International banks were reluctant to fund projects and enterprises with longer-term debt and, on average, the pricing of USD loans went up by between 200 and 300 bp.

## 8. Impact on local money and debt markets

### Steps taken by the central bank in the domestic market

There were no significant changes in the domestic interbank market due to ample SAR liquidity availability. The steps taken by the Saudi Government in the wake of the global financial crisis went a long way to restoring full confidence in Saudi banks, the banking system and the Saudi interbank market. Saudi banks continued to provide liquidity to each other and to international banks at competitive rates. In general, the interbank rates were low, as they were affected by the following measures taken by the SAMA:

- Reducing the statutory deposit ratio for demand deposits to 7% in October– November 2008 against 13% in September 2008, and maintaining the ratio for time and savings deposits at 4%.
- Gradually reducing the repo rate from its previous level of 5.50% to 2% from October 2008 to January 2009, and the reverse repo rate from 2% to 0.25% from October 2008 to June 2009.
- Reducing the pricing of treasury bills by 50 bp lower than the Saudi interbank deposit rate (SIBID) the bills remained priced at 80% of the interbank rate in Q2 2009.
- Creating cash deposits, not only in domestic currency but also in USD, in the domestic money market in order to enhance liquidity through the placement of time deposits with domestic banks.
- Placing time deposits with domestic banks for a relatively long period on behalf of government agencies and institutions and in coordination with them. Since such deposits are considered to be customers' deposits included within the ratio of loans to deposits, this measure was designed to help banks expand credit.
- A major factor affecting the local interbank market was the announcement made by the Supreme Economic Council that the Government was continuing to guarantee the safety of local bank deposits. This went a long way to assuring all depositors and assuaging any negative sentiment relating to Saudi banks.

In the global interbank market, there was a shortage of dollar liquidity in 2008 and 2009 due to the global money market squeeze. SAMA therefore injected dollar liquidity through foreign exchange (FX) swaps and direct deposits with local banks. In line with global developments, the domestic money market remained somewhat distorted, with wider bid-ask spreads. However, it was evident that SAMA's liquidity injections were helpful in mitigating the impact of global events on the local market. Additionally, there was no liquidity shortage in the local currency as banks remained flush with SAR liquidity.

With regard to derivatives, the requirements of Saudi banks in this market revolve around several simple instruments such as interest rate swaps and futures, and currency-related spot forwards and futures. These are generally considered to be vanilla products and are neither complex nor sophisticated. Saudi banks reported no change in the types of derivatives products being sold in the Saudi market, and there were no significant changes in the terms and conditions of these products related to collaterals, guarantees or margins, etc.

Parent bank financing of their branches in the Kingdom displayed the following trends:

- 1. In general, inward funding from HOs or associated banks was stable, and in some cases it stopped altogether.
- 2. In a few cases, it was observed that HOs withdrew funds from their branches in Saudi Arabia in order to shore up their overall liquidity.

### Impact of the crisis on the local debt market

The financial crisis did not have any impact on the local currency debt market due to the policy followed by the government prior to the crisis to redeem its outstanding debt and to investors' preference to keep such debt on its books. The corporate bond market was still at an early stage of evolution and was therefore not affected in any way.

# 9. Some lessons learned from the central bank instruments used to deal with the financial crisis

### Instruments at the disposal of the central bank

This section examines the SAMA's general views on this subject. In abnormal times, conventional monetary policy tools often prove insufficient to achieve the central bank's objective for two reasons.

First, the economic shock can be so powerful that the nominal interest rate needs to be reduced to close to zero. At that level, cutting policy rates further is not possible, so any additional monetary stimulus can be undertaken only by resorting to unconventional monetary policy tools. Broadly speaking, the additional monetary stimulus, which is needed when the policy interest rate is close to zero, can be achieved in three complementary ways: (i) by guiding medium- to long-term interest rate expectations; (ii) by changing the composition of the central bank's balance sheet; and (iii) by expanding the size of the central bank's balance sheet. All these measures have one element in common: they are designed to improve financing conditions beyond the very short-term interbank interest rates.

Second, non-conventional measures may be warranted even when the policy interest rate is above zero if the monetary policy transmission process is significantly impaired. Under these circumstances, central banks have two (not necessarily mutually exclusive) alternatives, namely: (i) to reduce the short-term nominal interest rate even further than in normal conditions; and (ii) to act directly on the transmission process by using non-conventional measures.

The experience of the past year and a half – a very stressful time for the global financial system – has shown that non-conventional tools might be needed even before policy rates have been cut to their lower bounds. When the financial turmoil started in summer 2007 and central banks worldwide stepped in to provide additional liquidity to financial markets, it appeared that conventional measures would still suffice. Although markets were not operating normally (far from it), tensions in the euro area interbank market were considerably eased by supplementary longer-term refinancing operations. But things changed as the crisis intensified in September and October 2007. Shortly after the collapse of Lehman Brothers, the spread between the three-month Euribor and the overnight interest rate EONIA – which in normal times would, on average, be around 10 bp – rose to an all-time high of 156 bp on 13 October 2007. Market liquidity virtually dried up, and the sudden loss of confidence among market participants threatened to have a lasting effect on the orderly functioning of the euro area money market.

In summary, interest rates alone cannot address the liquidity problem. This is because lowerbound zero interest rates fail to trigger bank lending in a liquidity trap. Hence, central banks adopted qualitative and credit easing (QE/CE) to ease up money market liquidity and stabilise the credit market.

# 10. Monetary policy measures taken to support the local interbank market

Given its global dimension, the current crisis has posed enormous challenges for policymakers on many fronts. Financial and price stability are critical to macroeconomic stability. In the past two decades, monetary policy aimed at low and stable inflation and, surprisingly, the success of monetary policy turned out to be part of the problem. This is because perverse incentives (created by the continuation of low interest rates and low inflation) led to a higher appetite for risk-taking, thereby destabilising the economy in the longer term. In normal times, excessive or rapid currency depreciation would warrant the maintenance of high interest rates. The main policymaking objective during the current crisis was to avert deflation/depression. The currency factor did not constrain central banks' zeal to lower interest rates as part of their reflationary objective.

Although there was no subprime mortgage crisis in Saudi Arabia, the financial turmoil in global markets raised fears and created some uncertainty in the Saudi interbank market. Consequently, the Saudi interbank offer rate (Sibor) rose sharply in the aftermath of the collapse of Lehman Brothers, reaching a level of more than 200 bp above the reverse repo rate, as seen in Chart 1. Furthermore, there were fears that the evaporation of liquidity in the international interbank markets would be passed on to the whole of the financial system.

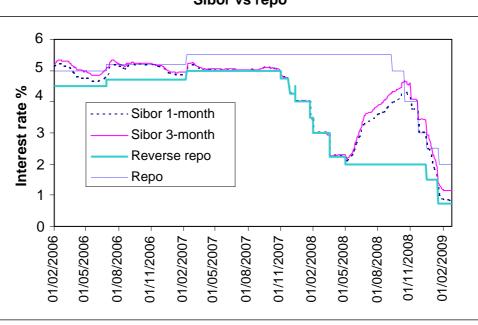


Chart 1 Sibor vs repo

Thus, the SAMA had to intervene quickly to restore confidence in the local financial market by reducing the repo rate several times consecutively from 5.5% in October 2008 to 200 bp in January 2009, and reducing the reverse repo rate from 200 bp in October 2008 to as low as 25 bp in June 2009.

The impairment of the interbank market in local currency varied among countries. Generally, interbank lending in local currency was less of a problem due to the significant central bank support measures provided through repos, direct placements and, where applicable, the buying of money market instruments by central banks. In Saudi Arabia, system liquidity was abundant due to government debt redemption and brisk government spending.

### Instruments that proved effective during the crisis

The extraordinary nature of the crisis required extraordinary measures. As central banks exhausted conventional instruments (ie lowering interest rates and cutting reserve requirements), they resorted to QE/CE by buying government and non-government debt as well as by broadening the scope of eligible collateral. At the global level, the US Federal Reserve's FX swaps with various central banks were timely in addressing the dollar liquidity squeeze. The application of QE/CE has been instrumental in providing liquidity to the system and reducing market stress. As for monetary policy, the crisis implies that financial stability considerations should be taken into account when formulating policy aimed at preserving price stability over the medium term. This means close monitoring/analysis of asset price movements, monetary and credit developments and the emergence of systemic risk.

In addition to some of the above measures, the SAMA also reduced the ratio of statutory reserve requirements on demand deposits on a number of consecutive occasions in a twomonth period (October–November 2008), from 13% to 7%. Furthermore, the SAMA directly intervened in liquidity provision by placing deposits with commercial banks on behalf of government institutions. Finally, in the fourth quarter of 2008, the treasury bill rate was set to 50 bp lower than the Sibor, with the ceiling of commercial banks' investments in those bills reduced to SAR 3 billion a week in order to encourage banks to lend to their individual and corporate customers.

### Role of foreign exchange reserves and interventions

In the wake of the financial crisis, the primary goal of regulatory agencies worldwide has been to strengthen international regulatory standards, enhance transparency in global financial markets and ensure that all those markets, their products and participants are appropriately regulated or subject to oversight, depending on their circumstances. In addition to sound market integrity regulation, a macroprudential approach is advised in which national and international coordination between financial institutions is essential to ensure a systemwide approach to financial regulation in order to deal with systemic risk. The last thing that regulators want is another situation where they need to resort to non-conventional monetary (and fiscal) policies, which are costly and, thus, not sustainable. Therefore, future changes to the regulatory framework should focus on minimising those risks, which were not incorporated in previous regulations.

Saudi Arabia did not have to take any measures to support the foreign currency refinancing of banks/corporations; this is because Saudi Arabia is a net capital exporter and Saudi banks' asset/liability management is relatively conservative. The SAMA only conducted FX swaps with domestic banks to provide dollar liquidity in order to meet the financial system's demand for FX.

There is an ongoing debate regarding the maximum appropriate amount of FX reserves. Some critics say that the accumulation of FX reserves far in excess of the historic norm gives rise to external imbalances and asset price distortion. Asian central banks built up their FX reserves as an insurance policy following the Asian financial crisis in the late 1990s. In fact, this approach helped Asian economies to confront the recent dollar liquidity squeeze. In Saudi Arabia, the FX reserve position is a reflection of oil market developments and the pattern of government spending. FX intervention is a stopgap measure; when used to engineer the exchange rate, it results in reserve accumulation. Initially, interventions can be fully sterilised but as reserves grow, it becomes harder to sterilise successive reserves, in addition to the cost implications of issuing government debt to mop up domestic liquidity at higher interest rates. In Saudi Arabia, FX intervention has rarely been used, as the objective has been to stabilise occasional distortions in the forward market linked to exchange rate speculation.

### Table 1

### Structure of the domestic banking system

In domestic currency (SAR billions)

	2006	2007	2008	2009 <sup>2</sup>
Total assets	861	1,075	1,302	1,351
Private domestic banks	845	1,043	1,264	1,304
Foreign-owned banks				
Subsidiaries	_	_	_	-
Branches	16	32	38	47
State-owned banks	_	_	_	_
Other (eg cooperative banks, saving banks, etc)	-	_	-	_
Total capital				
Tier 1 capital as a % of total assets	10.1%	9.8%	10.4%	11.7% <sup>3</sup>
Memo items <sup>1</sup>				
Total assets of non- bank financial institutions	N/A	N/A	N/A	N/A
Stock market capitalisation	1,226	1,946	924	1,230

End of year (or latest available month for 2009)

N/A - Not available.

<sup>1</sup> Total for the economy. <sup>2</sup> Data as at 30 September 2009. <sup>3</sup> Data as at 30 June 2009.

## Table 2

## **Bank funding**

In domestic currency (SAR billions)

End of year (or latest available month for 2009)

	2006	2007	2008	<b>2009</b> <sup>1</sup>
Total liabilities	746	939	1,141	1,164
Foreign funding	59	105	112	98
By maturity				
Short-term liabilities	44	92	99	87
Long-term liabilities	15	13	13	11
By source				
Banks	22	64	45	40
Other foreign financial institutions	10	8	9	7
International money market instruments	-	_	-	_
International bonds issued by banks	6	6	6	6
Domestic funding				
Total deposits	591	717	846	911
Households <sup>2</sup>				
Non-financial private <sup>2</sup> corporations	475	573	668	695
Government and public sector corporations	116	144	178	216
Other				
Domestic market funding				
Borrowing from other domestic financial institutions	12	16	26	39
Money market instruments	-	-	-	_
Domestic bonds issued by banks	1	1	1	1

<sup>1</sup> Data as at 30 September 2009. <sup>2</sup> These balances are for household and non-financial private corporations.

## Table 3

### **Bank lending**

## In domestic currency<sup>1</sup> (SAR billions)

End of year (or latest available month for 2009)

	2006	2007	2008	<b>2009</b> ⁴
Total assets	861	1,075	1,302	1,351
Total loans	497	594	744	750
Holdings of bonds <sup>2</sup>				
Domestic				
Government	114	127	91	78
Other	13	20	22	25
Foreign	36	66	40	69
Holdings of short- term debt securities <sup>3</sup>				
Short-term	9	17	119	83
Long-term <sup>5</sup>	N/A	N/A	N/A	N/A

<sup>1</sup> Including foreign currency loans, where applicable.
<sup>2</sup> Debt securities held by banks with a fixed interest rate and maturity greater than one year.
<sup>3</sup> Including holdings of floating rate, longer dated paper by banks.
<sup>4</sup> Data as at 30 September 2009.
<sup>5</sup> This information is not available.