

# Monetary policy instruments and procedures in Saudi Arabia

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## Introduction

Monetary policy is one of the ways in which the Government can influence the economy. In Saudi Arabia, this task is carried out by the Saudi Arabian Monetary Agency (SAMA) as an agent of the Government. Monetary policy must pay attention to fiscal policy. Very often monetary policy is used to fine-tune the effects of fiscal policy.

Central banks have a range of targets, which are given different emphasis at different times. Targets include short-term interest rates, growth rates of narrow money and broad money, monetary conditions, inflation, the exchange rate and other economic indicators. Complicated theoretical models of the economy are used by central banks to see how effective their policy has been over time. The job of selecting and hitting targets is problematic because it is often difficult to determine whether changes are being accomplished by monetary policy or fiscal policy.

Limitations to monetary policy in Saudi Arabia are due to the openness of the economy, with the riyal effectively pegged to the US dollar since the suspension of the SDR/riyal link in May 1981. In practice, this has resulted in riyal interest rates closely tracking dollar rates, often with a small premium, since the mid-1980s. It was argued in the past that domestic banks contributed substantially to capital outflow from Saudi Arabia, fanning intermittent bouts of speculation against the riyal, particularly when oil prices remained depressed. It was hard to establish the extent of the banks' responsibility for dislocation in the riyal market, as the banks claimed that their extensive net foreign assets and large net foreign exchange positions were the result of liquidity management rather than a deliberate short positioning of the riyal. There is some credibility to the banks' claim, given that their net foreign assets and net foreign exchange position were significantly reduced once a range of domestic financial instruments was created in the 1990s.

In Saudi Arabia, the exchange rate plays a crucial role in monetary policy. It is an important variable for price stability and the balance of payments. Intervention policy under the fixed exchange rate regime is influenced by the level of foreign exchange outflow and the dollar/riyal interest rate differential. This will have direct effects (due to interest arbitraging) and indirect effects (via current account deterioration) on Saudi Arabia's foreign exchange reserves. With perfect asset substitutability, a small change in interest rates results in a large change in reserves, reflecting the general point that there cannot be an autonomous monetary policy in a fixed exchange rate system with perfect asset substitutability.

## **1. Factors relevant to the dollar/riyal exchange rate**

Under Article 1 of SAMA's charter, "the objective of the Saudi Arabian Monetary Agency shall be to issue and strengthen the Saudi currency and to stabilise its internal and external value". In its exchange rate policy, SAMA takes into account the following elements:

### *(i) Price stability*

In Saudi Arabia, monetary policy is tied to exchange rate policy. The policy objective is to maintain the dollar/riyal exchange rate as stable as possible so that public confidence is maintained and the inflow of capital is encouraged for domestic investment. Against this background, exchange rate policy has generally reflected the goal of internal price stability and balance-of- payments considerations. In achieving these objectives, SAMA moved from the SDR to the dollar as the numeraire for the riyal. In times of capital surpluses (the late 1970s) the riyal remained pegged to a strong numeraire, and the dollar/riyal exchange rate was frequently adjusted to reflect the SDR's strength against the dollar. The adjustment, calculated through a formula, became so transparent and predictable that banks and other market participants could short their dollar positions and profit once the expected revaluation of the riyal materialised. Although the revaluation of the riyal helped to mitigate the effect of imported inflation and structural rigidities (the impact of supply bottlenecks on internal prices), it led to speculative positioning in the currency.

### *(ii) Balance-of-payments considerations*

SAMA formally suspended the SDR link in May 1981 and has since maintained a de facto link to the dollar, with the last devaluation of the riyal occurring in June 1986 when its exchange rate against the dollar was adjusted from 3.65 to 3.75. In the 1980s, the balance of payments remained the overriding factor in exchange rate policy. The correction in the value of the dollar from the mid-1980s has been instrumental in reducing Saudi Arabia's current account deficit (except in the immediate aftermath of the Gulf crisis). The combination of the decline in the dollar (the numeraire) and low domestic inflation rate has prevented the riyal from becoming overvalued, as measured by the IMF's real effective exchange rate. Sporadic speculation against the riyal until recently emanated from market perceptions that Saudi Arabia would devalue the riyal to help reduce its budget deficit. It is worth noting that dollar/riyal exchange rate adjustments have not been made for budgetary reasons, simply because oil exports cannot be made more competitive by this means, and because gains arising from a devalued riyal are largely accounting gains with no lasting economic benefit to the Government.

### *(iii) Stability and confidence*

Stability is difficult to define, particularly when a currency is pegged to a reserve currency or a basket of currencies. In Saudi Arabia, stability has been defined with reference to the dollar, which is the intervention currency. The dollar is used as an intervention currency because oil income is denominated and received in dollars. This means that the riyal virtually floats against non-dollar currencies. Frequent changes in the exchange rate tend to inject uncertainty in estimating the cost of imported goods and services. It is, therefore, considered desirable to keep the exchange rate as stable as possible and to adjust it only when absolutely necessary.

## **2. The interaction of exchange rate and monetary policy**

The major factors influencing monetary aggregates are the Government's fiscal operations and the private sector balance-of-payments deficits. Changes in domestic bank credit to the private sector play a relatively

smaller role in influencing monetary aggregates. For instance, until 1982 the rate of monetary expansion was quite large reflecting massive development expenditures by the Government. Its inflationary impact was neutralised to a great extent by an exchange rate policy aimed at facilitating cheaper imports (an overvalued riyal). The Government spends a substantial portion (almost two-thirds) of its foreign exchange earnings in the domestic market, with direct foreign exchange expenditures accounting for the remaining one-third. It is net domestic cash spending by the Government which has the expansionary influence on the money supply. The private sector balance-of-payments deficit has a contractionary influence on the money supply. The net effect of these two factors on the money supply is enhanced or reduced by expansion or contraction in bank credit to the private sector. Overall, credit availability has a limited impact on money growth (see the table below).

It is said that central banks can reduce the volatility of their balance sheet stemming from international flows only by adopting a purely floating exchange rate regime. In a fixed exchange rate regime, monetary policy becomes subordinated to exchange rate policy as the authorities are forced to adopt the monetary policy of the country or countries to whose currencies their own currency is pegged. Moreover, targeting the exchange rate means letting interest rates bear the brunt of the adjustment to various shocks.

As noted before, exchange rate policy in Saudi Arabia has generally reflected considerations of internal price stability and balance-of-payments equilibrium. With the Government being the major recipient of foreign exchange earnings due to oil revenues, fiscal policy plays a more dominant role than monetary policy in influencing economic conditions. The role of monetary policy has been circumscribed by the exchange rate regime and the openness of the economy. Riyal interest rates have, therefore, tracked dollar rates, while monetary aggregates have been determined largely by external factors and the Government's net domestic expenditures.

Saudi Arabia's situation is special due to the particular features of its resource-based economy. The outflow of foreign exchange has ranged between 85% and 110% of recorded government expenditure. Net riyal savings which pass through banks are generally converted into dollars for short-term investment. As the domestic capital market develops over time, the outflow pattern will probably change for the better. From the

## Factors affecting changes in M3

In billions of riyals

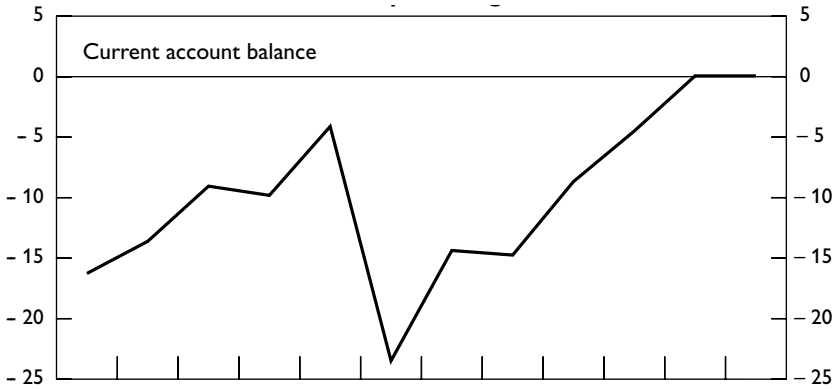
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Net domestic cash flows through government spending <sup>1</sup>	71.7	80.9	61.4	69.1	149.7	166.7	88.2	67.6	88.0	96.4	120.8	145.3
Commercial banks' claims on the private sector	1.2	-0.5	11.7	2.8	-8.0	8.3	13.5	15.6	11.0	8.0	2.4	10.1
Net private sector balance of payments <sup>2</sup>	-85.7	-97.4	-91.1	-96.0	-110.4	-106.1	-101.0	-132.5	-106.2	-108.3	-120.7	121.9
Net other items <sup>3</sup>	23.3	25.6	27.0	25.9	-23.0	-41.5	-4.6	56.6	9.6	13.2	23.6	-24.2
Change in M3	10.5	8.6	9.0	1.8	8.3	27.4	5.3	4.8	6.7	6.8	18.4	13.5
Annual growth rate of M3 (%)	7.0	5.4	5.3	1.0	4.6	14.5	2.5	2.2	2.9	2.9	7.7	5.2

<sup>1</sup> Including net loans disbursed by government-sponsored credit institutions. <sup>2</sup> Includes payments for goods and services as well as capital outflow.

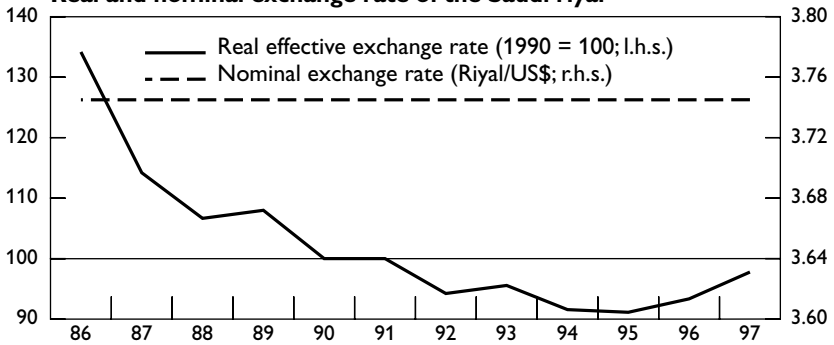
<sup>3</sup> Obtained as a residual and including gross capital inflow.

Source: SAMMA.

### Current account balance and exchange rates



### Real and nominal exchange rate of the Saudi riyal



standpoint of inflation, to avoid higher import costs and maintain confidence in the riyal, it is desirable for the exchange rate to be stable against the dollar. For foreign investors, with direct or portfolio investment stakes in Saudi Arabia, currency stability is also an important consideration.

### 3. Monetary transmission

In Saudi Arabia, changes in bank reserves can be explained as follows: given that SAMA is the Government's banker, there is no impact on

the monetary base when the Government receives dollars or their equivalent in riyals. When expenditures are made, the Government draws cheques on SAMA, which means SAMA's liabilities are shifted to the banks, facilitating credit creation by the banks. Since the monetary base is affected, the money supply is also impacted. The multiplier ( $M = m \cdot B$  where  $M$  is the money supply,  $m$  the money multiplier and  $B$  the monetary base) explains how the money supply expands once excess reserves get distributed throughout the banking system.\*

Given the predominant role of fiscal policy in influencing monetary developments in Saudi Arabia and the relative passivity of open market operations, the efficiency of monetary policy in regulating the stock of money and, therefore, aggregate demand via open market operations is limited.

The widely observed channels of transmission of monetary policy are as follows:

- (a) *Credit availability.* In Saudi Arabia, credit has a limited impact in the transmission mechanism of monetary policy, largely due to the subsidised lending of specialised credit institutions to the various economic sectors, and to banks' lending behaviour (competition is much greater in the deposit market than in the loan market).
- (b) *Interest rate changes.* In the absence of long-term bank credit and any meaningful leveraging by households and firms, the significance for disposable income of interest rate changes is less pronounced than is the case in a leveraged financial environment. The demand for money is generally inelastic to interest rate changes.
- (c) *Wealth effect.* This factor has its limitations in Saudi Arabia due to limited collateralisation of assets and hence the limited impact on bank credit of a decline in financial asset prices.
- (d) *Exchange rate effect.* The effectiveness of monetary policy is limited given Saudi Arabia's policy choice of administering the dollar/riyal exchange rate and the high degree of asset substitutability. Any

\* The relationship between the monetary base and the money supply is determined by the currency/deposit ( $cu$ ) and reserve/deposit ( $re$ ) ratios, expressed as  $m = (1+cu)/(re+cu)$ . Leakages can occur if chequing account deposits included in the money supply are shifted into foreign currency deposits (by selling riyals to SAMA against dollars) or into other forms of deposits not counted in the narrow money supply. Similarly and in a more general sense, if capital inflows cause the traditional net foreign exchange outflow to decrease, then the money supply will increase. This was the case immediately after the Gulf war when the M3 measure of the money supply grew by about 14.5%, partly due to capital repatriation, as well as to statistical effects.

decoupling of riyal interest rates from dollar interest rates (particularly in the event of lower riyal rates) will provoke arbitraging, which will have a negative impact on official foreign exchange reserves.

In an administered exchange rate regime with full convertibility and no restriction on capital flows, monetary policy becomes subordinated to maintaining the desired exchange rate. Moreover, the openness of the economy fosters the quick transmission of monetary influences from abroad. It is thus difficult to have an autonomous monetary policy in a fixed exchange rate system with perfect asset substitutability. This factor is reflected in short-term riyal interest rates closely tracking dollar interest rates (with a small risk premium). A higher risk premium tends to characterise long-term rates (e.g. on Saudi bonds) reflecting the perceived exchange rate risk and marketability considerations of the instrument.

Intervention policy may be warranted when large foreign exchange outflows occur due to: (a) commercial demand; (b) demand for foreign financial assets; (c) short-term liquidity management; and (d) speculation.

Foreign exchange outflows under (a) and (b) are of a fundamental nature due to the relatively small home production base and a less developed capital market. Foreign exchange outflows under (c) have been contained to a large extent by providing banks with money/capital market instruments. Speculation against the riyal, which becomes quite pronounced at times of falling oil prices, places an additional burden on official foreign exchange reserves.

As oil is the main foreign exchange earner for Saudi Arabia and the proceeds are paid into the Government's account at SAMA, SAMA is the sole provider of dollars to the private sector via the domestic banks. SAMA satisfies the private sector demand for foreign exchange by selling them the required dollars on a regular basis. This is a routine operation which lacks the flavour of "official intervention". The net effect is that the spot dollar/riyal exchange rate trades within a very narrow range. However, intervention has an important effect on the more volatile forward dollar/riyal exchange rate only when it influences expectations. This implies that foreign exchange intervention must be publicly known in order to be effective. SAMA's maiden intervention in the forward market in support of the riyal during December 1993 helped steady the forward market and domestic riyal interest rates. SAMA has no implicit



band for the exchange rate, nor does it aim to defend a particular level (rate) in the forward market. The intervention philosophy is very much tied to containing volatility in the forward market and maintaining overall market stability.

When exchange rate policy becomes the anchor for monetary policy, it becomes fairly difficult to pursue a countercyclical monetary policy independent of exogenous factors (i.e. a mix of tight fiscal and easy monetary policy or vice versa). The relevance of the demand function of money in conducting monetary policy under such an environment is no greater than the limitation of monetary policy in influencing the money supply. The role of fiscal policy in Saudi Arabia has an important influence on GDP growth, money demand/supply and structural inflation.

Exchange rate commitments induce a shift from a money supply rule to an interest rate rule and a much constrained scope for independent action in the control of money (the policy constraint in Saudi Arabia). From a policy perspective, ascertaining whether the demand for money balances is driven by long-term forces, or is subject to unpredictable shifts, remains an interesting academic exercise but is not a central concern in the conduct of monetary policy.

Although a well-developed financial structure is generally of crucial importance for the transmission mechanism, this argument has some limitations in Saudi Arabia because the domestic economy is not interest rate sensitive (i.e. output and inflation are not significantly influenced by changes in short-term interest rates). The presence of government-sponsored institutions, which are under little pressure to maximise profits, tends to diminish the responsiveness of loan and deposit rates to monetary policy as they are outside SAMA's terms of reference. In Saudi Arabia, competition among banks is much greater in the deposit market than in the loan market. In the short run, lending rates do not fully adjust to changes in money market rates, particularly when money market rates are falling. The linkage between changes in interest rates and changes in aggregate demand is rather inelastic.

It is difficult for monetary policy to target the level of domestic interest rates and the exchange rate at the same time. If it seeks to do so, imbalances may occur. The combination of tight monetary policy and an overvalued exchange rate cannot be sustained without the risk of aborting economic recovery. To alleviate the dilemma, cooperation between fiscal and monetary policies is essential.

#### 4. Policy instruments

In the pursuit of its monetary policy objectives, SAMA uses the following tools to influence money market conditions:

(i) *Minimum reserve policy*

*Cash reserve ratio (CRR)*

Under Article 7 of the Banking Control Law, banks are required to maintain a percentage of their customers' deposits with SAMA as prescribed cash reserves. This is a regulation of principle, designed both as a monetary policy measure and to ensure that the banks have adequate liquidity to cover their customers' deposits. This is the most powerful instrument of liquidity policy available to SAMA. However, it has been applied only for implementing structural changes in bank liquidity (credit creation control) rather than for the frequent fine-tuning of short-term liquidity. Changes in the minimum reserve ratios often produce considerable signal effects, which are by no means always desirable. SAMA last adjusted these reserves (from 12% to 7% on current account liabilities, with an unchanged 2% on savings/time deposits) in February 1980. Lower reserve requirements had the effect of injecting permanent reserves into the banking system which at that time was suffering from an imbalance between sources and uses of funds due to robust economic activity and surging demand for credit in the 1970s. Reserve requirements are imposed on liabilities to non-banks and financial institutions. Interbank transactions in the domestic market are free from reserve requirements. Offshore banks' riyal deposits with the domestic banks are subject to reserve requirements.

There is a growing feeling among bankers, including central bankers, that the reserve requirement system has lost its effectiveness in steering both liquidity and monetary policy while repos and swaps have been successfully used to fine-tune system liquidity. In today's sophisticated money market, reserve requirements do not retain the automatic buffer function. In Saudi Arabia, the availability of other instruments of liquidity management has diluted the role of reserve requirements in steering liquidity, although the instrument itself is still regarded as central to Saudi Arabia's monetary policy.

### *Statutory liquidity ratio (SLR)*

Under Article 7 of the Banking Control Law, banks are required to maintain a minimum amount of specified liquid assets equal to 20% of their demand and time liabilities (known as the statutory liquidity ratio). As a result of the application of the reserve ratios, the free liquidity at the disposal of the banks at any time for lending is the difference between total deposits and the aggregate of the sums constituting the cash reserve ratio and the statutory liquidity ratio.

### *(ii) Repos*

The issuance of government development bonds since June 1988 to finance the budget deficit has been an important milestone in Saudi Arabia's financial market development. The bond market provides an additional policy instrument to SAMA in the form of open market operations.

Open market operations are a flexible instrument of credit control whereby a central bank, on its own initiative, alters the liquidity position of banks by dealing directly in the market instead of using its influence indirectly by varying the cost of its credit. The efficacy of open market operations depends on central bank holdings of securities and the size and depth of the market.

In Saudi Arabia, the bond market is in the early stages of formation. Virtually all the public debt is held by a few institutions and banks. The market is likely to remain narrow for some years to come, precluding large-scale operations by SAMA since these would unduly disturb security prices. Moreover, the risk for SAMA in engaging in secondary market transactions at this stage would be one of acquiring and accumulating government debt over an extended period of time.

In situations that call for only temporary additions to bank reserves, SAMA engages in short-dated repurchase agreements (predominantly overnight repos) with banks. This arrangement permits a very short-term injection of reserves and their automatic withdrawal when the repos mature. The allocation of repos is linked to banks' holdings of eligible securities (government development bonds, FRNs and Treasury bills).

In situations where there is a temporary need to absorb, rather than provide, bank reserves, SAMA engages in overnight reverse repos (matched sale-purchase operations) with banks. For monetary policy

purposes, this procedure has the advantage over a definitive purchase of financial assets of being reversible at short notice, and that transactions under repos do not directly affect prices in the bond market but serve to regulate the money market. Repos are priced broadly in line with short-dated money market rates and reverse repos carry a spread of 1/2% below the repo rate. The repo window is always open to the domestic banks. Banks can raise liquidity via repos to meet unexpected clearing shortages and to temporarily facilitate their secondary market-making operations. Banks cannot buy dollars from SAMA out of the repo proceeds, nor are they expected to use repos to fund assets as part of their asset/liability management, although temporary accommodation at the time of settlement is tolerated.

*(iii) Foreign exchange swaps*

Foreign exchange swap transactions serve the purpose of influencing capital flows, thereby reducing the disruptions to monetary policy emanating from the foreign exchange market. As far as their significance for money market policy is concerned, foreign exchange swaps are analogous to repurchase transactions in securities. Swaps are more flexible with regard both to their maturities and to the volume which can be traded in any one deal. Reversible assistance operations to drain excess liquidity can easily be executed. Foreign exchange swaps, carried out at the ruling market rates, affect system liquidity but do not generally exercise a direct influence on the exchange rate. Swaps were extensively used to provide emergency liquidity to the banking system during the Gulf crisis. Interbank foreign exchange swaps are actively traded for maturities up to one year, primarily for liquidity management and occasionally against currency speculation.

*(iv) Placement of public funds*

As part of its regular money market operations, SAMA exercises its discretion in using the government institutions' funds at its disposal to place with the banks. Such placements of public funds are entirely at SAMA's discretion and are complementary to the primary instruments for fine-tuning day-to-day liquidity (repos and foreign exchange swaps). Basically, however, the placement of funds is to be seen as providing longer-term liquidity support (gross or rough-tuning). This rough-tuning

is carried out by placing deposits with domestic banks on behalf of autonomous government institutions or the intervention fund, as opposed to outright purchases of government securities in developed markets. Operations of this kind provide liquidity over longer horizons than regular repo transactions in response to predictable patterns in liquidity (such as seasonal fluctuations). They can also be used for providing soft loans to ailing banks (part of crisis management).

## **5. Monetary policy operating procedures**

### *(i) Institutional aspects*

SAMA, the country's central bank, is solely responsible for monetary policy formulation and implementation. It is also free to select its operating procedures and to determine the choice of instruments as well as when to use them. Only in a few cases like the changing of the statutory reserve requirement for banks, prior approval of the Minister of Finance and National Economy is needed.

There are no direct controls (such as credit ceilings or interest rate and foreign exchange controls) in use as part of monetary policy implementation. While it is difficult to envisage the circumstances in which direct controls might be applied, the main argument for their use could be to prevent undue credit concentration in a particular sector; an excessive rise in interest rates or excessive pressure on the country's foreign exchange reserves.

The bulk of the transfers of public sector deposits from/to commercial banks to/from the central bank are made by SAMA on its own discretion and as such do not affect the planning of monetary policy. The size and timing of such transfers depend on the exigencies of the situation.

SAMA, which manages government debt, does not extend credit to the Government, except for very short-term ways-and-means advances that serve to meet the Government's immediate cash flow needs. SAMA has full discretion in deciding the terms and timing of debt issuance. SAMA monitors closely the impact of fund raising from the market on system liquidity, and to date has not had to postpone the issuance of new debt.

### *(ii) Operational procedures*

The monetary and banking environment is subject to constant surveillance. Whenever the situation calls for action, a decision on the operating procedure is taken by SAMA's senior management. Deliberations/decisions are not made public but changes in repo rates are advised to the banks. SAMA typically makes interest rate adjustments in small and infrequent steps. Foreign exchange swaps and their prices (which are market-related) are left to the operational department. The operational instrument of monetary policy is banks' reserve accounts at SAMA. Interest rates play a subsidiary role as they are predominantly affected by US dollar interest rates. SAMA accommodates day-to-day liquidity needs of the domestic banks at the repo rates and in volumes which it determines. SAMA's informal estimate of the demand function for central bank balances is based on the level of daily repo activity. SAMA does not act proactively on a day-to-day basis as its "reactive repo mechanism" provides the market with a self-correcting adjustment factor. Generally, the demand for liquidity has been driven by the need to acquire sufficient settlement balances, in particular for settling securities transactions, securities settlements, to deal with unforeseen large withdrawals and to meet seasonal demand for liquidity.

It is rather difficult to quantify tolerance against volatility in the operating target and the overnight rate. The general attitude has been to stabilise the market through liquidity management. This is because acute volatility is interpreted as indicative of a dislocation in the market, prompted by capital outflows.

### *(iii) Transparency and signalling*

Transparency contributes to credibility. Indirect (market-related) instruments offer many advantages over direct instruments, notably greater flexibility and effectiveness in the implementation and conduct of monetary policy. This is because indirect instruments work through markets and permit small and timely changes in instrument settings, enabling the authorities to respond rapidly to shocks and to correct policy errors, thereby obviating the need for more massive shifts in policy. SAMA avoids imposing policy-making rigidities in a bid to retain flexibility in liquidity management and interest rate steering. Repos are largely conducted at market-related rates, known as MRR. The amount

of credit available to the banks at the MRR is up to 35% of eligible securities. SAMA also announces its official repo rate, known as ORR. A very limited amount of credit (up to 1/2% of eligible securities) is available to the banks at the ORR. The ORR has thus a directional (signalling) rather than a transactional influence on the domestic money market. The purpose of the Repo Window is to satisfy banks' day-to-day liquidity needs and keep the clearing system in balance (fine-tuning function). SAMA meets any erratic movements in money market rates through active intervention. Over the years the conduct of liquidity management has become increasingly transparent.