



Monetary Policies in the Middle East and North Africa at a Time of Turmoil

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I. Introduction

Over the course of the past three years, the Arab world has been going through historic tectonic changes. The transition process which started with the Tunisian provincial revolt in December 2010 toppled heads of state in Egypt, Libya and Yemen, threatened Jordan, Bahrain and Morocco, and swept to Syria. Countries in transitions have been following different paths. Syria is still witnessing continued escalating violence with spillover effects to the neighboring Lebanon and Jordan. Parallely, Egypt is undergoing episodes of continuing social unrest following military intervention to remove President Morsi from office. In contrast, Tunisia is observing some easing of political tensions and Iran sees some shed of improvements in its international relations following the election of President Rohani.

Against this political backdrop, macroeconomic fundamentals across the region have deteriorated since the onset of the Arab uprisingsⁱ. Economic performance remains mixed. With the surge of oil prices, region's oil exporting countries are growing at healthy rates while many oil-importing countries, which are undergoing political transitions, are facing the immediate challenge of re-establishing and maintaining macroeconomic stabilityⁱⁱ.

Though the political aspect of these popular revolts is undoubtedly of utmost importance, this paper aims to highlight the challenges faced by the monetary authorities in facing the turmoil. The paper starts with an in-depth review of the monetary policy frameworks that are in place in the MENA countries¹. It examines the exchange rate arrangements and the monetary policy anchors highlighting the main changes that occurred from 2011 to date. It also draws the implications on the monetary policy implementation and transmission mechanism channels and effectiveness.

II. Exchange Rate Arrangements in MENA countries

The IMF's Annual report on Exchange Arrangements and Exchange Restrictions (AREAER)ⁱⁱⁱ differentiates between two types of exchange arrangements: the *de jure* classification which refers to the officially and announced classification by the authorities and the *de facto* ones which reflect the degree to which the exchange rate is determined by the market rather than by official actions i.e. *intervention policies*².

As such, the *de facto* arrangements distinguish 10 categories regrouped under four subgroups: the *hard pegs* (such as exchange arrangements with no separate legal tender and currency board arrangements), *soft*

¹ According to IFC classification, MENA region includes Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West bank and Gaza, and Yemen in addition to Afghanistan and Pakistan. West bank and Gaza, Afghanistan and Pakistan are excluded from the coverage of this paper.

² Intervention policies involve outright purchases/sales of ForEx or ForEx derivatives by the central bank, the ministry of finance or others governmental or public sector authorities.

pegs (including conventional pegged arrangements, pegged exchange rates within horizontal bands, crawling pegs, stabilized arrangements, and crawl-like arrangements); *floating regimes* (such as floating and free floating); and a residual category, named *other managed*^v.

As of April 2012, out of 17 countries in the Arab world³, nine have conventional peg arrangements⁴, three have stabilized arrangements⁵, one has a crawl-like arrangement⁶ and four have other managed arrangements⁷. As such, throughout 2011-2012, there were no changes among the countries that have a conventional peg. However, three re-classifications occurred leading to an overall decrease of the number of stabilized arrangements:

1. Effective April 1, 2011, Egypt joined the stabilized arrangements from its previously crawl-like arrangement. Following a period marked by gradual depreciation through March 2011, the Egyptian pound stabilized against an undisclosed weighted average basket of international currencies and remained in a narrow band after April 2011.
2. Effective May 1, 2011 and April 1, 2011 respectively, Iran and Syria switched from a stabilized arrangement to other managed arrangements. In Iran, the spread between the interbank exchange rate and the parallel market rate at exchange bureaus increased substantially since mid-2011, reaching 50% as of the end of January 2012. In the meantime, the interbank exchange rate adjusted gradually, initially through January 2012, and after a one-time depreciation in late January remained stable through the end of April. Because there was no discernible pattern for the Rial, the de facto exchange rate arrangement was reclassified to other managed arrangement.
In Syria, given developments in the official rate, the emergence of a parallel market, and a newly implemented intervention rate, the de facto exchange rate arrangement was reclassified retroactively to other managed arrangement.
3. During the transition to a new operational framework, after September 2011, the Central Bank of Tunisia made several adjustments to the level of the exchange rates in the basket. This resulted in the dinar following a depreciating trend vis-à-vis the basket within a margin of less than 2% through April 2012. Subsequently, the de facto exchange rate arrangement was reclassified to a crawl-like arrangement from a stabilized arrangement, effective September 1, 2011.

³ Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, and Yemen.

⁴ Bahrain, Jordan, Qatar, Oman, Saudi Arabia, United Arab Emirates have an exchange rate anchor to the U.S. Dollar and Kuwait, Libya and Morocco have a composite exchange anchor.

⁵ Iraq and Lebanon have an exchange rate anchor to the U.S. dollar and Egypt switched in April 2011 from a crawl-like arrangement.

⁶ Tunisia has been re-classified as of September 2011 from a stabilized arrangement.

⁷ Algeria, Iran, Syria and Yemen.

This shift away from less flexible exchange rate arrangements - from soft peg arrangements to other managed arrangements - reflects the impacts of weakening external balance positions and increased depreciation pressure on currencies during the turmoil.

III. Monetary Policy Anchors in MENA countries

Putting a greater emphasis on the low inflation monetary policy objective⁸, many developed countries and a growing number of emerging countries adopted inflation-targeting frameworks throughout the last decade. While global trend between 2011 and 2012 indicates a decline in the number of countries using the U.S dollar as an exchange rate anchor in favor of a greater increase in the number of countries classified as having other monetary frameworks⁹, exchange rate anchor retains its dominant role as an anchor for monetary policy in nine out of 18 MENA countries. The preference for U.S. Dollar anchor was maintained in eight countries¹⁰ followed by the anchor to a composite basket of currencies in six countries¹¹. Within the framework of an exchange rate fixed to a currency composite, the Bank Al-Maghrib (BAM), Morocco's central bank, adopted a monetary policy framework in 2006 based on various inflation indicators with the overnight interest rate as its operational target to pursue its main objective of price stability. Since March 2009, the BAM reference interest rate has been set at 3.25%. Yemen is the single country to run a monetary aggregate target while Egypt and Tunisia are classified under other monetary policy frameworks. Tunisia previously anchored its exchange rate to a euro-dollar basket, but its monetary policy framework has been reclassified as "other" because it now includes monetary aggregates in the policy mix, along with the exchange rate anchor.

IV. Latest changes in foreign exchange rates interventions, foreign exchange markets and exchange restrictions or multiple currency practices in MENA countries

The heightened intervention activity in foreign exchange markets is evident through the significant changes in the foreign exchange reserves in some countries. Direct purchases and sales of foreign exchange remain the most popular form of intervention. Four changes in exchange rate interventions were noticed from 2011 through 2013.

First, effective January 1, 2011, the Central Bank of Tunisia (CBT) started posting the volume of transactions between authorized intermediaries and

⁸ Based on the strong empirical evidence that high inflation distorts the decision making of agents with regards to investments, savings, and production and ultimately leads to slower economic growth.

⁹ Include countries that have not explicitly stated a nominal anchor but rather monitor various indicators in conducting its monetary policy.

¹⁰ Bahrain, Jordan, Oman, Qatar, Saudi Arabia, United Arab Emirates, Iraq and Lebanon.

¹¹ Kuwait, Libya, Morocco, Algeria, Iran and Syria

the volume of its daily interventions in the interbank foreign exchange market on its website. Previously, the CBT did not release intervention data to the public. Effective April 18, 2012, a fixing (i.e., the average of market participants' quotes) replaced the currency composite as the reference exchange rate published by the CBT.

Second, effective April 1, 2011, new official restrictions were imposed in Egypt on bid-ask spreads quoted by authorized foreign exchange dealers: (1) the client bid rate was allowed to move from 150 basis points below the interbank bid rate up to a maximum equal to the interbank bid rate; and (2) the client offer rate must be within a range of 50 to 150 basis points above the interbank offer rate. Previously, there were no official restrictions on bid-ask spreads quoted by authorized foreign exchange dealers.

Third, effective January 17, 2012, the Central Bank of Iraq slightly reduced the level around which it stabilizes the exchange rate from 1,170 dinars (ID) per U.S. dollar to ID 1,166.

And, fourth, on April 20, 2013 the Central Bank of Egypt announced that a host of measures have been implemented with the aim of controlling the foreign exchange market and curb the increase in the US dollar exchange rate against the Egyptian pound. These measures envisage increasing the dollar exchange rate on the official market to 6.85 pounds for purchase and 6.88 pounds for sale whether in banks or in exchange companies, a matter which helped reduce rates of dollar trading on the parallel market.

As for the changes in the foreign exchange markets, we already noted earlier the tightening measure in Egypt coupled with a new tightening measure in Lebanon and one easing measure in Morocco. Effective November 5, 2011, the total shortage in margin for all operations may not exceed 8% of a bank's capital in Lebanon. In Morocco, effective May 23, 2011, the maximum amount of cash that exchange bureaux in duty-free departure lounges are allowed to hold was raised to Moroccan dirhams (DH) 600,000 from DH 250,000.

On the exchange restrictions, it is worth noting that Iran maintains one exchange restriction and a multiple currency practice. The exchange restriction arises from limitations on the transferability of Rial profits from certain investments under the Foreign Investment Promotion and Protection Act and from limitations on other investment-related current international payments under this act. The multiple currency practice arises from the budget subsidies for foreign exchange purchases in connection with payments of certain letters of credit opened prior to March 21, 2002, under the previous multiple exchange rate system.

In Iraq, four measures are maintained¹² that have been identified to give rise to exchange restrictions subject to IMF approval: (1) the requirement to pay all obligations and debts to the government before proceeds of

¹² Plus one exchange restriction maintained for national or international security

investments of investors, and salaries and other compensation of non-Iraqi employees may be transferred out of Iraq, (2) the requirement to submit a tax certificate and a letter of non-objection stating that the companies do not owe any taxes to the government before non-Iraqi companies may transfer proceeds of current international transactions out of the country, (3) the requirement that before non-Iraqis may transfer proceeds in excess of 15 million Iraqi dinars out of Iraq, the banks are required to give due consideration of legal obligations of these persons with respect to official entities, which must be settled before allowing any transfer, and (4) an Iraqi balance owed to Jordan under an inoperative bilateral payments agreement.

The IMF staff report for the 2009 Article IV Consultation with the Syrian Arab Republic states that, as of February 12, 2010, Syria continued to maintain restrictions on payments and transfers for current international transactions, including administrative allocation of foreign exchange. Syria also maintained exchange measures: (1) prohibition against purchases by private parties of foreign exchange from the banking system for some current international transactions; (2) a multiple currency practice resulting from divergences of more than 2% between the official exchange rate and officially recognized market exchange rates; (3) a non-interest-bearing advance import deposit requirement of 75–100% for public sector imports; and (4) an exchange restriction arising from the net debt under inoperative bilateral payments arrangements with the Islamic Republic of Iran and Sri Lanka^V.

V. Implications for the Monetary Policy framework in MENA countries

The pronounced preference for an exchange rate anchor for monetary policy in 14 out of 17 countries in the MENA region combined with a liberalization of capital movements implies, under the impossible trinity theorem¹³, that 14 monetary authorities traded-off monetary independence against exchange rate stability. This entails that monetary policy can no longer set the extent to which it stabilizes economic activity and the domestic price level.

Under an exchange rate anchor, the high level of *international reserves* holdings by the central bank instills confidence. In order to prevent domestic currency appreciation under surging capital inflows and surpluses of balance of payment, central banks will intervene in the foreign exchange market - selling domestic currency and buying foreign exchange – and, therefore, accumulating international reserves. Building-up international reserves leads to an increase in the money supply. In order to offset the monetary impact of these foreign exchange operations, central banks often recourse to *sterilization interventions*. The classical form of

¹³ The impossible trinity theorem derived from the Mundell-Fleming Model asserts that a country could not combine free capital movement, a fixed exchange rate and independent domestic monetary policy.

sterilization has been through the use of open market operations, such as selling treasury bills, central bank bills and other instruments or increasing reserve requirements to reduce the domestic component of the monetary base. In theory, it can be also achieved by encouraging private investment overseas or allowing foreigners to borrow from the local market. In practice, a successful sterilization operation can be self-defeating as is the case with the increasing of required reserves which may raise domestic interest rates and stimulate even greater capital inflows putting further upwards pressure on the exchange rate.

There are several key limitations on the use of open market sales for sterilization purposes. Most notable, perhaps, is that the ability to sterilize has an inverse relationship with the degree of international capital mobility. If capital is highly mobile, attempts at sterilization may prove futile, because they can be rapidly overwhelmed by renewed inflows. While such a policy may be useful temporarily, it cannot work for long if the capital inflows persist, because sterilization can deal only with the effect rather than the underlying cause of shocks to the system. Additionally, and not to be overlooked, is the heavy “quasi-fiscal costs” of the sterilization effort. Issuing a large stock of securities in an attempt to mop up the inflowing liquidity often places a heavy financial burden on the government and the central bank. For a central bank, operating losses can occur when the funds it raises are invested in foreign assets, which earn prevailing interest rates in the major world currencies. Those rates are often lower than the rates the central bank must pay on the certificate of deposits it has issued^{vi}. Therefore, on the long run, the central bank will need to accept to follow the monetary policy of the country to which the exchange rate is pegged even if this means real exchange appreciation via higher inflation.

In times of turmoil, deteriorating external positions are witnessed as net exports and investment flows decline. Currencies are weakened despite the government’s move to protect them by drawing down on foreign exchange reserves. Typically, in those cases, financial support from the international community is extended to support the balance of payments deficit. As such, US\$ 12 billion were pledged by Saudi Arabia, Kuwait and UAE to Egypt following the recent change in government^{vii}. Previously, Qatar purchased Egyptian bonds worth \$3bn and Kuwait deposited USD 2 billion in the Central Bank of Egypt. Yemen’s current account deficit narrowed due to a US\$2 billion Saudi grant and a US\$1 billion Saudi deposit in the Central Bank of Yemen. These moves led to build the confidence and strengthen the currency, thus, narrowing the gap between the daily official exchange rate and that of the black market.

VI. Implications for the Monetary Policy Implementation in MENA countries

Monetary policy is implemented through various transactions between the central bank and financial markets counterparties and is reflected in central bank's balance sheet. For instance, central banks will either lend funds to

commercial banks, if they lack sufficient reserves balances, or drain funds from the markets, if banks hold excess reserves. The applied rates on those lending and depositing transactions will guide short term interest rates in the wholesale money markets and, thus, influence both long term money markets and the applied interest rate structure in the wider economy. Therefore, monetary policy setting would be either centered on the targeted short term interbank money market interest rate or on the Open Market Operations rate. In other cases, a central bank would announce an overnight standing credit facility to prevent impact of shortage of reserve money at one bank on the payment system which does not have a central function for monetary purposes. In some cases, central banks make available a standing deposit facility in order to prevent excess reserve balances to push interest rate too low^{viii}.

In MENA countries, short term interest rates are more often market-determined. That's due to the fact that the central bank can't pursue the fixing of the short term interest rates on the internal level and the fixing of the exchange rate on the external level in a free capital flow movement and exchange rate anchoring of monetary policy. In Egypt, Jordan and Lebanon, the exchange rate is supported by interest rates and, therefore, the central bank will use a deposit standing facility to guide short term rates and prevent the risk of short term market rates falling too low^{ix}. In periods of unrest, when there are market pressures to stabilize the exchange rates and when the Central Bank intervention in selling the foreign currencies is draining the surplus liquidity from the market, market rates tend to increase relative to the policy rate corridor set on the floor by a standing deposit facility and on the ceiling by a standing lending facility.

VII. Monetary Transmission Mechanisms in MENA countries

Monetary transmission links monetary policy *instruments* to monetary policy *objectives* through *monetary operational and intermediate targets*^x. Monetary transmission process describes how monetary policy is conveyed to the real economy, more specifically, how policy-induced changes in the nominal money stock or the short-term nominal interest rate impact aggregate demand and inflation. These changes may have an impact on the real economy in the short-run only. They will not affect the real sector on the long-run, but only the general price level.

The transmission to aggregate demand has been depicted through six channels namely the *interest rate channel*, the *asset price and wealth channel*, the *credit channel*, the *exchange rate channel*, and the *relative asset prices channel* often referred to as the monetarist channel. The *expectation channel* is an additional channel which may have a direct impact on pricing decisions^{xi}. The interest rate channel reflects the impact of monetary shocks on liquidity conditions and real interest rates, which in turn affect interest rate sensitive components of aggregate demand such as consumption and investment. The *asset price and wealth channel* reflects the impact of monetary shocks on yields, equity shares, real

estate, and other domestic assets, operating through changes in the market value of corporate and household wealth. Changes in short-term interest rates and/or other policy instruments can alter firms' capacity for fixed investment spending through balance sheet effects, and household consumption through wealth effects. The *credit channel* reflects the impact of monetary shocks on the quantity of credit that is available and is often regarded in view of the balance sheet channel i.e. the firms borrowing capacity in response to changes in their net worth and the bank lending channel which looks at the capacity of banks to lend to firms. The effect of the credit channel implies that a contractionary monetary policy will reduce the aggregate level of banks reserves and therefore the availability of banks loans depressing aggregate spending. The exchange rate channel reflects the impact of monetary developments on exchange rates and aggregate demand and supply. For example, an increase in interest rates would normally lead to an appreciation of the exchange rate, which lowers the price of imported goods and services and thereby pushes down domestic inflation. The *relative asset prices channel* focuses on the impact of the universe of relative asset prices rather than on a single asset price because various assets are imperfect substitutes, changes in interest rates will change the composition of investor's portfolio and will lead to a relative price changes.

Recent research seeks to explore the channels of transmission and assess their effectiveness (in terms of time lags, consistency and impacts). Empirical evidence has shown that the interest rate channel is usually the most important transmission mechanism in advanced economies with developed financial markets, while the bank lending and exchange rate channels are generally the dominant channels of monetary transmission in emerging market economies. The exchange rate channel, on the other hand, appears to be more important in small open economies with flexible exchange rates, where the transmission mechanism of the interest rate channel is relatively weak. Moreover, transmission channels vary across countries due to differences in the extent of financial intermediation, the development of domestic capital markets, and structural economic conditions. There are also possible interlinkages between the channels through which they may magnify or counteract the influence of other channels in the monetary transmission process.

Theoretically, the interest rate channel will be weak in some MENA countries where the general level of savings is low. The effect of the asset price channel will be greater in those MENA countries where the level of asset holdings is higher. The relative size and level of competitiveness of the banking sector and the level of development of the domestic capital markets in MENA countries will impact the firms and households reliance on either bank financing or market financing, which will be reflected in the effectiveness of the credit channel. Exchange rate channel will not exist in those countries under a fixed exchange regime, as the effectiveness of the exchange rate channel depends on the exchange rate regime, the extent of exchange rate pass-through and the degree of openness to capital flows^{xii}.

VIII. Empirical evidence on Monetary Transmission Mechanism in MENA countries

Beginning with multi-country studies, Serhan Cevik and Katerina Teksoz (2012)^{xiii} investigated the effectiveness of monetary policy transmission in the Gulf Cooperation Council (GCC) countries. The results indicate that the interest rate and bank lending channels are relatively effective in influencing non-hydrocarbon output and consumer prices, while the exchange rate channel does not appear to play an important role as a monetary transmission mechanism because of the pegged exchange rate regimes. These findings are consistent with the results of a recent study of the GCC countries by Espinoza and Prasad (2012)^{xiv} and the empirical evidence found in other countries operating under a fixed exchange rate regime. The results show a dominant role performed by the bank lending channel in transmitting monetary shocks. Bank lending tends to increase with monetary expansion and the impact of monetary policy shocks typically depends on the propagation mechanism. Furthermore, the results complement earlier studies on other emerging markets which suggest that the effectiveness of interest rate and bank lending channels depends largely on the bank balance sheets. The empirical analysis suggests that policy measures and structural reforms — strengthening financial intermediation and facilitating the development of liquid domestic capital markets — would advance the effectiveness of monetary transmission mechanisms in the GCC countries.

Ziaei (2009)^{xv} highlighted the significance of the credit channel through a negative association between policy rates and bank lending for ten MENA countries¹⁴. He concluded that changes in policy rates moved bank lending in the opposite direction to the change in the policy rate in these countries, at least in the short run. The second step in the transmission channel from bank lending to aggregate demand was not, however, addressed.

Neaime (2008)^{xvi} highlighted the fact that for Egypt the exchange rate played a dominant role in the transmission mechanism of monetary policy, while for Jordan, Lebanon, Morocco, and Tunisia, the interest rate played a dominant role in the transmission mechanism of monetary policy. These results have also pointed to the important role of the exchange and interest rates as policy instruments in the transmission mechanism of MENA's monetary policies. While, the direct linkages between the interest and inflation rates do not appear to be significant for Jordan and Lebanon they are particularly significant for Egypt, Morocco, and Tunisia. In fact, the extent to which the interest rate works through the exchange rate or through GDP to reduce inflation remains substantially uncertain.

Boughrara (2008)^{xvii} examined monetary transmission in Tunisia and Morocco. He derived several results that are pertinent for our purposes. First, he found no effects of monetary policy innovations on either the

¹⁴ Algeria, Bahrain, Egypt, Kuwait, Lebanon, Morocco, Oman, Qatar, Tunisia and Turkey.

exchange rate or asset prices in either country, as would be expected from the heavily-managed exchange rates and small asset markets in these countries, especially in Tunisia. He argued that for the bank lending channel to be operative, a monetary contraction would have to be associated with a contraction in real output as well as a contraction in bank lending and an increase in lending rates. He found out that such a pattern did hold for Morocco, but – surprisingly – only in the long run (after 12 quarters) even though output responded in the expected direction after one year. For Tunisia, the emergence of the expected pattern was more immediate. Boughara's results thus provide stronger support for the lending channel in Tunisia than in Morocco. Note that bank concentration is actually smaller in Tunisia than in Morocco and several of the indicators of institutional quality that are most pertinent to the costs of financial intermediation (e.g., government effectiveness, regulatory quality, rule of law, and control of corruption) are stronger in Tunisia than in Morocco.

Turning to studies for individual countries, Moursi, Mossallamy, and Zakareya (2007)^{xviii} examined monetary transmission in Egypt. They found that, while their estimated monetary policy shock variable accorded well with a-priori beliefs about episodes of monetary tightening in Egypt, the effects of this variable on real output and prices proved to be either ambiguous or negligible. They concluded that "monetary policy shocks in Egypt have virtually no real effect". Al-Mashat and Billmeier (2007)^{xix} built on the Moursi, Mossallamy, and Zakareya (MMZ) analysis for Egypt. Consistent with MMZ, real output showed little response to a monetary policy shock in the short run in their baseline results, and while the response of the price level was in the right direction, neither effect proved to be statistically significant over any horizon. The results were robust to the use of a monetary aggregate as the intermediate target, as well as to reversing the positions of the monetary policy indicator and the exchange rate in the causal ordering.

Poddar, Sab, and Khashatryan (2007)^{xx} derived almost identical results for Jordan. Real output responses to monetary policy shocks were found to be small and statistically insignificant. Contractionary monetary policy shocks tended to increase the lending rate, but to have essentially no effect on real output in any of these specifications. They concluded that there was little evidence in support of any of the standard monetary transmission channels for Jordan.

IX. Conclusion

The Arab Awakening has provided an opportunity to lay the foundation for a belated, but essential, socially-inclusive growth agenda. The quest for civil and political freedoms and rights go hand-in-hand with greater economic freedom. The reverse holds true as well. Economic potential and development can only flourish with greater political freedoms and civil rights. The path towards sustainable economic growth will be long and difficult as it is conditioned by the success of a genuine paradigm shift throughout the region. With

strong, representative, achievement-based governments that reject yesterday's system of patronage, corruption and nepotism; there is real opportunity for reform across the board.

While Arab transitions are calling for greater democracy, the challenges for Arab monetary authorities in the years to come would be to further achieve independence as an important pre-requisite that needs to be implemented before inflation targeting. Further monetary independence and exchange rate flexibility will also be beneficial in order to lower the unemployment rates. Monetary policy should optimally interact in the future with public debt policy determined by the fiscal authorities, in order not to undermine any potential decision.

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