The EGP Exchange Rate Questions

The Impact of Sterilization, Reasons For Appreciation, and Outlook

How do we classify the current exchange rate regime?

The most common question that we hear frequently from our clients is with respect to the exchange rate regime. We note that the International Monetary Fund (IMF) refers to the EGP exchange rate as a flexible exchange rate regime. However, we decided to run a simple quantitative exercise to help support our own view. We applied the Levy-Yeyati and Sturzenegger (LYS) methodology in order to assess Egypt's exchange rate regime since FY2002/03. The LYS methodology uses three indicators to classify an exchange rate regime*:

- **Exchange rate volatility**, which is measured by the absolute exchange rate monthly change.
- **The volatility of exchange rate changes**, which is measured by the standard deviation of the exchange rate monthly change.
- **The volatility of reserves relative to the monetary base.**

Looking into the statistics, the classification of the EGP exchange rate shifted from a flexible regime in FY2002/03, then reverted back to a de-facto managed exchange rate, before turning to a flexible exchange rate in FY2016/17. This reflects, significantly, the sharp devaluation of the EGP exchange rate in January 2003 as the build-up of severe macroeconomic imbalances contradicted the CBE's strategy to defend the currency at that time. A similar situation emerged in FY2016/17, which resulted in loosening the CBE's firm grip over the exchange rate regime. Hence, our findings validate our view that Egypt has shifted to a flexible regime following the CBE announced the liberalization of the EGP exchange rate on November 3, 2016.

	Volatility of exchange rate	Volatility of exchange rate changes	Volatility of reserves	Exchange rate classification
FY2002/03	2.3%	4.5%	1.3%	Flexible
FY2003/04	0.2%	0.5%	1.4%	Intermediate
FY2004/05	0.5%	1.3%	4.7%	Fixed
FY2005/06	0.0%	0.2%	5.3%	Fixed
FY2006/07	0.1%	0.1%	2.4%	Intermediate
FY2007/08	0.5%	0.7%	4.5%	Fixed
FY2008/09	0.4%	1.1%	0.8%	Intermediate
FY2009/10	0.2%	0.8%	0.7%	Intermediate
FY2010/11	0.4%	0.6%	1.9%	Intermediate
FY2011/12	0.1%	0.2%	2.5%	Intermediate
FY2012/13	1.2%	1.8%	1.4%	Intermediate
FY2013/14	0.2%	0.8%	1.6%	Intermediate
FY2014/15	0.6%	1.8%	0.4%	Intermediate
FY2015/16	1.3%	3.9%	1.2%	Intermediate
FY2016/17	8.8%	30.1%	1.3%	Flexible

Source: CBE, Pharos research

*An annual figure is calculated in order to reflect Egypt's fiscal year and compared versus the sample average. A low exchange rate volatility, low standard of deviation and a high volatility of reserves relative to the monetary base signify a fixed exchange rate regime. The monetary authorities would defend the exchange rate (low volatility) by depleting its reserves (high volatility).

Ramy Oraby - Economist
ramy.oraby@pharosholding.com

Why the EGP exchange rate did not depreciate beyond the level of EGP18 per USD

According to the latest available data, Egypt's external position has shown signs of improvement following the exchange rate liberalization on November 3, 2016. The current account deficit narrowed significantly as the merchandised non-oil trade deficit narrowed, tourism revenues increased and remittances continued to return through the official channels. Meanwhile, the gradual foreign direct investment (FDI) improvement remained concentrated in the oil and gas sector. The adjournment of approving the new Investment Law can also be blamed, in addition to the fact that the FDI recovery normally takes more time to materialize. On the other hand, foreign portfolio investment (FPI) rose significantly to take advantage of the high nominal interest rate on the EGP-denominated treasuries, in addition to the undervalued local currency. The aforementioned dynamics, in addition to the fact that the EGP exchange rate remains undervalued, explain why the exchange rate did not depreciate beyond the level the level of EGP18 per USD.

Why the exchange rate has not appreciated despite USD9.8 billion inflows in the local treasuries

A typical foreign investor buys EGP-denominated treasuries through the CBE's repatriation mechanism in order to minimize risk. According to the CBE's instructions, dated March 2013, commercial banks are obliged to sell the foreign currency proceeds to the CBE at the prevailing market rate. Then, the CBE would place these funds into an off-reserve account in order to hedge against a sudden capital outflow. Afterwards, the CBE would undertake an opposite transaction to absorb the additional local currency liquidity provided to the commercial banks in association with purchasing the EGP-denominated treasuries (Graph). In reality, the surge in the foreign currency liquidity did not reach the commercial banks, hence, the impact on the exchange rate remains limited.

Why would the CBE sterilize hot money inflows?

Unsterilized foreign inflows would lead to:

- A surge in the foreign currency liquidity in the banking sector following the foreign inflows in the EGP-denominated treasuries would lead to an exchange rate appreciation. Accordingly, foreign investors would rush to lock in profits, taking advantage of the high interest rate and a better exit exchange rate. Hence, the exchange rate would shortly depreciate. Such a sharp volatility would erode confidence and fuel inflationary pressures.

- Accumulating more foreign assets would be reflected in a domestic money supply increase, which in the absence of a sterilization intervention would initiate further inflationary pressures. Raising the nominal interest rates in that case would attract further foreign inflows, leading to a self-fulfilling vicious cycle.

Therefore, the CBE's repatriation mechanism, which implies a sterilized intervention, serves the economy well by keeping the money supply growth in check, avoiding further inflationary pressures, preserving Egypt's competitiveness by preventing a short-term unsustainable real exchange rate appreciation and evading an unneeded negative confidence shock to the economy.

Would the CBE's FCY inflows sterilization be indefinite?

The short answer is no. Sterilization intervention has costs. We note that the CBE absorbs excess liquidity through three options:

- **The variable interest rate auctions:** The sterilization cost is associated with the interest rate that the CBE pays on such funds. The average paid interest rate rose from 17.1% in December 2016 to 19.9% in June 2017.

- **The Open Market Operations (OMO):** Exchanging cash from the commercial banks with government treasuries from the CBE's balance sheet would decrease the CBE's net domestic assets. Accordingly, the CBE keeps the money supply growth under control.

- **Increase the government deposits at the CBE:** Raising the government deposits parked at the CBE would help control the money supply growth by decreasing the CBE's net domestic assets. Similarly, the interest rate paid on such amount represents the direct cost. Another cost may arise from the opportunity cost of holding these funds at the CBE.

In order to calculate the sterilization cost, we use the difference between the local interest rate paid to commercial banks and the foreign interest rate that the CBE receives on the foreign assets it holds. We note that the interest rate differential has risen from 16.2% per annum in December 2016 to 18.7% per annum in June 2017. Hence, we estimate the sterilization cost to be standing currently c.3% of GDP per annum.

Why did the exchange rate appreciate recently?

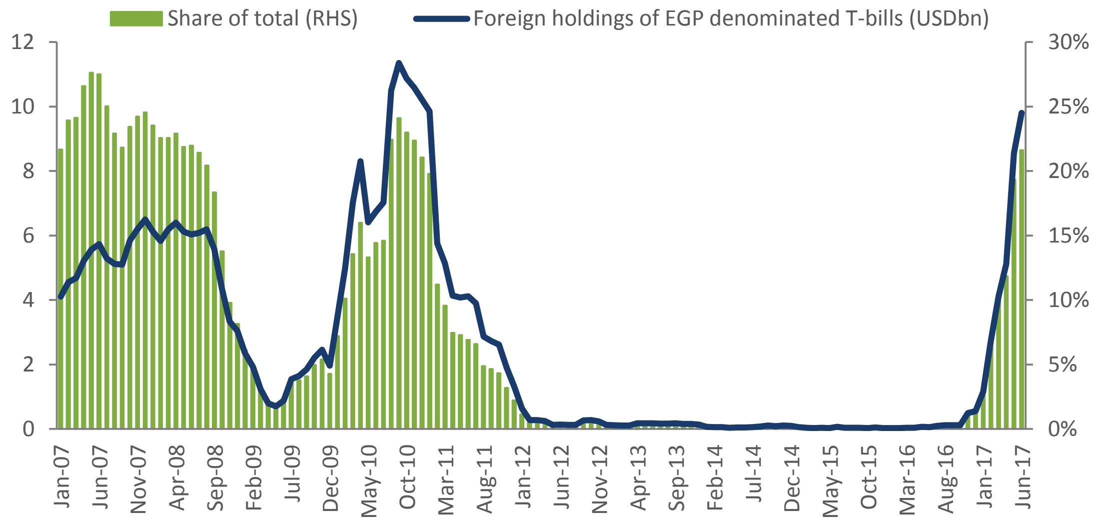
We believe there are four possible factors that explain the recent EGP appreciation:

- Higher remittances as the inflationary reaction to the recent fuel price hike may encourage Egyptian diaspora to transfer more money to support their families.
- Lower imports since the Ramadan/Eid season ends.
- A behavioral reaction to the reported news of more funds into the system would lead more economic agents to offload their USD holdings as the EGP exchange rate appreciates
- FCY inflows out of the repatriation mechanism: The BoP fundamentals gradual improvement implies a higher foreign currency liquidity in the banking system. Hence, foreign investors' confidence in the economic reform program is growing, which may encourage some FCY inflows off the CBE repatriation mechanism. Since it is not obliged to undertake a sterilized intervention in this case, the CBE would slightly tolerate such an increase in the FCY liquidity as foreign investors demand on the EGP-denominated treasuries peaks.

Where do we see the Exchange rate settling in FY2017/18?

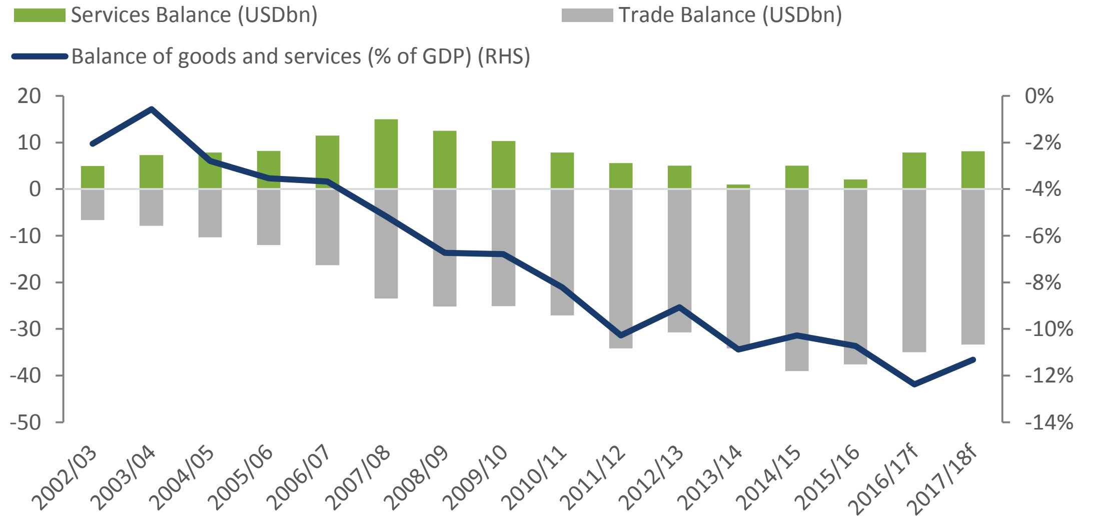
We reiterate that the Egyptian Pound is currently 20 - 25% undervalued on a real effective exchange rate (REER) analysis. Moreover, we expect the current account deficit to narrow from 6.3% of GDP in FY2016/17 to 4.0% of GDP in FY2017/18, as the trade balance continues to improve, tourism revenues strengthen and FDI inflows pick up. Accordingly, we expect the EGP exchange rate to appreciate from 17.9 per USD (November 2016 - June 2017) to an average of 16.00 - 16.50 per USD by the end of 2018. Meanwhile, we also expect the EGP exchange rate to remain undervalued for quite some time in order not to hurt Egypt's competitiveness.

Foreign holdings of EGP denominated treasuries are getting closer to the all time high figure of USD12 billion (24% of the total issued treasuries) in 2010.



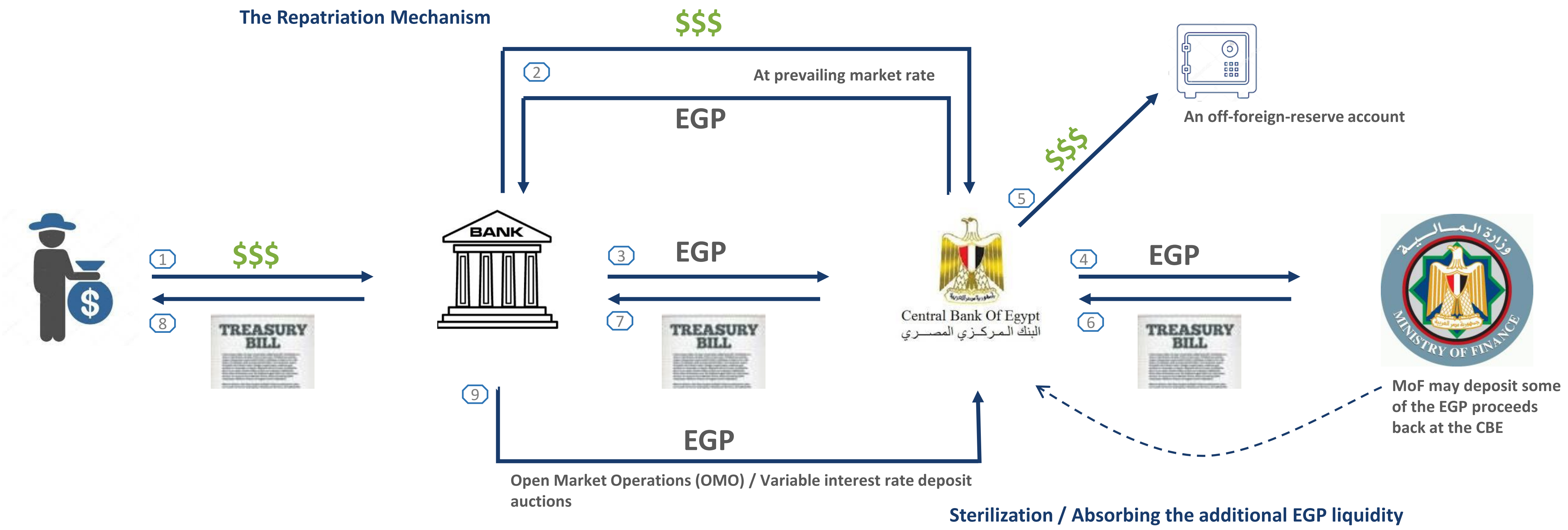
Source: CBE, Pharos research

Trade balance to improve on EGP flotation, export-incentivizing programs and new gas discoveries



Source: CBE, Pharos research

CBE sterilized intervention to offset the impact of the hot money inflows on the local liquidity



On the CBE's balance sheet:

1 – The repatriation mechanism:

Assets	Liabilities
• Net foreign assets (NFA) • Net domestic assets (NDA)	Currency in circulation (CIC)

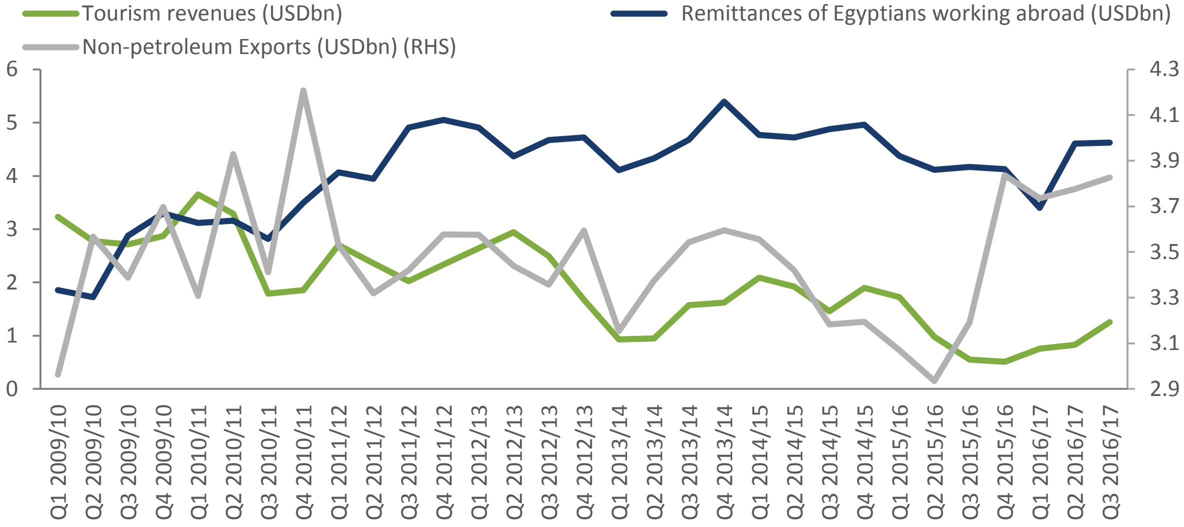
2 – The sterilization via OMO / Government deposits at the CBE:

Assets	Liabilities
• Net foreign assets (NFA) • Net domestic assets (NDA)	Currency in circulation (CIC)

- Offsetting the impact of the foreign inflows on the domestic money supply growth
- Avoiding further inflationary pressures
- Preserving Egypt's competitiveness by avoiding a short-term unsustainable real exchange rate appreciation

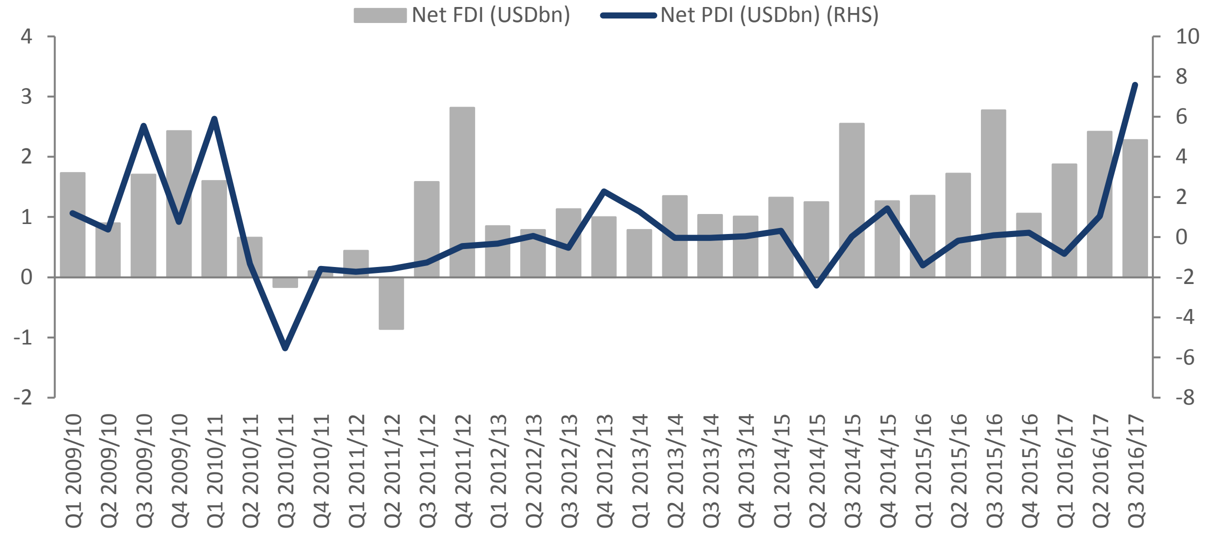
Egypt's external position is gradually improving

Tourism revenues and non-oil exports are picking up following the EGP exchange rate liberalization, while remittances continued to return through the formal channels



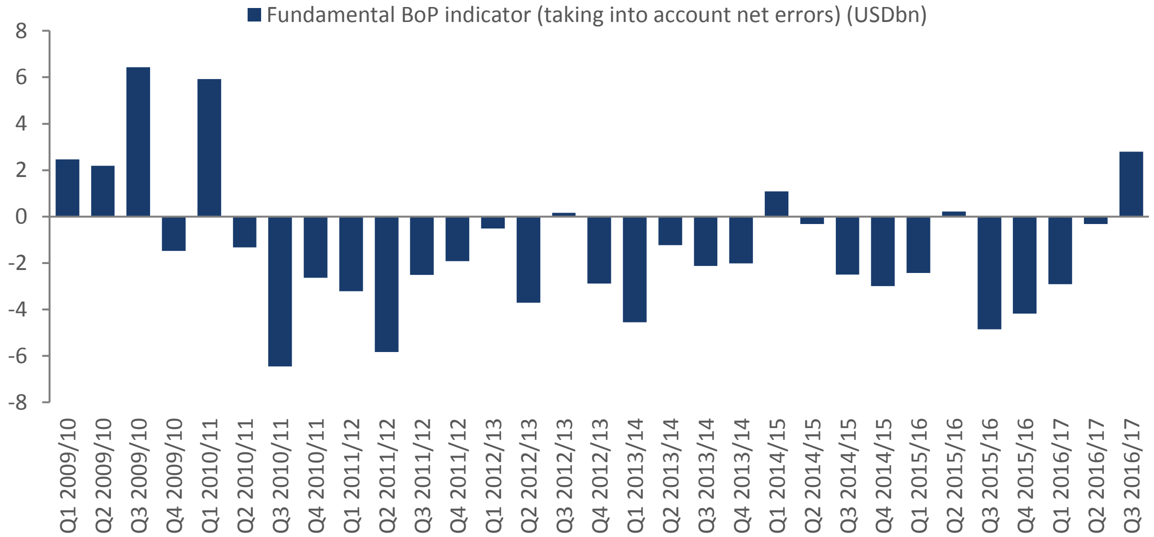
Source: CBE, Pharos research

Also, both the net direct investment and net portfolio investment are showing encouraging signs of improvement



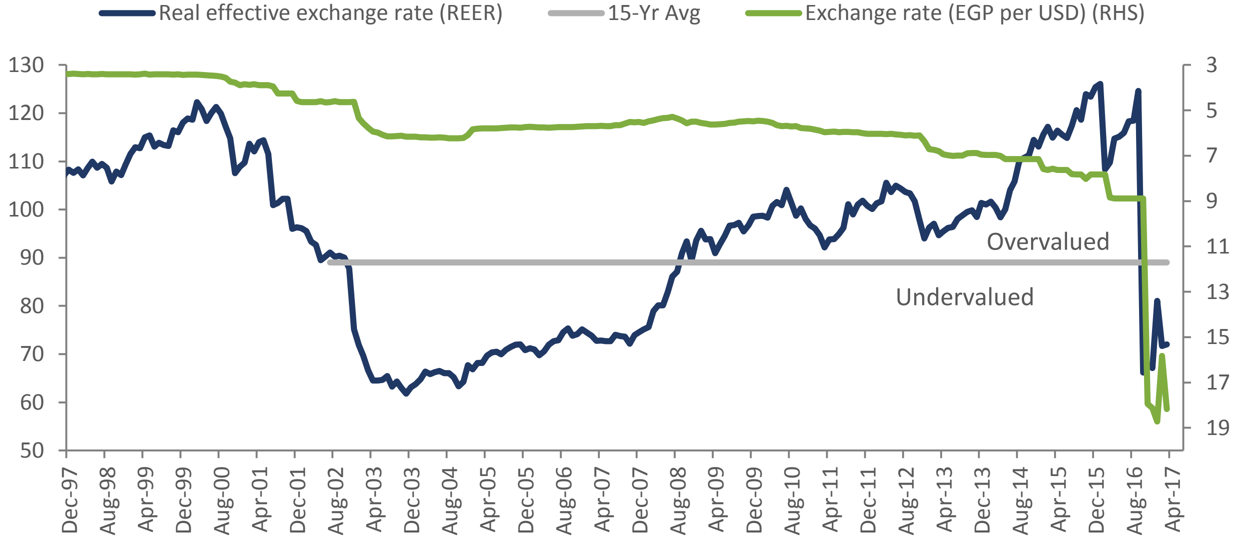
Source: CBE, Pharos research

Therefore, the sustainable items of the BoP recorded a significant inflow for the first time since 1Q FY2010/11



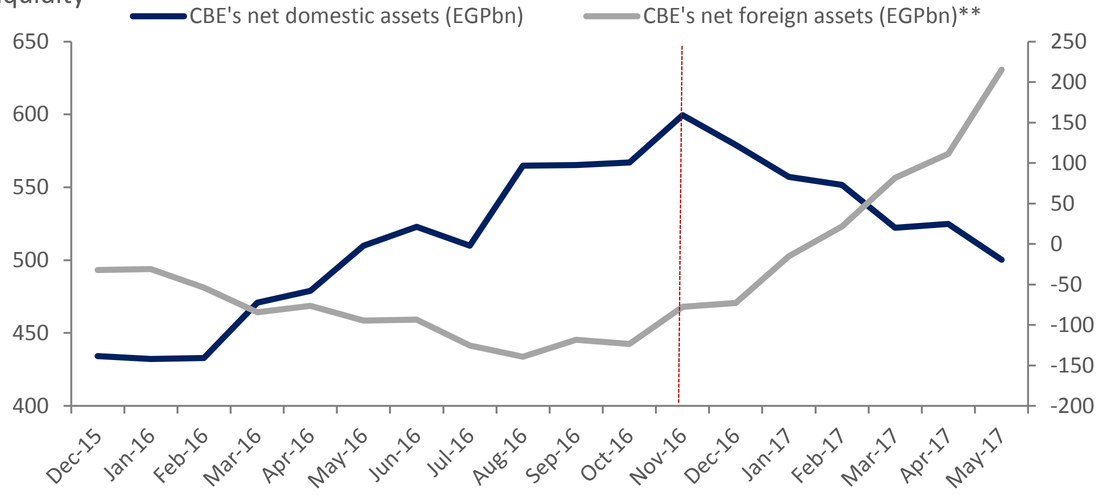
Source: CBE, Pharos research

Meanwhile, the Egyptian Pound remains undervalued on a REER analysis. We expect it to remain so for the next two years



Source: CBE, Pharos research

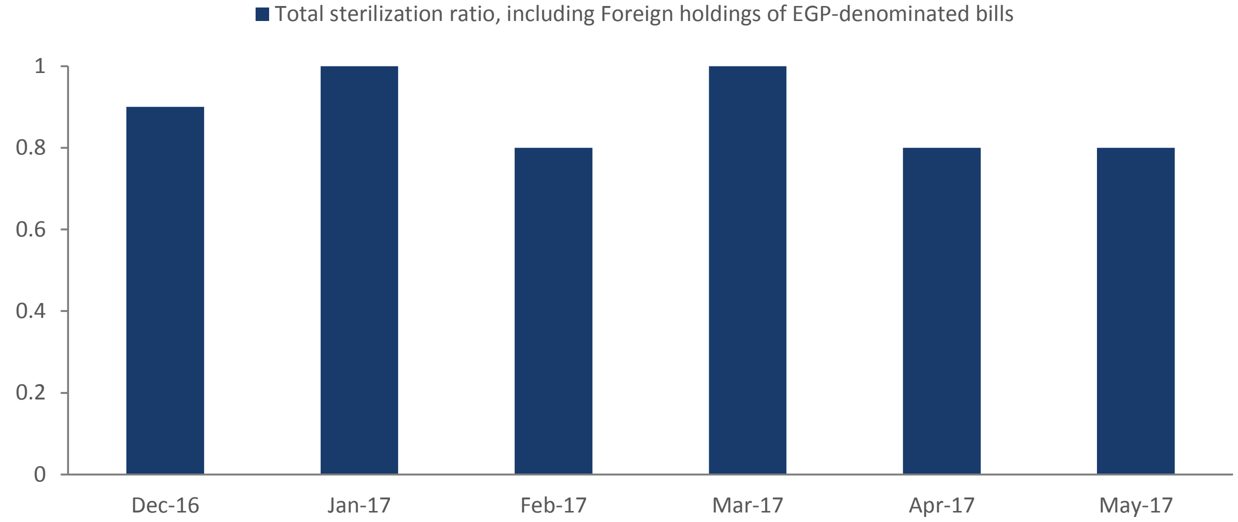
Keeping money supply growth in check, the CBE decreases its NDA to offset the rising NFA, the slope difference partly reflects depending on variable rate auctions for absorbing the excess liquidity



** Including foreign holdings of EGP-denominated treasuries and revalued at January exchange rate

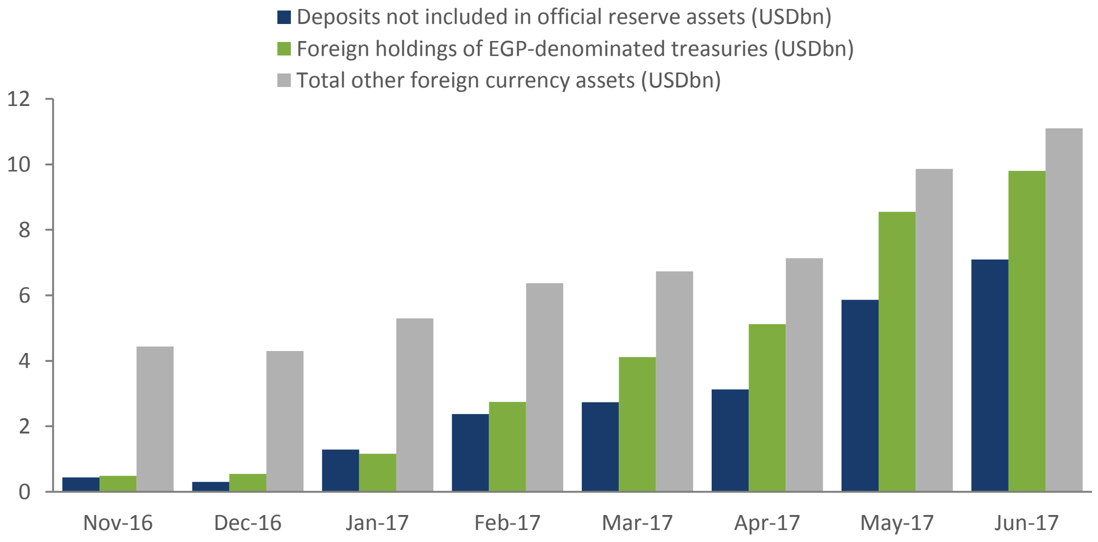
Source: MoF, Pharos research

The sterilization ratio, taking into account the hot money inflows, has been hovering around 1.00 since December 2016. (No sterilization = 0 , Complete sterilization = 1)



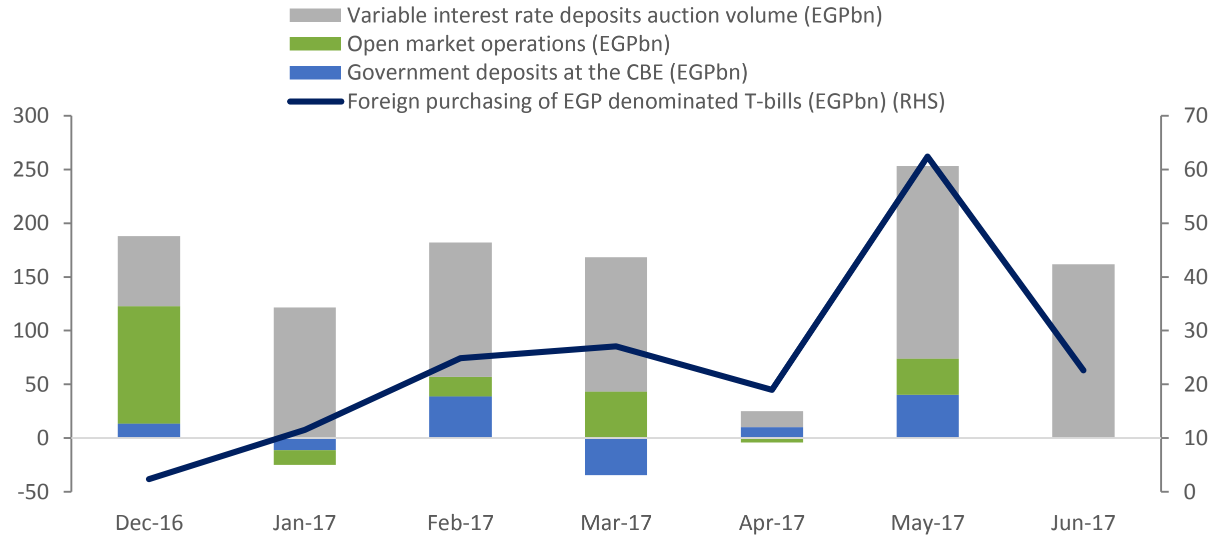
Source: CBE, Pharos research

The CBE's off-reserve deposits are moving alongside the foreign holdings of EGP denominated treasuries



Source: CBE, Pharos research

The variable interest rate deposit auctions have been the key tool to absorb the excess liquidity in the banking system



Source: CBE, Pharos research

Sales and Trading Team

Essam Abdel Hafiez
Managing Director
+202 27393687
essam.abdelhafiez@pharosholding.com

Ahmed Raafat
VP Local Institutional Sales
+202 27393627
ahmed.raafat@pharosholding.com

Seif Attia
Head Local Sales
+202 27393682
seif.attia@pharosholding.com

Ahmed Abutaleb
Head Foreign Sales
+202 27393632
ahmed.abutaleb@pharosholding.com

Sherif Shebl
AVP Foreign Sales
+202 27393634
sherif.shebl@pharosholding.com

Omar Nafie
Associate Foreign Sales
+202 27393635
omar.nafie@pharosholding.com

Sally Refaat
Head Online Trading
+202 27393675
sally.refaat@pharosholding.com

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