

Exchange Rate Volatility and Disconnect: Structural or Cyclical?

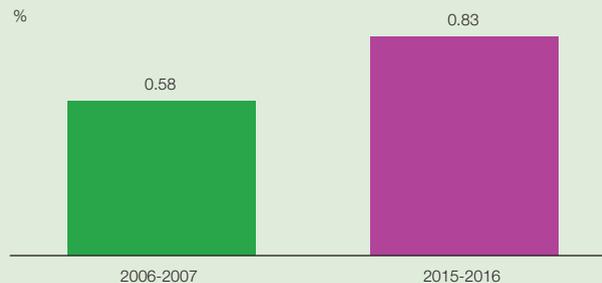
By Ng Jiale, Syed Akmal Shafiq Syed Haris and Sim Wee Haw

Introduction

In recent years, emerging market currencies have experienced a significant rise in the volatility of their exchange rates, particularly after the financial crisis in the developed countries (Chart 1). This volatility has become increasingly persistent, to the extent that it has led to periods of an *exchange rate disconnect*, a situation that describes prolonged deviations between exchange rate movements and the underlying economic fundamentals. Such a disconnect is a reflection of the interactions between a confluence of factors that have shaped the global monetary landscape in recent years. Some drivers of the large fluctuations in exchange rates were cyclical in nature. It was in part due to cycles of “risk-on” and “risk-off” sentiments as a result of shifts in investors’ expectations concerning global growth prospects, policy directions and geopolitical developments. Attributing all the fluctuations to these cyclical global developments and uncertainty, however, is akin to highlighting the waves instead of the underlying current as the global foreign exchange market has structurally evolved over the years. This article looks at the structural changes in the global foreign exchange markets and how these changes in the landscape have exacerbated the volatility of exchange rates – and the consequential implications for small open emerging economies.

Chart 1

Average Intraday Volatility of Emerging Market Currencies against the US Dollar



Note: Intraday volatility is measured by the gap between the high and low exchange rate during the day. Emerging markets include Malaysia, Indonesia, Korea, Singapore, Thailand, Chinese Taipei, India, Philippines, PR China, Mexico, Brazil, Colombia and South Africa.

Source: Bloomberg

Structural changes in the global financial markets have resulted in heightened volatility and prolonged exchange rate disconnect

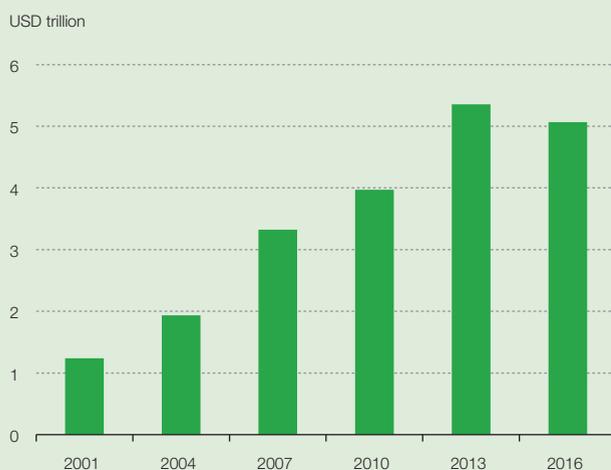
A large part of the rise in exchange rate volatility in recent years can be attributed to cyclical factors, such as the unprecedented introduction of unconventional monetary policies of the major developed countries in the post-crisis years and global developments that have led to shifts in sentiments in the global financial markets. Nevertheless, the structural evolution of the global foreign exchange markets may have exacerbated the degree and persistence of exchange rate volatility. The markets have grown bigger in size and have outpaced the growth of underlying economic activity. At the same time, market players and their behaviour have also evolved as the markets became more complex. These structural developments, coupled with structural rigidities such as the continued reliance on the US dollar, may have contributed to the increased volatility of exchange rates.

A. Bigger and more complex global foreign exchange markets

Despite tighter financial regulation and a secular slowdown in the world economy and trade, the combined global foreign exchange markets still make up the world's largest financial market. After years of globalisation, deregulation and growth in financial services, the size is unlikely to shrink in the near term. While the latest Bank for International Settlements (BIS) Triennial Central Bank Survey of Foreign Exchange and Over-The-Counter (OTC) Derivatives Market Activity showed a slight slowdown in the volume of global foreign exchange trading, the market has still grown by more than four times in the last 15 years (Chart 2). Much of this rise in foreign exchange turnover has been driven by increased trading activity of "other financial institutions", which includes smaller banks, mutual funds, money market funds, insurance companies, pension funds, hedge funds, currency funds and central banks, among others (Chart 3). The increased turnover is driven by greater activity of high-frequency traders and smaller banks and the emergence of retail investors (both individuals and smaller institutions).

Chart 2

Total Foreign Exchange Turnover

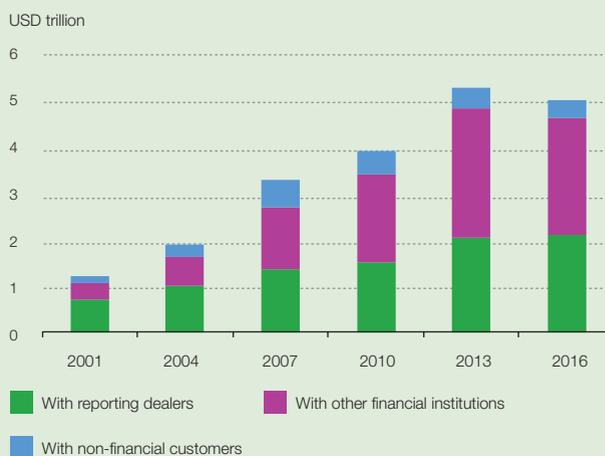


Note: Adjusted for local and cross-border inter-dealer double-counting, i.e. 'net-net' basis.

Source: Bank for International Settlements (BIS)

Chart 3

Global Foreign Exchange Turnover by Counterparty



Note: Adjusted for local and cross-border inter-dealer double-counting, i.e. 'net-net' basis.

Source: Bank for International Settlements (BIS)

An important structural change that has enabled the increased foreign exchange trading is the rise of electronic and algorithmic trading, which has reduced transaction costs significantly and increased market liquidity. While these changes have enhanced the depth of the foreign exchange market, they have also inadvertently opened up the market to more speculative behaviour and greater volatility. This is especially evident in episodes of high uncertainty, during which traders tend to show herding behaviour, leading to a drying up of liquidity that can cause sharp swings in prices and hence volatility.

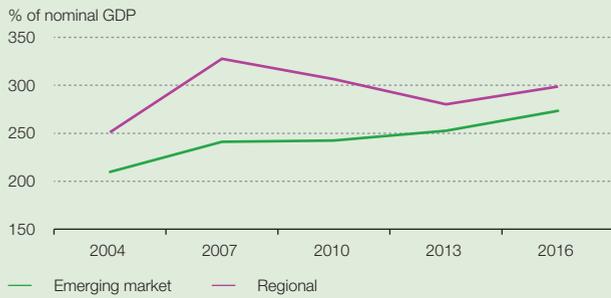
B. Global foreign exchange trading has outpaced real economic flows

Over the years, as global financial flows overwhelm trade flows, the foreign exchange turnover of regional currencies has also increased more than the underlying economic activity¹ (Chart 4 and 5). This implies that the role of the underlying demand for currency that is driven by global trade has become less prominent in determining the exchange rate. Exchange rate movements are now more prone to financial flows, which are predominantly driven by portfolio investors and currency traders, who are generally fickle in nature. As a result, a large part of foreign exchange trading responds to shifts in investor sentiments and external factors, leading to greater exchange rate volatility.

¹ This is also the case globally. Foreign exchange turnover has increased more than underlying economic activity, whether measured by GDP, equity turnover or gross trade flows (The USD4 trillion question: What explains FX growth since the 2007 survey, BIS 2010).

Chart 4

Foreign Exchange Turnover/GDP



Note: Regional countries include Malaysia, Indonesia, Korea, Singapore, Thailand, Chinese Taipei, India, Philippines and PR China while emerging markets include Mexico, Brazil, Colombia, South Africa and all regional countries. 2016 data up to 3Q.
Source: Bank for International Settlements (BIS) and Bloomberg

Chart 5

Foreign Exchange Turnover/Trade



Note: Regional countries include Malaysia, Indonesia, Korea, Singapore, Thailand, Chinese Taipei, India, Philippines and PR China while emerging markets include Mexico, Brazil, Colombia, South Africa and all regional countries. 2016 data up to 3Q.
Source: Bank for International Settlements (BIS) and Bloomberg

C. Persistent low interest rate environment and abundant liquidity in the global monetary system

Nine years after the financial crisis in the developed world, key policy rates of major central banks remain close to zero, with quantitative easing measures still in place. In fact, policy rates have gone negative for some central banks. While the low interest rate and abundant liquidity environment was initially thought to be temporary and hence was considered cyclical, there are views to suggest that after nine years, they may have fundamentally changed market behaviour. Global yield-seeking behaviour has become entrenched and more structural. As the US Federal Reserve begins to normalise the US interest rates, these behaviours have begun to reverse. Nevertheless, interest rates will continue to remain low. The diverging path of monetary policy between the US and other advanced economies will also continue to cause swings in capital flows and significant volatility in emerging market currencies. Going forward, the fact that economic, financial and geopolitical shocks are becoming more common amidst persistent incentives to seek higher yielding assets points to continued swings between large yield-seeking capital inflows and sudden reversals, leaving emerging market currencies vulnerable to increased fluctuations and overshooting.

D. Continued over-reliance on the US dollar

Despite great efforts globally to encourage the shift away from the US dollar as the major global reserve currency, the US dollar in fact has gained market share in terms of turnover in 2016 (Chart 6). With the US dollar maintaining its dominance in the global financial markets, the relative weakness or strength of the US dollar continues to drive international financial flows. Given its importance, investors tend to react to developments that would affect the US dollar instead of the health of the respective domestic economies. As a result, exchange rate movements reflect economic and policy developments in the US instead of the economic fundamentals of the economies global investors are invested in.

E. Changing investor behaviour amidst increased presence of asset managers

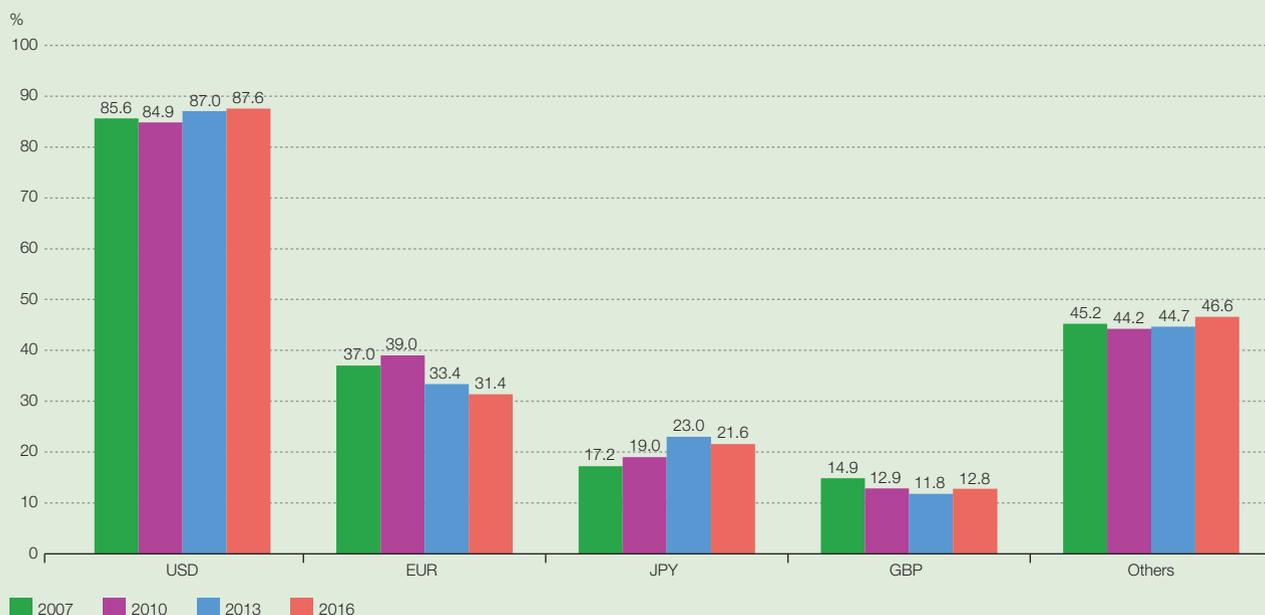
The recent years have also seen an increase in asset managers in the global financial market. Asset management companies (AMC) have so far not been subjected to the same regulatory regime imposed on banks in the wake of the global financial crisis^{2,3}. Driven by the balance sheet pressures of ultimate investors (pension funds and insurance companies), AMCs' behaviour can cause significant volatility in the global financial and foreign exchange markets. Business models of large AMCs may amplify volatility and increase asset market correlations as their views may influence other smaller investors' trading decisions. In addition, common risk management tools used among AMCs can also lead to similar trading outcomes. AMCs' investment in emerging market assets via benchmark indices also poses potential vulnerability. A modest rebalancing of strategy (e.g. country composition and weights) can generate large portfolio

² The Assets under Management (AUM) by the largest 500 AMCs has increased rapidly, doubling from USD35 trillion in 2002 to USD70 trillion in 2012. The industry is mainly dominated by a small number of large players, where the share of the largest 20 AMCs was about 40% of total AUM of largest 500 AMCs as at 2012.

³ Asset management industry includes various investment vehicles (such as mutual funds, exchange-traded funds, money market funds, private equity funds, and hedge funds) and their management companies (IMF Global Financial Stability Report, April 2015).

Chart 6

Share of Average Daily Turnover of Selected Major Currencies in the Global Foreign Exchange Market



Note: As two currencies are involved in each transaction, the sum of shares in individual currencies will total 200%.

Source: Bank for International Settlements (BIS)

adjustments that can significantly increase market volatility for emerging economies. This herding behaviour of the AMCs can often cause fund managers to lose sight of the underlying fundamentals of the assets and cause significant volatility in the foreign exchange markets, especially during periods when market liquidity is low.

F. Increased speculation in the non-deliverable forward (NDF) market

NDF markets, especially for non-internationalised currencies, have long been available. NDF markets emerged and gained importance in policy regimes with restrictions on foreign participation in domestic foreign exchange market and offshore deliverability. Often, investors would utilise the NDF market to circumvent trading in the onshore market for both hedging and speculative purposes. Despite being a market that is opaque, volatile and unregulated, the size of the NDF markets continues to grow⁴. Among the six currencies that have the largest NDF markets globally⁵, accounting for two thirds of all NDFs, turnover increased at a faster pace of 8.7% between 2013 and 2016. The risks for small and open emerging economies are large as the size of the NDF trading volume can easily overwhelm and dominate other factors in determining the exchange rate (Chart 7). While the NDF market provides an avenue for some participants to hedge currency exposures, the market is open to speculative behaviour, especially during periods of market uncertainty. In fact, studies have shown that 60% - 80% of NDF trades are speculative in nature⁶. The speculative activity in the NDF market can lead to major distortions in the price discovery process of domestic foreign exchange markets of emerging economies. This in turn results in significant disconnect between the exchange rate movements and real economic activities in the onshore market. For Malaysia, this was most evident when the offshore ringgit NDF rate deviated sharply from the onshore rate in the days following the US presidential election (Chart 8). It also lends support to Bank Negara Malaysia's efforts to reinforce the policy of non-internationalisation of the ringgit and focus on shifting ringgit-related transactions back to the onshore market.

⁴ The 2016 BIS Triennial Central Bank Survey of Foreign Exchange and OTC Derivatives Market Activity shows that NDF turnover grew by 5.3% in dollar terms between April 2013 and April 2016.

⁵ The BIS has highlighted that the top six currencies that are traded in the NDF market in terms of turnover are the Chinese renminbi, Korean won, Indian rupee, New Taiwan dollar, Brazilian real and Russian ruble.

⁶ Federal Reserve Bank of New York 'An Overview of Non-Deliverable Foreign Exchange Forward Markets', May 2005

Chart 7

Non Deliverable Forward (NDF) Volume/GDP



Note: Regional countries include Indonesia, Korea, Chinese Taipei, India and Philippines. NDF volume refers to only regional currencies versus US dollar.

Source: Bloomberg and Haver Analytics

Chart 8

Ringgit Intraday Prices in the Offshore and Onshore Market



Source: Bloomberg

Negative spillover effects on the real economy amid destabilising foreign exchange markets

Standard textbook theory suggests that exchange rate depreciation should provide the support for exports and hence trade as the weaker exchange rate increases the competitiveness of the exports. Recent experience of regional countries, however, suggests that the evidence of support from a weaker exchange rate in boosting export competitiveness is limited at best. Despite the sharp depreciation in recent years, exports of regional economies have not experienced significant improvement. In Asia, despite a 13% depreciation on average against the US dollar between September 2014 and October 2016, the benefits were only experienced in the form of translation gains. Over the same period, regional exports fell by 13.2% in US dollar terms, but only 1% in local currency terms, supported by favourable conversion, rather than stronger demand (Chart 9). Besides low and uneven global demand amid weaker global trade, the stronger US dollar against most currencies also meant that effective depreciation of any currency has been limited. At the same time, the global supply chain naturally implies that most exports have imported components and the costs increase when the domestic currency is weaker.

Chart 9

Nominal Exports of Regional Economy in US Dollar and Local Currency



Note: Seasonally adjusted nominal exports of regional countries (Malaysia, Indonesia, Thailand, Korea and Philippines) in USD and LCY terms. Data only up to October 2016.

Source: CEIC

While most Asian economies are in a better position to manage the depreciation and extreme exchange rate volatility, prolonged disconnect of the exchange rate can eventually spill over to the real economy. These spillover effects can manifest in various forms. These include higher inflation as the prolonged weakness in currencies forces producers to pass on the higher costs to consumers, potential external and foreign exchange debt distresses, adverse sentiments amongst household and businesses, and the vicious cycle of self-fulfilling expectations.

Increasing challenges for policymakers to find the balance between the costs and benefits of exchange rate flexibility

As exchange rate volatility has become more pronounced and prolonged, it is important for policymakers to manage the trade-off between the benefits of allowing exchange rate flexibility to act as a shock absorber to the economy and the potential costs of allowing sharp adjustments in the exchange rate. While exchange rate flexibility is beneficial during normal times, policymakers must remain pragmatic, especially during periods of high uncertainty. As a regulator, the central bank has a role to address structural imbalances⁷ that can lead to unwarranted distortions to the domestic foreign exchange market. Correcting these imbalances will ensure that exchange rate movements remain orderly to support trade, businesses and genuine investors. This is especially important for small and highly open economies, where the exchange rate is an important price. For Malaysia, our philosophy on financial market developments and exchange rate policy remains the same – that they should reflect the economic realities of Malaysia.

⁷ One of the imbalances is the uneven demand and supply for foreign currencies in the domestic foreign exchange market, due to export proceeds being overwhelmingly placed in offshore markets. The recently announced measure requiring the conversion of foreign currency export proceeds into ringgit will help to address this imbalance.