



Trends in global over-the-counter foreign exchange market turnover¹ with a South African focus²

by P Phume

Introduction

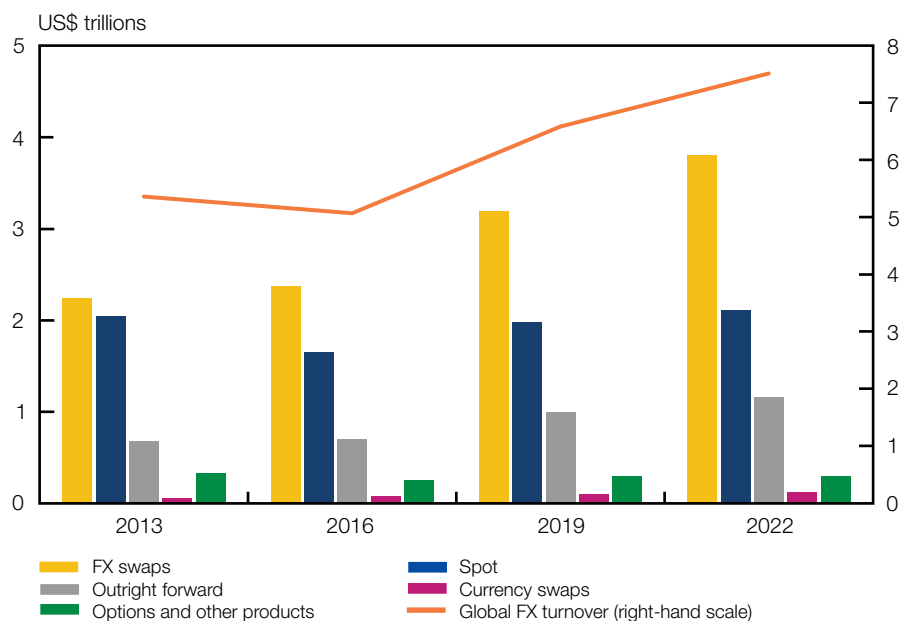
The most comprehensive source of data on the size and structure of global over-the-counter (OTC) foreign exchange (FX) market turnover is the Bank for International Settlements' (BIS) Triennial Central Bank Survey (Triennial Survey). The BIS has been conducting this survey every three years since 1986, with South Africa participating from April 1992. The analysis in this article is based on the most recent 2022 BIS Triennial Survey, rendering data for April 2022.

The OTC FX market, being the largest global financial market in terms of turnover along with strong growth over time (April 2013 to April 2019), is important in the context of central bank responsibilities due to interlinkages with both monetary policy and financial stability. This article analyses and discusses the most recent trends as indicated by the 2022 Triennial Survey.

Global over-the-counter foreign exchange market turnover

Although the rate of increase in the average global daily turnover in OTC FX slowed to 14.1% between April 2019 and April 2022, from 29.9% between April 2016 and April 2019, the level reached a record high of US\$7.5 trillion in April 2022. This likely reflected heightened volatility in the FX markets due to changing global interest rate expectations, rising international commodity prices and geopolitical tensions following the war in Ukraine.

Figure 1 Instrument composition of net average daily global OTC FX market turnover*



* Net average daily global OTC FX turnover refers to the data adjusted for the double-counting of transactions among local and cross-border reporting dealers.
Source: BIS

- 1 This article is based on the Bank for International Settlements' (BIS) 13th Triennial Central Bank Survey (Triennial Survey) conducted in 2022 with data for the month of April 2022. The survey covered central banks and other authorities in 52 jurisdictions. See the BIS's analytical reports at https://www.bis.org/stats_triennial_surveys/index.htm.
- 2 The South African survey was conducted by the South African Reserve Bank (SARB) based on the methodology contained in the BIS's reporting guidelines; see https://www.bis.org/statistics/triennialrep/2022survey_guidelinesturnover.pdf. The SARB survey covered 10 of the 27 domestic authorised dealers in foreign exchange (FX), as defined by the Prudential Authority, which accounted for 97.2% of the daily average FX turnover in the domestic market in April 2022.



However, at the same time, coronavirus disease 2019 (COVID-19) restrictions in several reporting jurisdictions, including China and Hong Kong, may have somewhat suppressed global FX turnover during April 2022.

FX swaps³ increasingly dominated global OTC FX market turnover as it increased from a daily average of US\$3.2 trillion in April 2019 to US\$3.8 trillion in April 2022. Spot transactions⁴, although remaining the second-most-traded FX instrument at a daily average of US\$2.0 trillion in April 2019 and US\$2.1 trillion in April 2022, lost ground relative to FX swaps. This could be attributed to a shift away from spot transactions towards FX swaps, which are typically used to manage liquidity and hedge currency risk, especially during periods of heightened volatility when market participants tend to be more risk-averse. Other instruments – such as outright forwards⁵, currency swaps⁶ as well as options⁷ and other products⁸ – also increased only marginally from April 2019 to April 2022.

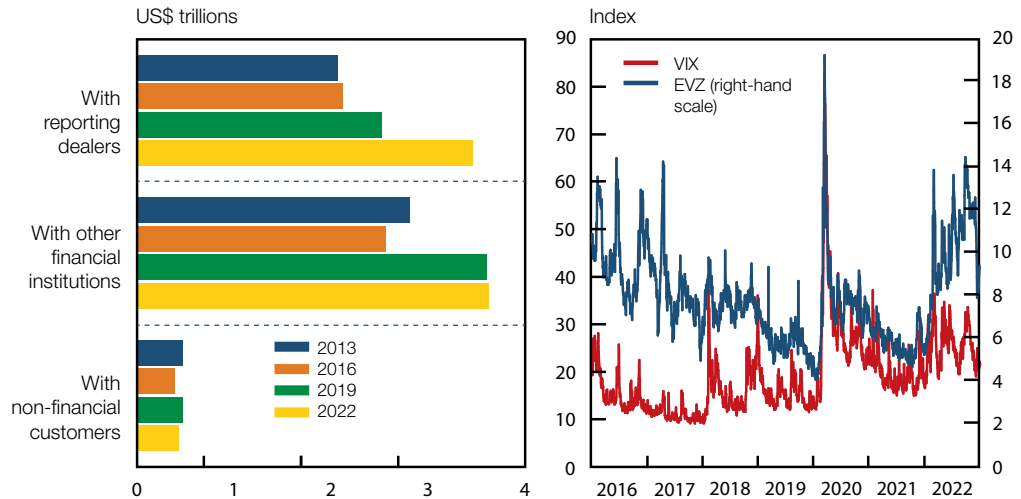
Trading in the OTC FX market is normally conducted through reporting dealers⁹ with other market participants¹⁰. The regulations introduced after the 2007–09 global financial crisis (GFC), which were aimed at mitigating risk at bank level and improving risk management, inhibited trading. However, transactions among reporting dealers (the inter-dealer market) increased to a daily average of US\$2.5 trillion in April 2019 and further to US\$3.5 trillion in April 2022, nearly matching transactions with other financial institutions.

Heightened financial market volatility at times resulted in FX market imbalances and an increased role for the inter-dealer market. The BIS noted that increased activity among reporting dealers reflected a more fragmented and internalised FX market (Drehmann and Sushko, 2022). Daily average reporting dealer turnover with other financial institutions¹¹ remained unchanged at US\$3.6 trillion in April 2019 and April 2022.

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- 3 FX swaps are transactions involving the actual exchange of two currencies (principal amount only) on a specific date at a rate agreed at the time of conclusion of the contract (the short leg) and a reverse exchange of the same two currencies at a date further in the future at a rate (generally different from the rate applied to the short leg) agreed at the time of the contract (the long leg). FX swaps in the Triennial Survey include 'spot/forward swaps' and 'forward/forward swaps' but also short-term swaps such as 'overnight swaps', 'spot next swaps' and other 'tomorrow/next day' transactions.
 - 4 Spots are single outright transactions involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) within two business days.
 - 5 Outright forwards are transactions involving the exchange of two currencies at a rate agreed upon on the date of the contract for value or delivery (cash settlement) at some time in the future (more than two business days later). This category also includes forward foreign exchange agreement transactions (FXAs), non-deliverable forwards (NDFs) and other forward contracts for differences.
 - 6 Currency swaps are contracts which commit two counterparties to exchange streams of interest payments in different currencies for an agreed period of time and/or to exchange principal amounts in different currencies at a pre-agreed exchange rate at maturity.
 - 7 Options contracts confer the right to buy or sell a currency with another currency at a specified exchange rate during a specified period of time. This category includes 'exotic' FX options such as average rate options and barrier options. It also includes currency swaptions and currency warrants.
 - 8 Other products are derivative instruments where the decomposition into individual 'plain vanilla' instruments such as forwards, swaps or options is impractical or impossible.
 - 9 Reporting dealers are financial institutions participating as reporters in the Triennial Survey. These are mainly large commercial and investment banks as well as security houses that (i) participate in the inter-dealer market and/or (ii) have an active business with large customers such as large corporate firms, governments and non-reporting financial institutions. In other words, reporting dealers are institutions that actively buy and sell currency and OTC derivatives for their own account and/or in meeting customer demand.
 - 10 Other market participants are other financial institutions and non-financial customers.
 - 11 Other financial institutions mainly comprise smaller commercial banks, investment banks and securities houses, mutual funds, pension funds, hedge funds, currency funds, money market funds, building societies, leasing companies, insurance companies, other financial subsidiaries of corporate firms as well as central banks.



Figure 2 Counterparty composition of net average daily global OTC FX market turnover and volatility*

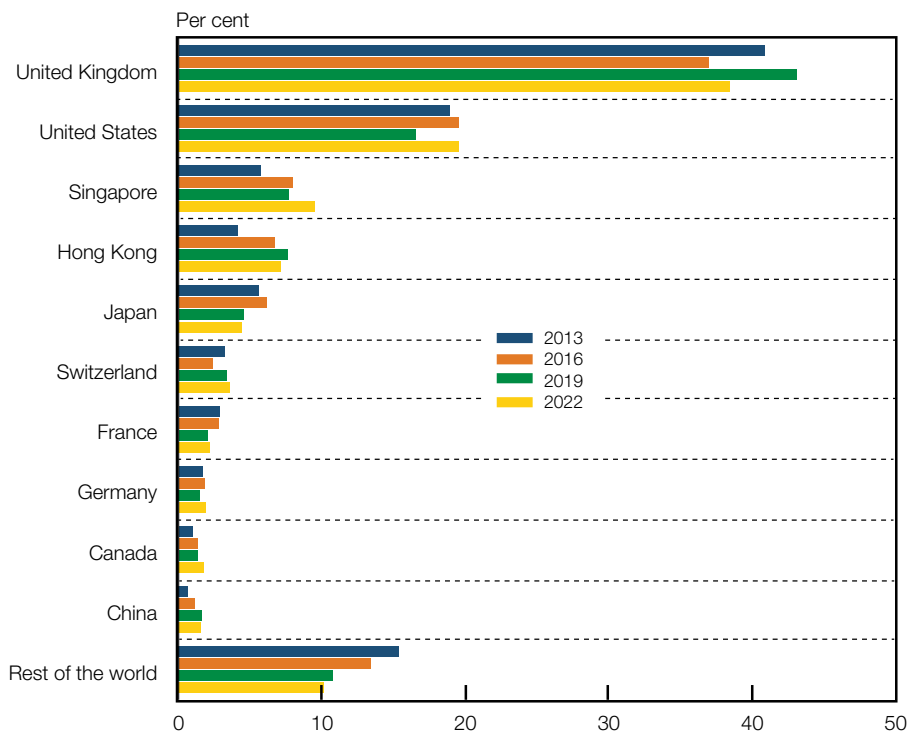


* The S&P 500 Volatility Index (VIX) is a real-time index that represents the market's expectations of 30-day forward-looking volatility derived from S&P 500 index options, developed by the Chicago Board Options Exchange (CBOE). The VIX provides a measure of market risk and investor sentiment. The Eurocurrency Volatility Index (EVZ) measures the expectations of 30-day volatility of the US dollar/euro exchange rate by applying the CBOE's VIX methodology to the options on the CurrencyShares Euro Trust. The EVZ provides a measure of currency risk in the FX market.

Sources: BIS and Refinitiv

The largest OTC FX trading centres continued to be in the United Kingdom (UK), the United States (US) and Singapore, which collectively accounted for 67.4% of the global OTC FX market turnover in April 2022, almost unchanged from April 2019. The UK's share of global OTC FX turnover decreased from 43.1% in April 2019 to 38.4% in April 2022, while that of the US and Singapore increased from 16.5% to 19.5% and from 7.7% to 9.5% respectively over the same period. China's share of global OTC FX turnover remained unchanged at 1.6%, placing it in the 10th position.

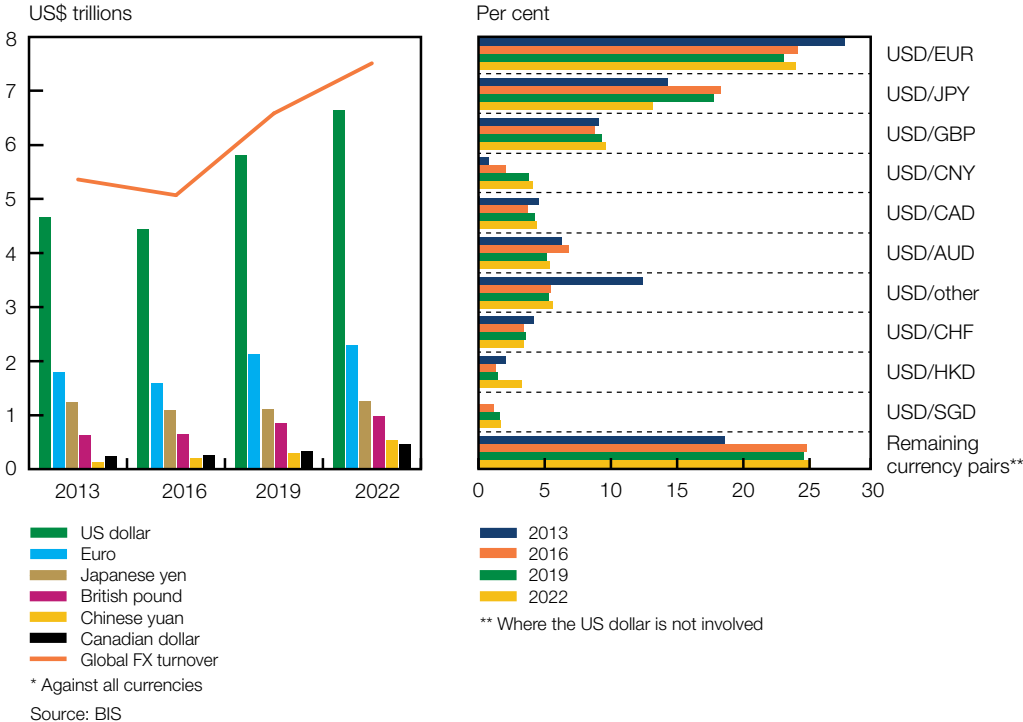
Figure 3 Jurisdiction share of net average daily global OTC FX market turnover



Source: BIS

The US dollar remained the most-traded currency against all currencies, accounting for 88.4% of average daily global OTC FX turnover involving the US currency on one side of the trade, along with a notable increase of 14.3% from US\$5.8 trillion in April 2019 to US\$6.6 trillion in April 2022. The importance of the US dollar emanates from the issuance of debt securities globally and because most foreign currency loans are conducted in the US currency (Maronoti, 2022). Notably, the top 10 most-traded currency pairs all involve the US dollar on one side of the trade, comprising 76.5% of daily average turnover in the global OTC FX market in April 2022. Second to the US currency was the euro, comprising 30.5% of global OTC FX market turnover in April 2022. Nonetheless, the US dollar/euro remained the most-traded currency pair¹² at 22.7% of global OTC FX turnover in April 2022. Notably, the Chinese renminbi¹³ was the fastest-growing currency, with its market share increasing from 2.2% in April 2013 to 7.0% in April 2022. The US dollar/Chinese renminbi is the fourth-most-traded currency pair in the world, comprising 6.6% of global transactions in April 2022.

Figure 4 Currency composition* and the share of currency pairs



Emerging market over-the-counter foreign exchange market turnover

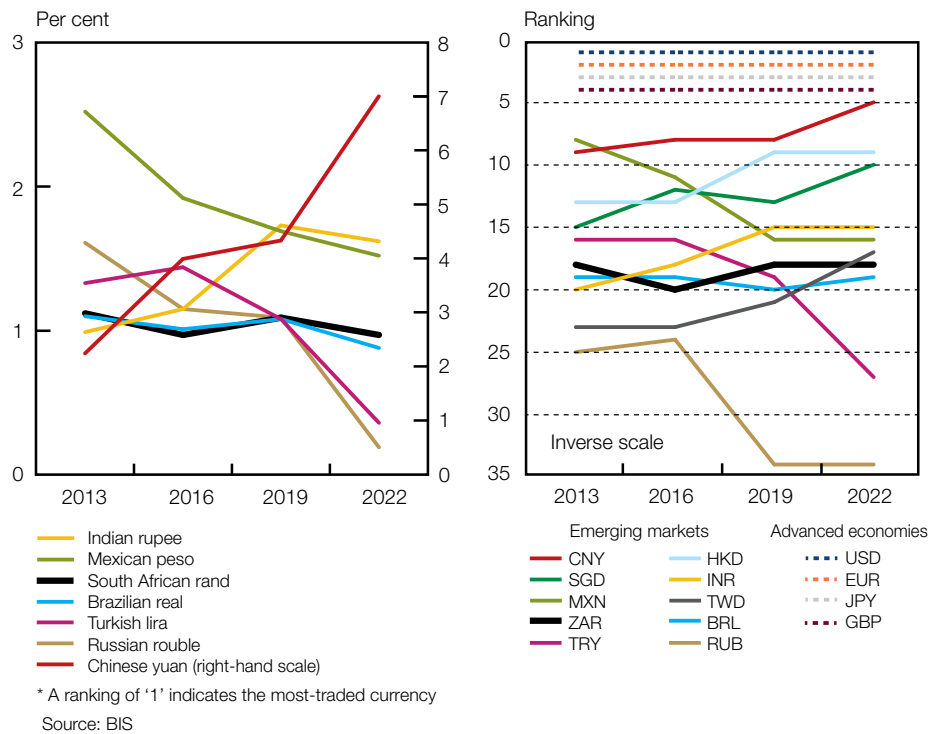
In contrast to the Chinese renminbi, several emerging market (EM) currencies' share of global OTC FX turnover has declined since April 2019. The share of the Turkish lira and the Russian rouble declined the most, to 0.4% and 0.2% respectively in April 2022 from 1.1% for both in April 2019, amid economic and political challenges. The Mexican peso and the Indian rupee's share declined to a lesser extent, from 1.7% for both in April 2019 to 1.5% and 1.6% respectively in April 2022. The equal market shares of 1.1% each of the Brazilian real and the South African rand between April 2010 and April 2019 declined marginally to 0.9% and 1.0% respectively in April 2022.

12 A currency pair is a quotation of two different currencies, with the value of one currency being quoted against the other.

13 The Chinese renminbi includes the offshore and the onshore renminbi.



Figure 5 The share and ranking* of selected currencies in net average daily OTC FX turnover



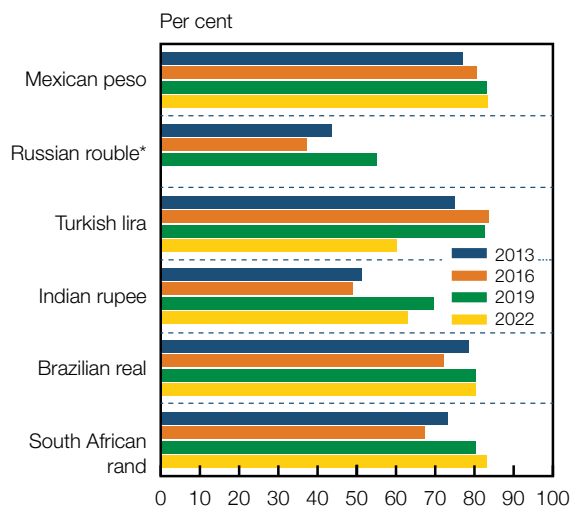
Turnover in Asian currencies has increased in recent years, while other EM currencies were mainly affected by idiosyncratic factors. The Chinese renminbi and the Singapore dollar advanced three positions each to become the 5th- and 10th-most-traded currencies respectively while the Taiwanese dollar advanced four positions to become the 17th-most-traded currency in the world between April 2019 and April 2022. The Turkish lira declined by seven positions to the 28th position amid economic instability. The rand's ranking remained unchanged at the 18th position between April 2019 and April 2022, just below the Taiwanese dollar but above the Brazilian real.

The increase in offshore trading¹⁴ of EM currencies in recent years is an important development in the global OTC FX market, with associated challenges in terms of volatility, spillovers and policy considerations. The BIS has noted the internationalisation¹⁵ of EM currencies as a significant driver of turnover (Cabarello et al., 2022). As a result, some EM currencies almost have similar characteristics to advanced economy (AE) currencies, mainly based on the involvement of a non-resident on one side of the transaction, generally referred to as 'offshore'. These EM currencies include the Mexican peso, the Brazilian real and the rand, with offshore trading of approximately 80% of total turnover. Offshore trading of EM currencies increased from 53% of total EM currency turnover in April 2007 to 83% in April 2022, mainly due to diversification and the development of EM financial markets, especially derivatives, along with the shift from traditional bank lending to portfolio investment and financial deepening, which has also attracted more diverse participants (BIS, 2022b).

14 Offshore trading consists of both trading between non-residents (i.e. participants outside of the currency-issuing country) and cross-border trading (i.e. between a domestic reporting dealer and a non-resident).

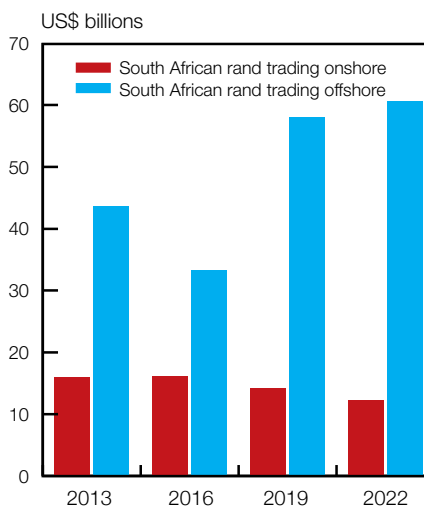
15 Internationalisation refers to the increase in the proportion of offshore currency trading (i.e. trading outside of the borders of the country issuing the currency).

Figure 6 Contribution of offshore trading to net average daily global OTC FX turnover in selected EM currencies



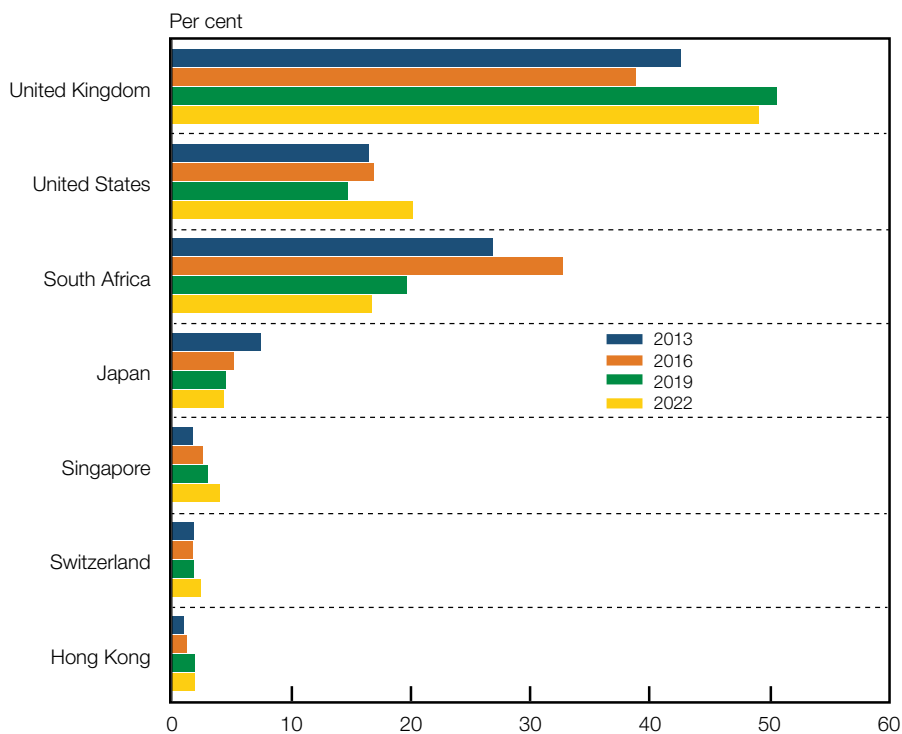
* Russian rouble offshore OTC FX turnover data for April 2022 is unavailable
Source: BIS

Figure 7 Composition of onshore and offshore turnover in the rand



The South African rand (ZAR) traded the most in the UK at 49.1% of average daily rand-denominated OTC FX turnover in April 2022, followed by the US dollar at 20.2% in second place. South Africa only accounted for 16.7% (or US\$12.2 billion) of average daily rand-denominated OTC FX turnover in April 2022, compared with a recent high of 32.7% in April 2016.

Figure 8 Jurisdiction contributions to net average daily rand OTC FX turnover

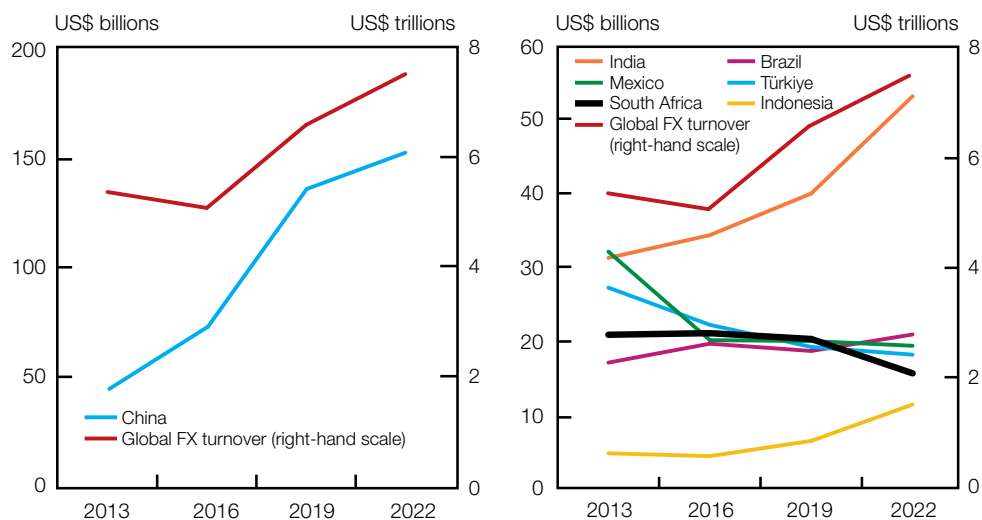


Source: BIS



Average daily OTC FX turnover in China more than tripled from US\$44.3 billion in April 2013 to US\$152.7 billion in April 2022. Growth in average daily OTC FX turnover in India, at 69.3%, and in Indonesia, at 131.0%, outpaced that in global OTC FX turnover of 40.2% between April 2013 and April 2022. Growth in average daily OTC FX turnover in other EMs, such as Brazil, was muted, while turnover in both Turkey and South Africa decreased by 18.0% and 25.5% respectively between April 2016 and April 2022.

Figure 9 Average daily OTC FX turnover in selected EMs*



* All OTC FX turnover values (except for global FX turnover) are on a 'net gross' basis, implying that adjustments to the data have only been applied for the double-counting of transactions among local reporting dealers and not for the double-counted transactions with cross-border reporting dealers.

Source: BIS

South African over-the-counter foreign exchange turnover

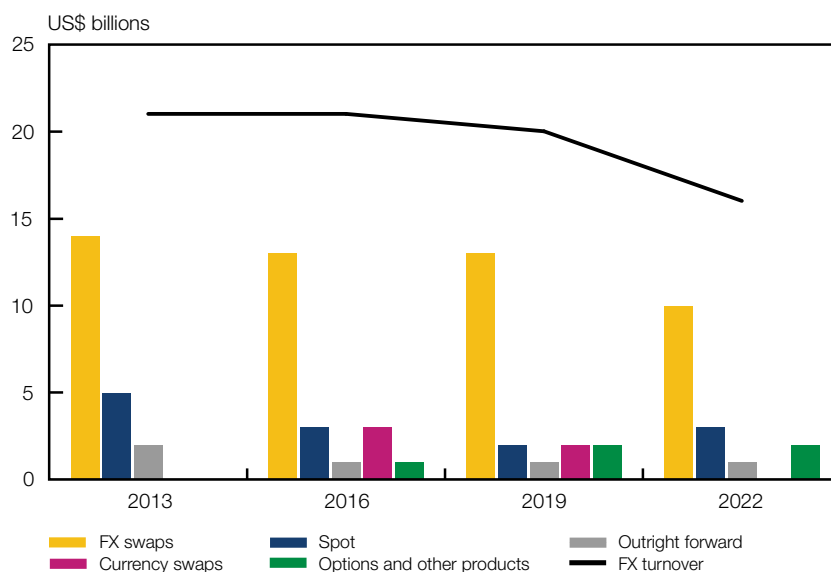
Turnover in the South African OTC FX market decreased the most among EMs, in line with peers such as Mexico and Turkey. Daily average OTC FX turnover in South Africa declined from US\$20.4 billion in April 2019 to US\$15.8 billion in April 2022. In addition to global economic geopolitical and socio-economic concerns during the April 2022 survey period, domestic factors such as frequent electricity outages and severe flooding in some regions reflected additional constraints which negatively impacted on investor sentiment. South Africa has also been facing successive sovereign credit rating downgrades since 2014, which finally resulted in a non-investment grade rating in 2017.

Concurrent with the global trend, the daily average OTC FX turnover in South Africa continued to be dominated by FX swaps at approximately 60%, as indicated by the surveys from April 2013 to April 2022. However, daily average FX swap turnover decreased from US\$13.0 billion in April 2019 to US\$10.0 billion in April 2022. Daily average turnover of spot transactions (the second-most-traded FX instrument) increased from US\$2.0 billion in April 2019 to US\$3.0 billion in April 2022.

The daily average OTC FX turnover in South Africa of options and other products remained the same at US\$2.0 billion in April 2019 and April 2022. Meanwhile, turnover of currency swaps decreased sharply from a daily average of US\$2.0 billion in April 2019 to less than US\$0.1 billion in April 2022. Turnover in the South African OTC FX market, especially of currency swaps, was possibly adversely impacted by the COVID-19-related lockdowns as cross-border capital flows decreased significantly.



Figure 10 Instrument composition of average daily OTC FX turnover in South Africa*



* All values are on a 'net-gross' basis, meaning that adjustments to the data have only been applied for the double-counting of transactions among reporting dealers in South Africa and not for the double-counted transactions with cross-border reporting dealers.

Source: BIS

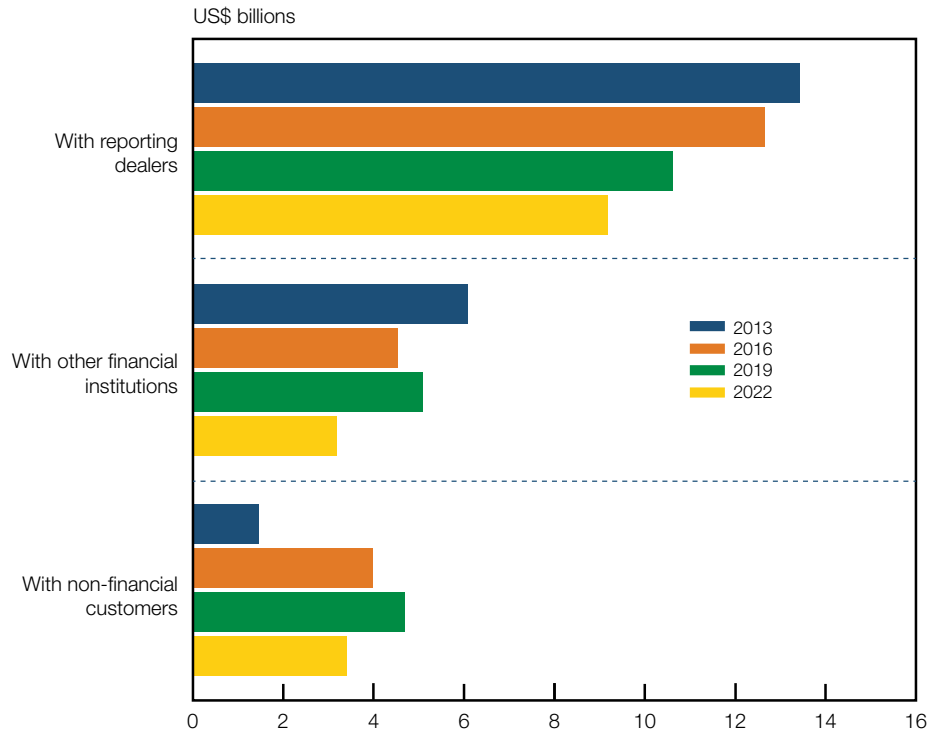
Although transactions among reporting dealers (i.e. the inter-dealer market) dominate OTC FX turnover in South Africa, they have been decreasing consistently over the last three surveys, in sharp contrast to the global trend. Daily average OTC FX turnover in the South African inter-dealer market¹⁶ decreased from US\$13.4 billion in April 2013 to US\$9.2 billion in April 2022, and was the main contributor to the decline in OTC FX turnover in South Africa. However, despite the gradual decrease in the inter-dealer component, it still accounts for more than half of OTC FX turnover in South Africa.

The value of reporting dealers' turnover in the OTC FX market in South Africa with other financial institutions is less prominent than in the global OTC FX market. Daily average OTC FX turnover of South African reporting dealers with other financial institutions decreased from US\$5.1 billion in April 2019 to US\$3.2 billion in April 2022, and their transactions with non-financial customers also decreased, from US\$4.7 billion in April 2019 to US\$3.4 billion in April 2022.

¹⁶ The South African inter-dealer market includes the transactions of South African reporting dealers with foreign reporting dealers as well as transactions among South African reporting dealers.



Figure 11 Counterparty composition of average daily OTC FX market turnover in South Africa*

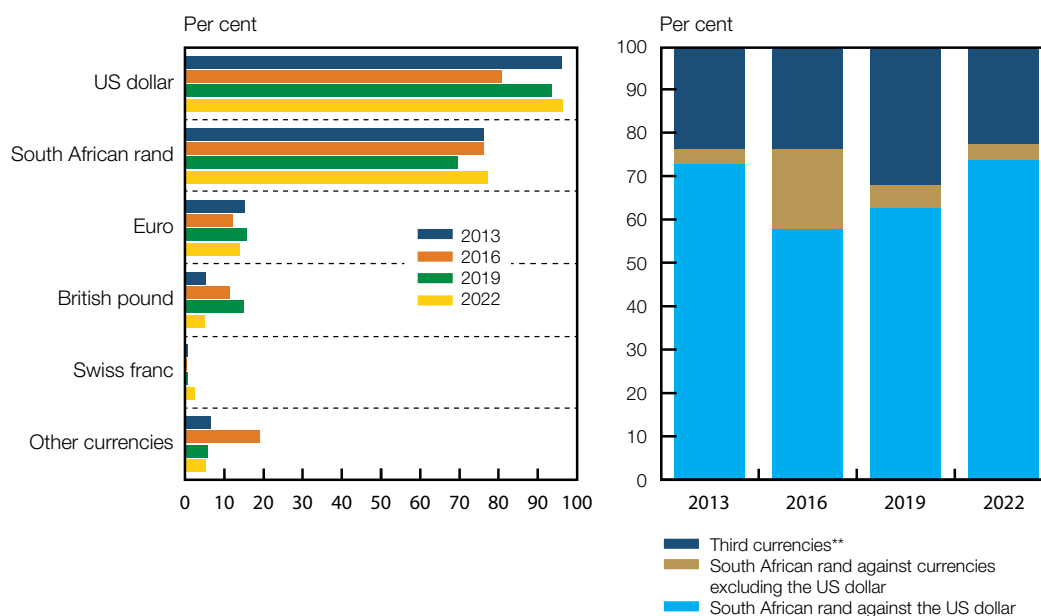


* All values are on a 'net gross' basis, implying that adjustments to the data have only been applied for the double-counting of transactions among reporting dealers in South Africa and not for the double-counted transactions with cross-border reporting dealers.

Source: BIS

The major currencies traded in the OTC FX market in South Africa have generally remained unchanged over time, being predominantly the US dollar (reflecting transactions against the rand as well as other currencies) and the rand (reflecting transactions against all currencies, including the US dollar). The ZAR against the US dollar remained the most-traded currency pair at 75.0% in April 2022, increasing from 57.6% and 62.5% in April 2016 and April 2019 respectively.

Figure 12 Currency composition* and the share of currency pairs to average daily OTC FX turnover in South Africa



* Two currencies are involved in each transaction, therefore the sum of the percentage shares of the individual currencies totals 200% instead of 100%.

** Transactions excluding the rand and the US dollar on either side of the transaction.

Source: BIS

Conclusion

Average daily global OTC FX turnover has increased further by 40.2% since 2013 to a record high of US\$7.5 trillion in April 2022, albeit at a slower pace, along with heightened volatility, despite initiatives and regulations to mitigate risks and encourage trading on formalised exchanges in the aftermath of the GFC.

OTC FX turnover increased in several EM countries – such as China, India and Indonesia – from April 2019 to April 2022, while decreasing in other EMs, including Mexico, Turkey and South Africa, with turnover in South Africa declining the most among these countries. The rand was the 18th-most-traded currency in the world in April 2022, unchanged from April 2019. Daily average turnover in the South African OTC FX market decreased to US\$15.8 billion in April 2022 from US\$20.4 billion in April 2019, along with a decline in inter-dealer turnover and an increase in offshore trading in the rand. Notably, 83.0% of the rand turnover in the OTC FX market was conducted offshore in April 2022, with nearly half of offshore rand turnover occurring in the UK.

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