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RETAIL INVESTORS IN THE FOREIGN EXCHANGE MARKET

DOI: 10.15611/pn.2020.6.13

JEL Classification: G150, F31

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Quote as: Sobol, I., and Szmelter, M. (2020). Retail investors in the foreign exchange market. Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, 64(6).

Abstract: The foreign exchange market (FX market, forex) is the largest and the most liquid market of the world. Up to the late 1990s, the FX market was dominated by financial institutions and large corporations, which conducted FX transactions for hedging, speculation and arbitrage purposes. While these participants still constitute the most important part of the market, the role of retail investors has been increasing since the beginning of the 2000s. FX trading conducted by retail investors has become significant enough to be included in the FX market statistics, provided by the Bank for International Settlements (BIS). The data collected by BIS is the basis for the analysis conducted in this paper. The main objective of the study is to examine the factors which contributed to the emergence and development of the FX retail market as well as to analyse its size and structure in comparison with the total FX market.

Keywords: foreign exchange market, retail FX market, retail investors, foreign exchange transactions.

1. Introduction

The foreign exchange market (FX market, forex) is the largest and the most liquid market in the world. The contemporary FX market emerged at the beginning of the 1970s in the aftermath of the collapse of the Bretton Woods system¹ and the

¹ For more on the Bretton Woods system and the reasons for its collapse see (Bordo, 1993).

subsequent widespread adoption of floating exchange rate regimes. As a result, fluctuations of exchange rates have become an immanent feature of the FX market. The need to manage and take currency risk resulted in the creation of new foreign exchange instruments such as forwards, options and swaps. Since the 1980s, spectacular growth of turnover in the foreign exchange market has been observed. Within 30 years, from 1989 to 2019, the daily turnover in the FX market increased 11-fold from \$590 billion to \$6,595 billion (Bank for International Settlements [BIS], 1996, 2019).

The dominant segment of the FX market is the over-the-counter (OTC) market, which is a decentralised market, where transactions are conducted 24 hours a day 5 days a week throughout all geographical regions. It is the only truly continuous market in the world, where participants trade also at night. The foreign exchange market is not controlled by any international institution. Every country has individual control over its own FX market (Pasionek, 2016).

Up to the late 1990s, the FX market was dominated by financial institutions and large corporations, which conducted FX transactions for hedging, speculation and arbitrage purposes. While still those participants constitute the most important part of the market, the role of retail investors has been increasing since the beginning of the 2000s. The retail foreign exchange market, being a relatively new market, has not been the focus of research to such an extent as other segments of the FX market. Koga (2016) studied the behaviour of Japanese retail investors and came to the conclusion that the momentum trading strategies applied by them may have a destabilising effect on the FX market. Nolte and Nolte (2016) provided evidence that the trading activity of small retail investors carries significant information that can be used for the short-term forecasting of foreign exchange rates. Foreman III (2016) concentrated on the research of the retail spot FX market. He pointed out that unlike participants of other markets who conduct transactions for a variety of different reasons (issuance, hedging, cash management, fiscal/monetary policy, etc.), trades on the retail forex market are almost exclusively carried out for speculative purposes. However, as Davison (2016) highlighted, the risk of a significant (greater than 80%) overall account loss is around double that of achieving profitability. Nevertheless, FX trading conducted by retail investors has become significant enough to be included in the FX market statistics, provided by the Bank for International Settlements (BIS). BIS conducts a comprehensive survey of foreign exchange market every three years. Trading conducted by retail investors has been a part of the survey since 2013. The main objective of the study is to examine the factors which have contributed to the emergence and development of the FX retail market, as well as to analyse its size and structure in comparison with the total FX market. The structure of the paper corresponds to the above objective. The research methods employed in the paper include different kinds of analysis, mainly descriptive and comparative analysis. It was based on literature, market reports and data collected by BIS.

2. Factors behind the emergence and development of the retail foreign exchange market

The motives for currency exchange have expanded over the years. Initially retail participation was by-product of other activities, mainly travelling. Nowadays, while such activities as travelling, online shopping or taking and repaying loans in foreign currencies are also the reason why individuals conduct FX transactions, profit-motivated trading has become the main segment of the retail FX market, and mainly trading conducted in this segment has contributed to the significant increase in FX retail trading in this century.

The most important factor that contributed to the increase of role of FX retail trading is the development of online trading platforms (such as FXCM and OANDA) provided by retail aggregators². The high costs charged by banks had excluded retail investors from FX market and it was only when retail-oriented platforms appeared that the situation changed (Rime and Schrimpf, 2013). These platforms allowed to trade in smaller volumes than those commonly traded in the interbank or futures markets (Foreman III, 2016). Their business model was to combine many small transactions and subsequently lay them off in the inter-dealer market. Due to the larger size of the trades, which was the result of such a business model, dealers were willing to provide liquidity to retail aggregators (Rime and Schrimpf, 2013). Retail aggregators are institutions that operate exclusively over Internet trading platforms. They act either as FX brokers or combine a broker model with a dealer model. In the first case, they match retail trades with quotes from banks. In the second case, they match some trades, but strategically act as the counterparty for others. Retail aggregators provide their clients with leverage, which can be as high as 200%. They protect themselves against default by imposing on each retail client an obligation to lodge an initial cash deposit ('margin'). When a transaction is executed, the retail aggregator settles it against the margin in the client's account. When the deposit in the retail client's account is exhausted, the retail aggregator liquidates the client's positions and closes her/his account immediately. This behaviour allows retail aggregators to avoid taking on default risk from their clients, who therefore are encouraged to monitor closely their trading activity (King, Osler, and Rime, 2011).

One of the effects of the entrance of retail aggregators into the forex market is a decrease of the pricing difference between retail and wholesale forex. Retail investors, especially the bigger ones, often apply the same strategies as wholesale investors. As a result, the boundaries between retail and institutional forex markets are getting less clear.

Modern technologies have given retail investors access to global markets, but they were not the only factor that made it possible for retail investors to participate

² It should also be noted that the customers of retail aggregators include not only individuals, but also small hedge and Commodity Trading Advisors (CTA) funds.

in the global market. Another important factor that contributed to the development of the retail FX market is the globalisation and liberalisation processes, which resulted in lifting foreign exchange restrictions. In developed countries those processes started already in the 1980s. Emerging market economies (EME) started to lift foreign exchange restrictions in the 1990s and 2000s. The lack of restrictions on investing in foreign markets or opening accounts in international financial institutions were the factors without which the retail FX market would not have been able to develop so rapidly in this century³. The lack of those restrictions allowed traders to invest their money in the markets outside their own countries.

It should be indicated that the FX market is only one of the markets where individual investors may speculate. Other popular investment possibilities for individuals include trading in equities and derivatives on regulated exchanges. Forex has several attributes that make this market more attractive for retail investors in comparison to trading in other markets and which contribute to its development.

First of all, it is an OTC market, which is open 24 hours a day. It is very convenient for investors, who have to work during the day, and hence have only time to trade during the evening hours. In contrast to trading in forex, buying and selling instruments which are listed on the exchanges, can only take place in the opening hours of the institution. Moreover, unlike centralised exchange markets, the decentralisation of forex allows traders to choose from a large number of different aggregators with which to place trades. This also provides the means to compare prices and pip spreads before buying or selling (Gaucan, 2013).

The forex market is also considered to be the most liquid market. Even in low, volatile market conditions, trading is possible since there is always someone on the other side that constantly provides trading opportunities (Lee, 2010). The high liquidity of the market prevents manipulations, especially when it comes to trade for the major currencies. This is another important attribute of the FX market from the perspective of the retail investor.

It should be indicated that in contrast to other markets, forex is not regulated. However, as King, Osler and Rime (2011) noted the absence of regulations is not a problem for investors due to unique features of the foreign exchange market. The regulations which are essential in other markets, for example short sales restrictions, are not needed in forex where the sale of one currency is the purchase of another one. Some other practices that are illegal on organised exchanges happen rarely in forex thanks to FX market conventions and best practices.

One of the most important attributes of forex are the low capital requirements. Most FX brokers offer investors a high leverage, which means it is possible to invest much more money than initial capital. For example, if the leverage is 50, the trader can invest 50 times the amount they have initially. This can translate into the

³ For example, in Poland, the foreign exchange law which allowed Polish residents to open accounts in foreign financial institutions, was adopted in 2002.

possibility of achieving much greater investment efficiency and much higher rates of return on investment assuming of course that investors make the right decisions. However, it should be remembered that financial leverage works both ways and instead of above average profits the traders can incur above average losses. It should also be pointed out that investors in the forex market can take both long and short positions with the same level of required deposit. In the survey conducted by CitiFX (Maitra, 2014), 34% of investors indicated that the best potential for return in up and down markets as the reason for choosing FX market (Figure 1).

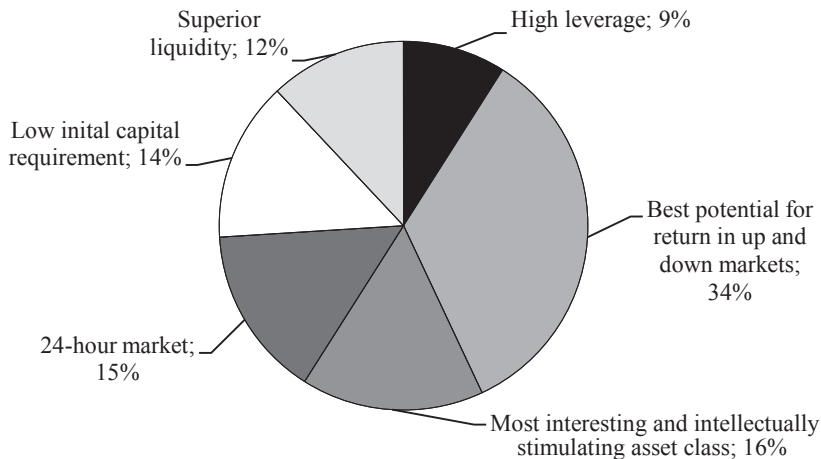


Fig. 1. Reasons for choosing FX market by retail investors

Source: (Maitra, 2014).

The above attributes of the FX market attract more and more retail investors hoping for high returns, but it should also be noted that the forex market is one of the most complex and demanding financial markets. From the investor's point of view, it is a very difficult and ruthless market. Trading in forex requires a lot of knowledge and skills, perfect mastery, discipline and, above all, an appropriate investment strategy. The huge inflow of information and frequent unexpected changes of quotations, and the mechanism of financial leverage, mean that the lack of the right strategy inevitably leads to losses (Korsak and Piekunko-Mantiuk, 2014).

3. Retail investors as part of FX trading

Trading in the currency market is dominated by financial institutions (92.8% of global trading volume in 2019). The transactions between financial counterparties grew by 25.5% to \$6.12 trillion per day in 2019, up from \$4.88 trillion in 2013 (Table 1).

Table 1. OTC foreign exchange turnover by counterparty, 2013-2019

	2013		2016		2019	
Total, “net-net” basis	5.344.549		5.066.955		6.595.471	
with reporting dealers	2.069.970	38.7%	2.120.759	41.9%	2.523.140	38.3%
with other financial institutions	2.809.435	52.6%	2.564.432	50.6%	3.598.511	54.6%
with non-financial customers	465.143	8.7%	381.703	7.5%	473.784	7.2%
of which: retail-driven	185.306	3.5%	282.529	5.6%	201.653	3.1%

Source: own work based on (BIS, 2013-2019).

Inter-dealer trading increased from 2013, to \$2.5 trillion per day in 2019 in absolute terms, but it dipped below 40% of total FX market turnover in 2019 relative to 2016. Reporting dealers include mainly large commercial and investment banks and securities firms that are very active in the FX market.

Non-reporting financial institutions (financial institutions outside the dealer community, or “other financial institutions” in the BIS terminology) are the largest and most active counterparty category within financial institutions: they accounted for \$3.6 trillion, or 54.6% of global trading volume in 2019. Their turnover expanded noticeably; a 40% increase compared with 2016. This group is very varied and consists of smaller or regional commercial banks, securities firms or investment banks, institutional investors (e.g. mutual funds and pension funds), hedge funds and proprietary trading firms, and official sector financial institutions (e.g. central banks or development banks and agencies).

Trading in the non-financial customer FX market, including corporates, non-financial government entities and high net worth individuals, reached \$474 billion per day in 2019. However, the relative importance of trading with non-financial participants fell to 7.2% of total FX market turnover over the three-year period. The non-financial trading share declined from 8.7% in 2013, and 7.5% in 2016.

Retail-driven FX trading, in BIS terminology, is initiated by private individuals on their own behalf (i.e. not for any institution), leveraged, speculative and cash-settled foreign exchange operation. Retail investors:

- transact directly with reporting institutions, and the transactions are executed online or by other means (e.g. email or phone); deals of this type are assigned to the group “with non-financial customers”;
- trade in forex for speculative purposes via retail brokers/aggregators, operated by reporting dealers (the transactions are reported to the group “with reporting dealers”), or non-reporting wholesale financial institutions (deals of this type are assigned to the group “with other financial institutions”).

Therefore retail-driven FX turnover is a part of each FX market segment distinguished in BIS methodology. It is worth pointing out that BIS figures capture only

retail transactions that end up with reporting dealers directly or indirectly through retail aggregators without trades internalised on the platform (Rime and Schrimpf, 2013).

Retail-driven turnover rose to \$282 billion in 2016, a 52% increase compared with 2013 (Table 1). In contrast, the turnover declined in both absolute and relative terms in 2019, with the share in global FX turnover falling to 3.1% in 2019 (the share decreased from 5.6% in 2013, and 3.5% in 2013). Retail-driven transactions fell heavily to \$202 billion per day in 2019, a 29% drop compared with 2016.

According to BIS figures, the growth of the retail segment halted and changed into a significant fall in 2019, and the key factors of the negative trend were in particular the legal regulations introducing leverage limits for margin brokerage accounts for individual investors to protect them in countries such as the United States, Japan and the EU countries. The US Commodity Futures Trading Commission decided about the cut of retail leverage from 100:1 to 50:1 for major currency pairs, and 20:1 for non-major currency pairs. Japan's Financial Services Authority lowered FX trading leverage for individual investors from 50:1 to 25:1 to protect retail investors from themselves (King and Rime, 2010). On 1 August 2018, the European Securities and Markets Authority (ESMA) decided on restrictions related to the marketing, distribution and sale of CFDs (forward contracts for difference) to retail clients in the EU. ESMA introduced many measures in concern of private investors in FX market, such as leverage limits on opening positions (30:1 for major currencies and 20:1 for other currencies), or the margin close-out rule and a negative balance protection on a per-account basis (European Securities and Markets Authority Decision (EU) 2018/796; Golden, 2018). As a consequence, the regulations pushed part of retail trading offshore where providers do not report their client trades. More prudent consumer protection led to increased activity of clients who opened an account with a broker outside of the EU, while the number of applications for licences of brokers in jurisdictions such as Mauritius, Seychelles or Gibraltar rose. However, it is worth adding that most regulated providers have an offshore unit where individual investors have the possibility to trade without the leverage limits imposed by the regulators (Golden, 2019).

Table 2. Retail trading in total foreign exchange turnover, 2013-2019

	2013	2016	2019
Spot	3.83%	3.66%	3.30%
Outright forwards	3.54%	3.09%	1.36%
Foreign exchange swaps	3.33%	7.47%	3.02%
Currency swaps	2.58%	4.04%	0.18%
FX options	2.16%	7.62%	8.54%

Source: own work based on (BIS, 2013-2019).

Individuals were the most engaged in global FX options trading (Table 2). Their transactions gained remarkably in the total FX option market share. Retail-driven currency options accounted for 8.54% of global turnover in 2019, up from 7.26% in 2016 and 2.16% in 2013.

In contrast, the market with very limited individual investors' activity is the currency swap segment. Private investors were only 0.18% of the total currency swap turnover in 2019, down from 4.04% in 2016 and 2.58% in 2013.

Retail trading in foreign exchange swaps and outright forwards also lost market share. The relative importance of foreign exchange swap trading with retail investors fell significantly to 3.02% of the total FX market turnover (when individuals reached 7.47% of the total FX swap turnover in 2016). Retail-driven outright forwards accounted for 1.36% of global turnover in 2019, down from 3.09% in 2016 and 3.54% in 2013.

The share in the global spot market of retail investors also fell slightly to 3.3% of the total FX market turnover in 2019, while it was 3.83% in 2013, and 3.66% in 2016.

4. The evolving structure of retail FX trading

Reporting dealers in the BIS project are requested to provide data on retail-driven operations, for each currency and instrument.

Table 3. OTC retail foreign exchange turnover by instrument, 2013-2019, daily averages, in millions of US dollars

	2013	2016	2019
Total retail turnover	185,306	282,529	201,653
Spot	78,406	60,429	65,614
Outright forwards	24,086	21,609	13,618
Foreign exchange swaps	74,153	177,778	96,824
Currency swaps	1,393	3,321	192
FX options	7,268	19,393	25,405

Source: own work based on (BIS, 2013-2019).

At \$65,614 per day, the volume of retail spot trades in 2019 was some 8% greater than in 2016, but below the level recorded in 2013 (Table 3). Trading in the retail spot market declined heavily by 23% to \$60,429 million per day in 2016, from \$78,406 million in 2013. Individuals were less engaged in spot trading, and this was caused by their bigger interest in FX swap transactions. Trading by individuals in retail FX swap rose by a notable 140% to \$177,778 million per day in 2016. In contrast, it declined in 2019, a 45% decrease compared with 2013.

The decreasing tendency was visible in the retail outright forward market, daily turnover declined by 10% in 2016 and 37% in 2019, while individuals were more

and more engaged in FX options, and the rise in a daily turnover created by retail investors was spectacular, a 167% increase in 2016, and 31% in 2019. FX option turnover in the retail FX market expanded noticeably.

Analysis of the global retail FX market shows that the transaction which experienced a significant rise of daily turnover in 2013 with a rate 138% and heavy drop in 2019 (94%), was currency swap.

In summary, the sentiment of private investors about foreign exchange operations was changing in the period between 2013 and 2019, and therefore also the instrument structure of retail FX trading.

Turnover in FX swaps accounted for almost half of retail FX trading in 2019 (Figure 2), but below the level recorded in April 2016 (representing some 63% of total retail FX turnover). FX swap is the most heavily traded instrument by individuals in 2016, whereas spot transaction was first in the ranking of retail FX operations in 2013 with a share of 42.3%. Retail trading in the spot market did not keep pace with overall retail market growth in 2016, and spot trades by individuals dipped to around 21% of retail FX market turnover in 2016. The share of spot increased by 11 percentage points to 32.5% of retail FX activity in 2019, but below the level recorded in April 2013.

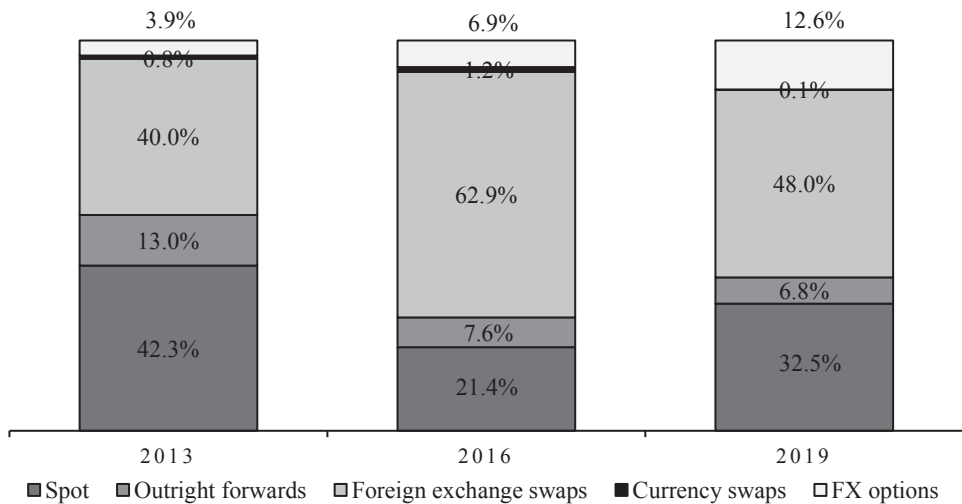


Fig. 2. Retail FX market by instrument, 2013-2019

Source: own work based on (BIS, 2013-2019).

Outright forward turnover accounted for 6.8% of retail turnover in 2019, down from 7.6% in 2016 and 13% in 2013. That was the lowest level observed since 2013 and this decreasing tendency was caused by regulatory restrictions. In contrast, trading in FX options gained significantly in the retail FX market share. The FX

option by individuals grew notably between 2013 and 2019, from some 4% in 2013 of global retail trading volume to almost 13% in 2019.

Retail investors differ slightly from financial participants in their FX trading patterns. Similarities are visible when FX swap and spot transactions are analysed. The most traded transaction is FX swap, and its share was very similar in both the total and retail FX market (almost half of daily turnover in 2019). Second place belongs to spot, and the transaction gained around 30% share in total and retail FX activity in 2019 (Figure 3).

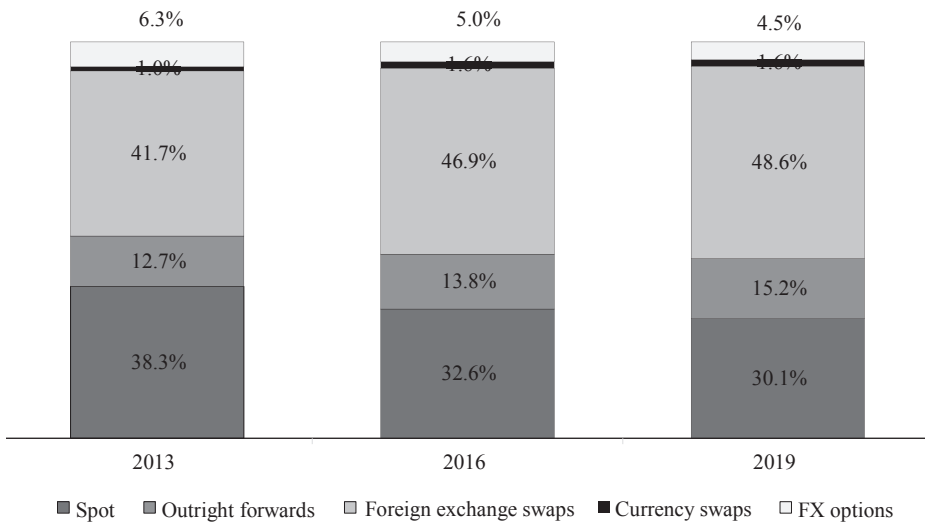


Fig. 3. Total FX market by instrument, 2013-2019

Source: own work based on (BIS, 2013-2019).

There was a difference between the retail and total market when it comes to the outright forward and FX option. The share of outright forward in the total market was around 15% but only 7% of the retail FX market in 2019. In contrast, FX option turnover accounted for only 4.5% of total FX trading and 12.6% of retail activity in 2019.

Currency swaps were of marginal importance in both total and retail FX trading in BIS research.

The US dollar remained the dominant currency of the retail FX market with a share from 38% to 40% between 2013 and 2019 (Figure 4). There was a slight difference between the total and retail market – global investors were more active in transactions with the US dollar than individuals in relative terms, and the currency gained 44% of total turnover each year of BIS research.

In contrast, the euro, the second most traded currency by private investors, had 20% of all retail FX trades in 2019 while only 16% of total FX activity. The European

currency gained a higher share in the retail FX segment between 2013 and 2019 than in the total FX market.

The same tendency was observed when analysing the yen, the third in relative ranking of the most liquid currencies of the retail FX market. The Japanese currency's share in retail trading edged up to 13.4% in 2019, but below the level recorded in 2013 (almost 15%). This was reflected significantly higher than the yen's share in total FX turnover (8.4% in 2019) and was caused by the high interest on the part of Japanese individuals in trading yen against several high-yielding EME currencies (BIS, 2019). The retail FX market shares for other heavily traded advanced economy currencies were significantly lower, with the GBP at 6%, and the AUD at 4% of total FX turnover in 2019.

The ranking of the five most liquid currencies in total and retail terms was almost the same between 2013 and 2019 with USD, EUR, JPY, and GBP in first, second, third, and fourth place, respectively. The only exception was the fifth place of the Swiss franc in retail ranking in 2016 instead of the Australian dollar (Figure 4). However, a currency distribution of retail trading for selected transactions could differ, especially when analysing particular retail FX centres.

The currencies with the highest retail concentration were used in around 80% of individuals' FX transactions, and their share in total FX turnover was very similar between 2013 and 2019.

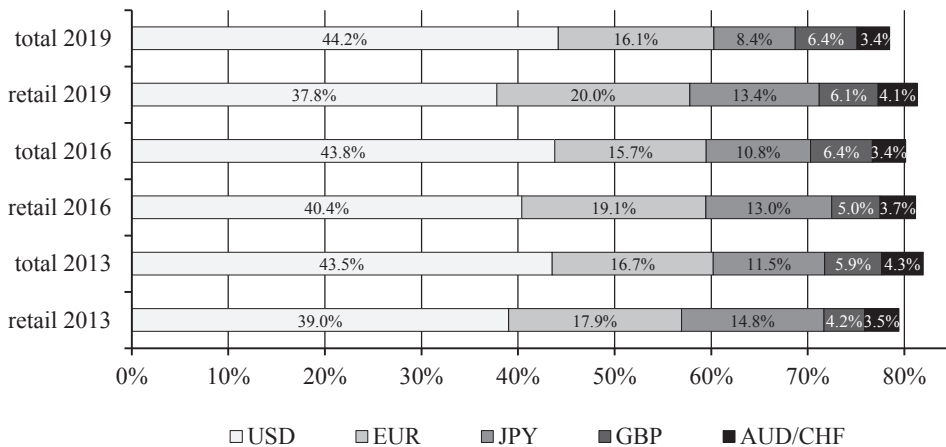


Fig. 4. Total and retail FX market by currency, 2013-2019

Source: own work based on (BIS, 2013-2019).

Almost all the key currencies of the retail FX market reached recorded turnover in 2016 (Table 4), and the growth was significant from 34% in JPY trading to 82% regarding GBP (the only one exception was the Australian dollar with a poor increase at 2%, and that is why it dropped in the ranking). However there was a heavy fall in

Table 4. Retail-driven FX volumes by currency, 2013-2019, daily averages (in millions of US dollars)

	2013	2016	2019
USD	144,630	228,244	152,478
EUR	66,328	107,707	80,629
JPY	54,677	73,526	54,050
GBP	15,669	28,454	24,514
AUD	13,151	13,446	16,437
CHF	11,568	20,645	15,489

Source: own work based on (BIS, 2013-2019).

trade in all the currencies three years later. At \$152,478 million per day, the volume of transactions involving USD in 2019 was some 33% lower than in 2016. Turnover with other currencies dropped by 25% at EUR, 26% at JPY, 14% at GBP, and 25% at CHF. The decreasing tendency did not touch the Australian dollar, and the retail trading with AUD rose at the 22% rate in 2019.

5. Conclusion

Up to 1990s, foreign exchange market was the domain of large financial institutions. This century they have been joined by an increasing number of individual entities who are entering the FX market with the hope for high profits. Retail investors gained access to the global FX market as a result of the liberalisation processes occurring in the world economy and the development of new technologies. They are attracted to forex by its unique attributes such as the possibility to trade 24 hours a day in both up and down markets, high liquidity and low initial capital requirements.

It should be noted, however, that according to BIS statistics the increase in retail-driven FX turnover stopped after 2016. Moreover, in 2019 retail-driven transactions fell heavily compared with 2016. This trend was the consequence of the enactment of legal regulations introducing leverage limits for margin brokerage accounts for individual investors in such countries as the United States, Japan, and the EU countries. However, it can be assumed that those regulations pushed the retail investors to open an account in offshore jurisdictions where the providers do not report their client trades and hence those trades are not included in BIS statistics. This trend will most probably continue in the next few years.

Retail investors differ slightly from financial participants in their FX trading patterns. The most traded transaction of the retail FX market is FX swap, and its share was very similar in both the total and retail FX market (almost half of the daily turnover in 2019). The spot transaction took second place in the retail market, as well

as in the total market. The FX option was third in the retail FX transaction ranking, while forward outright was third in the ranking of the total FX market. The US dollar is the dominant currency for both financial and retail investors, but individuals are less engaged in trades with the dollar. The currency structure of the retail FX market is more diversified, with a higher share of the euro, yen, and EME currencies compared with the total FX market. Since trade in EME currencies is carried out mostly in offshore jurisdictions, the share of those currencies in retail FX trading is expected to increase even more in the next few years.

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INWESTORZY INDYWIDUALNI NA RYNKU WALUTOWYM

Streszczenie: Rynek walutowy jest największym i najbardziej płynnym rynkiem na świecie. Do końca lat 90. XX wieku był zdominowany przez instytucje finansowe i duże korporacje, które przeprowadzały transakcje walutowe w celu zabezpieczenia, spekulacji i arbitrażu. Mimo że podmioty te nadal stanowią najważniejszą część rynku, od 2000 roku rośnie również rola inwestorów indywidualnych. Wartość obrotów na rynku walutowym, za które odpowiedzialni są inwestorzy indywidualni, stała się na tyle duża, że jest uwzględniana w statystykach rynku walutowego publikowanych przez Bank Rozrachunków Międzynarodowych (Bank for International Settlements – BIS). Dane zebrane przez BIS są podstawą badań przeprowadzonych w tym artykule. Głównym ich celem jest przedstawienie czynników, które przyczyniły się do rozwoju detalicznego rynku walutowego, oraz analiza wielkości i struktury tego rynku na tle całego rynku walutowego.

Słowa kluczowe: rynek walutowy, detaliczny rynek walutowy, inwestorzy indywidualni, transakcje walutowe.