

FOREX MARKET AS THE BEST POSSIBLE WAY OF INVESTING MONEY DURING AN ECONOMIC BOOM AND RECESSION

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Abstract

Since the beginning of the 1980s, a continuous process of integration of national and regional markets into one global market for goods, services and capital can be noticed. Both economic theory and market practice indicate that the level of the exchange rate primarily depends on macroeconomic variables (such as interest rates or the number of new jobs in the non-agricultural sector). The results of the research presented in the article regard the importance of US macroeconomic data publications for the short-term volatility of EUR/USD exchange rate. The main purpose of the study was to show whether macroeconomic data from the United States affects the short-term development of the EUR/USD exchange rate and whether the Forex market is a good way to multiply capital. The following research questions have been posed: does the EUR/USD exchange rate react to the published macroeconomic data from the American economy? Second, is whether investing in the Forex market could be a way to multiply capital in times of economic boom and recession. This paper presents the effects of my own research and observations in terms of the impact of US macroeconomic data, on shaping exchange rates of the Forex market. Based on my own investment experience my goal is to prove, that Forex market is a perfect way to multiply capital. My investment decisions regarding future exchange rate fluctuations, were based on the presented macroeconomic data from the US economy, as well as on the basis of important leading economic indicators. The position was opened and closed on the same day. The trading contracts have been made throughout 7 working days. The underlying financial instruments were EUR/USD and OIL. The conclusions of this study are as follows. The USD/PLN exchange rate reacted to the published macroeconomic data from USA. The strongest exchange rate reaction was noticed after publications of data regarding US Non-farm Payrolls (NFP), Initial Jobless Claims and ISM Services PMI. Strong exchange rate reaction was recorded after ADP US Private Sector Jobs and Factory orders report. When taking described investment examples into account, it can be clearly stated that investing in the Forex market is an excellent alternative to stock investments.

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INTRODUCTION

Since the beginning of the 1980s, a continuous process of integration of national and regional markets into one global market for goods, services and capital can be noticed. The process of globalization leads to the growing penetration and integration of markets, an increase in the relationships between economic phenomena, including macroeconomic processes, which is best exemplified by the global currency market - Forex.

The foreign exchange market has undergone several fundamental changes in the last century. In 1944, at an international conference in Bretton Woods, the currency exchange system operating in the post-war period was introduced. In 1973, the system of fixed exchange rates collapsed under the influence of market forces, and since then, currency prices are the result of a game of supply and demand. This is how the process of creating the international currency market (FOREX) began. The Forex market is an over the counter (OTC) market with no physical location and no central supervision (Oziewicz, 2006; Rubaszek & Serwa, 2009; Świerkocki, 2011; Zembura, 2011; Bieliński, 2013). This means that transactions are made between market participants (banks, corporates, foreign exchange brokers, individual investors) via electronic trading platforms and telephone lines.

The exchange rate is shaped on the currency market, which is the starting point for both the official exchange rate (in Poland announced by the National Bank of Poland) and the rates offered by banks to their clients all over the world. Active participation of a Polish individual investor in trading on the international Forex market has been possible since 2002.

With the introduction of the free shaping of exchange rates, the Forex market experienced a spectacular increase in turnover. Average daily turnover in 2022 reached USD 7,5 trillion, which is approximately 16 times the combined daily turnover on all of the world's exchanges (BIS, 2022).

Both economic theory and market practice indicate that the level of the exchange rate primarily depends on macroeconomic variables (such as interest rates or the number of new jobs in the non-agricultural sector) Devereux and Lane (2003), Moran (2009), Evans & Speight (2010); Insah (2013); Mirchandani (2013) or Andersen, et al. (2013). Empirical research and economic practice prove that exchange rates react to information on macroeconomic data (Goodhart, 1989; Andersen & Bollerslev, 1998; Almeida, et al., 1998; Zettelmeyer, 2004; Matesanz & Ortega, 2015; Gau & Wu, 2017).

The main purpose of the study was to show whether macroeconomic data from the United States affects

the short-term development of the EUR/USD exchange rate and whether the Forex market is a good way to multiply capital. The following research questions were posed: does the EUR/USD exchange rate react to the published macroeconomic data from the American economy? The second is whether investing in the Forex market could be a way to multiply capital in times of economic boom and recession.

This paper presents the effects of my own research and observations in terms of the impact of US macroeconomic data, and on shaping exchange rates of the Forex market. Based on my own investment experience my goal is to prove, that the Forex market is a perfect way to multiply capital. Macroeconomic data from the US economy, both positive and negative, affects the exchange rates of the underlying instruments (e.g. EUR/USD, OIL), and thus increases profits from investment in CFDs². Regardless of whether the macro data is good or bad, CFDs can always generate profits. In order to achieve profits from concluded CFDs, I analyze macroeconomic data concerning the US economy.

To date, there has been no attempt to study the impact of US macroeconomic data on the EUR/USD currency pair within the M30 timeframe, based on real transactions. The results of this study have both cognitive and applicational dimension. As a cognitive dimension, this article may be a source of knowledge on the Forex market and a guide to determinants which are shaping the EUR/USD exchange rate. As an applicational dimension, the results of the study may be useful for currency market participants. This research may also be addressed to investors who actively trade the EUR/USD currency pair.

DATA AND METHODOLOGY

The results of the research presented in the article regard the importance of US macroeconomic data publications for the short-term volatility of the EUR/USD exchange rate. The following research questions have been posed: does the EUR/USD exchange rate react to the published macroeconomic data from the American

² CFD - Contract for Differences. These are derivative financial instruments that give the possibility of hedging or earning on changes in exchange rates, commodity prices, shares or stock index levels (i.e., underlying instruments). CFDs are traded over the counter.

The margin is the amount needed to open a position (long position - buy, short position - sell). It represents a certain percentage of the value of our transaction.

1 lot is a transaction for 100,000 currency of the first pair. For EUR/USD it is 100,000 EUR. For example, when concluding a contract for the EUR/USD currency pair, the calculations are as follows: 1 lot - that is, a transaction for 100,000 EUR, the margin is 1% or 1,000 EUR. EUR/PLN = 3.3820 - it follows that the domestic currency margin will be PLN 3.382 (3.3820 x 1000). If the buying price EUR/USD = 1.5456, and the selling price is 1.5457, the difference will be 0.0001 i.e. 1 pip. USD/PLN = 2.2020 - hence 1 pip is equal to PLN 22.02 (2.2020 x 10).

economy? The second is whether investing in the Forex market could be a way to multiply capital in times of economic boom and recession. This paper presents the effects of my own research and observations in terms of the impact of US macroeconomic data, on shaping exchange rates of the Forex market. Based on my own investment experience my goal is to prove that the Forex market is a perfect way to multiply capital. Macroeconomic data from the US economy, both positive and negative, affects the exchange rate of underlying instruments (e.g., EUR/USD, OIL), and thus increases profits from investment in CFDs. My investment decisions regarding future exchange rate fluctuations were based on the presented macroeconomic data from the US economy, as well as on the basis of important leading economic indicators.

The scope of research on capital, the research period, the underlying instruments, the trading platform and macroeconomic data are as follows. The required base capital = 5,000 PLN. The trading contracts were made throughout 7 working days when significant US economic indicators were published. Trading began on June 16, 2008. Trading ended on July 03, 2008. The underlying financial instruments were EUR/USD and OIL. The transactions were made using X-Trade Brokers (XTB) electronic trading platform, which is a brokerage company specializing in derivative instruments trading. My investment decisions regarding future exchange rate fluctuations were based on the presented macroeconomic data from the US economy, as well as on the basis of important leading economic indicators. The positions were opened and closed on the same day.

Basic terms on Forex Market:

- a) CFD – Contract for Differences;
- b) CFD are financial derivatives that give opportunities to hedge or make money on currency exchange rates changing, commodity and stock prices, stock market indices (underlying financial instruments);
- c) Required margin for order opening is the amount of money required for order opening. It is a certain percentage of the value of our transaction;
- d) 1 Lot (a transaction unit) means buying or selling 100,000 of one currency (the first currency listed in a pair) for another. In the case of EUR/USD it means buying/selling 100,000 EUR.

The basic US economic indicators included in this research:

- 1) NY Empire State Business Condition Index;
- 2) National Association of Home Builders NAHB;
- 3) Building Permits;
- 4) Housing Starts;
- 5) Production Price Index PPI;
- 6) Core Production Price Index (Core PPI);
- 7) Industrial Production;
- 8) Capacity Utilization;
- 9) Mortgage Banking Association MBA;
- 10) Weekly Petroleum Status Report;
- 11) Initial Jobless Claims;
- 12) Leading Economic Indicators LEI;
- 13) Construction Spending;
- 14) Institute for Supply Management Index ISM USA Manufacturing;
- 15) ADP US Private Sector Jobs;
- 16) Factory orders;
- 17) Non-farm Payrolls USA;
- 18) ISM Services PMI;
- 19) Weekly Jobless Claims.

EMPIRICAL RESULTS

The results of the research presented in the article regard the importance of US macroeconomic data publications for the short-term volatility of the EUR/USD exchange rate. The main purpose of the study was to show whether macroeconomic data from the United States affects the short-term development of the EUR/USD exchange rate and whether the Forex market is a good way to multiply capital. The following research question were posed: does the EUR/USD exchange rate react to the published macroeconomic data from the American economy? The second is whether investing in the Forex market could be a way to multiply capital in times of economic boom and recession.

Other factors and events that could have influenced the market prices:

- 1) At 3:15 p.m. Richmond Fed President announcement. Jeffrey Lacker implied that the interest rates should be raised.

Table 1: US economic indicators (Day 1, Monday, June 16, 2008)

Hour	Country	Economic indicator	For	Actual	Forecast	Prior
14:30	USA	NY Empire State Business Conditions Index	June	-8.7	-2.4	-3.2
18:00	USA	NAHB Housing Market Index	June	18.0	19.0	19.0

Source: <https://www.forexfactory.com/calendar>.

Table 2: Concluded CFD transactions

Parameters	Characteristics
Underlying instrument	EUR/USD
Time of opening	14:10
Price	1.5456
Time of closing	15:20
Price	1.5512
The volume / Required margin for order opening	1 lot / 3382.00
Order type (Bid/Ask)	Ask
The available capital (deposit)	5000
Profit/Loss	+1233.12
Ending capital	6233.12

Source: Own study.

Chart 1: EUR/USD exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

As can be seen in Chart 1, the initial reaction to the negative data on the decline in the New York City Business Climate Index was a significant dollar weakening. At 15:15 the head of the Fed from Richmond, Jeffrey Lacker, spoke. He suggested that interest rates should increase, and the dollar appreciated almost at the same

time. It should also be remembered that the quoted Business Climate Index concerned the past, while Lacker's statement referred to the future. The moment when the position had to be closed was also indicated by the RSI oscillator of almost 78³.

Table 3: US economic indicators (Day 2, Tuesday June 17, 2008)

Hour	Country	Economic indicator	For	Actual	Forecast	Prior
14:30	USA	Building Permits	May	-1.3% (0.969M)	-2.9% (0.960M)	-
14:30	USA	Housing Starts	May	-3.3% (0.975M)	-5.0% (0.980M)	-

³ RSI - Relative Strength Index was presented by J. Welles Wilder Jr. in his 1978 book, *New Concepts in Technical Trading Systems*. The RSI oscillator is placed on a vertical scale from 0 to 100. An oscillator value above 70 is considered an overbought signal, while oversold signal is indicated by a decrease in the oscillator value below 30.

Hour	Country	Economic indicator	For	Actual	Forecast	Prior
14:30	USA	Production Price Index PPI	May	1.4% m/ m	1.0%	0.2% m/m 6.5% y/y
14:30	USA	Core PPI	May	0.2% m/ m	0.2%	0.4% m/m 3.0% y/y
15:15	USA	Industrial Production	May	-0.2%	+0.1%	-0.7%
15:15	USA	Capacity Utilization	May	79.4%	79.7%	79.7%

Source: <https://www.forexfactory.com/calendar>.

Other factors and events that could have influenced the market prices.

- 1) Goldman Sachs (the largest brokerage company) reported the second-quarter net profit of \$2.09

million, or \$4.58 a share. The analysts estimated earning of \$3.42 per share. The impairment loss on capital market reached \$775 million.

- 2) Housing starts fell 3.3% the lowest since March 1991

Table 4: Concluded CFD transactions

Parameters	Characteristics
Underlying instrument	EUR/USD
Time of opening	14:25
Price	1.5480
Time of closing	18:00
Price	1.5518
The volume / Required margin for order opening	1 lot / 3377.00
Order type (Bid/Ask)	Ask
The available capital (deposit)	6233.12
Profit/Loss	+1828.40
Ending capital	7061.52

Source: Own study.

Chart 2: EUR/USD exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

Looking at the macroeconomic data released on that day, we can assume that further weakening of the dollar could be expected. Additionally, at 2:25 p.m. it was announced that Bank Goldman Sachs (the world's largest brokerage company) generated a net profit of USD 2.09 million, i.e., USD 4.58 per share in the second quarter of the year. Analysts estimated the profit at USD 3.42 per share. The write-offs related to losses in

the capital market reached USD 775 million. At 2:30 p.m. another piece of negative news was released. Already started housing constructions fell to their lowest level since March 1991. Only the base index of industrial production sold proved to be in line with market expectations, which certainly did not contribute to the strengthening of the dollar in any way.

Table 5: US economic indicators (Day 3. Wednesday, June 18, 2008)

Hour	Country	Economic indicator	For	Factual	Forecast	Prior
13:00	USA	(Mortgage Banking Association MBA)	Previous week	-8.8%	-	+10.9%
16:30	USA	Weekly Petroleum Status Report	-	-1.24M of barrels	-1.75M of barrels	-

Source: <https://www.forexfactory.com/calendar>.

Other factors and events that could have influenced the market prices.

1) Morgan Stanley quarter net profit dropped 57% to

\$1,03 million. Earnings per share (EPS) = \$0.95, as the market expected.

2) Oil workers' strike in Nigeria (Chevron Corp.).

Table 6: Concluded CFD transactions

Parameters	Characteristics
Underlying instrument	EUR/USD
Time of opening	13:30
Price	1.5476
Time of closing	20:25
Price	1.5527
The volume / Required margin for order opening	1 lot / 3370.00
Order type (Bid/Ask)	Ask
The available capital (deposit)	7061.52
Profit/Loss	+1109.25
Ending capital	8170.77

Source: Own study.

Chart 3: EUR/USD exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

Another day and other bad news. This time, the MBA index dropped by as much as 8.8%. A decline in Morgan Stanley's profit by 57% to USD 1.03 million, earnings per share = USD 0.95 was the next news con-

firming the financial crisis. Such a portion of data from the US economy suggested that the dollar would continue to weaken.

Table 7: US economic indicators (Day 4. Thursday, June 19, 2008)

Hour	Country	Economic indicator	For	Factual	Forecast	Prior
14:30	USA	Initial Jobless Claims	Previous week	381K	375K	384K
16:00	USA	Leading Economic Indicators LEI	May	+0.1%	N/C	+0.1%

Source: <https://www.forexfactory.com/calendar>.

Table 8: Concluded CFD transactions

Parameters	Characteristics	
Underlying instrument	EUR/USD	EUR/USD
Time of opening	14:05	15:15
Price	1.5470	1.5500
Time of closing	15:15	16:50
Price	1.5505	1.5483
The volume / Required margin for order opening	1 lot / 3370.00	1 lot / 3370.00
Order type (Bid/Ask)	Ask	Bid
The available capital (deposit)	8170.77	8932.02
Profit/Loss	+761.25	+369.75
Ending capital	8932.02	9301.77

Source: Own study.

Chart 4: EUR/USD exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

The macro data occurring on the market proved to be quite volatile and a bit confusing for investors. The number of people newly registered as unemployed reached 381 thousand, i.e., more than the market had expected. The reaction was obvious – the dollar was weakening. As far as the LEI index was concerned, and

this could already be noticed beforehand, its growth was forecasted. In fact, it proved to be a little positive⁴.

⁴ LEI - Leading Economic Indicator, is one of the three composite indices, beside the index of delayed and convergent indicators, developed and published monthly by The Conference Board in the form of a report on business cycle indicators. It is a very important indicator of the economic situation. Wall Street analysts and investors attach great importance to the index of leading indicators.

The decline of the RSI oscillator to the level of 30 was helpful in choosing the given moment of opening the "buy" position. The position was also closed in the condition where the RSI reached the level of 70. The "sell" position was opened almost at the same time. Thus, in

such situations, when the incoming macroeconomic data from the US economy were ambiguous, it was quite difficult to open and close positions while maximizing profit.

Table 9: US economic indicators (Day 5. Tuesday, July 1, 2008)

Hour	Country	Economic indicator	For	Factual	Forecast	Prior
16:00	USA	Construction Spending	May	-0.4%	-0.6%	-0.4%
16:00	USA	ISM Manufacturing PMI	June	50.2	49.6	49.6

Source: <https://www.forexfactory.com/calendar>.

Other factors and events that could have influenced the market prices.

- 1) The Associated Industries of Massachusetts (AIM) Business Confidence Index declined to 48.9 points in June from 49.4 in May. In April the Index was 50.1.

The indication above 50 points means that more companies in the region are expecting improvement in economic conditions.

- 2) The crude oil price rose sharply and reached \$143.67 a barrel.

Table 10: Concluded CFD transactions

Parameters	Charateristics
Underlying instrument	EUR/USD
Time of opening	16:05
Price	1.5740
Time of closing	17:25
Price	1.5765
The volume / Required margin for order opening	1 lot /3357.00
Order type (Bid/Ask)	Ask
The available capital (deposit)	9301.77
Profit/Loss	-543.75
Ending capital	8758.02

Source: Own study.

Chart 5: EUR/USD exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

Looking at the macro indicators on this day it can be stated that the dollar would strengthen. That was also my assumption. Unfortunately, at 4:10 p.m. the Business Confidence Index (AIM) was released. It fell to 48.9 points in June from 49.4 in May. In April, the index was 50.1⁵. At the same time, observing the oil con-

tracts, it could be noticed that the price of a barrel of crude oil rose sharply and reached a record price of USD 143.67/barrel. Unfortunately, the above events did not support the dollar. As shown in Table 10, this day was closed with a loss.

Table 11: US economic indicators (Day 6. Wednesday 02.07.2008)

Hour	Country	Economic indicator	For	Factual	Forecast	Prior
14:15	USA	ADP US Private Sector Jobs	June	-79K jobs	-20K jobs	+40K jobs
16:00	USA	Factory orders	May	+0.6%	+0.5%	+1.3%
16:30	USA	Weekly Petroleum Status Report	-	-1.98M of barrels	+0.5M of barrels	-

Source: <https://www.forexfactory.com/calendar>.

Table 12: Concluded CFD transactions

Underlying instrument	EUR/USD	OIL
Time of opening	14:00	16:45
Price	1.5805	141.35
Time of closing	16:20	21:20
Price	1.5865	144.65
The volume / Required margin for order opening	2 loty /7060.00	0.1 lota /1398.22
Order type (Bid/Ask)	Ask	Ask
The available capital (deposit)	8758.02	11,296.00
Profit/Loss	+2538	+1475.1
Ending capital	11,296.00	12,771.12

Source: Own study.

Chart 6: EUR/USD exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

Chart 7: OIL exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

The decline in employment in the private sector proved to be much greater than forecasted, which obviously translated into a fall in the value of the dollar, while a fairly significant decline in fuel stocks resulted

in a significant increase in oil prices. Due to a fairly certain impulse that had an impact on the weakening of the dollar, the contract was concluded for 2 lots, i.e., EUR 200,000.

Table 13: US economic indicators (Day 7. Thursday July 3, 2008)

Hour	Country	Economic indicator	For	Factual	Forecast	Prior
14:30	USA	Non-farm Payrolls USA	June	-62K jobs	-50K jobs	-49K jobs
14:30	USA	Initial Jobless Claims	June	404K	380K	384K
16:00	USA	ISM Services PMI	June	48.2	51.5	51.7

Source: <https://www.forexfactory.com/calendar>.

Other factors and events that could have influenced the market prices.

- 1) Freddie Mac announced that after three weeks mortgage interest rates went down in the USA. The average rate on 30-year fixed rate mortgage

dropped to 6.35% in the last week. A week earlier it was 6.45%, and a year ago it reached 6.63%.

- 2) Crude oil prices reached \$146 a barrel. Since then, the price went down significantly (technical analysis, speculating motive).

Table 14: Concluded CFD transactions

Underlying instrument	EUR/USD	EUR/USD
Time of opening	13:50	13:52
Price	1.5805	1.5805
Time of closing	14:30	17:00
Price	1.5860	1.5710
The volume / Required margin for order opening	1 lot / 3345.00	1 lot / 3345.00
Order type (Bid/Ask)	Ask	Bid
The available capital (deposit)	12,771.12	12,241.12
Profit/Loss	- 530.00	+3710.00
Ending capital	12,241.12	15,951.12

Source: Own study.

Table 14: Concluded CFD transactions

Underlying instrument	EUR/USD	EUR/USD
Time of opening	13:50	13:52
Price	1.5805	1.5805
Time of closing	14:30	17:00
Price	1.5860	1.5710
The volume / Required margin for order opening	1 lot / 3345.00	1 lot / 3345.00
Order type (Bid/Ask)	Ask	Bid
The available capital (deposit)	12,771.12	12,241.12
Profit/Loss	- 530.00	+3710.00
Ending capital	12,241.12	15,951.12

Source: Own study.

Chart 8: EUR/USD exchange rate



Source: X-Trade Brokers electronic trading platform, 2008.

Looking at the macroeconomic data, a simple conclusion can be drawn - the dollar should weaken significantly against the euro. Probably it would have happened if there had not been another piece of news from the United States, this time about the future. It proved that in the US, the mortgage rates dropped after 3 weeks, which was communicated by Freddie Mac. The average interest rate on a 30-year fixed-rate mortgage fell to 6.35%. The week before it was 6.45%, whereas a year before it was 6.63%. Crude oil also reached the maximum level of USD 146/barrel on that day, after which it began to drop significantly. In this case, for Wall Street investors, the decline in mortgage rates and cheaper oil were more important than the weak macro data, which we know are a thing of the past. Due to the high level of uncertainty on that day, two opposing positions were included in the so-called stop loss⁶. As you can see in the chart, the first position

was automatically closed with a slight (predetermined) negative result, while a profit was made on the second negative result, while a profit was made on the second position. This time the profit proved to be higher than previously assumed.

CONCLUSIONS

This paper presents the effects of my own research and observations in terms of the impact of US macroeconomic data, on shaping exchange rates of the Forex market. Based on my own investment experience my goal is to prove that the Forex market is a perfect way to multiply capital. Macroeconomic data from the US economy, both positive and negative, affects the exchange rate of underlying instruments (e.g., EUR/USD, OIL), and thus increases profits from investment in CFDs.

⁶ Stop loss allows for closing the position automatically in the event that the rate goes in the opposite direction than the investor assumed.

Following the research questions posed in the introduction, based on the conducted analyses, it can be concluded that the USD/PLN exchange rate reacted to the published macroeconomic data from the USA.

The strongest exchange rate reaction was noticed after publications of data regarding US Nonfarm Payrolls, Initial Jobless Claims and Institute for Supply Management Report on Services PMI. Strong exchange rate reaction was recorded after ADP US Private Sector Jobs and the Factory orders reports. After publications of US Nonfarm Payrolls, Initial Jobless Claims and ISM PMI Services Report, the EUR/USD rate change was approximately 95 pips on average following data publication. Whereas after ADP US Private Sector Jobs and Factory orders publication, average EUR/USD rate change was approximately 60 pips.

Taking into account the described example of investments, it can be clearly stated that investments in the Forex market are an excellent alternative to stock investments. As investments made in CFDs show, the initial capital of PLN 5,000 invested on June 16, 2008 was increased to PLN 15,951.12 on July 3, 2008. When

was increased to PLN 15,951.12 on July 3, 2008. When investing in CFDs, there is no need to worry about whether there is an upturn or a downturn, whether the economy is going through a crisis or if a deep recession is coming. It does not matter whether the macroeconomic data from the US economy is good or bad. Here, the fluctuations of the underlying instrument are important (the wider the range of fluctuations, the better for the investor) just like an in-depth knowledge of macroeconomics, and more specifically macroeconomic phenomena occurring in the American economy.

By investing in investment funds or directly on the stock exchange, it is not always possible to make a profit. While investors often suffer losses in market swings, by investing in the Forex market (CFDs), profit can always be achieved regardless of whether there is a good economic situation or a recession.

This research may be addressed to investors who actively trade the EUR/USD currency pair. I believe that knowledge of macroeconomic phenomena and modern financial instruments is very useful, especially when it can be applied in practice.

REFERENCES

- Almeida, A., Goodhart, C. & Payne, R. (1998). The Effects of Macroeconomic News on High Frequency Exchange Rate Behavior. *Journal of Financial and Quantitative Analysis*, 33(3), 383-408.
- Andersen, T.G. & Bollerslev, T. (1998). Deutsche Mark-dollar Volatility: Intraday Volatility Patterns, Macroeconomic Results and Longer Run Dependencies. *Journal of Finance*, 53(1), 219-265.
- Andersen, T.G., Bollerslev, T., Diebold, FX. & Vegad, C. (2013). MicroEffects of Macro Announcements: Real-Time Price Discovery in Foreign Exchange. *American Economic Review*, 93(1), 38-62.
- Bieliński, T. (2013). Kurs walutowy i międzynarodowy rynek walutowy. In: Oziewicz E., Michałowski T. (red.). *Międzynarodowe stosunki gospodarcze*. Warszawa: PWE.
- Devereux, M. & Lane, P. (2003). Understanding Bilateral Exchange Rate Volatility. *Journal of International Economics*, 60(1), 109-132.
- Evans, K.P. & Speight, A.E.H. (2010). International Macroeconomic Announcements and Intraday Euro Exchange Rate Volatility. *Journal of the Japanese and International Economies*, 24(4), 552-568.
- Gau, Y.-F. & Wu, Z.-X. (2017). Macroeconomic Announcements and Price Discovery in the Foreign Exchange Market. *Journal of International Money and Finance*, 79(C), 232-254.
- Goodhart, C. (1989). News and the Foreign Exchange Market. *Proceedings of the Manchester Statistical Society* (1989), 1-79.
- Matesanz, D. & Ortega, G.J. (2015). Dissimilar Effects of World News Announcements on Euro/Dollar/Yen Exchange Rates: An Econophysics Approach. *Journal of Engineering Science and Technology Review*, 8(1), 86-90.
- Moran, C. (2009). On the Macroeconomic Causes of Exchange Rate Volatility. *International Journal of Forecasting*, 25(2), 328-350.
- OTC foreign exchange turnover in April 2022, (2022). *Triennial Central Bank Survey, Bank For International Settlements, Monetary and Economic Department*, 2019.
- Oziewicz, E. (2006). *Przemiany we współczesnej gospodarce światowej*. Warszawa: PWE.

- Rubaszek, M. & Serwa, D. (2009). Rynek walutowy i kursy walutowe. In: Marcinkowska-Lewandowska, W. (Ed.). Analiza kursu walutowego. Warszawa: Wydawnictwo C.H. Beck.
- Świerkocki, J. (2011). Zarys ekonomii międzynarodowej. Warszawa: PWE.
- Zembura, W. (2011). Zagadnienie specjalizacji w obrębie rynków finansowych. In: Musiał G. (Ed.), Rozwój ekonomii jako dziedziny nauki ze szczególnym uwzględnieniem tendencji do specjalizacji, Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
- Zettelmeyer, J. (2004). The Impact of Monetary Policy on the Exchange Rate: Evidence Form Three Small Open Economies. *Journal of Monetary Economics*, 51(3), 645-652.