

Kyiv National University of Trade and Economics
The World Economy Department

FINAL QUALIFYING PAPER

on the topic:

**«CURRENCY WARS IN THE COMPETITIVE STRATEGY OF
STATES WITH OPEN ECONOMIES»**

**(based on the data of
Ukrainian National Committee of the International Trade Chamber
(ICC Ukraine), Kyiv)**

Student of the 2^d year, group 2
am,
academic degree «Master»
specialty 051 «Economics»
specialization «International
Economics»

Kozlova Valeria
Vyacheslavivna

Scientific adviser
Candidate of Sciences
(Economics),
Associate Professor of World
Economy Department

Sarkisian Larysa Gevorhivna

Manager of the educational
program
Candidate of Sciences
(Economics),
Associate Professor of World
Economy Department

Kravets Kateryna Petrivna

Kyiv, 2021

ANNOTATION

Kozlova Valeria Vyacheslavivna. Currency wars in the competitive strategy of states with open economies (according to the Ukrainian National Committee of the International Trade Chamber (ICC Ukraine), Kyiv).

The final qualifying work explores the theoretical foundations of currency wars in the modern world economy. The impact of currency wars on the world economy and the economies of individual regions has been studied. The main ways of development of the world economy in the conditions of currency wars are determined. Forecasts for the development of the world economy in the context of currency wars are given. Recommendations for the development of Ukraine's economy in the context of currency wars are given.

Key words: currency war, competitive devaluation, monetary policy, world economic crisis, coronavirus pandemic.

АНОТАЦІЯ

Козлова Валерія Вячеславівна. Валютні війни в конкурентній стратегії держав із відкритими економіками (за даними Міжнародної торгової палати, м. Київ).

У випускній кваліфікаційній роботі досліджуються теоретичні основи валютних війн у сучасній світовій економіці. Досліджено вплив валютних війн на світову економіку та економіки окремих країн. Визначено основні шляхи розвитку світової економіки в умовах валютних війн. Надано прогнози щодо розвитку світової економіки в умовах валютних війн. Надано рекомендації щодо розвитку економіки України в умовах валютних війн.

Ключові слова: валютна війна, конкурентна девальвація, монетарна політика, світова економічна криза, пандемія коронавірусу.

CONTENT

INTRODUCTION	3
Part 1: THE CONCEPT OF CURRENCY WARS IN THE WORLD ECONOMY	6
1.1 The definition, causes and goals of currency wars.....	6
1.2 Mechanisms and methods used to wage currency wars.....	12
Conclusions to the part 1.....	16
Part 2: ANALYSIS OF CURRENCY WARS ON THE EXAMPLE OF STATES WITH OPEN ECONOMIES	18
2.1 Trends of the new world currency war on the example of the USA and China.....	18
2.2 Analysis of the monetary policy of the USA and China.....	26
Conclusions to the part 2.....	30
Part 3: ASSESSMENT OF THE IMPACT OF CURRENCY WARS ON THE ECONOMY OF WORLD COUNTRIES	32
3.1 Forecasts of the impact of currency wars on the international economy and on the national economies.....	32
3.2 Recommendations for Ukraine to ensure economic development in the context of the currency wars.....	41
Conclusions to the part 3.....	46
CONCLUSIONS	
REFERENCES	

INTRODUCTION

The relevance of the topic is that the problems of the formation and development of international monetary relations have been an object of a research of foreign and domestic scientists. The essence of currency wars in the context of their impact on economic development, macroeconomic balance and increasing of international competitiveness is a rather complex and controversial issue not only of national scales but also a global one. Although currency wars have a long history and some defined trends in the modern world economy, new outbreaks of currency confrontations bring new elements and complications to the context of global economic changes. At the moment, the issue of currency wars is constantly discussed in the publications of scientific figures; it appears in the articles of publicists and, in general, attracts great attention of the world community.

Analysis of the level of development of the topic. Research and analysis of issues related to the nature of currency wars, their causes and consequences, characteristics in different periods, as well as the impact on international economic relations are covered in the works of a number of foreign and domestic scientists, including Rickards J, Petridis G., Blanchard O., Spivak I., Rudenko I., Prusky O. and others. Further research is required on the topic of the emergence of currency wars in the long term, the circumstances against which they can appear, and the consequences that the world economy can expect if they occur.

The purpose of the final qualifying paper is to analyze the essence of the currency wars, to study their historical aspects and to provide conclusions about currency confrontations in the context of events taking place in the modern world economy.

According to the purpose, the following **objectives** were set:

- to define the essence of currency wars in the world economy, to identify their causes and goal goals pursued by participants in currency wars;

- to analyze the mechanisms and methods used by different parties of currency wars;
- to identify current trends of the modern currency wars;
- to analyze the monetary policies of the world leading countries – active participants in the currency wars;
- to analyze the effect of the currency wars on the global economy and individual states' economy and to develop forecast considering current situation;
- to give recommendations for the Ukrainian economy to ensure its development in the context of global currency wars.

The object is the process of conducting currency wars in the global and national economies.

The subject is the theoretical and practical approaches of determining the impact of currency wars on the world economy.

Research methods. Different scientific and economic methods and models were used in the final qualifying work. The former methods are synthesis and analysis, induction and deduction, literature review, which were used to understand the essence, main features of the object and to draw conclusions. The latter methods are comparative and historical methods used for analyzing current state with the past, statistical methods used for estimating indicators.

Structure and volume of the final qualifying paper. The work consists of an introduction, three sections, general conclusions and references.

In the first section, we define the concept of currency wars in the global economy by identifying the currency wars as a term, analyzing the causes of local and global currency wars, and the motives used by the parties participating in them.

In the second section, we analyze the historical aspects of currency wars, define the course of world currency wars, their main participants and consequences on the example of the USA and China by determining their monetary policy which influences their presence in currency confrontations.

In the third section, we analyzed the effects of global currency wars on the example of states with open economies, develop a forecast on the further

economical development in terms of currency wars, we also give recommendations for Ukraine and its economic development in the current state of the global economy and in case of future currency warfares.

The conclusions part summaries research and outline the topic of the final qualifying paper.

PART 1

THE CONCEPT OF CURRENCY WARS IN THE WORLD ECONOMY

1.1 The definition, causes and goals of currency wars

Despite the active use of the term "currency war", there is no clear, unambiguous and fully scientifically based definition of it at the moment. In general terms, currency wars are the macroeconomic actions of governments and central banks of individual countries to achieve a relatively low exchange rate for their national currency in order to support a country's export opportunities.

The term "currency war" was voiced by Brazilian Finance Minister Guido Mantega in September 2010 in response to quantitative easing (QE) in the United States; and it has been present in newspaper headlines and books on economy since and has become the subject for discussion in academic circles. The term is still controversial among politicians, experts and scientists.

According to the simplest approach these are activities of central banks or some governments whose aim is to satisfy their national interests through currency market. Another view considers it to be an intentional devaluation of one's own currency in order to stimulate export and home economy and detrimentally affect importers, directly slowing economies of foreign partners. Some treat currency wars as activities of monetary or government authorities of one country aiming at depreciation (or devaluation) of the national currency as a reaction to similar activities of another country – an important trade partner. The term can also be understood as burdening the partner with the costs of coming out of recession by competitive devaluations (depreciations).

However, first of all, a currency war is not considered to be an external speculative attack on a monetary unit, but a deliberate manipulation in the foreign exchange market carried out by the central bank or government of the country to gain competitive advantages in foreign trade by devaluing the national currency. In the

economic literature, currency wars are therefore also called competitive devaluation [38].

Originating from Latin, "devaluation" means a loss of value, i.e. devaluing the monetary unit of one country loses part of its value in relation to the monetary unit of another country. Thus, competitive devaluation is a depreciation of currencies to increase the competitiveness of their own exports in the world market.

Carrying out currency wars is an element of the state's protectionist policy aimed at increasing its own exports and reducing imports of goods from other countries, thereby ensuring political and economic stability in the country for a certain period of time. Purposeful actions of individual countries to lower the national currency rate lead to temporary competitive advantages [2].

It should be noted that traditionally strong national currency was considered to be a sign of successful state economic policy, while devaluation was characteristic of developing countries. However, when a country suffers from high unemployment or wishes to pursue a policy of export growth, a low exchange rate of the national currency can be a significant advantage. At the end of the twentieth century The International Monetary Fund considered devaluation as a way to solve some problems of countries with developing economies, especially those in which import costs exceeded export receipts.

The implementation of competitive devaluation contributes to the development of exports by reducing the production cost of domestic exporting enterprises in foreign currency, since while maintaining the nominal salary of employees in national currency, exporters receive income from foreign currency, which comes from foreign exchange transactions. In such situation, it becomes possible to reduce prices for exporters' products. The depreciation of the national currency in relation to the currency of payment for transactions in the import of foreign goods becomes more expensive, which creates competitive advantages for local producers and ensures the preservation of positions in the international trade system [1].

The increase in exports promotes the development of domestic production, which in turn increases the level of employment and GDP. In this case, devaluation can be

seen as an attractive solution to reduce unemployment if there are no other less radical options. The reason devaluation is attractive to emerging economies is that maintaining a relatively low exchange rate of the national currency helps them build up their foreign exchange reserves, which can protect them from future financial crises.

At the same time, the depreciation of the national currency provides a short-term increase in price competitiveness, which temporarily eliminates the need for technical re-equipment of production in order to improve product quality. This exchange rate policy of the central bank eliminates the need to introduce technological, managerial and marketing innovations to increase the share of the high-tech segment of the economy.

Thus, we can single out the main and more common goals of states that use competitive devaluation.

First, the governments of the countries are trying to improve exports. This happens because exporters become more competitive in a global market as exports are encouraged by competitive devaluation while imports are discouraged. However, as the demand for a country's exported goods increases, the price for these products rises, normalizing the initial effect of the devaluation. Also as other countries notice the result of this effect, they will be incentivized to devalue their own currencies in so-called «race to the bottom» actions which can lead to inflation.

Secondly, such a policy of the state can lead to a decrease in trade deficit as an improved balance of payments favors as exports increase and imports decrease, shrinking trade deficits. Persistent deficits are not uncommon today, with the United States and many other nations running persistent imbalances year after year. Economic theory, however, states that ongoing deficits are unsustainable in the long run and can lead to dangerous levels of debt which can cripple an economy. Devaluing the home currency can help correct balance of payments and reduce these deficits.

However, devaluation also increases the debt burden of foreign-denominated loans when priced in the home currency. This can be a big problem for a developing country which holds lots of dollar- and euro-denominated debt. These foreign debts

become more difficult to service, reducing confidence among the people in their domestic currency.

Countries also resort to competitive devaluation to reduce sovereign debt burdens. A government may be incentivized to encourage a weak currency policy if it has a lot of government-issued sovereign debt to service on a regular basis. If debt payments are fixed, a weaker currency makes these payments effectively less expensive over time.

On the other hand, as most countries around the globe have some debt outstanding in one form or another, such methods can lead to a race to the bottom currency war. This tactic will also fail if the country in question holds a large number of foreign bonds since it will make those interest payments relatively more costly.

These are the most obvious motives of states, but each country has its own motivation for starting hostilities: some are sure that they are fighting speculators, while others are fighting the destabilizing volatility of the national currency. Another common excuse is that aggression is a response to another country's aggression. The currencies of some countries are indeed highly overvalued - they are more entitled to intervention. For this group of countries, currency wars may be fair.

Nowadays currency wars are usually unleashed by the leading countries in order to maintain their dominant position in the world economy and to prevent reforms in the currency sphere that could shake their positions.

This is due to the special position of the dominant currency - the national currency of an economically highly developed state, which at the international level performs all the functions of money on a larger scale than other currencies. Before the Second World War, the British pound was dominant, and after the war the US dollar replaced it. The formation of the exchange rate of most currencies in the world is significantly influenced by the supply of foreign currency in the market, while the dominant exchange rate is based on the demand for it. And it is very significant, since it is required not only to pay for domestic foreign trade contracts, but also for settlements on trade and non-trade operations of counterparties of third countries, for the formation

of state reserves of other countries and private savings of non-residents, as well as to replace the national currency in the domestic money circulation of other countries [34].

For example, according to the International Settlements Bank, the average daily turnover of the foreign exchange market in 2019 was 6.595 trillion US dollars. Of this turnover, about 88% of settlements fall on the US dollar, followed by the euro with a significant lag with 32%, and after the Japanese yen with about 17% (table 1.1). Thus, the analysis of the structure of the world foreign exchange market says that the US dollar has no competitors at the moment.

Table 1.1

Daily average foreign exchange turnover by currency in 2013, 2016, 2019

Currency	Year					
	2013		2016		2019	
	Daily averages, billions of US dollars	Share, %	Daily averages, billions of US dollars	Share, %	Daily averages, billions of US dollars	Share, %
USD	4662	87,03	4437	87,58	5824	88,31
EUR	1790	33,41	1590	31,39	2129	32,28
JPY	1235	23,05	1096	21,63	1108	16,80
GBP	633	11,82	649	12,81	844	12,80
AUD	463	8,64	349	6,89	447	6,78
CAD	244	4,55	260	5,13	332	5,03
CHF	276	5,15	243	4,80	327	4,96
CNY	120	2,24	202	3,99	285	4,32
Other currencies	1289	24,06	1246	24,60	1894	28,72
Total	5357	200,00	5066	200	6595	200,00

Source: the International Settlements Bank [22]

We can also pay attention to the world foreign exchange reserves and their structure. According to the International Monetary Fund, by the end of 2020 global foreign exchange reserves stood at 11.868 trillion US dollars. The US dollar accounted for 59%, followed by the euro at 21% and the Japanese yen at 6% (figure 1.1).

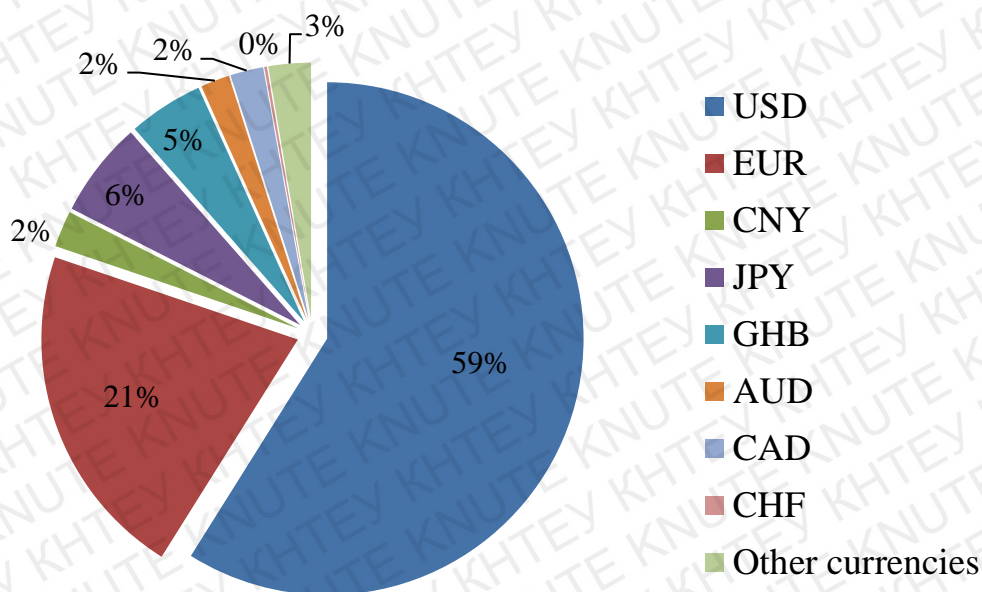


Figure 1.1 Structure of world foreign exchange reserves by currency in 2020

Source: the International Monetary Fund [21]

Thus, the dominant role of the US dollar in international transactions and the composition of foreign exchange reserves of other countries is obvious. Any change in US economic policy is immediately reflected in exchange rates. Especially the exchange rates of developing and transformational countries are subjects to significant fluctuations, since the supply of currency in their markets depends on the export of goods (mainly in US dollars) and on investments of non-residents.

From a theoretical point of view, competitive devaluation should inevitably have a negative impact on the economic situation of trading partner countries. In economics it is referred to as a policy of "beggar-the-neighbor", when solving one country's own economic problems (overcoming the trade deficit, reducing domestic unemployment, accelerating GDP growth, etc.) is possible only through the negative consequences in the partner countries. In response, neighboring states may also take similar actions, which will lead to a series of devaluations of national currencies and the deepening of world economic problems. Such problems arise when a large number of governments try to devalue national currencies at the same time [18].

According to the American economist Richard N. Cooper, substantial devaluation is one of the most "traumatic" policies that governments can adopt, which almost

always leads to public outrage and calls for a change of government itself. It can lead to a decrease in the population, the standard of living of citizens, and the purchasing power of the population. It can also lead to inflation. Due to devaluation, interest on external debts of the state, if they are denominated in foreign currency, may rise and the inflow of foreign capital may decrease. In turn conflicts associated with artificial depreciation of national currencies can turn into global trade confrontations.

1.2 Mechanisms and methods used to wage currency wars

In general, the implementation of exchange rate confrontations is based on a mechanism that is a set of forms, methods and monetary and financial levers of influence on the value ratios between national and foreign currencies. The methods of conducting currency wars depend on the exchange rate regime (floating or fixed), internal macroeconomic parameters and foreign economic conditions of the country. Traditionally, these methods are divided into direct and indirect (figure 1.2)

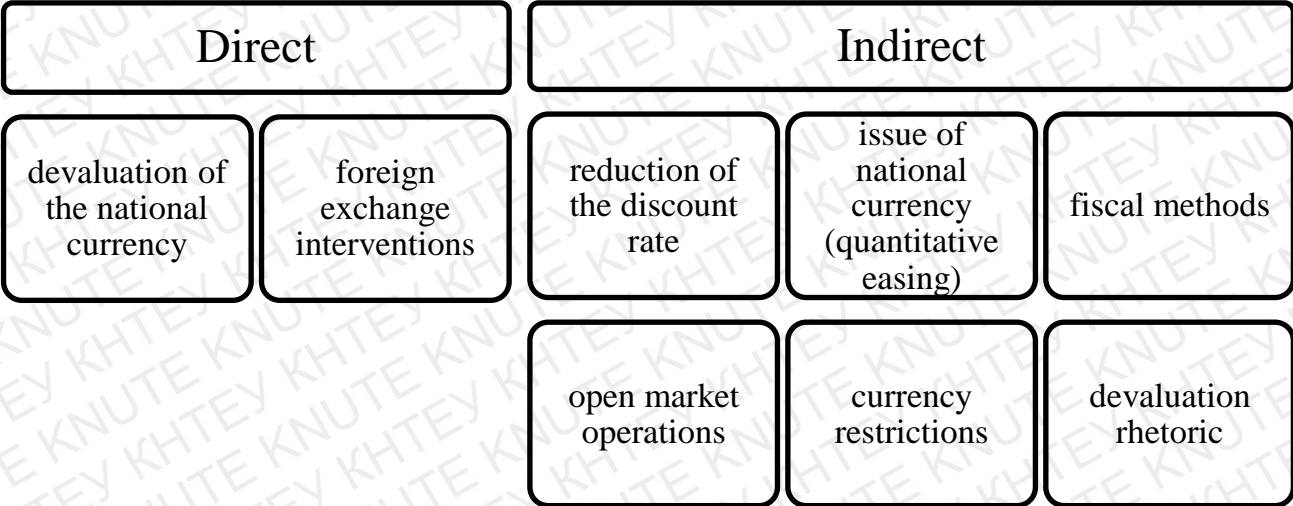


Figure 1.2 Methods of conducting currency wars

Source: own study based on [4]

Direct methods of waging currency wars include currency devaluation and foreign exchange interventions [4].

Devaluation of the national currency is the official depreciation of the national currency in relation to foreign ones. This method is used under a fixed or limited flexible exchange rate regime.

In turn, foreign exchange interventions are called transactions for the purchase and sale of foreign currency by the central bank of the country. This method is most common under a floating exchange rate regime and is considered effective if the national currency is not the key or dominant one. The main disadvantage of this method is transparency and obviousness, which increases the risk that the country will be accused of currency manipulation.

Indirect methods of waging currency wars include [4]:

- reduction of the discount rate which leads to the outflow of capital from the country and, accordingly, to the depreciation of the national currency. The outflow of capital happens because portfolio investors, other things being equal, prefer countries with higher interest rates;
- operations on the open market which means that the central bank buys out government bonds, thereby expanding the supply of the national currency, which contributes to a decrease in its exchange rate against the currencies of trading partners;
- emission of national currency is a quantitative easing method, and leads to an increase in money supply and inflation expectations and, accordingly, the depreciation of the currency;
- fiscal methods which mean the introduction of taxes on transactions of non-residents with the national currency. Such actions contribute to the outflow of foreign capital from the country;
- currency restrictions are the restrictions on transactions of non-residents with assets denominated in national currency;
- rhetoric method is carried out by oral statements by officials which are aimed at affecting the exchange rate. The country's leaders and the central bank use the media to consider the theoretical possibility of currency

devaluation which in the future will be reflected in the foreign exchange market at a lower rate.

HSBC (Hongkong and Shanghai Banking Corporation) experts note that of the above methods of waging currency wars, the most popular are foreign exchange intervention, reduction of the discount rate and rhetoric method. For example, foreign exchange interventions have been used by Asian central banks for many years, especially in China. However, the more a country is involved in the global economy, the more expensive direct interventions in the foreign exchange market will be.

Statements by heads of state and government with threats, appeals and initiatives, messages on Twitter, announcements of a change in the vector of monetary policy can be attributed to rhetoric method. For example, the Ex-President of the United States, Donald Trump, actively used this method in his political activities.

Also, speeches by the heads of the Federal Reserve System or the European Central Bank are becoming one of the most anticipated events in the international foreign exchange market, during which the exchange rates of the respective currencies change in a fairly wide range with variable nature, and in some cases such changes have a long-term trend.

However, this method can be used a limited number of times, as words that do not have actions behind them quickly lose their value and meaning.

In modern conditions, these tools are not always effective, because developed countries have long adhered to discount rates at zero or close to it, rhetorical statements do not always help or have a short-term effect, and direct foreign exchange interventions have become unpopular and provoke a sharp political reaction in the international arena.

Quantitative easing in all its various forms has become a new tool, which is not directly aimed at depreciating the exchange rate, but it is a probable and desirable side effect. QE has two channels of influence on the exchange rate. First, with a decline in long-term bond yields, the demand from foreign investors for such “risk-free” fixed income assets begins to fall. Second, according to generally accepted economic theory, an increase in the balance sheet of the central bank and the monetary base directly leads

to a weakening of the currency. At the same time, the synchronized actions of the central banks of the leading economic powers smooth out attempts to weaken a particular currency through quantitative easing. Although this effect is not always achieved, for example, the US dollar only strengthened after the announcement of “infinite” quantitative easing from the Federal Reserve System [32].

In modern conditions, developing countries often use taxes or macroprudential measures in currency wars to help weaken the currency. In particular, Brazil introduced a tax on financial transactions, which reduced the exchange rate of the Brazilian real. Macroprudential measures include increasing reserve requirements for foreign purchases of local assets and encouraging domestic investors to send money abroad [6].

Almost all of these methods are traditional macroeconomic policy actions that are continually applied by states in accordance with current and strategic development goals. They turn into instruments of currency wars when the economic policy of the state becomes aggressive towards partner countries. Signs of such a policy can be significant changes in economic indicators, suddenness of actions, refusal to coordinate activities with other countries, obvious negative consequences for other states. We can see the most used mechanisms of currency wars by several major parties on figure 1.3.

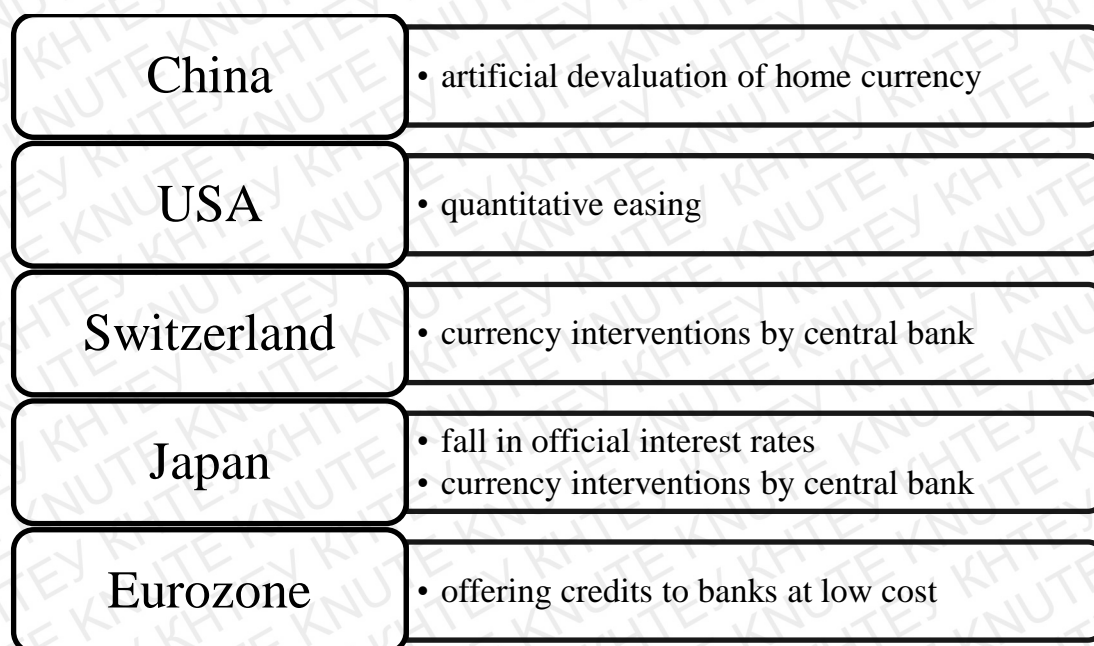


Figure 1.3 Currency wars mechanisms

Source: own study

The country's actions of deliberate devaluation of the currency can lead to countermeasures not necessarily in the foreign exchange market, but, for example, through customs tariffs and blocking access to the domestic market. The more countries are involved in the strategy of competitive devaluation, the larger the economies of these countries and their trade balance are, and the stronger the integration into global production chains is, the more international trade suffers and the world economy is slowed down.

Therefore, after achieving a positive result, the states that initiated currency wars seek to consolidate their market share, smooth out the situation in trade and stabilize exchange rates.

Conclusion to part 1

Currency wars have long been used for ensuring the competitiveness of national economies. Competitive devaluation is usually used to stabilize government processes due to the impact of unfavorable factors from external economic aspects.

Currency wars were raised after an address by the Brazilian finance minister in 2010, who reacted to US monetary policy. Competitive devaluation, which underlies currency wars, means the loss of the value of the monetary unit of one country in relation to the monetary unit of another in order to create greater competitiveness of its own goods in the world market, which increases the volume of exports and gives impetus to the development of the national economy.

Nowadays, states resort to these methods for various reasons: for short-term improvement of the economy, providing jobs and improving the living standards of the population within the country; managing domestic debt, improving positions in the international arena; as a confrontation with other states, or a response to the policies of other states.

In the course of currency confrontations, central banks and governments of participating states use direct and indirect methods. Direct methods include foreign

exchange intervention and devaluation of the national currency. Indirect methods include reduction of the discount rate, operations on the open market, emission of national currency (quantitative easing), fiscal methods, currency restrictions and rhetoric. Each method used by the state has both positive and negative effects, as well as participation in currency confrontations in itself.

PART 2: ANALYSIS OF CURRENCY WARS ON THE EXAMPLE OF STATES WITH OPEN ECONOMIES

2.1 Trends of the new currency war on the example of the USA and China

In general, by the beginning of the twentieth century depreciation of the national currency as a manifestation of economic policy, aimed at the observance of national interests, was rarely observed, because in the mono- and bimetallic standards of 8-19 centuries, countries tried to maintain the high value of their national currencies. Instead, since the 1920s, currency wars as a form of financial protectionism have been observed both during economic crises and during times of global stagnation and recovery.

From about 1870 to 1914, the intrinsic value of money was tied to the gold standard, so despite the gradual increase in the integration of the modern economy, it was impossible to take full advantage of competitive devaluation for goals of individual countries' purposes.

The era of the gold standard ended with the First World War. Despite the enormous destruction, economic imbalance and inflationary process, most big economies in the early 1920s sought to return to the gold standard that had fueled the tremendous growth of trade before the war. However, the implementation of the strategy of returning to the gold standard has not been fully implemented. In the context of the gold exchange standard, the dollar gradually strengthened as the main world currency, displacing the pound sterling. An imbalance in the distribution of world reserves of gold, which the United States and France had in significant reserves, also turned out to be an important problem. Great Britain and Germany and a number of other countries had relatively small amounts of gold and were in constant danger of speculative attacks.

The next problem for most economies on this path was inflation, so different countries have chosen different strategies to return to the gold standard.

Eventually, by the mid-1920s, many former participants of the gold standard had rejoined it, and although the standard did not work as well as it had before the war, there

was no large-scale competitive devaluation. Thus, the world did not face a major currency war until the onset of the Great Depression.

World currency crisis of 1929-1936 had the following features: cyclical nature (the currency crisis intertwined with the world economic and monetary crisis), structural nature (the principles of the world monetary system collapsed), long duration (from 1929 to 1936), exceptional depth and acuteness (the exchange rate of a number of currencies fell by around 50%) (figure 2.1).

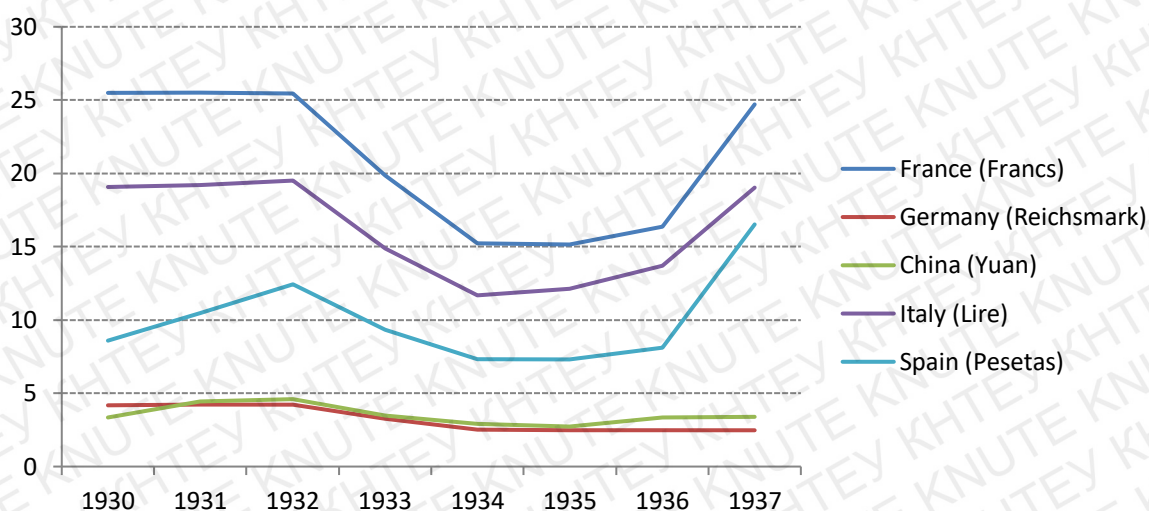


Figure 2.1 Currency exchange rates' dynamics 1930-1937

Source: Economic History Services [13]

International long-term credit was paralyzed as a result of the massive bankruptcy of foreign debtors, including 25 states (Germany, Austria, Turkey, etc.). They stopped external payments and money capital was formed in another in search of a speculative super-profit or a safe haven. The suddenness of their inflows and outflows exacerbates the volatility of the balance of payments, fluctuations in exchange rates and economic crisis.

Countries with strong currencies have struggled to maintain competitiveness in export markets to avoid trade deficits leading to an outflow of gold from the country. Central banks in these countries managed interest rates: with their increase, the economy weakened, and a decrease in interest rates led to the infusion of funds into the economic system. This prompted many countries to abandon the gold standard; as a

result, they faced the devaluation of national currencies in relation to gold to support domestic producers.

Central banks of countries were freed from the need to raise interest rates in order to protect their gold reserves, so monetary policy became more expansionary.

The date of the outbreak of the 1930s currency war is still controversial. At that time, the main parties were the UK, France and the United States. Shortly after the Wall Street crash in 1929, France lost faith in sterling as a source of value and began to actively sell it in the markets. Rather than allowing the inflow of gold to increase their cash reserves, France and the US began to sterilize the inflows by accumulating gold reserves. These factors contributed to the 1931 sterling crisis; in September of the same year, the UK significantly devalued and removed the pound from the gold standard. For several years thereafter, world trade was interrupted by competitive devaluation and reciprocal tariffs. The currency war of the 1930s is believed to have ended with the 1936 Tripartite Agreement, which was an international monetary agreement entered into by the United States, France and Britain to stabilize their countries' currencies.

Thus, the rejection of the gold standard led to the complication of interstate economic relations in the field of monetary policy, which required cardinal changes in the world monetary system. These changes were approved at the Bretton Woods (1944) and Jamaican (1976) currency conferences.

Currency confrontation in 1969-1971 between the United States and European countries, in turn, ended with the collapse of the Bretton Woods monetary system.

The principle of American-centrism, on which the Bretton Woods system was based, ceased to correspond to the new alignment of forces with the emergence of three world centers: the USA - Western Europe - Japan.

The crisis of the Bretton Woods system reached its climax in the spring and summer of 1971, with the main reserve currency at its epicenter. The dollar crisis coincided with the US depression following the 1969-1970 economic crises.

The devaluation of the dollar triggered a chain reaction: at the end of 1971, 96 out of 118 IMF member countries set a new exchange rate against the dollar, with 50 currencies appreciating to varying degrees. Taking into account the different degrees of

appreciation of the exchange rates of other countries and their share in US foreign trade, the weighted average value of the dollar devaluation was 10-12%.

After the collapse of the Bretton Woods system, currency wars were practically forgotten, since the conditions for conducting monetary policy by developed countries changed: floating exchange rates were introduced, restrictions on current and capital transactions were lifted, the world monetary system became multipolar, as the role of European currencies increased and Japanese yen.

44 years have passed since the Jamaican Conference, and global changes have taken place in the world political and economic systems. The world has entered the stage of globalization. The economic contradictions between the United States and the European Union have also intensified. China began to play a special role in world economic processes.

The resumption of active use of the term "currency wars" is associated with the period of the global economic crisis of 2007-2010, when representatives of the world governments began to accuse each other of deliberate lowering of the exchange rates. This period is considered to be the third currency war. For example, actions of the US government resulted in the depreciation of dollar against a number of major world currencies by about 20% between late 2008 and mid-2011 as it is on the figure 2.2.

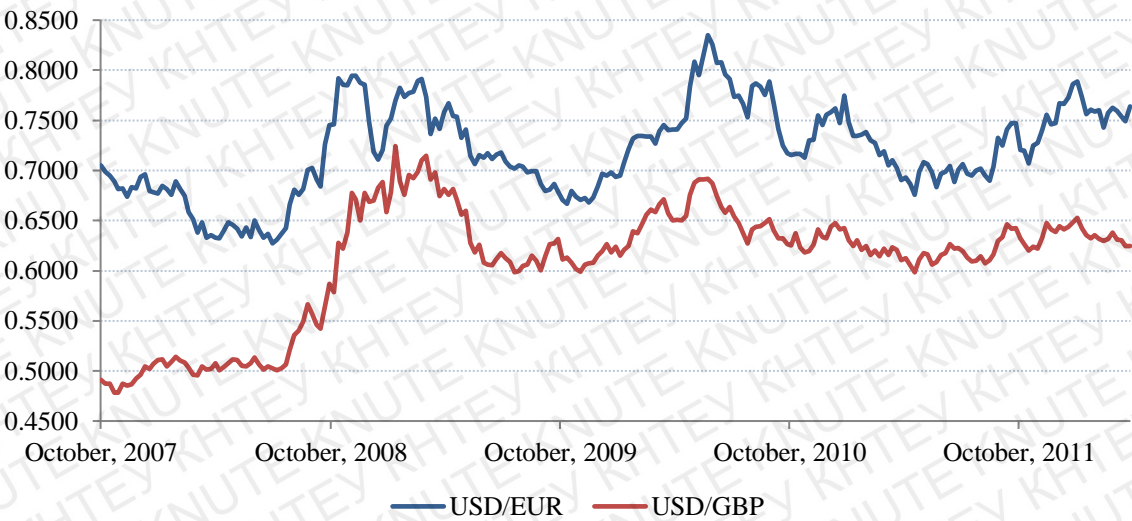


Figure 2.2 USD/EUR and USD/GBP exchange rates' dynamics 2007-2011

Source: International Monetary Fund [21]

The depreciation of the US dollar against the euro began in April 2008 and created a competitive advantage for the American economy. At the same time, the depreciation of the US dollar worsened the foreign trade conditions of European producers. As a result of rumors, expert and official statements about the potential collapse of the eurozone, currency market participants were actively selling euros and buying dollars [7].

A new period in the currency war took place after the devaluation of the Chinese yuan in August, 2015, as well as a further depreciation of the currency in early 2016. Such actions have raised concerns that China would weaken the yuan again to recover from slowing of the economy. Japan also unbalanced foreign exchange markets by setting a negative discount rate in 2016. Thus, more than 20 countries cut interest rates in 2016, some of them weakened their monetary policies [38].

In 2019, the world community again started talking about the currency war. This happened due to the unfolding trade war between China and the United States. Then the Chinese currency fell in 1.4 percent, its rate has exceeded seven yuan per dollar for the first time since 2008 [12]. We can see such a change on the figure 2.3.

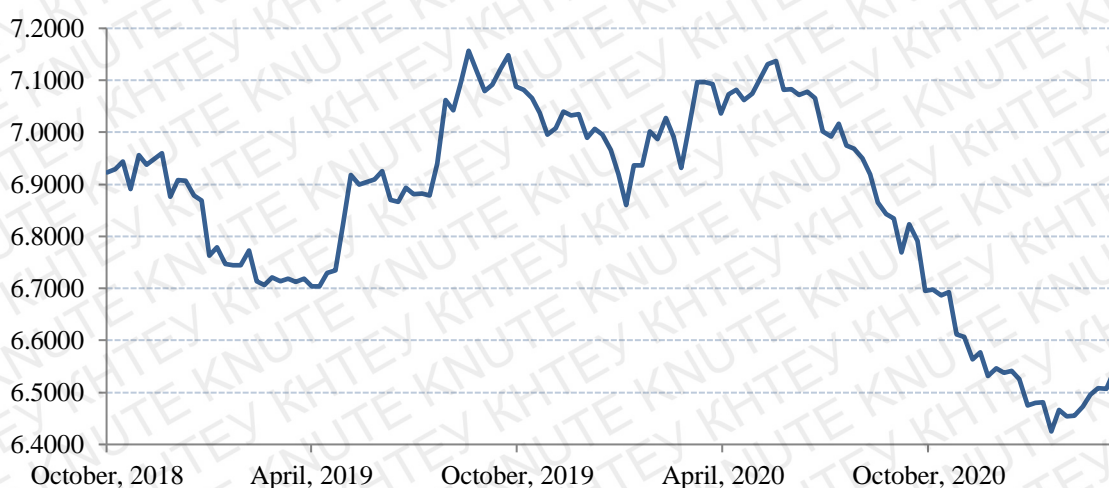


Figure 2.3 USD/CNY exchange rate dynamics mid 2018- mid 2021

Source: International Monetary Fund [21]

The Central Bank of China issued a statement claiming that the yuan was under the US pressure and was in line with the performance of the Chinese economy. It also claimed that the government wouldn't deliberately depreciate the rate of yuan or use it in a trade war. But the President of the US Donald Trump suspected Beijing of

manipulating its currency. Soon, the United States officially recognized China as a currency manipulator. The US Treasury believed that China was deliberately changing the exchange rate of the yuan in order to gain an advantage in trade. Beijing called the decision of the United States groundless and risky for the world economy [30].

Later, the US Treasury Department removed China from the list of currency manipulators. A report released on January 13, 2020 by the Ministry of Macroeconomics and Monetary Policy of the country's trading partners stated that China has agreed to take steps to reduce the pressure on market mechanisms. Therefore, China was expected to stop artificially maintaining the low yuan exchange rate and open its market to foreign investors [36].

The Third World Currency War began as a result of the difficulties that befell the world economy after the crisis of 2007-2012. The course of this conflict in the global financial system had much greater risks, as it was complicated by a number of new factors in national economies and international financial markets.

These include changes that began in the 1980s: financial globalization, deregulation and liberalization of financial markets, the emergence of derivatives, shifts in the geoeconomic map of the world and changes in national economic policies, and in particular the active use of quantitative easing as the lever of monetary policy.

The composition of the participants in the world monetary system has also changed: the course of events can be influenced not only by states and international organizations, but also by private institutions, including TNCs.

If the currency wars of the 20th century were characterized by risks of devaluation of currencies to gold, the current confrontation for currency dominance and gaining competitive advantage in conditions of mostly floating exchange rates may lead to the collapse of the world monetary system.

The main struggle for the realization of national interests' takes place between three centers of power: the EU, the United States and China. Moreover, the greatest aggravation of relations in recent years has been observed between the last two states.

Over the past decades, the Chinese economy has grown at a very fast pace. The period from 2005 to 2010 was especially indicative. China's GDP growth reached

166%, while the world leaders - the United States and Japan - increased GDP over the same period by 14% and 19.8%, respectively (figure 2.4).

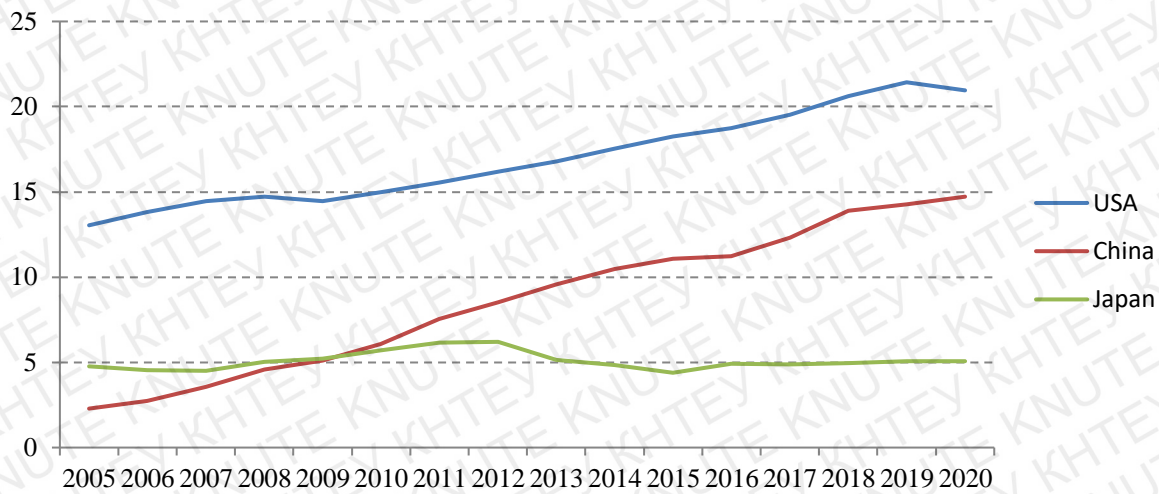


Figure 2.4 GDP of USA, China and Japan dynamics 2005-2020, trillion USD

Source: World Bank Data [46]

Based on the table 2.1 of GDP growth of these three states, it can be seen that China is not losing ground to this day. Even as a result of comparing 2020 to 2015, China has the largest gains of 33.09%, while the US has 14.8% and Japan has 15.01%. The main complaint of the United States and other developed countries against China is that the country’s currency exchange rate is undervalued, and this gives a competitive advantage to Chinese exporters and limits the opportunities for foreign importers.

Table 2.1

GDP growth of the USA, China, Japan 2020/2005, 2020/2010, 2020/2015

	GDP growth, %		
	2020/2005	2020/2010	2020/2015
USA	60,58	39,69	14,80
China	543,92	141,83	33,09
Japan	6,16	-11,44	15,01

Source: World Bank Data [46]

Today, ruling circles have focused on the value of their national currency. Increasingly, there is talk of deliberate devaluation to increase competitiveness. A similar situation was already observed in the interwar period and as a result led to an economic catastrophe.

Countries that intervene in foreign exchange markets to reduce the value of their own currency receive the most comments from the world community. Such countries include countries with fixed exchange rates ("hard pegs"), as well as those countries where artificially supported floating exchange rates ("softpegs").

The result of such an intervention is an increase in foreign exchange reserves in the country, which may indicate an undervalued national currency.

According to a study by Bloomberg, this practice is most common in Asian countries. At the end of the last reporting period, the volume of foreign exchange reserves in these countries amounted to 6.7 trillion US dollars or 30% of GDP. The undisputed leader among these countries in this indicator is China, whose reserves amount to 3.3 trillion US dollars. Among European countries, the largest amount of foreign exchange reserves is Switzerland, where this figure is 460 billion US dollars or 73.9% of GDP.

The two main instruments used by countries to depreciate the currency without recourse to foreign exchange interventions are monetary policy and capital controls. Thus, the governments of these countries may state that their policies are aimed at overcoming other problems, such as inflation, or combating speculation.

The methods of confrontation have changed compared to those used during the Genoa and Bretton Woods monetary systems. At present, an indirect, more precisely, "verbal" influence on the foreign exchange market is used. It consists in the formation of certain expectations among its participants regarding the future of a particular economy in order to force them to act as if the macroeconomic indicators had already changed. For this, speeches of high-ranking officials are used, in which they doled out certain information; as the market's reaction to a particular performance is assessed, the information is adjusted, and this continues until the desired result is achieved.

It is noticed that it is usually the scale, not the rate of currency fluctuations that forces countries to take action. When the Minister of Finance of Brazil Guido Mantega announced the start of a currency war in September, 2010, the dollar fell more than 10% in about three months, later decreasing by 17% by June, 2011.

In the current situation, the dollar fell 11% in eight months by the end of 2020. But Morgan Stanley believes it is still 10% overvalued, and Citigroup is forecasting a record of 20% drop next year amid economic recovery and continued Federal Reserve stimulus.

Robin Brooks from Institute of International Finance doubts that even such a drop will trigger a currency war. “Aside from the 8% jump in the Chinese yuan, the decline in emerging market currencies is still 5%, and in some of the worst-hit countries, such as Brazil and Turkey, local currencies have fallen by 25% and are worth even less compared to ten years ago.” Nevertheless, he believes that the euro and the yen will rise and this will require a reaction from the European Central Bank, the Bank of Japan and China.

Nowadays, the severity of the problem of modern currency wars draws attention and is determined primarily by the fact that almost every large economy seeks to devalue or at least underestimate its currency to strengthen the economy.

2.2 Analysis of the monetary policy of the USA and China

The main factor in the spread of foreign exchange competition in the period after the global financial crisis of 2008–2010 consists in the fact that practically all the leading countries of the world create conditions for the weakening of the national currency or eliminate the prerequisites for its strengthening.

To achieve this goal, over the past years, more than 20 countries around the world have been directly intervening in foreign exchange markets. This number of countries include developing Asia, led by China, Malaysia and Thailand, developed Asian countries, including Japan, Singapore, Taiwan and others, Switzerland, as well as oil exporters, including Norway and Russia. In order to increase international competitiveness and maximize foreign trade income, these twenty leading countries of the world usually purchase dollars, euros and other freely convertible currencies. As a result, the policy of large-scale foreign exchange intervention creates conditions for the

weakening of national money and appreciation of the currencies of the rest of the world [26].

The country most actively pursuing such a policy is China. In addition to China, this group includes some countries in Asia, Europe and oil exporting countries.

The accumulation of foreign exchange reserves in dollars by China and other emerging economies played a key role in shaping the economic and monetary environment that laid the foundation for the global crisis. The unfolding of the global crisis forced the rapidly developing countries to use foreign exchange reserves as an instrument of mitigating macroeconomic policies. In addition, the crisis led to a reduction in the trade surplus, including China. China has accelerated the process of revaluation of the national currency, which contributed to a relative solution to the problem of trade conflicts. Despite this, many Southeast Asian currencies continue to be used for competitive devaluation and are artificially depreciated in exchange rate and value.

In 2011–2018 taking into account the average growth rate of foreign exchange reserves, China intervened in the foreign exchange market in the amount of over 1 billion dollar a day in order to impede the appreciation of the yuan, causing the dollar to strengthen and distort the competitive position of the United States in the world market.

From 1994 to 2005 there was a fixed regime in China, when the yuan was pegged to the US currency at 8.28 per dollar. In July 2005, Beijing announced that it would revalue the yuan and pegged it to a basket of currencies. With this approach, the People's Bank of China (CB) monitored currency fluctuations, but the trend was determined by the market itself. In August 2015, the Central Bank announced that it would continue to reform the RMB exchange rate regime with an emphasis on the greater influence of supply and demand on the formation of the exchange rate value. The announcement took the market by surprise; the yuan immediately "fell" and reached the bottom of the fluctuation range over the next 2 days. In January 2016, a new formation mechanism was adopted, based on the closing price and the theoretical value of the exchange rate, which will keep the currency basket index unchanged. The main

point of this technique is to take into account both market supply and demand and the stability of the currency basket.

The main measures of China's monetary policy include two instruments: open market operations and foreign exchange controls. The second may include restrictions on the purchase of currency by individuals, as well as tougher punishment for illegal transportation of currency across the border. The most essential is the requirement for almost all enterprises to obligatory exchange of foreign currency at their disposal.

Based on the dynamics of the volume of operations of the Central Bank, it can be assumed that after many years of undervaluation of the national currency at this stage, efforts are directed towards its overvaluation. While the yuan has depreciated against the dollar by more than 15% in nominal terms (from 6.05 to 6.96 yuan per dollar since 2014 till 2020), the real effective exchange rate has increased by 11% (from 111,58 to 124,77 during the same period of time). This behavior of the renminbi's exchange rate reflects not the strength of the Chinese economy, but the efforts of Chinese politicians to prevent a “fall” against the US dollar.

Speaking of the beginning of 2021 yuan to dollar nominal exchange rate has changed by 7% compared to last year and the real effective exchanged rate has changed by around 2%. (figure 2.5, 2.6)

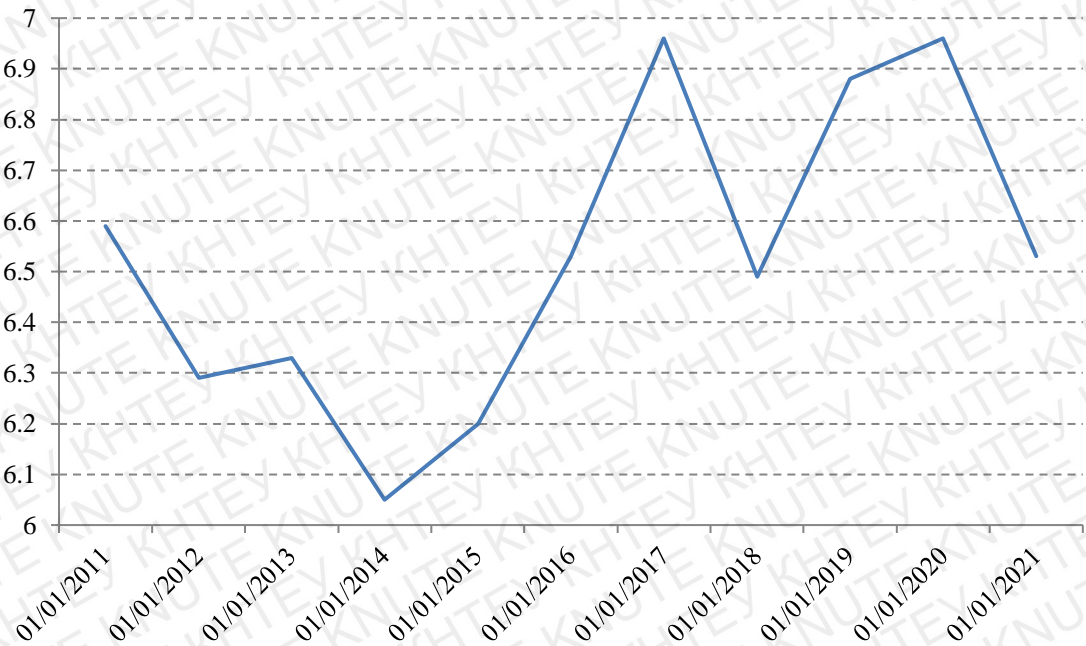


Figure 2.5 Nominal CNY to USD exchange rate 2011-2021

Source: International Monetary Fund [21]

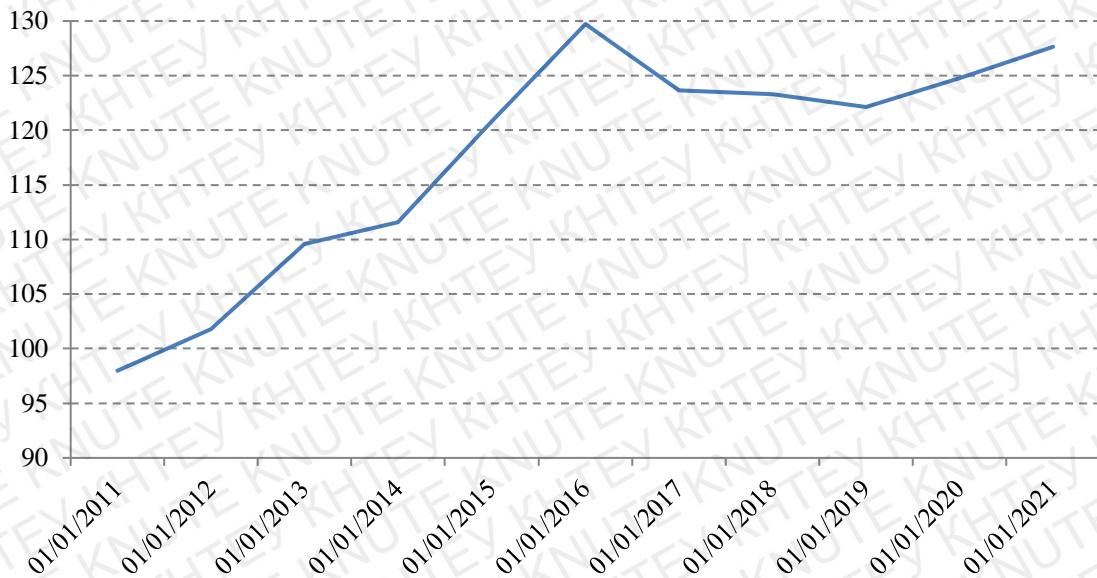


Figure 2.6 CNY real effective exchange rate 2011-2021

Source: International Monetary Fund [21]

This behavior of the renminbi's exchange rate reflects not the strength of the Chinese economy, but the efforts of Chinese politicians to prevent a “fall” against the US dollar.

As in any country with a fixed exchange rate, the Central Bank of China actively intervenes in the market situation in order to achieve target foreign exchange rates. Over the past years, the People's Bank of China has done this in order to slow down the depreciation of its currency, and not to contribute to its depreciation against the dollar. This led to an overvalued yuan and negative expectations of investors regarding its dynamics.

USA, which in 2008–2014 did not resort to significant protectionist barriers, began preparations for protecting the national economy even before the election of D. Trump. The main provisions of this policy were formulated by a group of economists from the Obama Administration. It has been identified as a defensive intervention.

The essence of this policy lies in the adoption by countries with trade and balance of payments deficits a strategy of preventive currency intervention to prevent appreciation of national currencies in response to the actions of a number of countries around the world to artificially depreciate the exchange rate. The United States, Brazil,

New Zealand, Australia, and the countries of the euro area have adopted a strategy of preventive currency intervention.

The preemptive foreign exchange intervention has intensified foreign exchange competition, as a result of which the global environment has become characterized by an increase in financial, foreign exchange and other economic risks. Preventive (defensive) foreign exchange intervention by developed countries is being implemented simultaneously with restrictive fiscal policy aimed at slowing down the growth of the debt burden. This circumstance creates a contradiction. It lies in the fact that, on the one hand, taxes are increased, fiscal discipline is tightened to maximize tax revenues to the budget and rational use of government spending. On the other hand, foreign exchange intervention and growth in the money supply reduce the interest rate, stimulating investment and consumption, and the accumulation of debt [5].

The monetary policy of the US FRS in the modern period has assumed a veiled character under the guise of a less conventional monetary policy. The main instrument of this policy was the large-scale asset purchases (LSAPs) program, which was called quantitative easing (QE) in the media [3].

LSAP's policy was focused on long-term rates at which the Fed bought back mortgage derivatives with guarantees from the US Treasury and government-sponsored enterprises.

Conclusion to part 2

The history of currency wars in one way or another began a long time ago. Its manifestations could be observed from fairly early eras, but this process became widespread and its characteristic features at the beginning of the 20th century after the end of the First World War.

It is believed that currency wars arose against the background of crisis phenomena in the economy, both world and individual countries. There was a large number of local currency confrontations, in which a limited number of states took part, and which had rather local consequences. There are three main periods in the world

economy when currency wars were of a global nature. These periods are also called world currency wars in the literature.

The First World Currency War took place from about 1921 to 1936 and was the result of the First World War and the Great Depression. Then the main participants in this confrontation were Great Britain, France and the United States. However, a large number of countries in the world were eventually drawn into this currency war. It is believed that World War II began in 1967 and ended with the collapse of the Bretton Woods monetary system in the 70s. The third world war is called the period that came as a result of the 2008 global financial crisis. There is an opinion of scientists that this war continues to this day, while others believe that at the moment we are in the era of a new currency confrontation.

The current situation with currency manipulation causes a lot of controversy and disagreement among scientists and politicians, but it can be definitely noted that it has acquired its own characteristics. The main participants at the moment are the USA, the countries of the Eurozone and China. Particular attention is paid to the currency confrontation between the United States and China.

In our time, states that are world leaders in one way or another interfere in the world currency markets, pursuing completely different goals. We examined the monetary policies of countries such as China and USA since they are the main instigators and participants in currency confrontations.

Each of them uses its own methods of influencing the behavior of currencies. Thus, for the United States, they resorted to quantitative easing for a long time, and China to undervalue the national currency. At the moment, the monetary policies of many countries, including those listed above, are undergoing changes, and what methods will be used in the future is a matter of a long-term perspective.

PART 3: ASSESSMENT OF THE IMPACT OF CURRENCY WARS ON THE ECONOMY OF WORLD COUNTRIES

3.1 Forecasts of the impact of currency wars on the international economy and on the national economies

As countries rush to protect the competitiveness of their exports, currency wars will prompt a number of problems, such as asset-price volatility (particularly in the currency markets), increased adoption of trade protection policies, and a rise in anti-dumping and countervailing duty disputes. These all raise risks for cross border trade and investment. While it is extremely difficult to predict in detail what will happen in the short to medium term, it is quite possible that the effects seen during the 2008–09 recession will be repeated, such as increases in the three factors mentioned above: currency volatility, protectionism and trading disputes.

According to the Carnegie Institute's Currency Wars publication, in the 2008-09 recession currency volatility exceeded its 2000-08 average in 24 of the 33 largest economies (including in the US, Japan, China and the UK). The sharpest volatility was in countries that were highly reliant on commodity exports: this was primarily down to the significant shifts in global commodity prices during the recession. A second group of countries that experienced high levels of volatility were the transition countries of Russia, Poland, the Czech Republic and Hungary, as a consequence of shifts in market confidence about this type of economy.

The corollary to countries maintaining a weak currency is that other countries attempt to protect their domestic sectors when they are threatened by cheaper imported goods and services. They do this by adopting temporary trade protection policies. In the 2008-09 recession the position was exacerbated by flows of speculative capital into the emerging economies, looking for returns that were missing in the advanced countries (due to a combination of low interest rates, low growth potential and high debt). Global Trade Alert lists 23 types of policy that impact negatively on cross-border trade and investment, including tariff measures, trade defense measures, export subsidies and import bans. Since January 2008, it highlights that almost 1,500 new measures have

been adopted that hinder the free flow of trade; this at a time when global financial institutions such as the IMF, World Bank and WTO are attempting to encourage trade. Significantly, it is the advanced countries which are at the forefront of this movement, accounting for over 75% of total measures.

The development of currency wars poses a particular threat on emerging markets. When the quantitative easing measures started, the emerging markets faced the problem of overvalued national currencies, while now, at the time of weakening dynamics of quantitative easing, they have to cope with a sudden depreciation of those currencies. The currency wars mechanisms bring about the risks of lost benefits of emerging markets, both in the period of implementing the tools of the currency war (inflow of speculative capital, strong appreciation and temporary loss of competitiveness) and during the withdrawal of them (outflow of speculative capital, strong depreciation of currencies and decreased prices of assets).

There is a number of negative risk-related effects of currency wars, including fluctuations of assets prices resulting enhanced instability on international financial markets, increased risk of speculative bubbles on various asset markets, stronger monetary and credit expansion and risk of occurrence of monetary impulses, stagnation of foreign trade for fear of growing risk of introducing numerous restrictions on trade, e.g. custom duties (figure 3.1).



Figure 3.1 The risk aspect of currency war mechanism

Source: own study

The cheapening of the country's currency not only raises the cost of exports and benefits national producers, but also leads to an increase in inflation and depreciates the country's national debt.

According to the International Monetary Fund, the countries with the highest levels of public debt in 2020 include Japan (237% of GDP), Greece (174%), Italy (133%), Singapore (109%), the United States (106%) and France (99%). Thus, against the background of the risks of a global recession, more and more states are interested in reducing the debt burden on the economy.

At the same time, today in many countries, interest rates are already close to zero, and an additional reduction creates risks for the economy. This negative interest rate trend is very worrying for economists, as we have already seen similar monetary policy in Japan once. Ultimately, the actions of the Japanese regulator led to a recession.

Some economists consider that developing economies may be under risk in the first place. At the same time, countries with an undervalued exchange rate will also lose from currency devaluation. First of all, we are talking about the countries of Europe, as well as Australia and New Zealand [38].

American economist Richard Cooper described currency devaluation as one of the most "traumatic" policy measures, often causing public outrage over government action. This is due to the fact that the devaluation of the national currency can worsen the demographic situation, reduce the standard of living and the purchasing power of the population, as well as cause an increase in domestic prices due to the rise in prices for imported goods. It is common knowledge that the US dollar has lost about 98% of its value since 1913. In real terms, the wages of American workers have been steadily declining, especially rapidly over the past 50 years, with the result that the average wage in the United States has fallen by more than 50%.

The world has been in a deflationary state since 2001, caused by the bursting of bubbles in the stock markets (the Asian crisis of 1997, the dot-com bubble in the early 2000s, the global economic crisis of 2008). All this marked the beginning of

competitive devaluations in order to stimulate national economies using the instruments of central banks, which, in turn, led to even greater deflation.

Developed markets have embarked on a course of quantitative easing (in particular, the United States, Japan, Europe), and this has led to an inflow of capital to the BRICS countries, especially to China. This liquidity came at a time when governments were engaged in domestic projects to expand production and stimulate domestic demand.

There was an increase in demand for exchange and investment goods. However, this demand was not natural, it was caused by the misallocation of capital and speculation by investors looking for excessive profits. The consequence was overcapacity, and raw material prices plummeted like a house of cards. The oversaturation of liquidity caused an active rise in commodity prices in the absence of global demand for them. And now we are witnessing a fall in these prices caused by "deflationary forces" as the US dollar strengthens and the world's external debt is at an all-time high.

At the moment, debate about currency and trade wars, against the background of which the currency confrontation between the United States and China was last seen, has subsided significantly. The forces of state governments, as well as international organizations and foundations, are aimed at confronting the pandemic and its consequences, in the first place, and at restoring national economies and the state of the world economy.

At the beginning of the pandemic, experts feared the emergence of new currency confrontations. UBS's ManikNarain noted that "it would be a little premature to talk about a currency war right now, but we can say that the first warning shots are already being heard."

"If we look at the regions where potential currency wars could erupt, these will be the regions that have attracted the most capital or equity inflows," said PramolDhavan of PIMCO. He named Taiwan, South Korea and China as the main hot spots, and in the future - India [24].

However, these fears have not come true at the moment. The states, which are the main instigators and participants of currency wars, are carefully approaching the issue of monetary policy at the moment. And even if tendencies arise that may result in a currency war, this does not receive any development. The world community is well aware that all actions of states are aimed primarily at combating the pandemic and its consequences.

Thus, the International Monetary Fund in its report notes that in advanced economies, especially in the United States, there has been a liberalization of financial conditions, and their indicators have reached a level that was last observed before the global financial crisis. In most emerging market economies, financial conditions have not changed significantly, and monetary tightening in several countries has offset the rise in asset prices.

After gaining about 70 basis points through mid-March, 10-year US nominal rates have dropped markedly since early April in the face of significant volatility.

At the same time, the market-based inflation rate expectations have hardly changed. Meanwhile, interest rate volatility has increased, especially in the segment with shorter maturities, reflecting increased uncertainty inflation prospects and concerns that the Fed may start normalizing policies earlier than expected. It seems that concern market relatively earlier than expected increase in interest rates by the FRS spread to emerging market economies, where yields on instruments in national currency remain elevated. In recent months central banks of some emerging market economies have tightened monetary policy in response to inflationary pressures within their countries, which has contributed its contribution to the increase in the yield on bonds in the national currency. Besides, investors appear to be pricing significantly higher rates on the next few years.

Amid rising prices in risky asset markets and rising house prices in a number of countries, as well as the still low volatility in stock and credit markets reassessing the outlook for inflation and monetary policy could lead to a sudden rise in US interest rates from existing low levels and a sharp tightening of financial conditions.

This tightening of conditions could create negative spillovers for countries emerging markets and have particularly disastrous consequences for those countries where the rise is only at the very initial stage, where the possibilities for the choice of measures policies are limited and where public and private sector high level of use of borrowed funds.

Public debt in the world as a whole has reached an unprecedented level in 2020, which is close to 100 percent of world GDP, and is projected to remain at about this level until the end of 2021 and in 2022. According to International Monetary Fund, the projected average global budget deficit is 8.8 percent of GDP in 2021 due to lower deficit projections in the United States and China, which are partially offset by projected higher deficits in Europe (Germany, Italy and France).

Countries with access to finance continue to provide budget support to their economies, which increases the already significant differences in policy responses and economic recovery between groups of countries in terms of income levels. Raising interest rates in some countries to prevent inflation is likely to reduce the choice of fiscal policy measures to support the economy.

Countries where policy options have been exhausted and budgetary risk has increased should pay extra attention to avoid destabilizing debt dynamics. Countries with sound budgetary rules may be able to make adjustments more gradually. As with economic growth, risks are also characterized by diverging trajectories between countries. Countries with particularly high debt and non-reserve currencies will have less room for maneuver if global interest rates rise more than expected.

Higher inflation is expected in some emerging and developing countries, due in part to high food prices. Central banks generally need to monitor temporary inflationary pressures without responding to them and avoid tightening policies until there is greater clarity about the fundamental dynamics of prices. A key role in shaping inflation expectations and protecting against premature tightening of financial conditions will be played by clearly informing central banks about the prospects of monetary policy. However, there is a danger that temporary pressures may become more persistent and central banks may need to take preventive measures.

It is assumed that the largest central banks will maintain policy rates unchanged until the end of 2022. Central banks in some emerging markets have begun to cut support, and similar measures are expected from other central banks by the end of 2021.

As for the exchange rate of the US dollar and the yuan currency pair, the following dynamics is forecasted until the end of 2021 and throughout 2022 (figure 3.2). Thus, during 2022, a gradual depreciation of the exchange rate is expected, this trend is especially noticeable from the second half of the year as we can see on the graph.

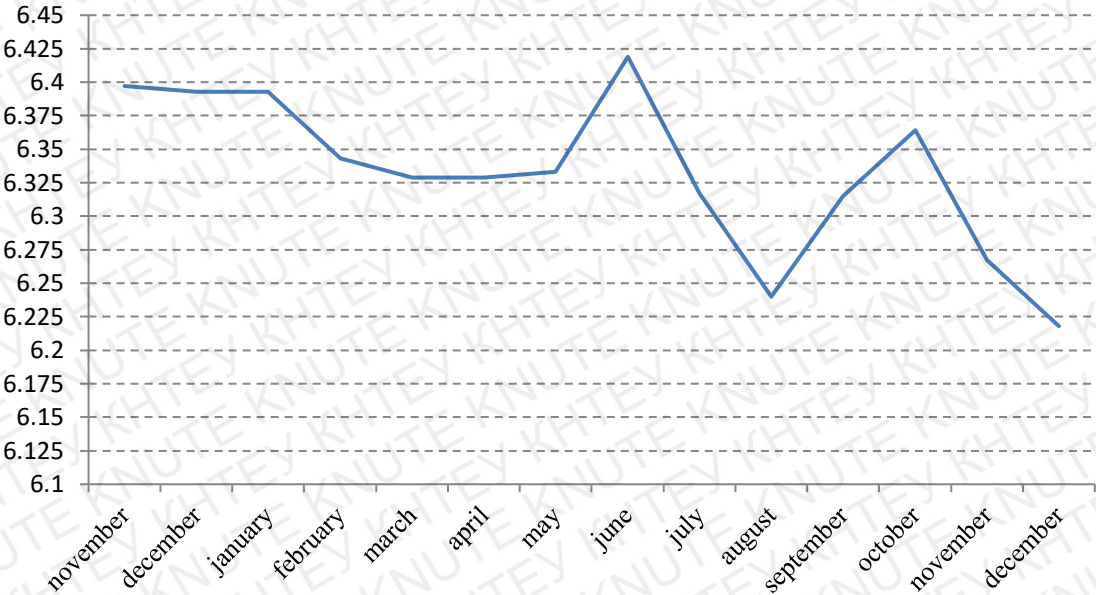


Figure 3.2 USD/CNY exchange rate dynamics forecast for the end of 2021 – 2022

Source: The Economy Forecast Agency[44]

Global economic growth is projected to be 6.0 percent in 2021 and 4.9 percent in 2022.

Growth may also be lower if there is a sharp tightening of financial conditions, for example, inflationary pressures persist for a longer period of time and cause another reassessment of monetary policy prospects (for example, in the US), if there is a significant increase in corporate bankruptcies or if price adjustments in certain market segments, such as the cryptocurrency market, will provoke wider asset sales. Emerging market and developing countries may, in particular, be doubly hit by tighter external financial conditions and a worsening health crisis, which will further widen the gaps in

the global economic recovery. Lower growth rates, in turn, can have an additional negative impact on debt dynamics and increase risks to public finances.

However, if we assume that in the next few years, currency confrontation may erupt again and eventually acquire a global character, we can draw the following conclusions. The Asia-Pacific region may remain one of the main zones of the currency war, and the main confrontations will be observed between the dollar / yuan, dollar / yen, dollar / South Korean won currency pairs.

In the event that the yuan's weakening against the dollar repeats, it could be quite limited for three reasons.

First, it will raise the cost of imported components for Chinese manufacturers and increase the cost of final products, which is negative for competitiveness. According to the OECD, about 20% of China's value added comes from imported components. This is too much, and the weakening of the yuan may not justify the rise in production costs.

Second, a weakening yuan could trigger massive capital outflows from the Chinese financial market, as was the case in 2015. Given the high debt burden of Chinese companies, this outflow will create colossal problems for financial stability and increase the risk of massive defaults.

Last but not least, a weakening yuan could slow down investment activity, while investment in fixed assets and technology accounted for up to half of China's economic growth. The global market will also be hit hard given the involvement of global corporations in industrial assembly in China.

As for the United States, on the one hand, since the dollar is the main world currency, and the US Federal Reserve is, in fact, the world central bank, since global rules are established in the United States, including by institutions such as the IMF and the World Bank, then the United States has more chances win the currency war than everyone else.

However, the US's serious vulnerability is its debt. The United States will not be able to do without external creditors, therefore it is completely senseless to bring down the economies of the countries-trade partners.

At the moment, we can observe the reaction of states and international organizations to the current crisis situation in the world, which is definitely different from the reaction of the world after the global financial crisis. For example, unlike the fiscal response of the past crisis, fiscal policy was strong enough in this situation. Easing monetary and fiscal policy early in the pandemic was proactive and synchronized. Economic recovery can be more effective if international coordination on the issues of crisis recovery policies is maintained in the future.

Overcoming the current health crisis and returning employment to normal levels should be the primary objectives of states' recovery policies. In addition, countries need to limit the long-term effects of the crisis by reducing damage, including from nonviable companies, and also to reduce the level of inequality, both within and between states. Close international cooperation will have a major impact on achieving these goals.

This collaboration is also necessary to ensure that countries in financial difficulties have sufficient access to international liquidity to continue spending on health, other social needs and infrastructure needed for further development.

The monetary policy of states should be adaptive. Emerging market economies should examine the feasibility of their existing measures and instruments to ensure stability, including exchange rate policies, capital flow management and macroprudential policies. Flexible exchange rates are best suited to mitigate international shocks and curb misallocation of resources in countries with well-developed financial markets. For countries with balance sheet vulnerabilities, foreign exchange intervention and temporary measures to regulate capital flows may be beneficial, including by expanding the freedom of monetary policy in response to changes in inflation and output in the country. Economic recovery after the pandemic will take a long time, but in the long term, in order to prevent possible currency confrontations, countries will need to maintain coordination of policies and refrain from serious rotationist actions. Countries with large surpluses will need to boost their domestic demand, allow currency flexibility, and avoid excessive accumulation of reserves.

It will require a response from states such as the United States, China and other major economies and their willingness to cooperate, instead of using manipulation that can cause global division and retaliation.

Such states, as well as large international organizations such as the IMF, should lead the search for solutions to restore and improve the global economy and prevent its severe imbalances.

3.2 Recommendations for Ukraine to ensure economic development in the context of the currency wars

As noted earlier, at the moment, currency wars are not particularly widespread in the world economy. The main task for the Ukrainian economy is the fight against the pandemic and its consequences (this is the task facing countries and international organizations around the world; Ukraine is no exception in this case). In the figure 3.2, we can see the dynamics of the real and nominal GDP of Ukraine in 2015-2020. It was in 2020, in response to the COVID-19 pandemic, that the increase in both indicators sharply decreased, although it remained positive.

This indicators are the worst over the past five years, but the best in comparison with the previous two large-scale shocks (the global financial crisis of 2008-09 and the hot phase of the war with Russia in 2014-15).

Table 3.1

Nominal and real GDP of Ukraine dynamics 2015-2020

	Nominal GDP, million UAH	Nominal GDP growth, %	Real GDP, million UAH	Real GDP growth, %
2015	1979458		1430290	
2016	2383182	20,40	2034430	42,24
2017	2982920	25,17	2445587	20,21
2018	3558706	19,30	3083409	26,08
2019	3974564	11,69	3675728	19,21
2020	4194102	5,52	3818456	3,88

Source: State Statistics Service of Ukraine [42]

In Figure 3.3, we can observe the change in the exchange rate of the hryvnia to the dollar in the period from 2015 to November 2021. We can observe a strong deviation precisely in 2019, when the dollar exchange rate changed greatly in relation to a large number of currencies, as well as in 2020 at the height of the first wave of a pandemic in the world.

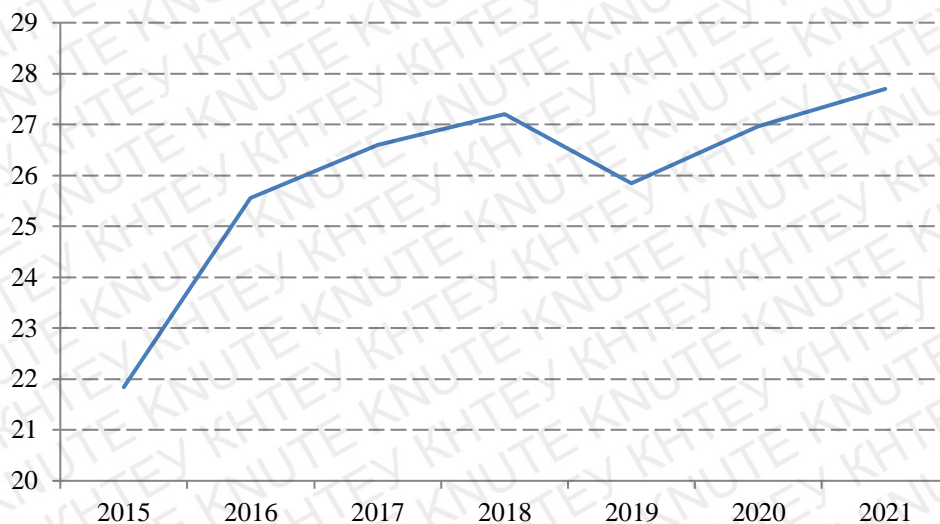


Figure 3.3 *USD/UAH exchange rate dynamics 2015-2021*

Source: Ministry of Finance of Ukraine [31]

Figure 3.4 shows the monthly dynamics of the exchange rate during 2020 and 2021.

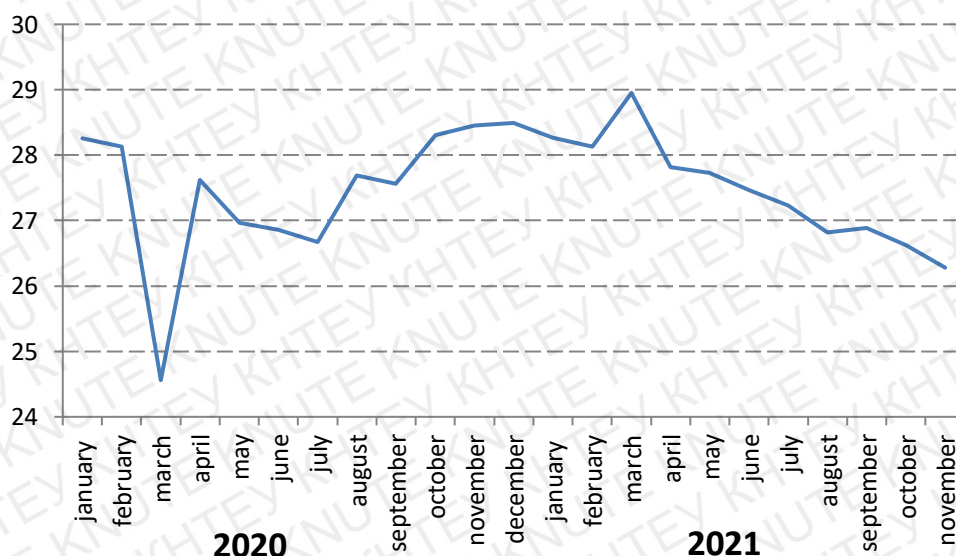


Figure 3.4 *USD/UAH exchange rate dynamics 2020-2021 by month*

Source: Ministry of Finance of Ukraine [31]

The main recommendations for Ukraine can rather be aimed at improving the economic situation in the country, which will have a certain effect in the future, in the event of new global currency confrontations, or any kind of crisis influences in general. Undoubtedly, a global currency war will not be able to bypass Ukraine, but there is an opportunity to mitigate the impact of currency confrontations on the Ukrainian economy, business and the standard of living of citizens. And for this, first of all, it is necessary to alleviate the situation during a pandemic and as successfully as possible to restore the economy of the state after it.

Starting in 2021, the economy is expected to gradually recover with the transition to growth and to form a qualitative basis for sustainable economic development in the medium term, taking into account major reforms and maintaining financial stability.

The emphasis in the reforms should be on stimulating economic development in the post-pandemic period by state support for job creation, support for small and medium business development, protection of the interests of domestic producers in both domestic and foreign markets (in the short term). In order to protect domestic producers in the trade and economic sphere, for example, from the protectionist policies of other countries by preventing, liberalizing and removing trade barriers to Ukrainian goods in foreign markets and promoting liberalization, positive changes in Ukrainian goods to foreign markets must be ensured.

In the medium term, attention should be paid to eliminating weaknesses in Ukraine's economy in order to accelerate economic growth, as well as to create conditions for the development of industries that will have the greatest positive effect from the development of digitalization of the economy [37].

Restoration of confidence in the banking system, reduction of credit risks, as well as a gradual decrease in the value of credit funds will help increase the role of the banking system in the formation of capital flows. It is necessary to continue active cooperation with international financial organizations and partner countries in the direction of attracting credit funds for the implementation of priority public investment projects.

Ukraine must provide the basis for sustainable positive economic development and maximize the level of integration with important trading partners. Among other things, taking into account the existing realities and consequences of the pandemic, the social policy of the state should be aimed as much as possible at the development of human capital and ensuring effective state social support of the population.

The main priority for the state in 2022-2023 should be the maximum restoration of the pre-pandemic level of employment, as well as the implementation of the necessary measures to create decent jobs that can keep migrant workers in Ukraine.

It is also very important to create conditions for the development of Ukrainian industry focused on the production of high-tech products. This should be the basis for increasing the competitiveness of industrial production and expanding markets by entering the priority and most efficient for the national economy sectors of the world market. Given the significant openness of the Ukrainian economy, measures to promote Ukrainian exports in foreign markets should prevail in the field of foreign economic policy [17].

In addition, the increase in foreign trade should be facilitated by measures aimed at expanding and diversifying Ukraine's foreign economic relations, in particular, by concluding free trade agreements with key trading partners of Ukraine, preventing the application of restrictive measures in foreign markets, reducing tariffs on Ukrainian products. in key markets through the implementation of the Association Agreement with the EU, other free trade agreements, their renewal, use of WTO opportunities, as well as the removal of anti-dumping and protective duties applicable to Ukrainian products.

It is also necessary to ensure the country's energy security by reducing energy dependence, diversifying energy supply sources, and developing renewable energy sources.

The reform of the tax system should be aimed at improving the business environment in Ukraine and promoting socio-economic development of the state, which involves increasing efficiency in the administration of taxes, fees and customs duties,

reducing the economy's dependence on debt burden and reducing the total public debt to a relatively safe level.

Monetary policy should be aimed at creating a balanced environment for a successful reset of the economy after the pandemic and quarantine restrictions, and, further, to ensure price stability; increasing the level of monetization; continuing the liberalization of the foreign exchange market to the level of ensuring the full free movement of capital, as well as the development of financial markets, as a necessary condition for diversifying the structure of the economy, which will create a basis for improving macroeconomic and social policies. (figure 3.5)

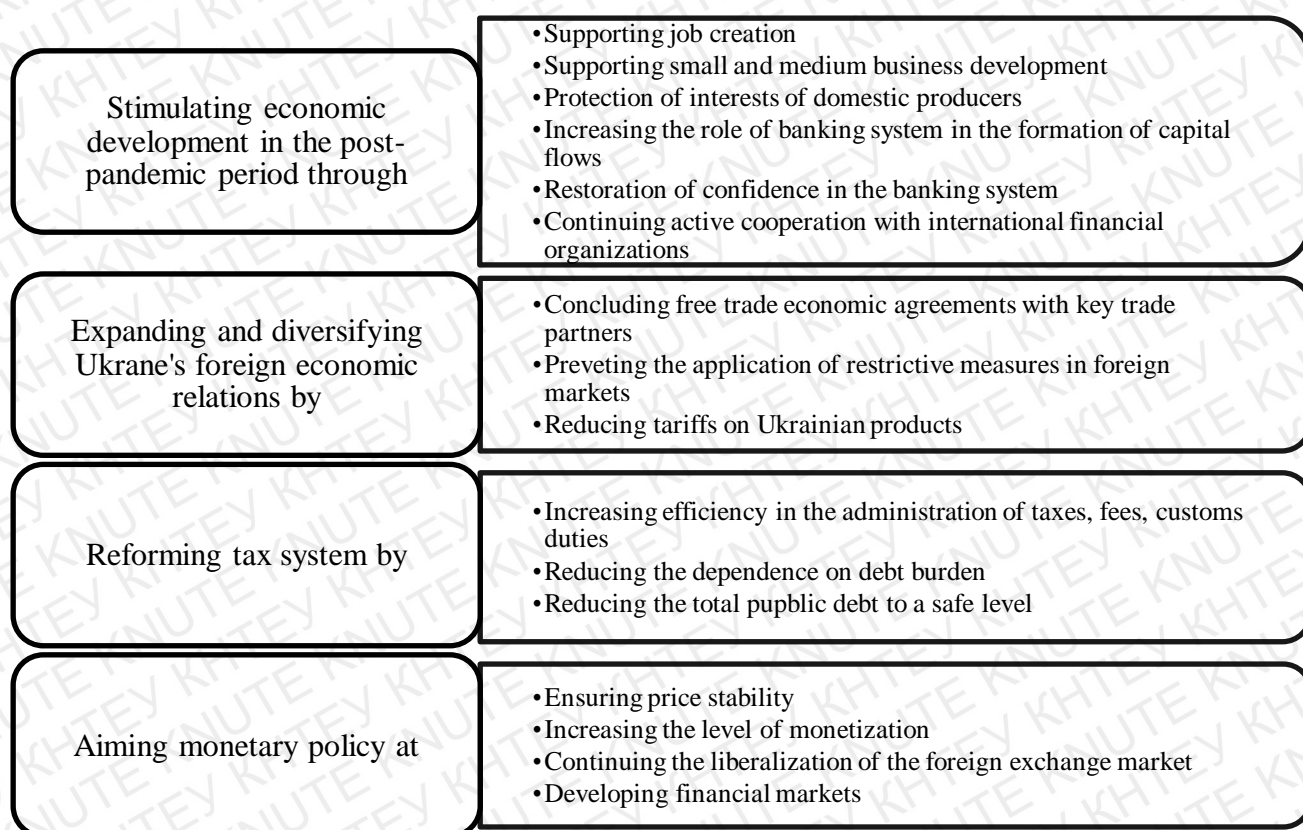


Figure 3.5 Recommendations for strengthening the Ukrainian economy

Source: own study based on National Economic Strategy of Ukraine for the period up to 2030 [37]

Thus, in the next few years, after mitigating the negative effects of the pandemic, the policy of removing obstacles to the effective development of Ukraine's economy, ensuring macroeconomic stability and reducing financial risks, creating conditions for

changes in production technology, by stimulating the promotion of goods in foreign competitive markets and improving the investment attractiveness of Ukraine.

Conclusion to part 3

The experience of conducting global currency confrontations in the past shows that these processes lead to negative results in the long term and carry a huge number of risks for both national economies and the world.

At the moment, discussions are underway on what consequences should be expected for states and the world economy as a whole. New currency confrontations have acquired new difficulties, their own peculiarities, and have involved too many countries in the world, given the interconnectedness and interdependence of many of them. The opinions of scientists also differ because there is no exact answer whether we are in the stage of a currency war at the moment.

At the moment, the world is in a rather crisis state: we are still arriving at the stage of combating the COVID-19 pandemic, but we are already reaping its consequences and trying to fight them. The forces of the governments of all states are focused on this at the moment. It is impossible to say for sure whether a new currency war awaits us as a reaction to the crisis period, we have to find out in the long term. However, at the moment there are no obvious actions by any of the possible participants who signaled the impending currency confrontation.

As for Ukraine, our state is also in a period of fighting the pandemic, mitigating its impact and restoring the country's economy. We should definitely be prepared for currency confrontations that may arise in the world in the long term. For this, it is necessary to create conditions for the recovery of the country's economy in the first place, and for improving economic growth, competitiveness and other indicators of the state's well-being.

CONCLUSION

Thus, the study of currency wars in the competitive strategy of states with open economies made it possible to draw the following conclusions:

1. A currency war is a type of economic confrontation between states in the foreign exchange market using monetary policy instruments, which is aimed at changing the exchange rate of the national currency in relation to the currencies of other states in order to obtain competitive advantages in foreign markets for goods and capital.

Currency wars of a global nature have arisen against the backdrop of serious economic crises. The main reason for their emergence is the need for states to maintain and improve the level of competitiveness in such periods of development of the world economy.

Nevertheless, each state that takes part in such currency confrontations is guided by different motives, such as short-term improvement of the economy, providing jobs and improving the living standards of the population within the country; managing domestic debt, improving positions in the international arena; or they do it as a form of confrontation with other states, or a response to the policies of other states.

2. There are two types of methods that are used in the conduct of currency wars: direct and indirect. Direct methods include foreign exchange intervention and devaluation of the national currency. Indirect methods include reduction of the discount rate, operations on the open market, emission of national currency (quantitative easing), fiscal methods, currency restrictions and rhetoric.

The choice of methods to be used in a currency war depends on the state, on its monetary and monetary policy, the level of economic development, foreign economic policy, and a number of other factors.

3. There are three global currency wars, two of which took place in the 20th century (in the 30s of the 20th century against the background of the Great Depression

and in the 60s and 70s, ending with the collapse of the Bretton Woods system), and the latter unfolded in our time, as a reaction to the 2008 crisis of the year.

Although all these currency confrontations retain common features, they also have their own characteristics that can be explained by the development of our world, changes in geopolitical space, main economic trends, and so on. At the moment, one can distinguish such characteristics of modern currency wars as a large number of participants in these confrontations, more global level of currency confrontations and more profound and serious possible consequences after them, widespread use of both direct and indirect methods of waging a currency war, in particular devaluation rhetoric and quantitative easing. The main parties to the conflict are the United States, China and the countries of the Eurozone, thus the main currencies of currency wars are, in particular, the US dollar and the yuan.

4. The United States and China are the main participants in currency wars at the moment, so more attention is riveted on their monetary policy. They, like other large states participating in currency confrontations, use various methods of conducting them. For example, quantitative easing has been used in US policy for a long time, and the Chinese government is referring to undervaluing the national currency. Devaluation rhetoric is also often used, which was especially inherent in the US government.

At the moment, monetary policy is undergoing changes: elections were held in the United States and the current government changed, and with this a change in the course of state policy; the world is faced with a pandemic and a crisis associated with it, which clearly influenced the behavior of states in the global space.

5. We can note that currency wars have serious negative consequences both for national economies and for the global one as when significant numbers of countries adopt these policies for conducting currency wars, risks for cross-border trade and investment are boosted dramatically as uncertainty over the direction of government policy increases, currency volatility rises and trade protectionism climbs.

It is impossible to say for sure what consequences the next currency wars will entail, since the conditions against which they will develop will, in any case, differ from previous experiences. However, the main risks associated with currency wars can be

identified. They include destabilization of international financial markets, risk of appearance of speculative bubbles, retaliation with tariff and non-tariff barriers, the costs related with the withdrawal of the tools, excessive credit expansion, reduction in foreign trade turnover and pro-inflation monetary policy.

At this point, it is difficult to predict future currency wars. At the moment, the world economy is in the phase of fighting the crisis, which was caused by the covid-19 pandemic. There were many opinions as to whether the world was waiting for another global currency war as a reaction to the crisis in the world and the economy, or as a continuation of the trade and currency wars that took place several years ago.

However, the trend is now reversed from the one that could indicate the return of currency wars. At the moment, the main task of the states of the world is the restoration of national economies, mutual assistance and cooperation in overcoming the pandemic.

6. Ukraine will not be able to avoid the impact of currency wars on the state of the national economy, but there is an opportunity to defend itself against serious consequences. Since we cannot predict when and against the background of what situation new global currency confrontations will arise, how they will develop and what methods will be used, we provide recommendations for strengthening the Ukrainian economy.

So, first of all, Ukraine, like all states of the world, needs to overcome the COVID-19 pandemic and restore the economy and other spheres of state life as soon as possible.

The main recommendations for strengthening the economic situation in Ukraine include the continuation of active cooperation with international organizations and important trading partners, diversifying Ukraine's foreign economic relations, restoration of confidence in the banking system, ensuring the energy security of the country, reforming tax system in order to improve the business environment in the country etc.

REFERENCES

1. Adamik, V., Lebid, D. (2018). Currency war as a tool for achieving goals foreign trade policy. Retrieved from http://ena.lp.edu.ua/bitstream/ntb/45769/2/2018_Adamik_V_V-Valiutna_viina_yak_instrument_92-94.pdf
2. Amadeo, K. (2020, January 13). What Is a Currency War? The Balance. Retrieved from <https://www.thebalance.com/what-is-a-currency-war-3306262>
3. Bernanke, B. (2017). Federal Reserve Policy in an International Context. *IMF Economic Review*, 65, p. 1–32.
4. Benassy-Quere, A., Bussiere, M., Wibaux, P. (2018). Trade and Currency Weapons. *CESifo Working Paper Series*, №7112.
5. Bhattarai, S., Egorov, K. (2016). Optimal Monetary and Fiscal Policy at the Zero Lower Bound in a Small Open Economy. *Globalization and Monetary Policy Institute, Working paper*, 260.
6. Blanchard, O. (2017). Currency Wars, Coordination and Capital Controls. *International Journal of Central Banking*, 13, p. 283–308.
7. Cao, L. (2016). Currency Wars and the Erosion of Dollar Hegemony. Retrieved from <https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1365&context=mjil>
8. Cacciatore, M., Duval, R., Fiori, G., Ghironi, F. (2016). Market Reforms in the Time of Imbalance. *Journal of Economic Dynamics and Control*, 72, p. 69–93.
9. Chen, H., Tillmann, P. (2021). Monetary policy uncertainty in China. *Journal of International Money and Finance*. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0261560620302655>
10. Chupin, A. (2018). The Role of Economic Interests in US-China Relations in the 21st Century. *Ural Humanitarian Institute*.
11. Dergachova, V., Golyuk, V. (2019). The consequences of China's devaluation policy for the world economy in the context of the US-China trade war. Retrieved from <http://www.irbis-nbu.gov.ua/cgi->

bin/irbis_nbu/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN
&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/Vmdu_ek_2019_17
_7.pdf

12. Domm, P. (July 20, 2018) Trade war risks becoming a dangerous currency war as China weakens yuan the most in 2 years. Retrieved from <https://www.cnbc.com/2018/07/20/trade-war-could-be-morphing-into-currency-war-if-china-is-plays-hardball.html>
13. Economic History Services. Retrieved from <http://eh.net/hmit/exchangerates/>
14. Egorov, K., Mukhin, D. (2019). Optimal Monetary Policy under Dollar Pricing. *2019 Meeting Papers 1510, Society for Economic Dynamics*.
15. Engel, C. (2016). International Coordination of Central Bank Policy. *Journal of International Money and Finance*, 67, p. 13–24.
16. Fajgelbaum, Pablo D., Pinipoli K. Goldberg, Patrick K. Kennedy, and Amit K. Khandelwal. 2019. The Return to Protectionism. *NBER Working Paper*, 25638.
17. *Forecast of economic and social development of Ukraine 2021-2023*. (Ministry of Economic Development, Trade and of Agriculture of Ukraine). Retrieved from <https://www.me.gov.ua/Documents/Detail?lang=uk-UA&id=98c3a695-56bb-42ba-b651-60ce1f899654&title=PrognozEkonomichnogoISotsialnogoRozvitkuUkrainiNa2021-2023-Roki>
18. Forrest, J., Yirong, Y., Zaiwu, G. (2018). Currency Wars. Offense and Defense through Systemic Thinking. *Springer*.
19. Gordeev, V. (2018). Theoretical economy: another development and development step. *Theoretical Economics*, № 5, p. 4-5.
20. Graupner, H. (August 6, 2019). Currency wars: Lose-lose the only certain outcome. Retrieved from <https://www.dw.com/en/currency-wars-lose-lose-the-only-certain-outcome/a-49907261>
21. International Monetary Fund. Retrieved from <https://www.imf.org/en/Home>
22. International Settlement Bank. Retrieved from <https://www.bis.org/>

23. Jeanne, O. (2020). *Currency Wars, Trade Wars, and Global Demand*. Mimeo Johns Hopkins University .
<http://www.econ2.jhu.edu/People/Jeanne/curwar30.pdf>
24. Johnes, M., Howcroft, E. (December, 2020). Analysis: Is a post-COVID currency war coming? Retrieved from <https://www.reuters.com/article/markets-emerging-currencies-analysis-int-idUSKBN28E0F2>
25. Khutorova, N. (2016). Currency wars in the modern world. *Moscow, ATISO*, p. 236-245
26. Korechkov, Y. (2016). Modern financial system and financial policy: study guide. *Yaroslavl, International Academy of Business and New Technologies*.
27. Korinek, A. (2016). Currency Wars or Efficient Spillovers? A General Theory of International Policy Cooperation. *NBER Working Paper*, 23004.
28. Lishchynsky, I. Lizun, M. (2017). Currency unions: retrospective and modern forms. *Economic space*, №118, p. 47-59.
29. Markov, M. (2018). Currency wars as the main weapon of the world powers. Retrieved from <https://www.elibrary.ru/item.asp?id=35633414>
30. Mihm, S. (2019, August 12). Currency war history: why 2019 looks so much like 1933? Bloomberg. Retrieved from <https://www.bloomberg.com/opinion/articles/2019-08-12/currency-war-history-why-2019-looks-so-much-like-1933>
31. Ministry of Finance of Ukraine. Retrieved from <https://index.minfin.com.ua/>
32. Mishra, P., Raghuram, R. (2018). Rules of the Monetary Game. *Hoover Institute mimeo*.
33. Petridis, G. (2016, February). Currency wars, what drives the wild fluctuations in exchange rates? Retrieved from https://dione.lib.unipi.gr/xmlui/bitstream/handle/unipi/10095/Petridis_George.pdf?sequence=1
34. Picardo, E. (August 22, 2019) What Is A Currency War And How Does It Work? Retrieved from <https://www.investopedia.com/articles/forex/042015/what-currency-war-how-does-itwork.asp>

35. Rickards, J. (2016). Currency Wars without end. *European Council on Foreign Relations*, p. 63-67.
36. Report to congress: Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States. (January 2020). U.S. Department of the Treasury Office of International Affairs. Retrieved from <https://home.treasury.gov/system/files/136/20200113-Jan-2020-FX-Report-FINAL.pdf>
37. *Resolution on approval of the National Economic Strategy for the period up to 2030* 2021 (Cabinet of Ministers of Ukraine). Retrieved from <https://www.kmu.gov.ua/npas/pro-zatverdzhennya-nacionalnoyi-eko-a179>
38. Rudenko, I. (2018). How currency confrontations of states contribute to the emergence of global financial crises and whether the next can be prevented. .
39. Retrived from <https://kfundmedia.com/finansova-zbroya-valyutni-vijny-dzhejmsarikardza>
40. Siripurapu, A. (Septemer 29, 2020). The Dollar: The World's Currency. Retrieved from <https://www.cfr.org/background/dollar-worlds-currency>
41. Sobel, M. (March 15, 2021). Currency disputes may soon resurface. Retrieved from <https://www.omfif.org/2021/03/currency-disputes-may-soon-resurface/>
42. State Statistics Service of Ukraine. Retrieved from <http://www.ukrstat.gov.ua/>
43. Subetto, A. (2018). Agenda 21 Noosphere-socialist transformation of the global economy. *Theoretical Economics*, № 4, p. 52-60.
44. The Economy Forecast Agency. Retrieved from <https://usdforecast.com/en>
45. Wilson, C. (March 14, 2017). Everything You Need to Know About Currency Wars. Retrieved from <https://dailyreckoning.com/everything-to-know-about-currency-wars>
46. World Bank Data. Retrieved from <https://data.worldbank.org/>
47. World Economic Outlook 2021. (International Monetary Fund). Retrieved from <https://www.imf.org/ru/Publications/WEO/Issues/2021/03/23/world-economic-outlook-april-2021>

48.Zharikov, M. (2019). Currency wars within the existing international monetary system. *Society and Economics*, Issue 8, p.89-95.