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SWAPS AND THEIR FEATURES OF TRADE IN THE EU

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Key words:
interest rate swap, currency swap, commodity swap, equity swap, debt-equity swap, total return swap, credit default swap, Eropean Union.

The foreign exchange market size is expected to see strong growth in the next few years. It will grow to $1106.49 billion in 2029 at a compound annual growth rate (CAGR) of 7.2%. The growth in the forecast period can be attributed to political and geopolitical developments, commodity prices and resource exports, pandemic recovery and risk appetite, inflationary pressures, emerging market dynamics. Major trends in the forecast period include rise of retail forex trading, enhanced risk management strategies, global economic recovery impact, focus on ESG (environmental, social, governance), technological infrastructure investments. The surge in international transactions is significantly contributing to the growth of the foreign exchange market going forward. International transactions refer to transactions involving two or more related businesses in which at least one party is a non-resident. Increased global trade and international transactions increase the size and activity of the foreign exchange market. For instance, in August 2024, according to Convera Corporation, a US-based Web services corporation, the wholesale cross-border payments market is projected to grow by 54%, from $146 trillion in 2023 to $225 trillion by 2030. In contrast, non-wholesale (retail) payment flows are expected to rise by 45%, reaching $65 trillion. Therefore, a surge in international transactions will drive the foreign exchange market. The increasing terrorism threats is expected to propel the growth of the foreign exchange market going forward. Terrorism threats refer to the potential risks and dangers posed by individuals, groups, or organizations that engage in acts of terrorism. Terrorism events can lead to a rise in safe-haven demand for currencies, increased geopolitical and economic risks, monetary policy responses, international cooperation and information sharing, counter-terrorism financing initiatives, and flight to safe havens. For instance, in February 2024, according to the Institute for Economics and Peace, an Australia-based non-profit think tank, in 2023, deaths from terrorism in Israel reached an all-time high, with 1,210 people killed and 4,537 injured as a result of 20 terrorist attacks. Therefore, the increasing terrorism threats is driving the growth of the foreign exchange market.

СВОПИ ТА ОСОБЛИВОСТІ ЇХ ТОРГІВЛІ В ЄС

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Ключові слова:
відсотковий своп, валютний своп, товарний своп, своп на акції, своп на борг, своп на загальну дохідність, своп кредитного дефолту, Європейський Союз.

У статті досліджено роль та значення валютного ринку у формуванні цін на світові валюти; досліджено сутність поняття «міжнародний валютний ринок» та його структурні елементи. З'ясовано роль європейського валютного ринку на міжнародному валютному ринку. З'ясовано, що очікуваний розмір ринку іноземної валюти значно зросте в наступні кілька років, що можна пояснити політичними та геополітичними подіями, цінами на сировину та експортом ресурсів, відновленням пандемії та схильністю до ризику, інфляційним тиском, динамікою ринків, що розвиваються. Досліджено, що основні тенденції в майбутньому включають зростання роздрібної торгівлі валютою, покращені стратегії управління ризиками, вплив глобального економічного відновлення, зосередження на ESG (екологічні, соціальні, управління), інвестиції в технологічну інфраструктуру. Розкрито тлумачення визначення «своп» з різних точок зору. Досліджено типи свопів та з'ясовано їх економічне значення. Проаналізовано тенденцію торгівлі свопами EURIBOR між учасниками ринку єврозони, яка почала активізуватися в 2021 р. на тлі нормалізації монетарної політики ЄЦБNote. Виявлено, що чистий ризик свопів IRR значною мірою відображає потреби хеджування, пов'язані з зазначеною бізнес-моделлю. Зазначено, що зростання міжнародних операцій значною мірою сприятиме зростанню валютного ринку в майбутньому.

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Statement of the problem

Note that foreign exchange means the exchange of one currency for another at a predetermined exchange rate or foreign exchange rate. The foreign securities market, which has a nominal value of trillions of dollars, consists mainly of foreign exchange markets. They are used in currency pairs that are priced against each other. The main counterparties in foreign currency are reporting dealers, other financial institutions and non-financial clients. Reporting dealers refer to financial institutions that are active participants in the local and international derivatives and foreign exchange markets. There are some trade finance instruments, such as currency swaps and currency options, with some end users including individuals, retailers, corporate institutions and governments.

Analysis of recent studies and publications

A study of the peculiarities of the European currency market was conducted by prominent foreign experts: Alain Chaboud, Dagfinn Rime and Vladyslav Sushko [7], David Hudson [8]. Domestic scientists who studied the international currency market are Odinokova A. O., Grynko I. M. [9] and Shapran N.S. [10]. The issue of developing and substantiating areas of competent management of virtual asset trading using swap operations, which is currently not fully explored. Therefore, in view of this, there is a growing need to continue to improve and clarify the mechanism of conducting various swap operations on the European currency market in order to transfer the experience to the Ukrainian currency market.

Objectives of the article

The purpose of the article is to study the peculiarities of the European currency market and the company's accounts payable, justifying the need for a balanced management of them.

The main material of the research

The foreign exchange (FX) market, where the relative prices of the world's currencies are determined, is essential for international transactions in goods, services and financial assets. In addition, FX is often viewed as an asset class on its own. The end-users of the FX market are therefore comprised of a wide variety of financial and non-financial customers around the globe. The trading activity of these agents and their interaction with market intermediaries drives the process of exchange rate determination, which has an impact on virtually all international economic activity. As a result, the FX market is the largest financial market in the world. FX trading volumes are, for example, much larger than global equity market activity.

Measuring global trading activity presents a challenge as the global FX market is obviously not under a single jurisdiction. However, a comprehensive and authoritative source of information, albeit infrequent, is the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity (the «Triennial»). The Triennial provides a snapshot of daily FX trading activity every third year in the month of April.2 The data for the Triennial are collected by central banks from bank-dealers in their jurisdictions and then aggregated, analyzed and published by the Bank for International Settlements (BIS). More frequent estimates can be obtained by using data from surveys conducted twice a year by foreign exchange committees (FXCs), industry groups sponsored by central banks in various countries [7, p. 3].

To fulfill the tasks, it is advisable to study the essence of the concept of «international currency market» and consider its structural elements. The international currency market is a system of currency relations within the framework of the world community, which is established by interstate agreements. The international currency market contains the following elements: functional forms of world money (reserve currencies); regime of mutual convertibility of currencies; regulation of the components of international currency liquidity (that is, the components of the country's gold and currency reserves, gold and the reserve position in the IMF); regulation and unification of forms of international accounts; interstate institutions that regulate currency relations within the framework of the world community; a network of international and national banks that carry out international settlements and credit operations [9, p. 41].

Foreign exchange markets are actually made up of many different markets, because the trade between individual currencies - say, the euro and the U.S. dollar - each constitutes a market. The foreign exchange markets are the original and oldest financial markets and remain the basis upon which the rest of the financial structure exists and is traded: foreign exchange markets provide international liquidity, preferably with relative stability [8].

A foreign exchange market is a 24-hour over-the-counter (OTC) and dealers' market, meaning that transactions are completed between two participants via telecommunications technology. The currency markets are also further divided into spot markets - which are for two-day settlements - and the forward, swap, interbank futures, and options markets.

The European foreign exchange market represents a complex network of tools and services designed to optimize the flow of capital, reduce risks and ensure the stability of the region's economy. One of such complex instruments is swaps. Therefore, to begin with, we will consider the essence of swap operations on the stock market from a theoretical point of view. Notably, interest rate derivative notional trade in the EU increased by 30.2% to $19.2 trillion in the first quarter of 2024, compared to $14.7 trillion in the first quarter of 2024. USD in the first quarter of 2023, which is 34.6% of the total European interest rate derivative that is conventionally traded [1, p.3].

Note that the concept of «swap is a derivative contract by which two parties exchange cash flows or obligations from two different instruments. Simply put, it is a contract to hedge risk through the exchange of payments. Such a contract can be concluded both on the organized market and outside it [2]».

In addition, the term «swap» is interpreted as «a financial exchange agreement under which one of the parties promises to make a series of payments with a set frequency in exchange for receiving another set of

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payments from the other party. These flows typically respond to interest payments based on the notional amount of the swap [3]».

Also in finance, the definition of «swap» is considered as «a derivative contract under which two parties agree to exchange cash flows or obligations from two different financial instruments. Swaps typically provide for cash flows based on a notional principal, such as a debt or security, but the underlying instrument can vary significantly [4]».

In our opinion, a swap is an arrangement in the form of a derivative contract entered into between two parties, where one of the parties undertakes to pay a series of payments in the form of cash flows or obligations at a fixed frequency based on a notional principal amount, such as debt or security, but the underlying instrument may differ significantly.

There are the following types of swaps: interest rate swap, currency swap, commodity swap, equity swap, debt-equity swap, total return swap and credit default swap. Therefore, each of them was considered in more detail in the table. 1 shows the types of swaps and their economic essence.

Interestingly, swaps can be traded over-the-counter (OTC), meaning they are negotiated and executed directly between two parties, rather than on an exchange. This allows for greater flexibility and customization of the swap contract, allowing parties to tailor the contract to their specific risk management strategies. These positive aspects may not be possible with standard exchange-traded derivatives.

Due to recent economic developments in the stock market in the EU, the use of currency swaps has become widespread. Interest rate swap activity in the euro area has increased sharply since 2021, reflecting the critical role of derivatives in managing interest rate risk as monetary policy expectations change. Interest rate swaps ("swaps") account for the largest share of the eurozone derivatives market. Between March 2021 and September 2022, and the gross notional EURIBOR swaps are the most traded and liquid derivatives used to hedge interest rate risk for euro-denominated exposures - increased by around 50% (Figure 1, panel a). While previous work identified how eurozone banks use swaps in part to manage their interest rate risk (IRR), this unit uses trade repository data on individual EURIBOR swaps between 2019 and 2022 to determine how risk is distributed across sectors in the swaps market or, in other words, who will pay the margin, to whom the rates should change. Eurozone banks are among the most active counterparties to EURIBOR swaps due to their role as market makers or the need to hedge interest rate risk. Banks tend to be net buyers of floating-rate payments, hedging exposure to their fixed-rate assets (Figure 1, panel B). Due to the clearing obligations for EURIBOR swaps, a significant proportion of trades are brokered by significant institutions, which in some cases also clear members of central clearing counterparties (CCPs). Almost all Eurozone banks are active in the EURIBOR swaps market; this is defined as the market makers of 26 large banks, which collectively exceed approximately 90% of the gross notional volume held by significant institutions.

Collectively, banks use swaps to hedge their interest rate exposures. Derivatives positions of ECB-supervised banks that experienced a negative IRR impact in the aggregate increase in value relative to market makers, non-euro CCPs and ECB-supervised banks that experienced a positive IRR impact after increase in interest rates.

Market makers are the main counterparty of SSM banks that were negatively affected by IRR (Figure 2, panel a). A parallel shift of 100 basis points in the yield curve results in a capital transfer (equivalent to a margin call) of around €33 billion from market makers to IRR-affected banks.

Accordingly, the derivative positions of ECB-supervised banks with a positive IRR effect on the aggregate depreciated compared to ECB-supervised banks with a negative IRR effect, non-euro area banks and other entities after the upgrade interest rates.

Investment funds, insurance companies and pension funds will have to make margin payments in case of rising interest rates. This is consistent with the latter sectors having maturity mismatches due to long-term liabilities

Table 1 – Types of swaps and their economic essence

Type of swaps	Meaning
Interest rate swap	An agreement between two parties to exchange different interest payments (calculated at fixed and floating interest rates) in the same currency during the term specified in the contract. The amount of the interest payment is calculated based on the amount, the interest rate and the corresponding interest period.
Currency swap	An agreement involving the exchange of cash flows denominated in different currencies agreed upon by the parties.
Commodity swap	It is used to exchange cash flows that depend on the price of the product. Since the price of goods is variable, the fixed price of the goods (for today) is exchanged for a floating price.
Equity swap	An agreement to exchange future cash flows between two parties, where one party generates a cash flow based on equity and the other party generates a notional fixed cash flow based on, for example, LIBOR.
Debt-equity swap	An agreement involving the exchange of cash flows generated by equity and debt capital.
Total return swap	An agreement in which the return on a particular asset is exchanged for a fixed interest rate. The party paying the fixed rate assumes the risk of a certain asset (including shares). For example, an investor may pay a party a fixed rate in exchange for access to shares, realizing capital gains and receiving dividends, if any.
Credit default swap	An agreement concluded for the purpose of hedging credit risk (default by the counterparty), although the buyer of protection may not bear the credit risk or bear it indirectly. This instrument belongs to the third wave of derivatives - credit derivative instruments, and will be discussed in the next publication.

Note: Compiled on the basis of [2]

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and relatively short-term assets, which means they use swaps to hedge basis interest rate risk. These sectors are net payers mainly of market makers and banks. Due to the over-the-counter nature of the swaps market, insurers and pension funds are primarily exposed to market makers. Foreign banks and CCPs are also important players in the swaps market. Large net transfers from market makers to foreign banks will occur after interest rates rise. Market makers and CCPs should be market neutral, but the former are relatively large and hedge their risks associated with banking activities.

When looking at stable sectoral risks, IRRs reflect the specifics of each sector's business model, but large margin payments during periods of low liquidity can pose risks to financial stability. This finding seems to indicate that most sectors use swaps to hedge their IRR. ECB-supervised banks with negative or positive IRR exposure (in their non-derivative banking book) hedged accordingly, while insurers and pension funds have negative net IRR exposure, with long-term liabilities and relatively shorter assets (Figure 2, panel b). Sudden changes in interest rates that cause margin payments can create financial stability

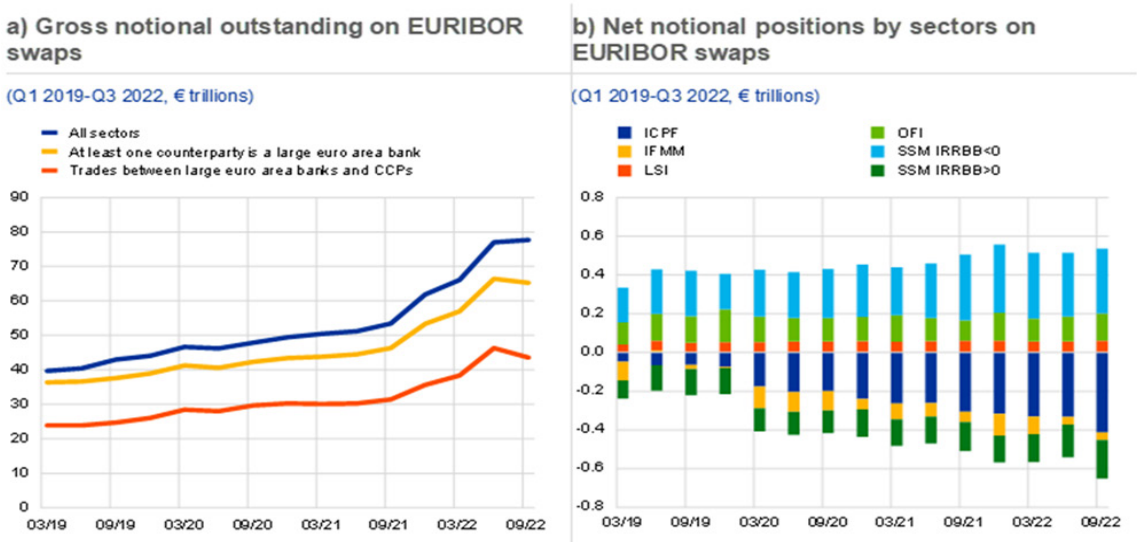

Fig. 1 – Trading in EURIBOR swaps between eurozone market participants began to intensify in 2021 against the backdrop of ECB monetary policy normalization

Note: Compiled on the basis of [5]

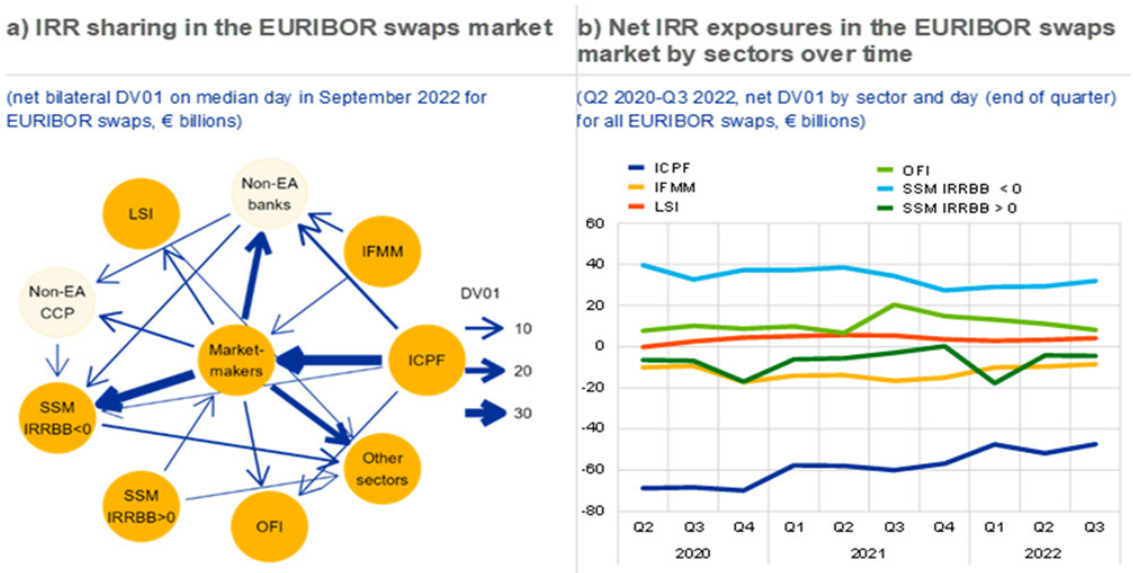

Fig. 2 – The net exposures of IRR swaps largely reflect the hedging needs associated with the business model

Note: Compiled on the basis of [5]

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problems in times of low market liquidity and if entities do not have access to sufficient liquidity.

According to the Euro Risk Free Rate Statement as of December 2, the CFTC's Market Risk Advisory Committee (MRAC) published Part II of the first cross-currency swap RFR initiative, which recommends the use of SOFR instead of USD LIBOR in all new cross-currency swaps beginning December 13, 2021 on the interdealer market at the LIBOR rate in US dollars [6].

There is currently a EUR Risk Free Rates Working Group (EUR RFR WG) which supports this initiative, recommends alignment with Part II in EU inter-dealer foreign exchange swap markets and recognizes that this helps market participants meet the objective of ending new use US dollar LIBOR rates at the end of 2021 (subject to certain risk management exceptions) as directed by the US and UK authorities.

In addition, the EUR RFR Working Group also recommends the adoption of €STR for cross-currency EUR-USD swaps in the EU interdealer market as of 13 December 2021.

After that, the periodicity of 7-day operations to ensure liquidity in US dollars as of May 1, 2023 was considered. Due to improved US dollar funding conditions and low demand for recent US dollar liquidity operations, the Bank of England, the Bank of Japan, the European Central Bank and the Swiss National Bank, after consultation with the Federal Reserve System, jointly decided to return the frequency of their 7-day operations from daily to once a week. This operational change became effective on May 7, 2023, and 7-day operations will be conducted according to published schedules [5].

Therefore, it can be concluded that central banks are ready to reconsider the provision of liquidity in US dollars, as market conditions require. Swap lines between these central banks are available permanent instruments and serve as an important liquidity support to ease the strain on global funding markets, thereby helping to mitigate the effects of such strains on the supply of credit to households and businesses both domestically and abroad.

Conclusions

The foreign exchange market size has grown strongly in recent years. It will grow from $792.43 billion in 2024 to $838.54 billion in 2025 at a compound annual growth rate (CAGR) of 5.8%. The growth in the historic period can be attributed to globalization and international trade, interest rate differentials, government policies and monetary interventions, speculation and investment flows, balance of payments and economic indicators.

The foreign exchange market size is expected to see strong growth in the next few years. It will grow to $1106.49 billion in 2029 at a compound annual growth rate (CAGR) of 7.2%. The growth in the forecast period can be attributed to political and geopolitical developments, commodity prices and resource exports, pandemic recovery and risk appetite, inflationary pressures, emerging market dynamics. Major trends in the forecast period include rise of retail forex trading, enhanced risk management strategies, global economic recovery impact, focus on ESG (environmental, social, governance), technological infrastructure investments.

The surge in international transactions is significantly contributing to the growth of the foreign exchange market going forward. International transactions refer to transactions involving two or more related businesses in which at least one party is a non-resident. Increased global trade and international transactions increase the size and activity of the foreign exchange market. For instance, in August 2024, according to Convera Corporation, a US-based Web services corporation, the wholesale cross-border payments market is projected to grow by 54%, from $146 trillion in 2023 to $225 trillion by 2030. In contrast, non-wholesale (retail) payment flows are expected to rise by 45%, reaching $65 trillion. Therefore, a surge in international transactions will drive the foreign exchange market.

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