EU Capital Flows: Latest Developments from a Global Perspective (2024)

Seeking stability in an adverse environment

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Abstract

The European Union's economic resilience continues to be tested by a volatile global environment. While inflationary pressures have eased and monetary policies have stabilised, escalating geopolitical tensions and rising protectionism are creating significant uncertainties for growth and investment. This study analyses key trends in global and EU capital flows up to mid-2024, focusing on foreign direct investment (FDI), portfolio flows, and financial integration, and their implications for economic stability. Recent shifts in FDI patterns have raised concerns about the EU's ability to retain its position as a global investment hub, while the persistent decline in intra-EU FDI threatens financial integration. Portfolio investment flows have remained volatile, with the euro area experiencing sustained outflows, in contrast to the US, which continues to attract substantial inflows. Meanwhile, profound transformations in global payment systems, coupled with potential security threats, are contributing to an increasingly uncertain global financial and monetary landscape. As global risks mount, the EU faces the critical challenge of balancing its commitment to openness with the need to strengthen economic security. To remain competitive, the EU must enhance financial integration, continue to address regulatory barriers, and attract strategic investments, both domestic and foreign, into key sectors to ensure long-term growth and resilience.

Résumé

La résilience économique de l'Union européenne continue d'être mise à l'épreuve par un environnement mondial volatil. Alors que les pressions inflationnistes se sont atténuées et que les politiques monétaires se sont stabilisées, l'escalade des tensions géopolitiques et la montée du protectionnisme créent des incertitudes significatives pour la croissance et l'investissement. Cette étude analyse les principales tendances des flux de capitaux mondiaux et européens jusqu'à la mi-2024, en se concentrant sur les investissements directs étrangers (IDE), les flux de portefeuille et l'intégration financière, ainsi que leurs implications pour la stabilité économique. L'évolution récente des schémas d'IDE a suscité des inquiétudes quant à la capacité de l'UE à conserver sa position de plaque tournante de l'investissement mondial, tandis que le déclin persistant de l'IDE intra-UE menace l'intégration financière. Les flux d'investissements de portefeuille sont restés volatils, la zone euro connaissant des sorties soutenues, contrairement aux États-Unis, qui continuent d'attirer des flux substantiels. Par ailleurs, les profondes transformations des systèmes de paiement mondiaux, associées à des menaces potentielles pour la sécurité, contribuent à rendre le paysage financier et monétaire mondial de plus en plus incertain. Face à la montée des risques mondiaux, l'UE est confrontée à un défi majeur : trouver un équilibre entre son engagement en faveur de l'ouverture et la nécessité de renforcer la sécurité économique. Pour rester compétitive, l'UE doit renforcer l'intégration financière, s'attaquer aux obstacles réglementaires et attirer des investissements stratégiques, nationaux et étrangers, dans des secteurs clés afin de garantir une croissance et une résilience à long terme.

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List of abbreviations and acronyms

ASEAN	Association of Southeast Asian Nations
BEA	Bureau of Economic Analysis
BoP	Balance of payments
BRICS	Brazil, Russia, India, China and South Africa
CMU	Capital Markets Union
EEA	European Economic Area
ECB	European Central Bank
EMDEs	Emerging markets and developing economies
EME	Emerging market economy
EU	European Union
EUR	Euro
FDI	Foreign direct investment
Fed	Federal Reserve
GDP	Gross domestic product
GNI	Gross national income
IFR	Interchange Fee Regulation
IIP	International investment position
IMF	International Monetary Fund
IRA	Inflation Reduction Act
M&A	Mergers and acquisitions
NGEU	NextGenerationEU
NNDI	Net national disposable income
OECD	Organisation for Economic Co-operation and Development
P2P	Peer to peer
POS	Point of sale
PSP	Payment service provider
REACT-EU	Recovery assistance for cohesion and the territories of Europe
RRI	Regulatory Restrictiveness Index
SNB	Swiss National Bank
SPE	Special purpose entity
SURE	Support to mitigate Unemployment Risks in an Emergency
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
US	United States
USD	US dollar
WEO	World Economic Outlook

Executive Summary

The European Union's economic resilience continues to be tested by a volatile global environment. While inflationary pressures have eased and monetary policies have begun to stabilise, interest rates remain significantly higher than pre-pandemic levels. This has created both opportunities and challenges for growth and labour markets, with the EU demonstrating notable resilience. However, escalating conflicts, rising trade tensions, and a surge in protectionist policies have introduced substantial uncertainty. These geopolitical and economic shifts threaten global stability, hinder growth prospects, and disrupt capital flows. Amid this turbulence, the need for a stronger and more integrated single market has become increasingly urgent, providing the foundation for the EU's sustained economic integration and competitiveness.

This study examines the key trends and dynamics of global and EU capital movements with a focus on recent years through mid-2024. It highlights the shifts in foreign direct investment (FDI), portfolio flows, and broader financial integration within and beyond the EU, alongside their implications for global economic stability.

Global trends and recent developments in capital flows

The COVID-19 pandemic and Russia's invasion of Ukraine have deeply impacted the global economy and the EU. In particular, the war has intensified uncertainty and heightened security concerns, further intertwining political and economic developments. The adaptation to such a riskier and adversarial global environment has spurred changes at multiple levels, raising critical questions about whether recent shifts in capital flows (and current accounts, as explained below) are tied to short-term economic adjustments, or indicative of longer-term trends in the size and composition of capital flows within the EU and globally.

Current accounts in flux

In 2023, the euro area reaffirmed its position as a global leader in current account surpluses, a trend which continued into 2024, after a deficit in 2022. This contrasts with Russia, whose surplus plummeted to historic lows in 2023 under the combined pressures of sanctions and declining energy export revenues. Similarly, China’s surplus fell below 2020 levels after peaking in 2022, reflecting weaker external demand and structural economic shifts. Conversely, ASEAN-5 economies and Switzerland maintained relatively stable surpluses. The US remained the world's largest current account deficit economy, underscoring its enduring reliance on foreign capital and imports.

Foreign direct investment: shifting patterns

Over the past two decades, advanced economies, including the euro area, have consistently recorded net FDI outflows driven by their multinational corporations investing abroad; however, recent developments point to a less clearcut picture for Europe. Widespread divestment operations in the euro area, by both domestic and foreign investors, have substantially reduced the size of inbound and outbound FDI flows, raising concerns about the attractiveness of traditional EU foreign investment. Recent trends also reveal a reversal for traditional FDI recipients such as China and ASEAN-5. In 2023, China recorded positive net outflows due to a sharp decline in inbound FDI driven by geopolitical tensions and increasing domestic regulatory hurdles.

Portfolio investment: diverging paths

Portfolio investment flows reveal contrasting trajectories. The euro area transitioned from net inflows (2005-2013) to persistent net outflows from 2015 onwards, except for temporary inflows during a period of high financial volatility in 2022. Meanwhile, the US continued to

attract robust net inflows, which surged in 2023 to levels not seen since 2008, underscoring its safe-haven status. The UK displayed high volatility, mostly driven by operations by domestic rather than foreign investors, while China's offshore portfolio investment expanded but remained modest relative to other global players.

Other investment: a volatile landscape

Other investment flows have been marked by volatility, with a sharp but steady decline since 2007, primarily due to deleveraging efforts by European banks. In 2023, the euro area and the US recorded net outflows, in contrast to net inflows in the UK and other advanced economies. China shifted from substantial outflows in 2020-2021 to net inflows in 2022 and then to near-zero inflows by 2023, reflecting its managed approach to cross-border financial flows amid changing global conditions.

Official reserves: divergent strategies

Distinct trends in official reserves highlight the varying roles of currencies and financial policies. Both the US and the euro area maintain minimal official reserves, leveraging the global role of their currencies, and their changes are minimal. By contrast, fixed exchange rate countries, like Switzerland, experience more frequent reserve adjustments. In the US, following the expansionary monetary policies of 2021, and the reserve adjustments in response to the dollar strength and rising interest rates, changes slowed in 2022-2023. A notable exception in 2023 was Switzerland's reserve reduction after the collapse of Credit Suisse, which illustrates how domestic financial shocks can ripple through official reserve holdings.

Recent developments in intra-EU capital flows and integration

Intra-EU capital flows are critical for the integrity and proper functioning of the single market. As geopolitical tensions rise and external security threats intensify, the single market's ability to foster investment, financial integration and risk absorption are gaining renewed significance. Meanwhile, traditionally overlooked aspects, such as reliance on foreign actors to ensure domestic payments, are drawing increasing scrutiny, spurred by economic security considerations.

Shifting patterns in intra-EU cross-border investment

Recent trends in intra-EU financial flows reflect significant changes in the EU's economic and financial landscape. After a peak in 2020, with asset flows reaching historical highs by late 2021, these flows sharply declined from mid-2022, largely due to the collapse of intra-EU FDI and a reduction in portfolio investment. Yet, by mid-2023, portfolio investment showed strong signs of recovery, even as other types of investment continued to plummet, signalling a notable shift in the composition of intra-EU flows. A concerning trend is the persistent decline of intra-EU FDI, traditionally a key pillar of the EU's financial integration Since 2018, FDI flows within the EU have steadily fallen, marked by increased volatility and are now at historically low levels. This trend mirrors a similar downturn in extra-EU FDI, suggesting a broader contraction in global investment dynamics and raising questions about the EU's ability to sustain financial interconnectedness in the face of changing geopolitical and economic conditions.

Resilient financial integration and risk sharing

Despite these challenges, financial integration within the euro area has demonstrated resilience. Viewed against the backdrop of historical trends and the scale of recent economic shocks, the euro area's financial integration remains robust. Risk-sharing mechanisms have notably improved since 2020, particularly within the euro area. The credit channel, supported by national fiscal policy measures and by EU-level initiatives (like SURE

and NGEU) in response to the COVID-19 crisis, has been the primary driver of this improvement. EU transfers and cross-border investments have also played critical roles, with capital markets notably contributing to shock absorption in ways that contrast with their limited effectiveness during the euro area financial crisis.

Regulatory barriers within the EU nonetheless continue to hinder cross-border investment. Measured by the OECD, these obstacles, while modest, remain significant, particularly those related to business establishment and operations. Statistical analyses suggest room for improvement, echoing business surveys that identify regulatory restrictions as ongoing challenges to fostering intra-EU investment.

Stabilising trends in the FDI networks of EU Member States

The recent shifts in FDI within the EU highlight the importance of understanding the structural dynamics underlying these investments. On the basis of firm-level data and estimates, we constructed a detailed network of inward FDI flows for each Member State, examining both the role of special purpose entities (SPEs) and the ownership structures of non-SPE FDI to differentiate between immediate and ultimate investor locations.

The analysis shows that the total stock of inward FDI in the EU rose from EUR 13.4 trillion in 2018 to EUR 14.7 trillion in 2022, following a sharp rebound in 2021 after a dip in 2020. Around half of this stock originated from non-EU countries (EUR 8.1 trillion), with the remainder coming from EU-27 countries (EUR 6.6 trillion), a consistent trend over the years. SPE-related FDI represented less than a third (29 %) of total inward FDI in 2022, down from nearly 50 % in 2018. This marked decline, with SPE-related FDI stabilising at around 30% since 2020, signals a reduced reliance on SPEs, likely due to tighter regulatory oversight and shifting corporate strategies. Indirect FDI – investment rerouted through intermediary destinations – also saw a sharp decline in 2021, settling at approximately 5 % of real FDI (excluding SPEs) by 2022. This stabilisation suggests that less investment is being routed through intermediary countries before reaching its final destination.

From a sectoral viewpoint, the finance and insurance industries dominate FDI as both a source and a destination, with holding companies playing a significant role. In 2022, within manufacturing, the foreign pharmaceutical sector was prominent, likely due to COVID-19 vaccine production rather than to a broader structural shift.

Payment systems in transformation

Payment systems in the EU are undergoing profound transformations, propelled by international players, including US Big Tech firms, expanding their reach within the EU's single market and the emergence of innovative business models. Merchants are increasingly pushing for cheaper payment methods, showing a strong preference for cards despite a noted decline in their usage since 2021. E-commerce continues to grow robustly, with 31 % of online purchases in late 2022 crossing borders within the EU.

Regulatory measures like the Interchange Fee Regulation have successfully reduced interchange fees for card transactions, although trends in merchant service charges and scheme fees remain mixed. At the same time, national payment schemes have maintained competition with international card networks, while cross-border instant payment initiatives are gaining momentum. Complementing these developments, EU authorities are progressing with plans for a Digital Euro, designed to coexist with commercial bank money and to diversify payment solutions.

The use of the euro in global trade invoicing has increased since 2020, but mostly in EU exports, and it does not appear directly linked to a receding dominance of the USD. Major shifts in global payment systems, induced by sanctions against the push by China and Russia to promote the yuan have primarily affected the USD with limited immediate impact

on the euro. Still, as efforts by China and Russia to de-dollarise intensify, the risk of further fragmentation in global payment systems grows, with potential repercussions not only for trade but also for global financial flows.

Shifts in extra-EU capital flows and declining FDI trends

EU capital flows have undergone significant changes in recent years. Record highs in extra-EU acquisition of assets (capital outflows) and incurrence of liabilities (capital inflows) observed in 2021 and early 2022 were abruptly reversed by mid-2022. Both EU investment abroad and foreign investment into the EU have since declined sharply, with divestment particularly noticeable in the category of FDI. This retraction reflects rising geopolitical tensions, economic uncertainty, and changing global dynamics. Extra-EU FDI assets have seen large divestment operations since 2022, while portfolio investment assets have grown dramatically, continuing a trend that began in 2016 and partially replacing FDI in scale. Similarly, extra-EU FDI liabilities have transitioned to a two-regime pattern. After a decade of robust capital inflows, FDI liabilities have been barely positive since 2018, with major divestment waves in 2018 and post-2022, primarily led by US residents. By contrast, portfolio investment inflows, particularly in debt, have remained stronger and increased steadily.

The evolving EU-US FDI linkages highlight a broader trend of simultaneous FDI divestments and rising portfolio investment, signalling a shift away from traditional greenfield investment towards financial transactions. Additionally, UK residents have been divesting significantly from EU assets since 2022, predominantly in the category of other investment, likely influenced by central bank tightening. EU residents have likewise divested from UK assets across all classes, especially FDI.

US policies, notably the Inflation Reduction Act, appear to have driven a surge in US manufacturing FDI and reshoring activity plans in 2022 and 2023, including investment from the EU. However, preliminary data for 2024 suggest this trend is slowing, leaving its long-term effects uncertain and raising doubts about the overall effectiveness of the policy.

Finally, growing concerns over foreign interference in critical sectors have prompted stricter FDI screening measures in the EU. While these measures are justified, they risk delaying processes and discouraging strategic investment by EU-based companies with foreign links. Striking a balance between security and openness remains crucial, as FDI continues to serve as a key driver of technological transfer and production in the EU.

Conclusions

The examination of recent developments in global and EU-level capital flows results in three overarching conclusions and policy considerations.

Rising global risks

While macroeconomic conditions are showing signs of stabilisation, global risks are escalating. Trade tensions, increasing resort to protectionism and security concerns threaten to disrupt foreign exchange markets and destabilise capital flows. In addition, shifts towards a more fragmented international monetary and payments system, with China and the yuan likely to be at the forefront of alternatives, risks amplifying inefficiencies and vulnerabilities in global trade and finance.

Challenges to the EU's position as an FDI hub

The EU's position as a leading FDI hub seems under strain. Persistent divestment operations reflect dynamics in global investment and structural hurdles within the EU. External factors, such as the changing strategies of multinational corporations to use FDI channels for financial arbitrage rather than for real economic investment exacerbate this

issue. Structural concerns further compound the problem. For decades, the EU has benefited from substantial FDI inflows, particularly from the US, which have fostered strategic partnerships and enabled positive technology transfer. This long-standing pattern is now at risk.

Between openness and security in a changing global order

Geopolitical tensions, greater fragmentation, and the resurgence of protectionism pose fundamental trade-offs for the EU. Foremost is how to reconcile its deep-rooted commitment to openness, which is a cornerstone for trade and investment, with the pressing need to safeguard economic security and enhance strategic autonomy.

Addressing these interconnected issues requires a multifaceted and forward-looking policy approach. Safeguarding and revitalising the single market should remain at the core of the efforts.

1 Introduction

This report monitors and analyses capital movements in the European Union from a global perspective, with particular emphasis on recent developments up to mid-2024. As a condition for improving the efficient allocation of resources and a fundamental driver of growth, the free movement of capital is a pillar of the EU single market.

Since 2020, two major shocks – the COVID-19 pandemic and Russia's invasion of Ukraine – have deeply impacted the global economy and the EU. In particular, the war in Ukraine has created an environment of heightened uncertainty and geopolitical risks, where political and economic developments are closely intertwined.

In the economic area, rising inflation, which began in early 2021 across advanced and emerging economies, marked a significant shift in macroeconomic conditions not seen in decades. In response, central banks across the world raised interest rates after a prolonged period of extremely low or even negative rates. By 2023, inflationary pressures had eased considerably, with monetary tightening in advanced economies peaking around the end of the year. In June 2024, the European Central Bank (ECB) started its easing cycle with an initial interest rate cut. By the end of November, this was followed by two consecutive rate cuts that altogether lowered its main policy rate by 75 basis points. Meanwhile, the Fed had lowered its benchmark interest rate by the same amount.

In line with the European Commission's 2024 autumn forecast[1], euro area and EU inflation rates (Harmonised Index of Consumer Prices) are hovering at around 2 % and are expected to be back on target in 2025, from above 6 % in 2023.

As monetary policy conditions stabilise, albeit at higher nominal interest rates than before the pandemic, the EU's economic growth and labour markets are demonstrating some resilience. EU real GDP is projected to grow by 0.9 % in 2024, accelerating modestly to 1.5 % in 2025 (**Table 1-1**). These rates, however, remain significantly lower than those in the US and the global average and economic performance varies widely across Member States.

Table 1-1. Real growth rate comparison (selected regions and countries)

	GDP growth (%)		
	2023	2024F	2025F
World	**3.3**	**3.2**	**3.2**
AEs	**1.7**	**1.8**	**1.8**
US	2.9	2.8	2.2
EU	0.4	0.9	1.5
Germany	1.8	-0.1	0.7
France	2.6	1.1	0.8
Italy	3.7	0.7	1.0
Spain	5.5	3.0	2.3
UK	0.3	1.1	1.5
Japan	1.7	0.3	1.1
EMDEs	4.4	4.2	4.2
China	5.2	4.8	4.5

Sources: European Commission and IMF, World Economic Outlook, October 2024.

Notes: AEs refers to advanced economies; EMDEs refers to emerging markets and developing economies. Projections for the EU are from the European Commission, Autumn 2024 Economic Forecast.

Spain stands out as the fastest-growing economy in the EU and among advanced economies in 2024, while Germany faces stagnation. Germany's struggles stem from a mix of adverse

[1] See the forecast for more details.

external factors, including structural shifts precipitated by the end of access to cheap Russian gas[2], transformations in key sectors such as automotive manufacturing, and rising protectionist measures that impact its export-driven industrial base.

Such structural changes raise critical questions about the nature of recent developments in capital flows. Are these shifts transient, tied to short-term economic adjustments, or do they reflect longer-term, structural changes in the size and composition of capital flows within the EU and globally?

Looking ahead, there are two key questions. First, as a highly open economy and a major global hub for capital flows, how might the role of the EU evolve in this increasingly complex and uncertain global context? Second, with the single market remaining central to the EU project, how can the EU further strengthen its potential while balancing domestic priorities with escalating geopolitical and economic security concerns?

Against this backdrop, this report seeks to understand how these evolving dynamics have lately affected capital flows. The rest of the study is organised as follows. The next section is devoted to monitoring global trends and changes in international capital movements. Sections 3 to 5 focus on intra-EU developments. Specifically, Section 3 analyses the state of play in intra-EU capital flows, by looking at different categories of investment, financial integration and the degree of risk sharing, with a specific interest in the role of cross-border integration. The last part of the section presents an analysis of the regulatory barriers to intra-EU FDI. Section 4 delves into recent developments in the FDI network of EU Member States, based on a distinction between real FDI and FDI directed at special purpose entities (SPEs). Section 5 deals with trends in EU payments and payment systems from two different angles: namely retail payments in the EU and currency invoicing in global trade transactions.

Moving on, Section 6 analyses the extra-EU dimension of capital movements in four directions. First, it describes recent developments in the main extra-EU categories of investment flows. Second, it zooms in on the bilateral developments between the EU and three of its partners, namely the US, UK, and Russia. Third, the section examines how the latest policy changes in the US and the regime of sanctions against Russia are likely to impact capital flows in and out of the EU. The section ends with a review of the EU's economic security packages, specifically the screening of inward FDI. Finally, Section 7 concludes by highlighting the risks ahead for capital flows and draws some policy considerations.

[2] See for instance the Draghi competitiveness report.

2 Global trends and recent developments

Key findings

- *Current account.* In 2023, the euro area regained a global-leading surplus (0.38% of world GDP), continuing in 2024. Russia's surplus hit historic lows, while China's declined below 2020 levels after peaking in 2022. ASEAN-5 and Switzerland maintained stable surpluses, and the US held the largest global deficit.
- *FDI.* For two decades, advanced economies like the euro area showed net FDI outflows, while China, ASEAN-5, and emerging markets experienced inflows. In 2023, China had positive net outflows due to vanishing FDI inflows, while euro area net FDI fell close to zero driven by divestment operations from both residents and foreign investors.
- *Portfolio investment*. The euro area shifted from net inflows (2005-2013) to outflows (from 2015 onwards), except for temporary inflows in 2022. The US consistently attracted net inflows, surging in 2023 to 2008 levels. The UK showed quite some volatility over the years with multiple investment operations by UK residents followed by large acquisitions of foreign assets in 2023 and early 2024. China's role grew offshore but remained modest, with net outflows reversing partially in 2023.
- *Other investment*. This volatile category (loans, deposits, and trade credits) fell drastically post-2007 due to deleveraging by European banks. After years, in 2023, the euro area and the US saw net outflows, contrasting with the net inflows of the UK and other advanced economies. China moved from outflows (2020-2021) to net inflows (2022) and near-zero flows in 2023.
- *Official reserves*. The US and euro area hold minimal reserves due to the global role of their own currencies. Reserve changes are frequent for fixed-rate countries like Switzerland, which sold assets in 2023 after the collapse of Credit Suisse. Pandemic-related expansions in 2021 were followed by smaller changes in 2022-2023, driven by the US dollar strength and the rising interest rates.

This section presents the main components of the balance of payments to offer a broad overview of the direction of cross-border capital flows over time at the global level. Financial flows – encompassing FDI, portfolio investment, other investment, and changes in reserve assets and related items – are presented in both net and gross terms as they can yield distinct insights into the evolution of global financial integration.

For visualisation purposes, the global overview focuses on selected countries, i.e. the major world economies, and country groups as described in Box 2-1. It is worth noting that the IMF Balance of Payments (BoP) Statistics, the main data source for this section, do not include the EU as a single entity. However, they include the euro area, which for the purposes of this study, proxies the EU.

The report covers the period between 2005 and the second quarter of 2024, with a focus on the latest developments in cross-border financial flows.

Box 2-1. Country groups and concept definitions[3]

Country groups are identified to make the data visualisation readable. The groups are mainly based on common characteristics of countries and their global relevance, as measured by GDP. The grouping implies that not all world countries are included. The countries and groups of countries considered in the charts of this section are as follows:

- Euro area
- China
- Russia
- Switzerland
- United Kingdom
- United States
- ASEAN 5 – Indonesia, Malaysia, the Philippines, Singapore, and Thailand
- Other advanced – Australia, Canada, New Zealand, Japan, Hong Kong, Norway, and South Korea
- Other emerging and developing – Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Uruguay, India, South Africa, and Türkiye.

This section uses IMF BoP data. These data are categorised based on whether, from the point of view of the domestic economy, the investment pertains to an asset or to a liability relative to the rest of the world.

In line with this logic, **gross assets** measure the total purchases of foreign assets by domestic residents. This is conceptually equivalent to the notion of a gross **capital outflow**. However, because domestic residents may buy and sell foreign assets over a given period (a quarter or a year), the BoP records net purchases of foreign assets, termed **net acquisition of investment assets** by domestic residents. If, on aggregate and in a given period, domestic residents sell more foreign assets than they purchase, this implies that the net acquisition of foreign assets is negative for that period. Economically, this indicates that residents are divesting from foreign holdings.

Similarly**, gross liabilities** represent the sale of domestic assets by residents to foreigners. Because foreigners make a payment to residents, this is conceptually equivalent to the notion of a gross **capital inflow**. During a given period, foreign investors may not only purchase new assets but also divest from assets already acquired. Accordingly, the BoP records the net aggregate sale of domestic assets to foreigners, which, from the perspective of the domestic economy, are referred to as the **net incurrence of investment liabilities**. In instances where the sales by foreign investors exceed their new purchases, the net incurrence of liabilities turns negative. Economically, this indicates that foreign investors are divesting from the domestic economy.

Following this BoP assets and liabilities principle, when this report uses the concept of **net flows** it means the difference between the net acquisition of investment assets and the net incurrence of investment liabilities. Economically, in line with the previous explanations, this corresponds to the concept of **net capital outflows**.

2.1 Global overview

This subsection offers an overview of the main BoP components[4] for selected countries and country groups (as described above). These components provide insights about resource availability and potential constraints in lending and borrowing related to the real economy (net flows and positions), and also shed light on shifts in investor behaviour (gross flows).

[3] See the Glossary for more systematic definitions of the different components of the balance of payments and international investment positions, as well as different categories of investment (i.e. foreign direct investment, portfolio investment, other investment and asset reserves and related items).

[4] We start with a brief overview of the current account and then look at the financial accounts in detail. We do not cover the analysis of the capital account, which is the smallest part of the BoP recording capital transfers and non-produced, non-financial assets.

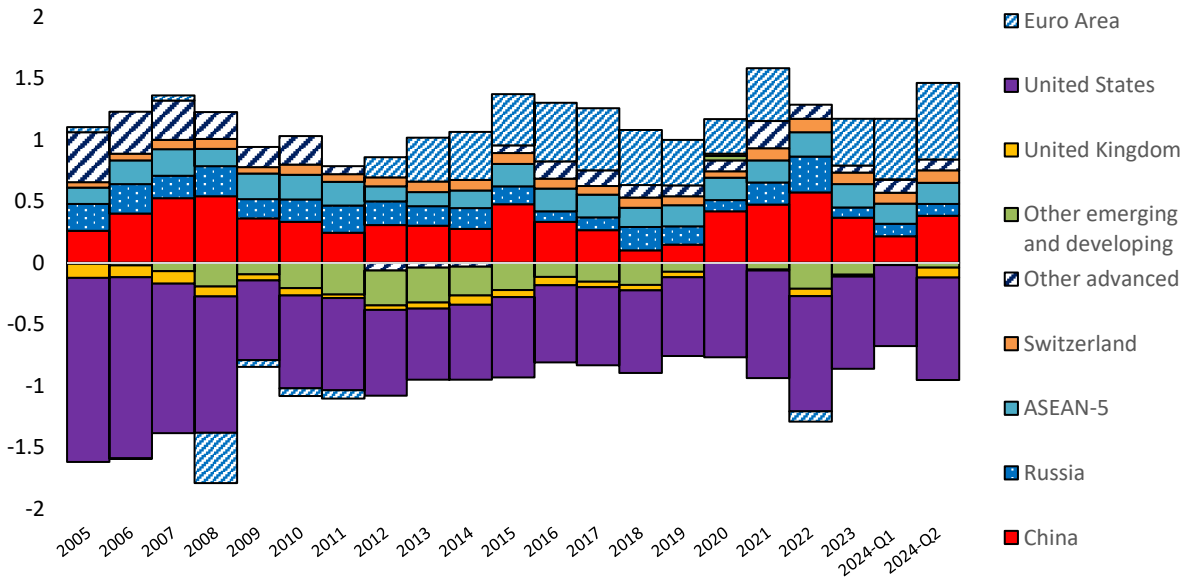
While the focus of this study is on financial flows, the current account offers an interesting starting point for the analysis. Over the past 20 years, the division between surplus and deficit countries has remained stable, with occasional shifts mainly in size (see Figure 2-1). Three regions consistently run deficits: the US (by far the largest), the UK, and the 'other emerging economies' (including BRIC countries except China, several Latin American nations, and Türkiye). Most other regions show current account surpluses, with the euro area and China recording the largest global surpluses over the past decade.

Some recent developments should be mentioned. In 2022, the soaring energy prices (following the Russian aggression towards Ukraine and the ensuing energy crisis) adversely affected euro area imports and pushed the euro area into a current account deficit for the first time since 2008. But in 2023, the euro area's current account rebounded strongly and returned to a surplus, the largest one at the global level (0.38 % of world GDP). A trend continuing in 2024, it is mostly driven by the exports of goods, but also the drop in natural gas and oil prices after the surge in 2022, which reduced the value of imported energy.

In 2022, surging oil and gas prices ballooned the value of Russia's exports, while imports were falling due to the sanctions, making its current account surplus only second to China on the global scale. By 2023, Russia's current account surplus had fallen below 0.1 % of world GDP, a historically low level[5]. For China, the return to the position of a major world exporter, which coincided with the outbreak of the pandemic, reached a peak in 2022, possibly due to the weakness of the EU economy. China's surplus declined quite substantially in 2023, below the 2020 level, and remained around the same level in the first half of 2024. Among the other regions with current account surpluses, both ASEAN-5 and Switzerland managed to keep their respective shares quite stable, after an increase in 2022.

In the group of countries with persistent current account deficits, the US leads the way by far. After increases in the deficit in 2020, it is now back to a similar pre-pandemic level, of around 0.7 % of world GDP, mostly due to a reduced deficit in goods (BEA, 2024). The UK deficit has exhibited some recent adjustments and narrowed in 2023 after widening substantially in 2022. A similar trend holds for the group of other emerging and developing countries.

Figure 2-1. Current account balances, 2005-2024Q2 (% of world GDP)

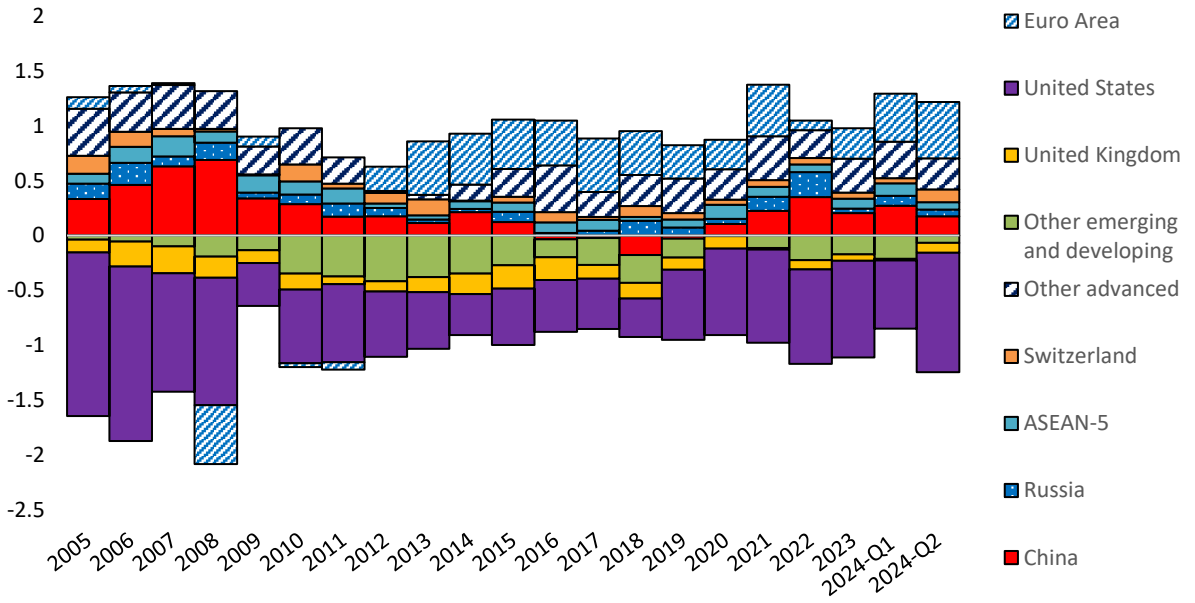


Sources: IMF, BoP and WEO, November 2024.

[5] https://interfax.com/newsroom/top-stories/98609/#:~:text=MOSCOW.,of%20%24315.6%20billion%20in%202022

Developments in the net balance of financial accounts largely reflect those for the current account[6] (see Figure 2-2). The 2023 large current account surplus in the euro area was matched by significant net capital outflows, after the considerable decline experienced in 2022, when the current account deficit was accompanied by large net sales of foreign assets by euro area residents, particularly of US and UK assets (see Section 4.1 for a detailed analysis). In 2023, the decrease in the liabilities of the Eurosystem considerably contributed to the positive financial balance of the euro area[7]. In 2023, China faced a substantial contraction of its financial account balance compared with the previous year, reflecting the fall in the current account surplus. The biggest drop, however, was recorded for Russia, whose financial account balance contracted by more than half. By comparison, other emerging and developing countries showed only a slight adjustment in their financial balances. This holds also for the US, whose financial balance remained stable compared with 2022. The data for the first two quarters of 2024 show some variability but the average points to a stable negative balance.

Figure 2-2. Financial account balances, 2005-2024Q2 (% of world GDP)



Sources: IMF, BoP and WEO, November 2024.

Notes: IMF reports the financial account balance as the net lending (+)/net borrowing (-). Net lending means that, in net terms, the economy supplies funds to the rest of the world, taking into account acquisitions and disposals of financial assets and incurrences and repayments of liabilities. (Net borrowing means the opposite.)

While the financial accounts in the balance of payments capture the capital flows during a given period, reflecting the net acquisition of foreign assets and the net incurrence of liabilities, the international investment position (IIP) reports the stock of accumulated foreign assets and liabilities to the rest of the world at a given point in time. The IIP includes the cumulative foreign investment a country holds (assets to foreigners) and owes (liabilities to foreigners), thereby offering a comprehensive view of the country's financial position relative to the rest of the world.

Historically, the euro area had maintained a net debtor position, reflecting sustained net inflows of capital over several years. Then, in more recent years this position gradually declined to zero. By 2021, the euro area had become a net global lender (see Figure 2-3). By 2023, its net lending position had grown to 0.6 % of global GDP. This shift was driven by

[6] The two accounts may not fully match as flows recorded under the capital account, while typically minor, should also be added to the current account to match the financial account. Furthermore, errors and omissions reflect discrepancies in data collection and timing differences, and reporting gaps also can lead to differences.
[7] https://www.ecb.europa.eu/press/stats/bop/2024/html/ecb.bp240220~625de75d3

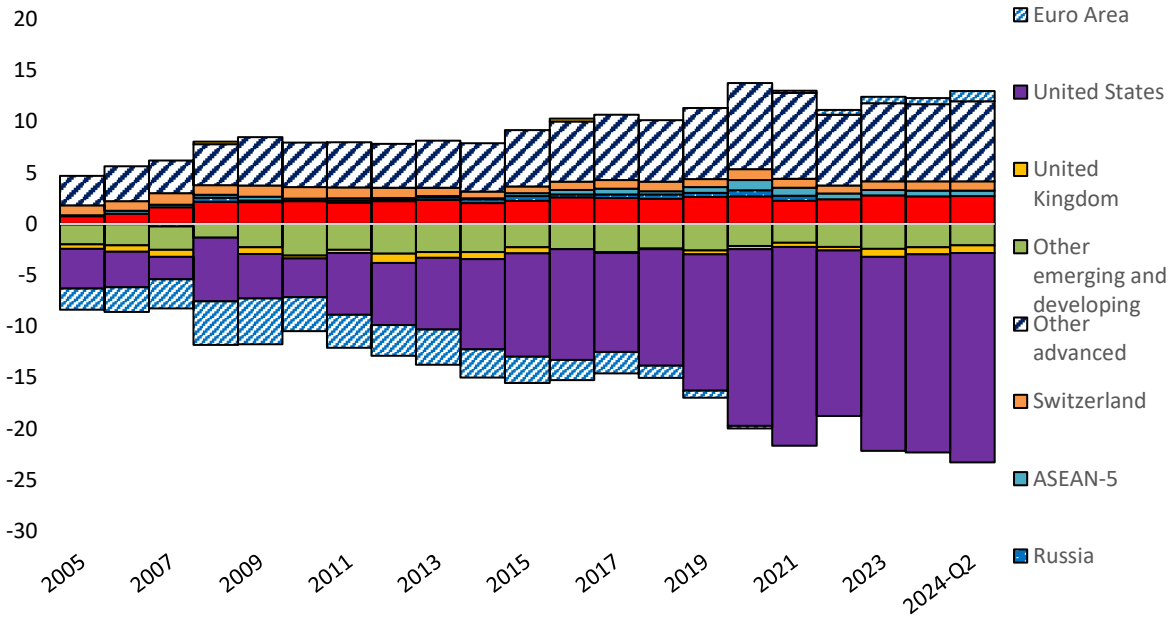
increased foreign investment abroad made possible by the region's persistent and significant current account surpluses over the past decade (see details in Box 2-2).

By contrast, the US has consistently expanded its net debtor position, with only a brief reduction in 2022. This reflects the central role of the US as a global destination for foreign investment and the dominant status of the US dollar as an international reserve currency[8].

The group of other advanced economies, which includes several countries with systematic current account surpluses like Japan, Norway and Australia, has shown rapid growth as a world creditor. Despite the slowdown in 2022, at the end of 2023, the group's holdings rebounded to reach a level of net foreign assets equivalent to almost 8 % of world GDP.

All other countries or groups of countries exhibited very small variations in their holdings and maintained their position as either a debtor (the UK and the group of other emerging economies) or a creditor (all the others).

Figure 2-3. Net international investment position, 2005-2024Q2 (% of world GDP)



Sources: IMF, BoP and WEO, November 2024.
Note: The data for Russia are not available for 2022-2024.

Box 2-2. Composition of the euro area's net international investment position

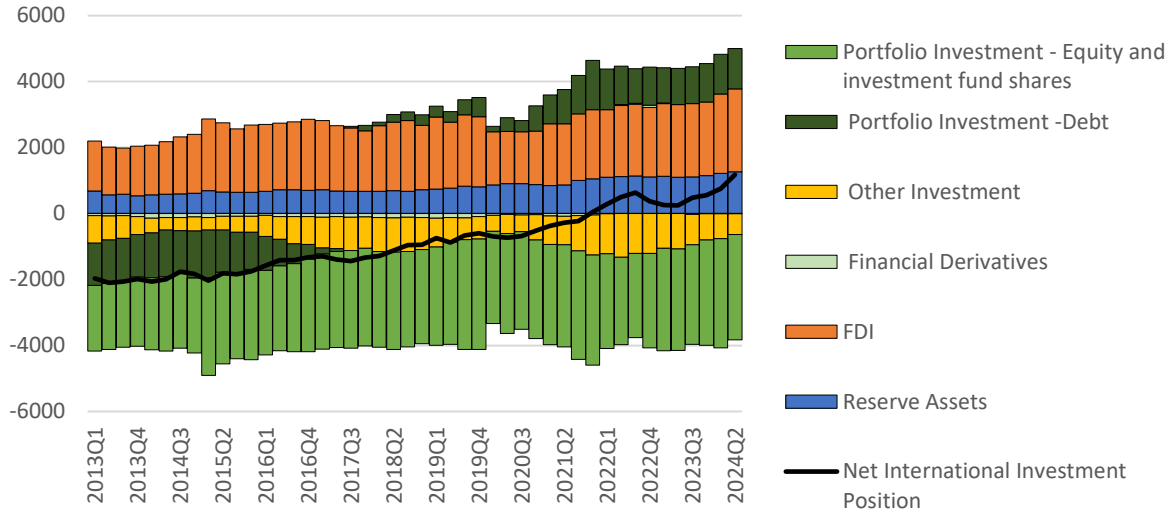
Considering the development of the euro area's net international investment position, we see a shift which is driven by investment in debt securities. Until mid-2021, the euro area was a net debtor, with net IIP mainly negative on balance, reflecting net capital inflows. This trend has reversed since then, and the euro area is now a net lender to the rest of the world, mainly due to an increase in holdings of foreign (mainly US) securities by euro area residents. US government bonds, in particular, have historically served as a safe haven for investors, especially during turbulent times when investors are seeking stability amid uncertainty. Geopolitical tensions, particularly the Russian invasion of Ukraine, have further increased this sentiment. In addition, the divergent timing and speed of monetary policy tightening actions by the Fed and the ECB have made US debt securities market particularly appealing. Against this backdrop, US securities, in addition to providing diversification opportunities to investors, have also offered income that was previously only achievable through riskier assets.

[8] Holdings of US dollar-denominated assets by foreign investors contribute to the US net debtor position.

By comparison, other categories of investment, including portfolio investment in equities, do not show any particular change. That being stated, the positive net FDI by euro area residents (or net FDI outflows) has slightly increased since mid-2021.

Figure 2-4. Net international investment position of the euro area, 2013Q1-2024Q2 (EUR billion)

(net amounts outstanding at the end of the period)



Source: ECB.

The rest of this section analyses recent developments in the four main categories of financial flows recorded in the BoP, namely *foreign direct investment*, *portfolio investment*, *other investment* and the additional category of *changes in the (official) reserve assets*.

2.1.1 Foreign direct investment

For two decades, the euro area and the other advanced economies consistently had net FDI outflows, while China, ASEAN-5 and other emerging economies had net FDI inflows. Over the same period, the US and UK experienced fluctuations in their net FDI (see Figure 2-5).

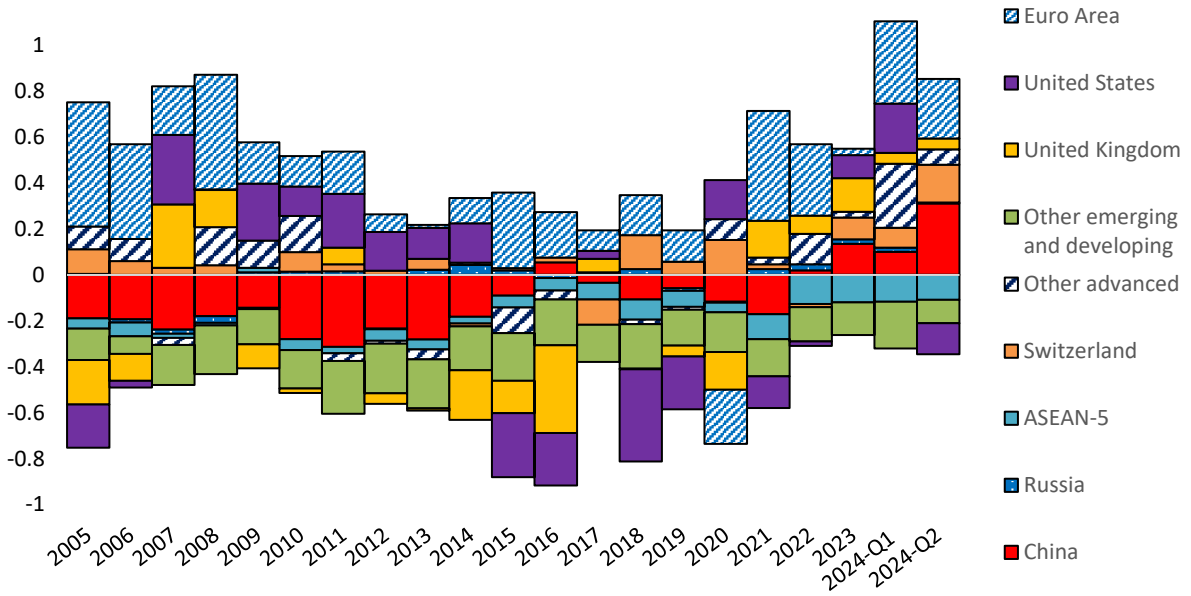
The year 2020 was exceptional for the euro area, marking the first time in two decades that the region experienced net inflows (see negative sign in Figure 2-5). This was driven by the COVID-19 pandemic and the resulting uncertainty, which caused global disruptions in FDI flows (see Moosa and Merza, 2022) and led to many European investment projects abroad being put on hold. In the following two years, net FDI flows abroad rebounded (turned positive) and expanded compared with the rest of the world. In 2023, net euro area FDI fell to close to zero. Interestingly, as shown in Figure 2-6, the underlying gross flows suggest that divestment operations (negative sign) of almost equal size have been occurring by both residents and foreign investors. Notably, substantial divestment operations by foreign investors were already taking place in 2022, but the first half of 2024 points to a rebound. These developments are explored further in Section 3.

When looking at the rest of the world, one striking development in 2023 is that China, after two decades, had positive net FDI outflows, mainly on account of almost vanishing FDI inflows. Rising geopolitical tensions are the most likely explanation for this change. Economic security concerns in Western countries, like those driving US policies to restrict investment in China in

sensitive sectors[9] and increased Chinese scrutiny of foreign investment, are reducing the attractiveness of China as a destination for FDI.

Developments in other regions are much less remarkable. While net FDI outflows of other advanced economies somewhat declined in 2023 compared with the previous year, it is rather the magnitude of the net outflows in 2022 that was quite exceptional. For the rest, both net and gross FDI flows exhibited stable patterns between 2022 and 2023.

Figure 2-5. Net FDI flows (net capital outflows), 2005-2024Q2 (% of world GDP)

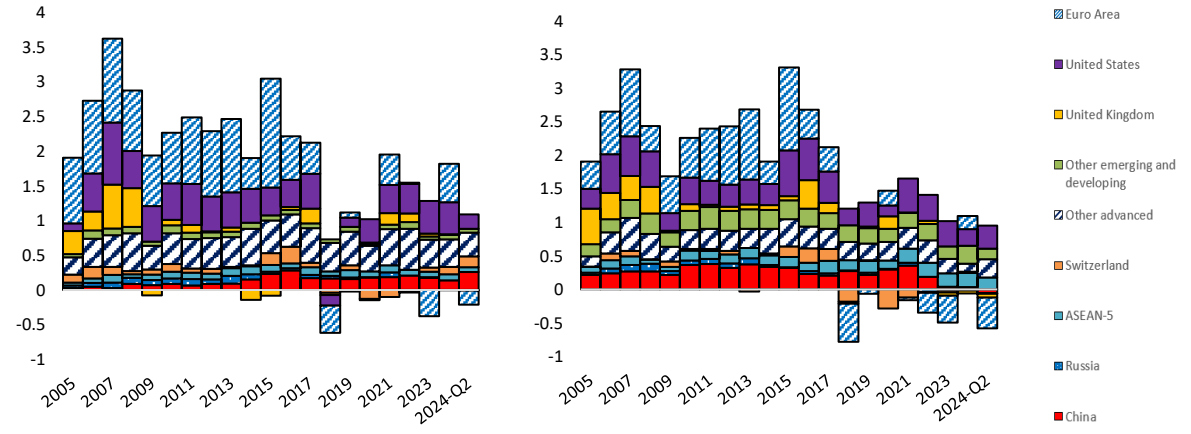


Sources: IMF, BoP and WEO, November 2024.

Note: net FDI is derived as the net acquisition of direct investment assets by domestic residents less the net incurrence of direct investment liabilities by domestic residents with foreign residents (net outflows minus net inflows).

Figure 2-6. Gross FDI flows, 2005-2024Q2 (% of world GDP)

Gross outflows (net acquisition of assets) *Gross inflows (net incurrence of liabilities)*



Sources: IMF, BoP and WEO, November 2024.

2.1.1.1 Greenfield FDI and M&A activities

[9] On 9 August 2023, after more than a year of deliberations, the Biden administration finally released an executive order directing the Treasury to create a new regulatory programme to prohibit or require notification of outbound US investment towards China in certain sensitive sectors.

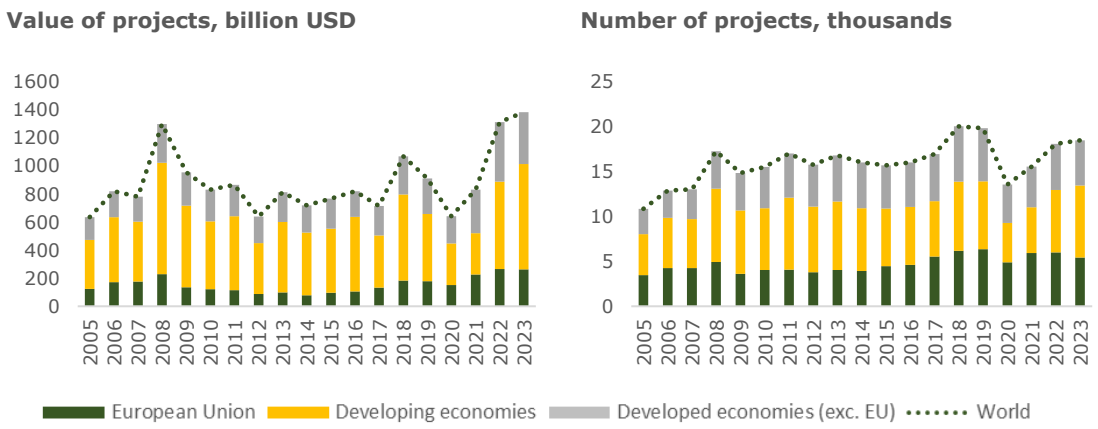
Within FDI, greenfield investment and mergers and acquisitions (M&A) stand out as two primary strategies for entering foreign markets. Greenfield FDI involves establishing new operations, for new production or service capacities, from the ground up in a foreign country. M&A refers to the process of acquiring or merging with existing companies in the target market.

Greenfield FDI contributes to the host country's economy by enhancing its capital structure, creating jobs and revenues, and fostering technological transfer and innovation. Cross-border M&A, in comparison, can be a powerful strategy for companies to grow, adopt new trends, diversify, and strengthen their market position internationally. Both greenfield investment and cross-border M&A can promote domestic entrepreneurial activities as important driving forces of economic growth (Nguyen, 2022).

Looking at the recent developments, after a year of significant growth in 2022, global investment activities slowed down and remained relatively subdued in 2023, growing only by 5 % in value terms and by 2 % in the number of projects in comparison with 2022 (see Figure 2-7). The limited growth was contained by declining investment activities (in both the value and the number of projects) in developed economies. By contrast, greenfield investment in developing countries continued to grow in 2023 albeit at a lower rate than the previous year. Taking a historical perspective, however, despite the decelerating growth rate, the value of greenfield investment globally remains high.

Similarly, the value of announced EU greenfield FDI projects, despite a slight decline in 2023 (the number of projects dropped by 10 %), is still above the historical average.

Figure 2-7. Announced greenfield FDI projects by destination, 2005-2023



Source: Authors' elaboration based on data from UNCTAD, World Investment Report (2023).

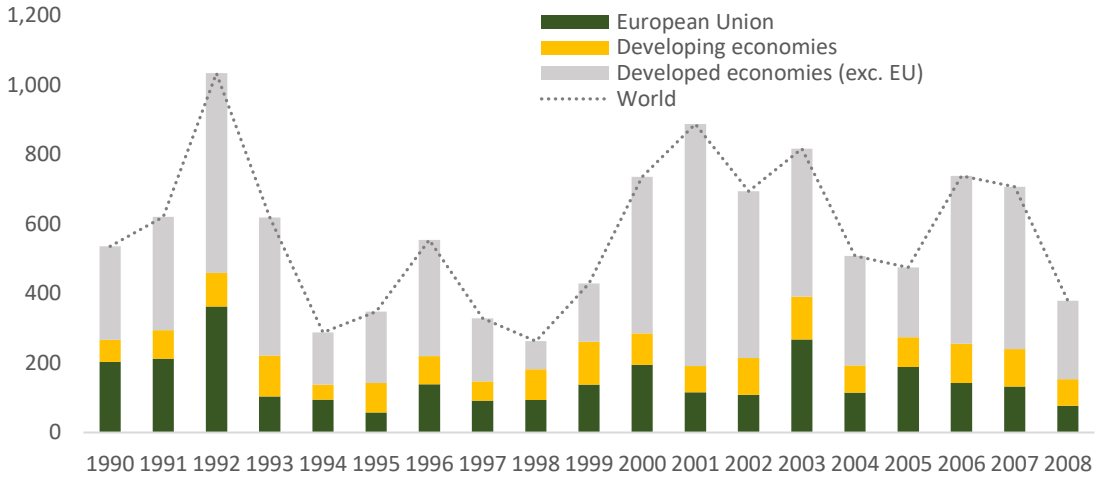
The global, cross-border M&A market faced a significant decline in 2023, dropping by 46 % in value, marking the steepest fall since the global financial crisis of 2007-2008 (see Figure 2-8). This downturn predominantly impacted developed economies. The EU faced a deterioration in sales (-42 %) but also in purchase (-28 %) values in 2023. The contraction in the EU was broad-based and observed across different sectors, including traditionally strong industries such as technology, media and telecoms, and industrials and chemicals[10].

According to UNCTAD's World Investment Report (2024), the key factors contributing to the decline in M&A activities in 2023 were stricter financing conditions, investor uncertainty,

[10] https://www.lexology.com/library/detail.aspx?g=d795e8bd-233c-4df0-8d63-12823cd395e5.

financial market volatility, and increased regulatory scrutiny of cross-border M&A activities. In the EU, besides high interest rates, both uncertainty around the ongoing conflict in Ukraine and proposed energy market reforms have weighed on M&A activities. Also, high inflation and the persistently rising cost of living dampened consumer spending and, in turn, M&A in the consumer sector.

Figure 2-8. Value of net cross-border M&A by region/economy of seller, 1990-2023 (USD billion)



Source: Authors' elaboration based on data from UNCTAD, World Investment Report (2024).

2.1.2 Portfolio investment

Portfolio investment involves cross-border transactions[11] in tradable financial instruments such as equity securities (stocks or shares), debt securities (bonds) and derivatives. As they are characterised by higher sensitivity to returns than FDI, they typically exhibit high volatility, often owing to changing macroeconomic conditions. Because of the type of underlying instruments, they are more relevant for advanced economies with well-developed financial markets. For this reason, the US, euro area and UK account for the largest part of the global portfolio flows.

Over the last 20 years, the euro area has been characterised by portfolio investment cycles (see Figure 2-9). From 2005 to 2013, the region was continually a net recipient of portfolio investment (net inflows) whereas from 2015 onwards it became a net investor (net outflows). In 2022, euro area net outflows turned negative again. Yet, this was mostly driven by sales of foreign debt and equity securities by euro area residents (see the negative bar in Figure 2-10), rather than greater portfolio investment by foreigners, which hovered at around zero (for a more detailed explanation, see Section 6.1). For 2023 and the first half of 2024, data still point to net inflows, but the underlying factors are back to the historically standard case with the net incurrence of liabilities (inflows) being larger than the net acquisition of assets (outflows).

Unlike the euro area, the sign of US net portfolio flows has remained stable. The US appears to be a net recipient of portfolio investment throughout the period. The main variation is in the magnitude of the flows, which declined substantially in the aftermath of the global financial crisis and then expanded again in 2022. In 2023 and the first half of 2024, US net inflows expanded remarkably to levels comparable with 2008 and before, essentially due to large inflows and small outflows, which is a rather exceptional situation for the US.

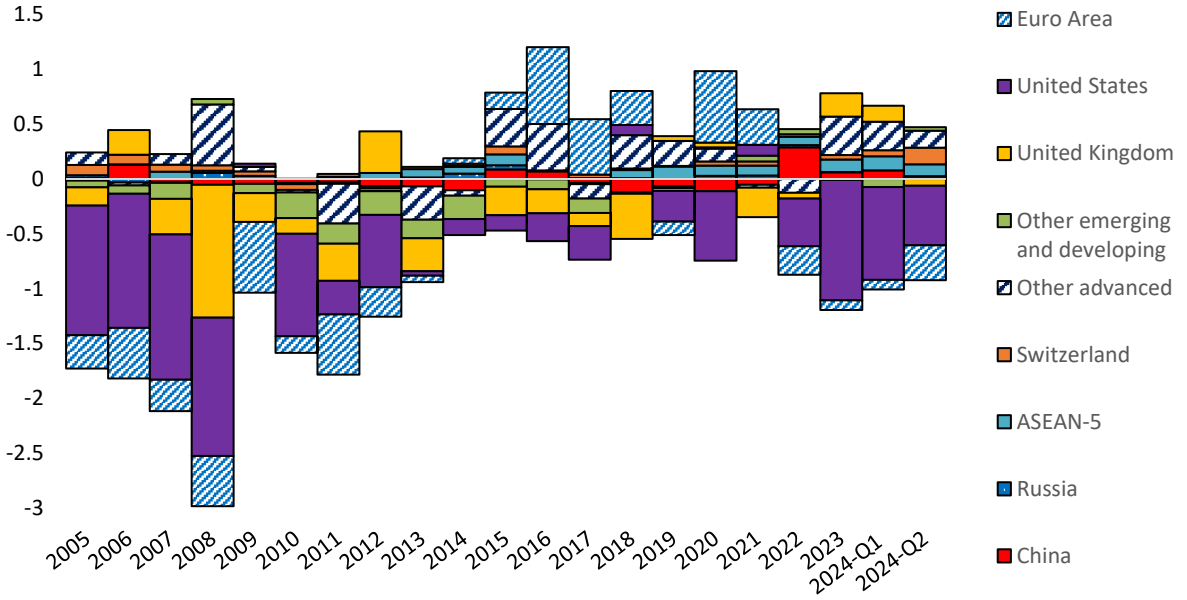
In the UK, the sign of the net flow is much more volatile than in the US or the euro area. The main visible trend is in its size, which has grown much smaller in recent years. The gross flows

[11] With the exception of transactions related to the direct investment component of the financial account or to the changes in reserve assets.

point to multiple divestment operations by UK residents (see the negative sign in Figure 2-10Figure 2-10). In 2023 and to a lesser extent until mid-2024, the return to rather substantial net outflows stemmed from large acquisitions of foreign assets by UK residents.

Despite its size in the global economy, China's role in portfolio investment appears modest. Still, according to Clayton et al. (2023), China has witnessed important growth in offshore capital markets. They argue that Chinese firms increasingly use global tax havens to access foreign capital in equity and bond markets. In 2022, China reached a record high of net portfolio investment outflows, which reduced significantly in 2023, but data for the first half of 2024 suggest a return to the previous trend (Figure 2-9).

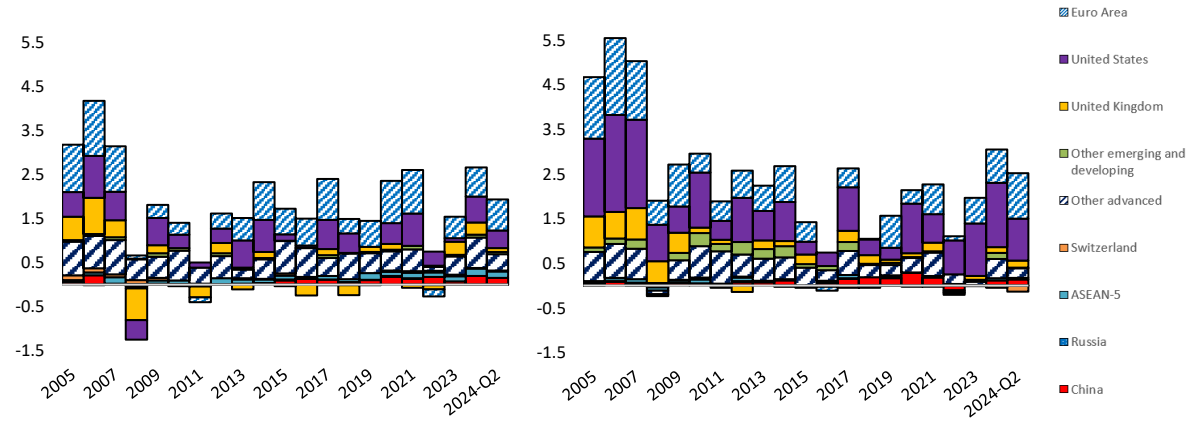
Figure 2-9. Net portfolio investment flows (net capital outflows), 2005-2024Q2 (% of world GDP)



Sources: IMF, BoP and WEO, November 2024.

Figure 2-10. Gross portfolio investment flows, 2005-2024Q2 (% of world GDP)

Gross outflows (net acquisition of assets) *Gross inflows (net incurrence of liabilities)*



Sources: IMF, BoP and WEO, November 2024.

Notes: For assets, a positive (negative) number indicates net purchases (sales) of foreign instruments by domestic investors. For liabilities, a positive (negative) number indicates net purchases (sales) of domestic instruments by foreign investors.

2.1.3 Other investment

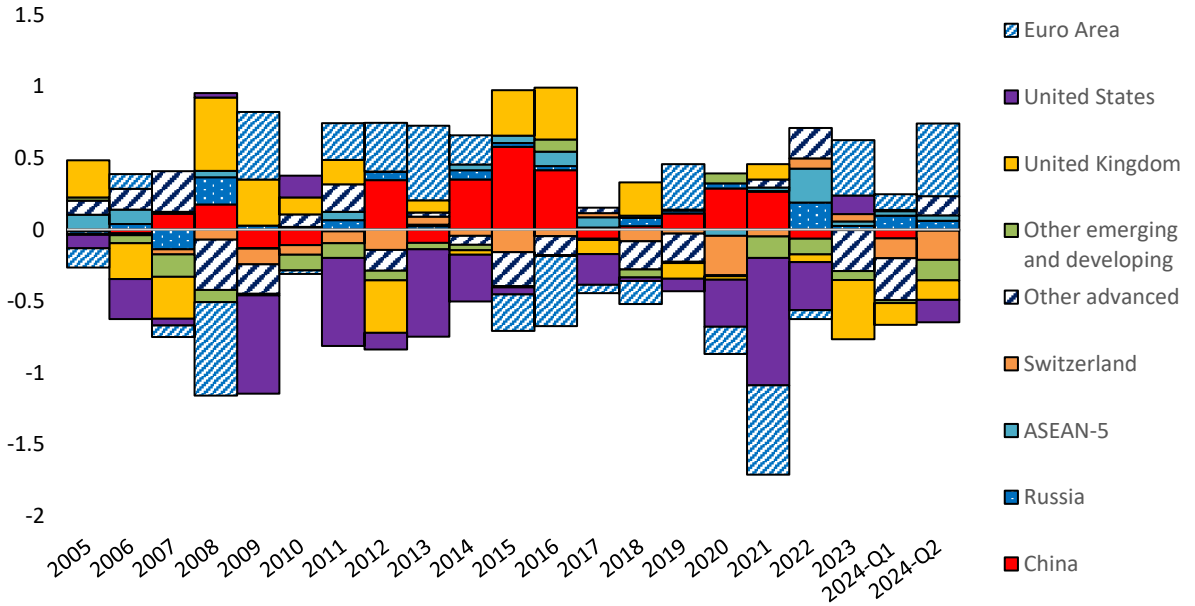
The 'other investment' category primarily includes loans, deposits, and trade credits, covering the activities of international banks, governments, and non-bank corporations. These flows tend to be very volatile and strongly influenced by macroeconomic conditions. Similar to portfolio investment, other investment is particularly relevant for advanced economies with internationalised banking systems.

In the wake of the global financial crisis, cross-border activity in this investment category (gross inflows and gross outflows) declined abruptly (see **Figure 2-11**). Before 2007, gross flows were 4 to 6 times the average flows observed in the following 15 years. The decline was driven by the balance sheet deleveraging (contraction) of the major international banks, especially from euro area countries, e.g. France and Germany, as well as in Switzerland and the UK. Gross flows have never returned to pre-crisis levels. Since then, they have remained volatile and relatively small in size.

Interestingly, in contrast to gross flows (see Figure 2-12), net other investment flows did not exhibit a sharp change around the financial crisis, only a generalised mild reduction in the total flows after 2016 (**Figure 2-11**). In recent years, the euro area has alternated between net outflows (positive bar) and inflows (negative bar). Similar patterns have been observed in the US. In 2023, for the first time since the pandemic, both the euro area and the US saw net other investment outflows, with the euro area recording a larger share at 0.33 % of world GDP. For the euro area, this change followed large net inflows in 2020 and 2021, which had turned to zero in 2022. The significant net outflow in 2023 resulted from a combination of outbound investment by euro area residents and divestment by foreign investors.

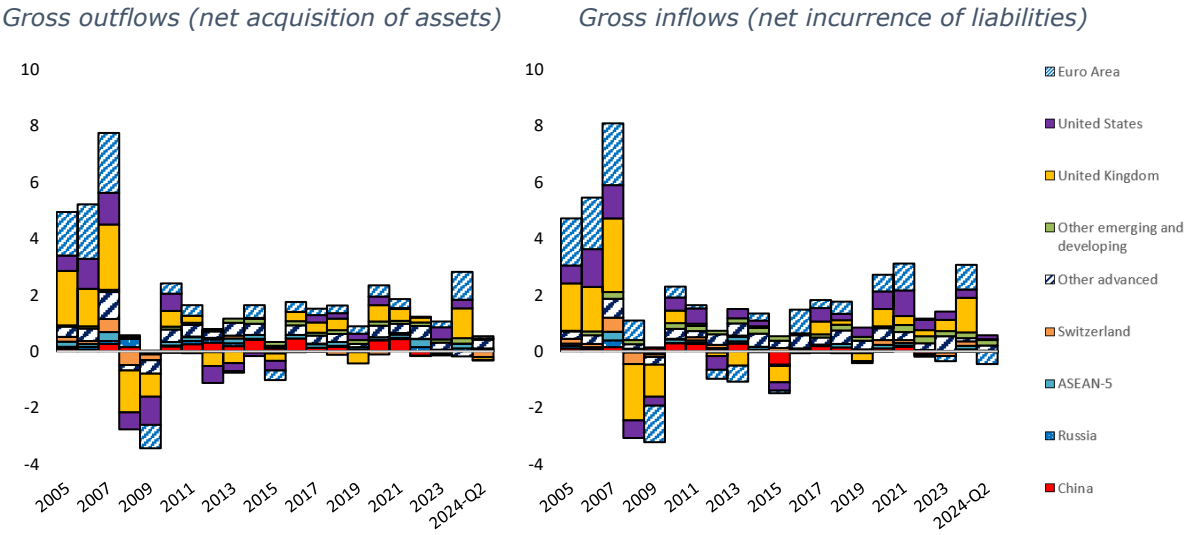
Unlike developments in the US and the euro area, the UK and other advanced economies experienced significant net inflows in 2023, comparable in size to the euro area's outflows. By contrast, China saw substantial net outflows in 2020 and 2021, which turned into net inflows in 2022 and then zeroed in 2023.

Figure 2-11. Net other investment flows (net capital outflows), 2005-2024Q2 (% of world GDP)



Sources: IMF, BoP and WEO, November 2024.

Figure 2-12. Other investment flows, 2005-2024Q2 (% of world GDP)

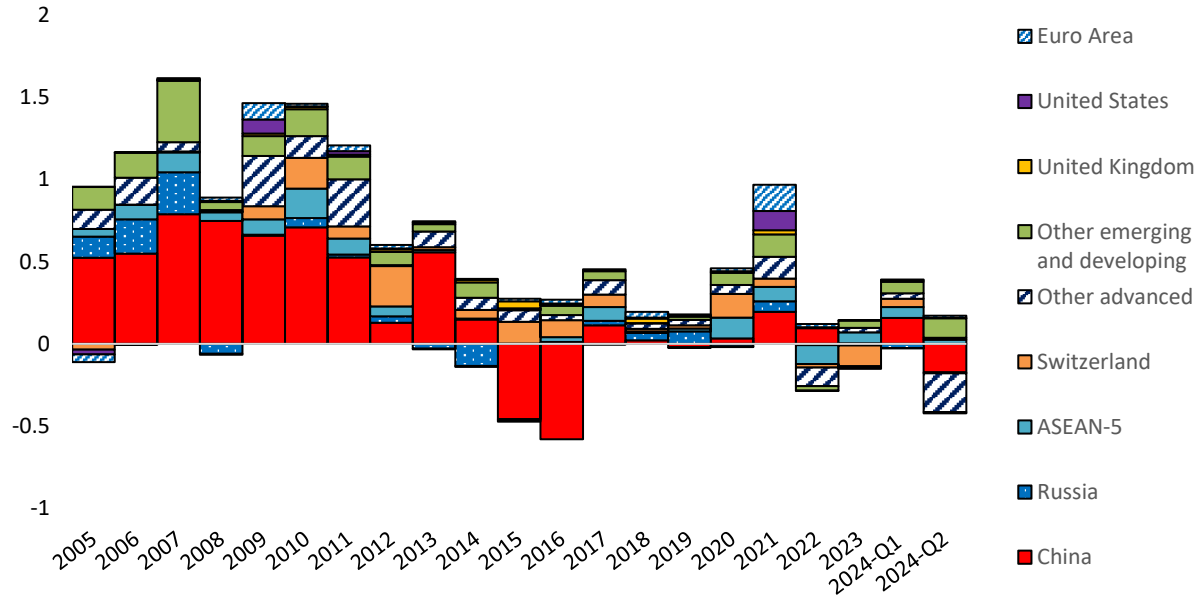


Sources: IMF, BoP and WEO, November 2024.

2.1.4 Changes in (official) reserve assets

Official reserves are assets held by monetary authorities. They consist of plain vanilla financial instruments and are used to provide or absorb the liquidity necessary to facilitate, by various means, the adjustment of an imbalance of payments between a country and the rest of the world. In any given period, the changes in the official reserves equal the sum of the current account and the financial account, with an opposite sign. That ensures that the balance of payments is always in balance. The available data suggest that the magnitude of annual changes in official reserves dropped significantly around 2013, primarily spurred by developments in China (see Figure 2-13).

Figure 2-13. Reserve assets, changes, 2005-2024Q2 (% of world GDP)



Sources: IMF, BoP and WEO, November 2024.

Indeed, at that time China stopped the accumulation of foreign reserves, mostly US dollar-denominated bonds. Between the end of 2014 and early 2017, China's reserve assets fell by about USD 850 billion (from USD 3.85 trillion to 3 trillion), as the People's Bank of China intervened heavily in the forex market by selling foreign exchange reserves, primarily USD, to support the yuan in the face strong depreciation pressure. Since then, Chinese reserve assets have only shown relatively small changes, remaining between USD 3 billion and 3.25 billion. The data for 2024 point to some volatility, with China but also other advanced economies alternating between positive and negative changes over the two quarters.

With few exceptions, the US and the euro area are barely visible in the chart. As the euro and the US dollar are the major international currencies, neither the US nor the euro area need to hold official foreign reserves to ensure the convertibility of their (international) currencies. Moreover, in a free-floating exchange rate regime, reserve assets are not needed, as there is no need to hold a stock of reserve assets to maintain the external value of the domestic currency. Lately, the two main (positive) changes in reserve assets have been associated with major crises, namely the global financial crisis and the pandemic. At those times, in 2008 and in 2020, the Fed, the ECB and the other major central banks engaged in mutual swap agreements to make sure that they could provide liquidity in foreign currency, if needed, and thus stabilise the domestic banking sectors that were asked to repay foreign currency liabilities.

Changes in official reserve assets are most frequent for countries with fixed exchange rates, mostly emerging and developing economies, or managed floating forex regimes. An example of the latter is Switzerland. Despite the small size of the country, changes in the assets of the Swiss National Bank (SNB) can be very large even from a global perspective, as the SNB occasionally intervenes in the foreign exchange market to stabilise the Swiss franc, typically against appreciation pressures (the country is considered a 'safe haven' and large capital inflows can lead to an appreciation of the Swiss franc). Exceptionally, in 2023 the SNB intervened with important sales of foreign-denominated assets in response to financial instability driven by the collapse of Credit Suisse.

Positive changes in the accumulation of assets are visible in 2021 across most countries, most likely as a response to the pandemic crisis. Reserves expanded around the world, notably in China, the euro area, the US, other advanced economies, and emerging and developing economies. By contrast, the following two years appear characterised by very small changes on a global scale, with a combination of positive and negative changes. In 2022, the negative change in reserves, i.e. a reduction in the stock of reserves, took place mainly in ASEAN-5 (particularly Singapore), as well as other advanced economies. This is likely to be associated with the strong appreciation of the US dollar, following a 425-basis point increase in the reference rate, throughout the year. In 2023, if the SNB's interventions are excluded, the changes in global official assets remained contained.

3 Intra-EU capital flows

Key findings

- *Intra-EU flows*. The surge in intra-EU capital flows during 2020, which peaked at a historical high in late 2021, was followed by a sharp decline from mid-2022, primarily due to almost-vanishing FDI and falling portfolio flows. While portfolio investment has shown a strong recovery since mid-2023, other investment has plummeted, signalling a shift in the composition of intra-EU flows.
- *Intra-EU FDI flows*. These are typically stable and large, but have declined consistently since 2018 to a relatively low level on average while exhibiting high volatility. This pattern mirrors extra-EU FDI trends.
- *Financial integration*. Despite the setbacks, when viewed in a historical context – and considering the magnitude of the shocks experienced – financial integration in the euro area has remained relatively high, highlighting a notable degree of resilience.
- *Risk sharing.* This aspect has improved markedly since 2020, particularly in the euro area. The credit channel, reflecting national fiscal policy responses and EU measures to address COVID-19, has been the primary driver. EU transfers have also played a significant role, alongside capital markets, which – unlike during the euro area crisis – have contributed to smoothing the large shock.
- *Regulatory barriers*. These barriers, as measured by the OECD, despite appearing small, operate as an obstacle to FDI and call for reform. The most restrictive regulatory barriers to cross-border investment within the EU are those related to business establishment and operations, which is consistent with previous findings on business surveys (European Commission, 2020b).

This section begins by outlining recent trends in intra-EU capital flows across different investment categories. It then reviews developments in euro area financial integration and analyses the functioning of risk-sharing mechanisms in response to recent shocks, accounting for the role of EU financial market integration and policy support. Lastly, it analyses the potential impact of regulatory barriers to capital mobility in the EU, with a focus on FDI.

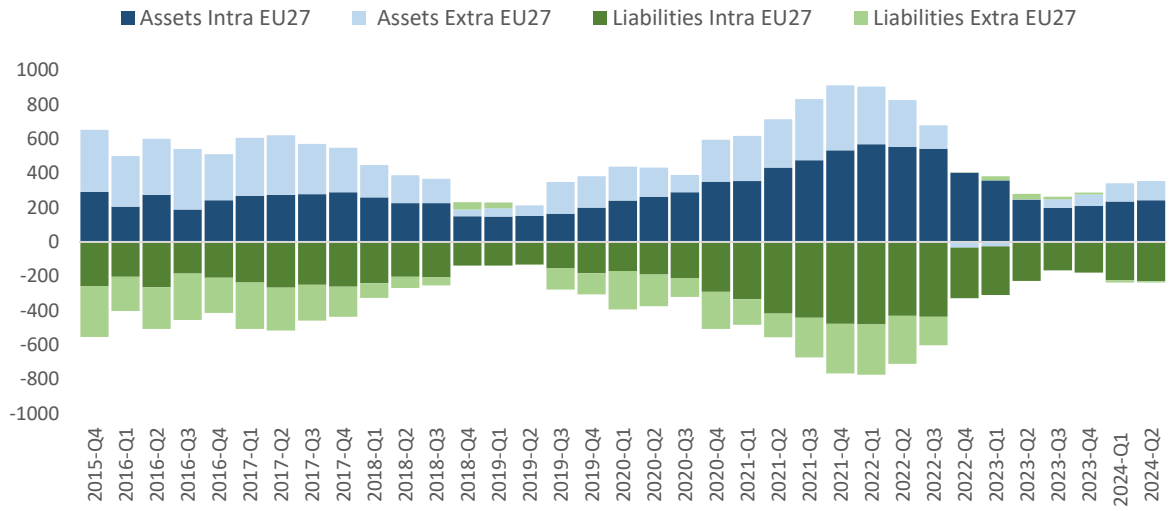
3.1 Intra-EU flows: recent developments

The EU is a very open economy and historically extra-EU flows have been as important as intra-EU flows, at least until around 2018. Since then, total EU flows have largely been dominated by the intra-EU component (see Figure 3-1). Between 2018 and 2023, total EU gross flows (intra- and extra-EU assets and liabilities) exhibited a marked cyclical pattern, with two distinct troughs in 2018-2019 and 2023, and a peak in 2021, with intra-EU flows leading the recovery.

Since then the most significant development has been the decline in extra-EU assets and liabilities. In 2022, extra-EU assets turned negative[12], suggesting more foreign divestment than investment operations by EU residents. The data for the first half of 2024 seem to confirm the end of the disinvestment wave and a recovery in the size of extra-EU assets. By contrast, investment in the EU by foreigners (i.e. extra-EU liabilities) has never really recovered.

[12] In the figure, the sign is negative for liabilities, for visualisation purposes.

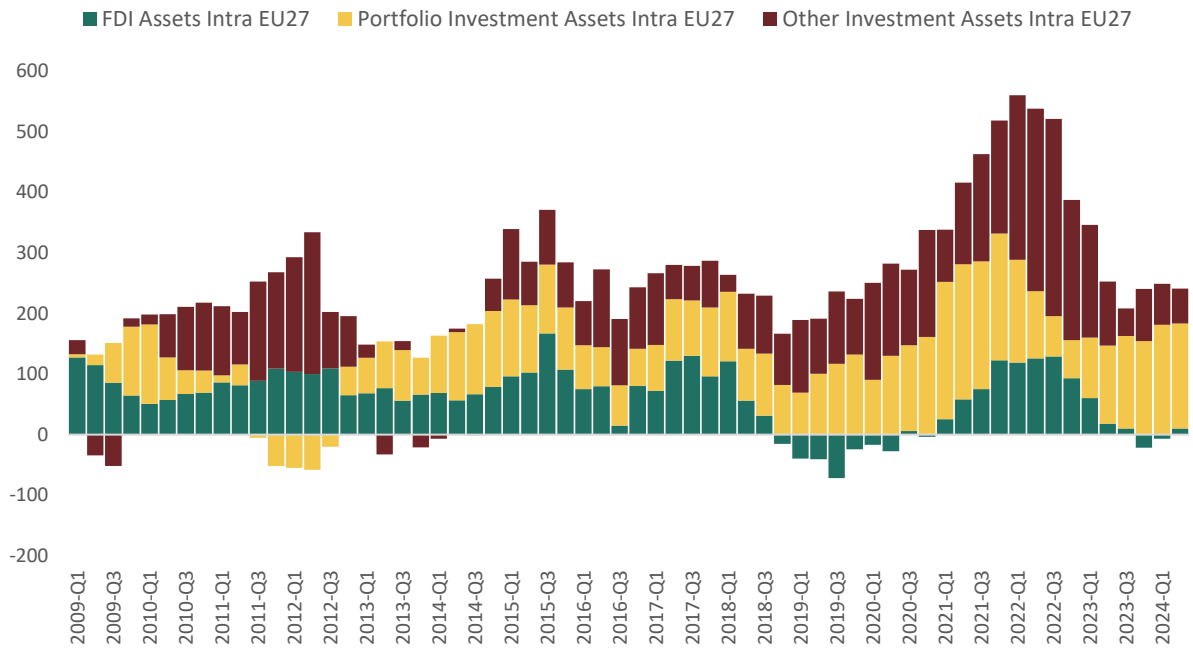
Figure 3-1. EU-27 gross flows, intra- vs extra-EU-27, 2015Q4-2024Q2 (EUR billion)



Source: Eurostat, BoP data.
Notes: Moving average over 4 quarters. Liabilities are represented with a negative sign for visualisation purposes. Positive (negative) asset flows correspond to EU residents acquiring more (less) assets abroad than they dispose of. Negative (positive) values for liabilities correspond to non-EU residents acquiring more (less) assets in the EU that they dispose of.

A closer examination of gross intra-EU assets reveals a surge in outflows during 2020, peaking at a historical high by late 2021 (see Figure 3-2). This was followed by a sharp decline from mid-2022, mainly due to almost-vanishing FDI and falling portfolio flows. While portfolio investment has shown a strong recovery since mid-2023, other investment has plummeted, signalling a shift in the composition of intra-EU flows.

Figure 3-2. Gross assets, intra-EU-27, 2008Q4-2024Q2 (EUR billion)



Source: Eurostat, BoP data.
Note: Moving average over 4 quarters.

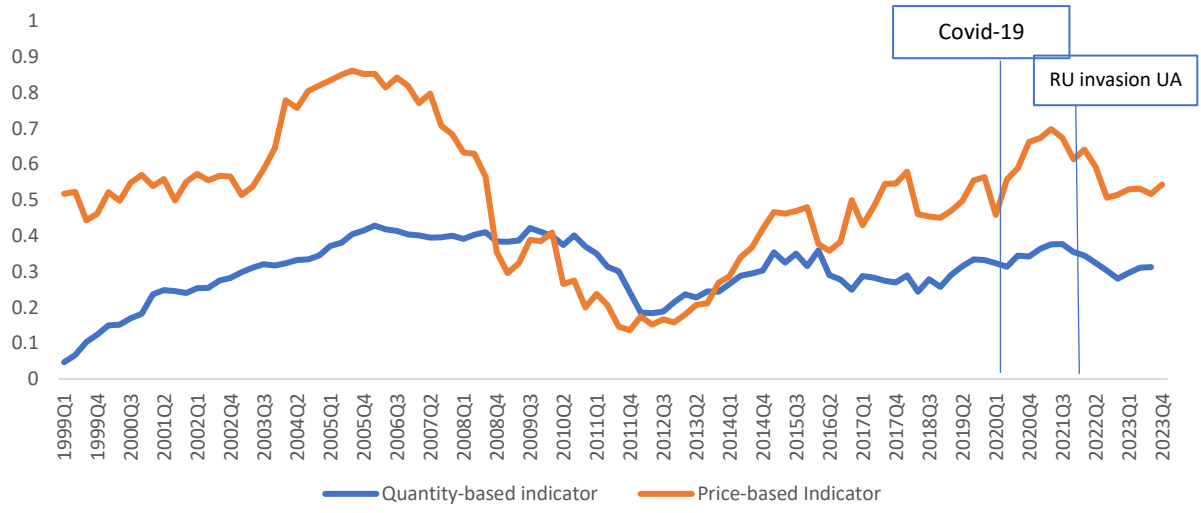
From a historical perspective, several noteworthy patterns emerge. During the financial crisis, the euro area sovereign debt crisis and until 2014, intra-EU portfolio and other investment flows exhibited high volatility, and on a few occasions vanished and even turned negative – a reflection of the financial fragmentation that characterised those years. After 2014, and even more so after 2018, both asset classes experienced significant recovery and marked stability, including during the COVID-19 pandemic and to some extent the energy crisis. By contrast, FDI, which had shown resilience during the financial crisis, has declined consistently since 2018. Over the past 6 years, FDI flows have been relatively low on average and highly volatile. This pattern mirrors the extra-EU FDI trends discussed in Section 6, suggesting that heightened FDI volatility reflects a broader structural shift in this asset class rather than specific EU economic conditions.

3.2 Financial integration[13]

The occurrence of two significant shocks – the COVID-19 pandemic, and the conflict in Ukraine and subsequent energy crisis – served as a critical litmus test for the resilience of euro area financial integration.

At the onset of these crises, escalating uncertainty triggered apprehension among market participants, leading to heightened tensions in various markets. Yet, timely interventions, chiefly by central banks, effectively mitigated the situation. Up until the close of 2021, indicators of euro area financial integration, measured in both quantity and price terms, demonstrated positive trends. Following a period of divergent patterns between the two indicators, the quantity-based indicator rebounded after 2020, mirroring the trajectory of the price-based indicator. These developments suggest a robust state of financial integration. However, starting in 2022, both indicators began to show signs of deterioration (see **Figure 3-3**).

Figure 3-3. Euro area financial integration, 2002Q1-2023Q4



Source: Authors' calculations based on ECB, Financial integration and financial structure indicators, financial integration composite indicators 2024.

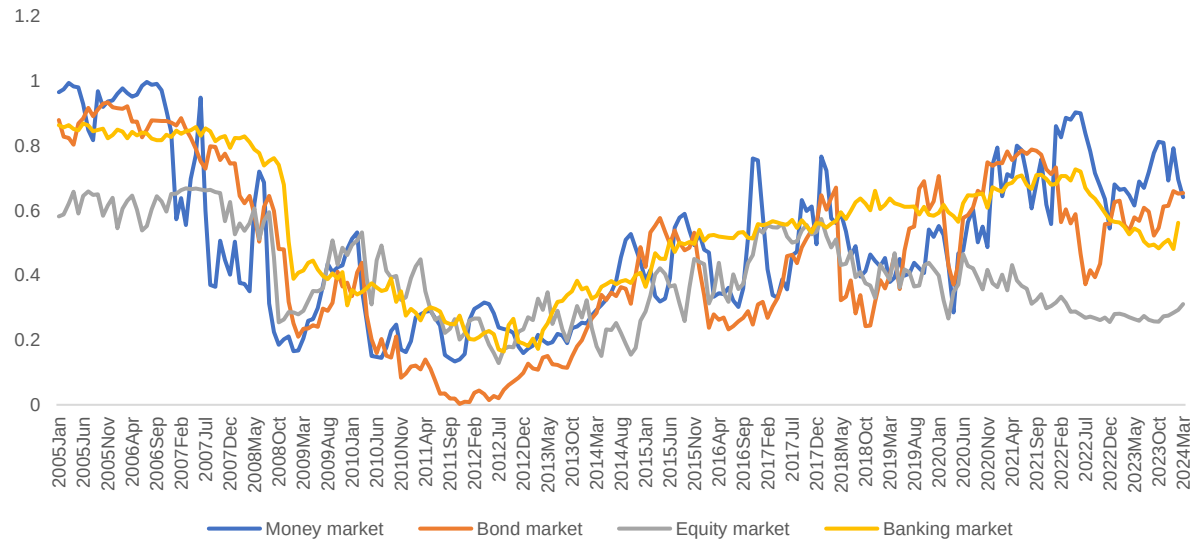
The price-based indicator in particular experienced a sharp decline, driven by adverse developments in the banking and money markets (see (**Figure 3-4**). Despite these setbacks, when viewed in a historical context – and considering the magnitude of the shocks and the evolving macroeconomic environment – the levels of financial integration have remained

[13] Due to limited data availability for all EU Member States, the analysis of financial integration focuses on the euro area. While not ideal, the euro area serves as a suitable proxy for the EU given its much larger economic size compared with non-euro area countries and its more advanced financial market development.

relatively high, highlighting a notable degree of resilience. This resilience is further supported by the fact that, throughout 2023, both indicators have shifted back to a positive trend, signalling a recovery in integration.

Even so, analysing indicators at the aggregate level may obscure developments in specific market segments. To provide a clearer picture of financial integration in the euro area, we assess developments in the main segments – money, bond, equity and banking markets – separately (**Figure 3-4**).

Figure 3-4. Sub-indexes of the price-based euro area financial integration index, monthly data for 2005-2024M3



Source: ECB, Financial integration and financial structure indicators, 2024.

A key trend in recent years has been the divergence of the equity market from other markets, since the pandemic. Prior to COVID-19, the four markets moved in tandem, but equity markets experienced rising cross-border dispersion in returns, particularly during 2020-2022. This pattern reflects reduced diversification opportunities, likely due to the heterogeneous economic impact of the pandemic and the uneven recovery path across countries and sectors. Moreover, geopolitical tensions and heightened uncertainty have led investors to favour perceived resilient sectors, further contributing to a decline in diversification and greater equity market dispersion[14].

Conversely, the financial integration in the bond, money and banking markets in the euro area has remained at a historically high level despite large fluctuations, in opposite directions, in the first half of 2022 (**Figure 3-4**). Until then, the Pandemic Emergency Purchase Programme, meant to prevent fragmentation in bond markets, resulted in narrowing yield spreads across Member States, maintaining integration despite differing national economic conditions. Since the formal end of the programme in March 2022, a short-lived surge in money market integration has occurred alongside a decline in bond market integration, most likely due to uneven transmission of the ECB's policy rate adjustments across the euro area[15]. ECB

[14] For more details, see ECB, Financial integration and structure in the euro area (2024), https://www.ecb.europa.eu/pub/pdf/fie/ecb.fie202406_annex~25978cd01a.en.pdf

[15] ECB, Euro money market study (2022), https://www.ecb.europa.eu/pub/euromoneymarket/html/ecb.euromoneymarket202204.en.html

monetary policy normalisation has prompted divergent dynamics in the euro area bond market, albeit it has remained quite limited and not posed any risk to financial stability[16].

3.2.1 Risk sharing in the EU

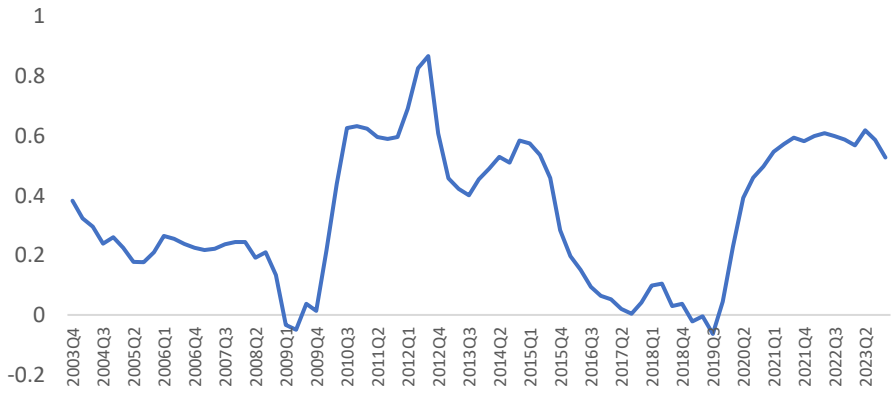
The international risk-sharing theory centres on how countries can smooth their consumption in the face of idiosyncratic economic shocks through cross-border financial integration and trade. The theory suggests that by sharing risks internationally, countries can stabilise their consumption even when their own output fluctuates. This happens by diversifying the income sources across borders. Just as an individual investor reduces risk by holding a diversified portfolio, countries can diversify their income by investing in foreign assets and allowing foreign investment into their own economy.

The main benefit of international risk sharing is to smooth consumption over time and across different economic outcomes. When a country experiences a negative shock (e.g. lower output or a recession), it can rely on foreign income streams or borrow internationally to maintain a stable level of consumption. Conversely, during boom times, countries can save or invest abroad, preparing for future downturns. If international risk sharing works perfectly, the correlation between domestic consumption and domestic output should be low. Consumption would be determined by a broad pool of global income sources, allowing countries to maintain stable consumption even when their own output fluctuates.

The concept of international risk is particularly relevant in a monetary union, where trade and financial integration should be very high and the impact of idiosyncratic shocks can be distributed across other countries of the union, thereby mitigating their effects on domestic consumption at the level of each member country. This implies that the correlation between domestic consumption and domestic income should be low, as domestic consumption can be supported by foreign income.

Still, empirical evidence suggests that risk sharing is incomplete. As depicted in Figure 3-5, the correlation between output and consumption in the euro area reached a very high level during the financial crisis, suggesting a low level of risk sharing at that time.

Figure 3-5. Euro area risk sharing, 2003-2023Q4



Source: ECB, Financial integration and financial structure indicators, April 2024.

Note: Correlation between consumption and output across euro area countries; higher values imply lower risk sharing.

Around 2015, the correlation fell abruptly to reach a value below that of the financial crisis. At the onset of the COVID-19 pandemic (2020Q1), the coefficient almost doubled and continued

[16] Financial Stability Review, November 2022 (https://www.ecb.europa.eu/press/financial-stability-publications/fsr/focus/2022/html/ecb.fsrbox202211_01~aa858bcbea.en.html).

to increase until the end of 2022, when it reached a level similar to the one of the debt crisis around 2012. The war in Ukraine and the subsequent energy crisis, acting as major symmetric shocks, are likely catalysts for this moderate decline in risk sharing. Indeed, international risk sharing can provide shock absorption in cases of asymmetric shocks, but not in the case of symmetric shocks. Interestingly, since mid-2023 the correlation has seemed to be on a declining pattern, pointing at an improvement in risk sharing.

Following Alcidi et al. (2024), we extend the analysis of risk sharing in the euro area and the EU by empirically estimating the evolution of risk sharing in response to shocks and the main channels through which it occurs. The analysis allows us to assess at the macroeconomic level whether policy initiatives like NextGenerationEU (NGEU), with its investment support, have enhanced the shock absorption capacity of EU Member States.

To do so, the analysis of developments in the degree of risk sharing in the EU follows the approach of Asdrubali, Sorensens and Yosha (1996). The magnitude of risk sharing via different channels is captured by the variance decomposition of shocks to GDP. The starting point is the disaggregation of Member State GDP, according to the national accounting decomposition, into gross national income (GNI), net national disposable income (NNDI) and total public and private consumption (CON):

$$GDPit = (GDPit - GNIit) + (GNIit - NNDIit) + (NNDIit - CONit) + CONit \quad (1)$$

For each country *i* and every year *t* included in the analysis, the first three components in equation (1) represent a different channel of risk sharing. Namely, the first one corresponds to the net factor income[17], the second one to the net international taxes and transfers, and the third to the credit channel.

- Net factor income (*GDPit – GNIit*), defined as the difference between GDP and GNI, comprises income from productive assets, such as FDI, equity and debt securities, loans and labour income; hence, it proxies the role of cross-border capital markets.
- The net international taxes and transfers (*GNIit – NNDIit*), defined as the difference between GNI and NNDI, measure the fiscal insurance channel. It reflects the role of international taxes and transfers, like EU structural funds and NGEU. According to Farhi and Werning (2017), in fiscal unions, the benefits of central transfers, captured by this channel, are larger when (the impacts of) shocks are more asymmetric. But they also find that the existence of central transfer instruments, by working as insurance, can improve the effects of other channels.
- Households, government and corporate savings (*NNDIit – CONit*), defined as the difference between net disposable income and consumption, capture the credit channel. This also includes borrowing from the European Stability Mechanism or the EU.

Following Alcidi et al. (2017), the first two channels capture the *ex-ante* mechanism of risk sharing, while the latter is considered an *ex-post* mechanism, which is activated after the shock to per capita GDP has occurred. Expanding on the analysis of Alcidi et al. (2023), our estimates draw from a panel dataset spanning 1998 to 2023, encompassing both the euro area and other EU non-euro area countries. The non-euro area countries serve as a control group, aiming to capture potential variations in risk sharing associated with adopting the single currency and a unified monetary policy.

Luxembourg, Malta and Cyprus as well as Bulgaria and Romania are omitted from the analysis. The first three countries are left out of the analysis because, in addition to their small

[17] In the actual estimates GNI is replaced by NI (national income) so that the capital market channel includes capital depreciation, defined as the difference between GNI and NI. This is a standard practice in estimates that do not report a separate coefficient for capital depreciation, which is difficult to interpret as a risk-sharing channel.

size, they exhibit vast financial flows, which would be captured in the difference between GDP and GNI, i.e. the capital market channel, while having limited relation to national consumption. Their inclusion would lead to overestimating the channel, without offering real risk sharing. Bulgaria and Romania are not included due to lacking data.

The estimates for the euro area since 1998[18] show overall limited risk sharing and a large impact of GDP shocks on consumption, with an average of 80 % of a shock remaining unsmoothed. The limited risk sharing in the euro area primarily occurs through the credit channel with a contribution of around 15 % (which appears to be highly significant). At the same time, the result points to the narrow contribution of capital market integration in shock absorption in the euro area, of only 4 % (**Table *3-1***). This result is not new.

Table 3-1. Income and consumption smoothing in the euro area, 1998-2023

	(1) Capital Markets	(2) Fiscal Transfers	(3) Credit channel	(4) Unsmoothed
EA 1998-2023	.04*	.02**	.15***	.80***
	(.024)	(.007)	(.033)	(.025)
Observations	416	416	416	416
R-squared	.374	.148	.353	.853

Source: Authors' calculations
Notes: EA refers to euro area. Standard errors are in parentheses.
**** p<.01, ** p<.05, * p<.1*

The same analysis is extended to EU Member States after the last big enlargement, covering the period 2007-2023. The results are almost identical to those for the euro area, suggesting limited differences associated with the monetary union.

Table 3-2. Income and consumption smoothing in the EU, 2007-2023

	(1) Capital Markets	(2) Fiscal Transfers	(3) Credit channel	(4) Unsmoothed
EU 2007-2023	.05	.01**	.13***	.81***
	(.028)	(.006)	(.036)	(.03)
Observations	352	352	352	352
R-squared	.38	.106	.362	.831

Source: *Authors' calculations*
Notes: Standard errors are in parentheses.
**** p<.01, ** p<.05, * p<.1*

Lastly, we examine two sub-periods to isolate the impact of two major crises—the euro area crisis and the COVID-19 pandemic—and the related responses. We also distinguish potentially different dynamics within and outside the monetary union.

Table 3-3. Income and consumption smoothing in the EU, 2008-2023 (by sub-period)

	(1) Capital Markets	(2) Fiscal Transfers	(3) Credit channel	(4) Unsmoothed
EA 2010-2019	.01	.01	.21***	.77***
	(.042)	(.014)	(.059)	(.043)
Non-EA 2010-2019	-.01	-.002	.09	.93***

[18] While 1998 pre-dates the formal introduction of the euro, it can be considered the start of the monetary union.

	(.038)	(.012)	(.055)	(.044)
EA 2020-2023	.15*	.03**	.43***	.39***
	(.078)	(.014)	(.08)	(.071)
Non-EA 2020-2023	.03	.04**	.36***	.57***
	(.056)	(.016)	(.07)	(.06)

Source: Authors' elaboration.

Notes: EA refers to euro area. Standard errors are in parentheses.

**** p<.01, ** p<.05, * p<.1*

The results point to three main findings. First, risk sharing has increased significantly since 2020 compared with the previous sub-period (2010-2019). The unsmoothed component of the shock, which was very high during 2010-2019 (77 % in the euro area and even higher in the EU, 93 %), dropped substantially to 39 % in the euro area and 57 %, despite the challenges of the COVID-19 pandemic and energy crisis. The numbers indicate that the unsmoothed part of the shock remains consistently higher in non-euro area countries compared with the euro area.

Second, the growing prominence of the credit channel since 2020 is remarkable. While the credit channel had been the primary mechanism for risk sharing even during the euro area crisis, it became significantly more important after 2019. It accounted for 43 % of shock absorption in the euro area and 36 % in other EU countries. This reflects the unprecedented, countercyclical national fiscal policies and the EU response to the pandemic and energy crisis, including measures such as SURE (Support to mitigate Unemployment Risks in an Emergency) and NGEU. EU initiatives such as the Recovery and Resilience Facility (RRF), REACT-EU and the Coronavirus Response Investment Initiative also seem to have had a visible impact through the fiscal transfer channel, which, while small, became significant during this period, contributing 3 % in the euro area and 4 % in non-euro area countries. The RRF, besides the disbursement of grants and loans, is considered to have contributed to boosting confidence and prevented sudden disruptions to cross-border financial flows, as highlighted by Cimadomo et al. (2022). The strong contribution of the credit channel across both euro and non-euro area countries supports this interpretation.

Lastly, capital markets appear to have contributed to risk sharing within the euro area since 2020, by absorbing about 15 % of the GDP shock– a pattern not observed in the rest of the EU countries nor in the previous sub-period. This is consistent with the resilience of financial integration in the euro area documented above, which contrasts with the collapse of financial integration during the euro area crisis.

3.3 Analysis of barriers to capital markets integration

The free movement of capital is one of the fundamental principles of EU law and a cornerstone of the EU single market. Article 63 of the Treaty on the Functioning of the EU prohibits all restrictions on the movement of capital between EU countries, including transactions with non-EU countries. Exceptions are permitted only when necessary to prevent breaches of national laws or in cases of overriding public interest (Falalieieva and Strilets, 2023). Despite this robust legal framework, businesses and households encounter numerous challenges that can hinder their cross-border activities within the EU.

The European Commission[19] has identified several obstacles that businesses face when attempting to operate across borders. Its report, which is part of a long-term action plan for

[19] https://eur-lex.europa.eu/legal-content/GA/TXT/?uri=CELEX:52020DC0093

enhanced implementation and enforcement of single market rules, highlights the following major barriers[20]:

- difficulties in acquiring information about market opportunities, potential partners, and relevant regulatory requirements;
- lack of transparency and discriminatory access to public procurement processes;
- inefficiencies arising from additional technical requirements, standards, and regulations in certain sectors at the national level;
- burdensome procedures stemming from differing tax systems and administrative practices;
- challenges with the registration of business activities in other Member States.

3.3.1 Regulatory fragmentation

A recent report from the European Investment Bank documents several barriers associated with cross-border investment in the EU. Key concerns include regulatory uncertainty, regulatory fragmentation, the lack of EU-wide standards in terms of technical and legal specifications, and common procurement rules for cross-border activities. These issues create a fragmented market structure and complicate administrative and permitting procedures (EIB, 2023).

Despite significant progress towards economic integration, regulatory fragmentation remains a formidable barrier to cross-border investment. The lack of uniformity can lead to higher costs and increased legal uncertainties, and ultimately deter investment across borders. One of the primary challenges is the absence of a uniform EU-wide insolvency framework. Investors often struggle to assess the risks associated with their investments due to differing laws governing insolvency in each Member State. This legal inconsistency creates a significant hurdle for investors, as they cannot easily determine their possibilities of recovering funds if a company encounters financial difficulties (Ghio et al., 2021).

In addition to insolvency laws, the EU's tax systems differ substantially, posing further challenges for cross-border investment. While recent efforts have been made to harmonise the treatment of withholding taxes, these measures only partially address the problem. The fragmentation extends to financial products as well. Although the EU has introduced simple, transparent, and standardised securitisation products, these initiatives have not achieved the same level of standardisation as seen in the US. The coexistence of 27 different legal regimes in the EU hampers the ability to bundle loans effectively and creates legal uncertainty, further discouraging investment in securitisation products (Lindner and Mack, 2024).

The regulatory heterogeneity in the EU is also pronounced in the area of services regulation, especially concerning data and technology (Coeuré, 2024). As economies shift increasingly towards digitalisation, digital services play a pivotal role in facilitating cross-border investment, especially in sectors such as e-commerce, digital media, and technology-driven services. The ability to share and utilise data across borders is essential for cross-border business operations.

At the same time, the expansion of digital services faces difficulties as countries implement varying regulations concerning data protection, privacy, and digital trade. The recently adopted Digital Markets Act[21], which aims to establish a digital single market, has encountered significant setbacks. Instead of simplifying the regulatory landscape, new policies related to digital technologies, services, and competition have introduced additional complexities. These complexities often arise from ambiguously defined regulations, leading to inconsistent interpretations and enforcement by national governments. The provision of the Digital Markets

[20] Beyond these regulatory and administrative barriers, companies report difficulties in recruiting skilled staff or experienced managers due to skill shortages and mismatches. Additionally, the costly procedures for the recognition of professional qualifications further complicate their operations. Language skills also emerge as a significant barrier (European Commission, 2020a).
[21] https://digital-markets-act.ec.europa.eu/index_en

Act allowing Member States to apply their own national competition laws presents a dilemma: it empowers countries to tailor regulations to their specific contexts but also risks deepening regulatory fragmentation, creating an environment of legal uncertainty for digital businesses. Companies operating across multiple EU countries may find themselves navigating a patchwork of rules that differ widely in terms of compliance requirements and enforcement practices (Bauer, 2023).

Regulatory heterogeneity or fragmentation across the Member States significantly raises the costs of doing business, which in turn negatively impacts intra-EU trade and FDI. These costs far exceed those associated with specific national regulatory restrictions that are broadly viewed as obstacles to the functioning of the single market (Dahlberg et al., 2020). Kox and Lejour (2005) argue that such heterogeneity can particularly affect SMEs and hinder their full participation in the single market.

3.3.2 The impact of regulatory barriers on intra-EU FDI

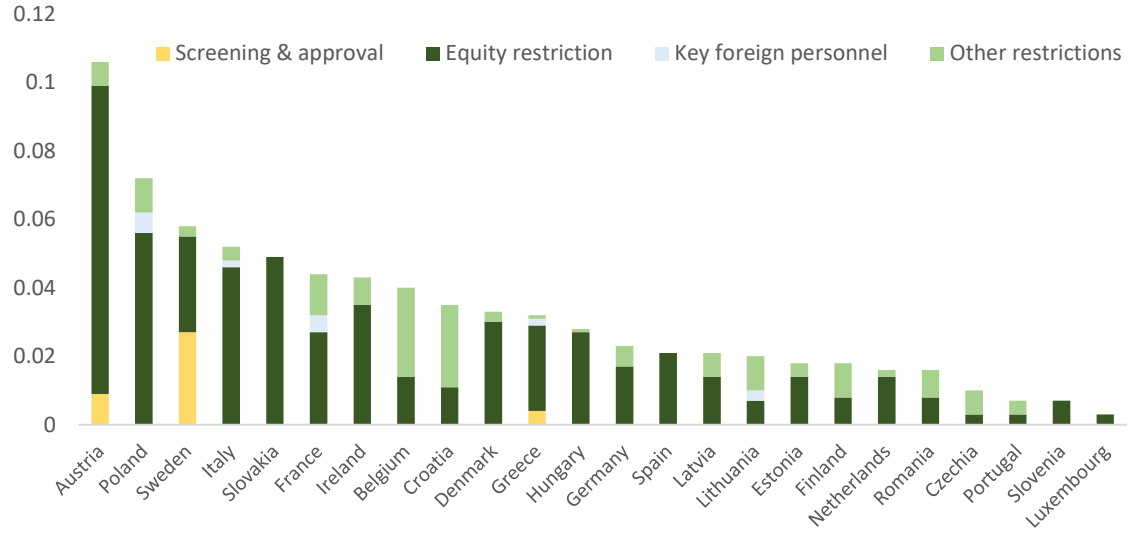
Several studies have attempted to quantitatively assess the impact of regulatory obstacles, as well as regulatory heterogeneity, on cross-border investment, utilising various measures and proxies. For example, Nordås and Kox (2009) employ the Doing Business indicators to examine the impact of regulatory heterogeneity on FDI. In a different approach, Benz and Gonzalez (2019) use the OECD Services Trade Restrictiveness Index as a proxy for regulatory heterogeneity that can affect services trade by restricting FDI, as FDI is often a necessary condition for cross-border trade in services (Dahlberg et al., 2020). Gregori and Nardo (2020) focus on the FDI Regulatory Restrictiveness Index (RRI) provided by the OECD to analyse the effects of regulatory constraints on M&A flows into EU Member States. The RRI may be particularly pertinent when analysing the regulatory barriers to FDI.

The RRI index measures the statutory restrictions on FDI at the country level. This metric comprises four main types of restrictions that can influence FDI, including (i) foreign equity restrictions accounting for limits on foreign participation, holdings and ownership; (ii) discriminatory screening or approval mechanisms for foreign investors; (ii) restrictions on key foreign personnel, i.e. measures such as time-bound or economic limits on the employment of foreign personnel as managers and nationality requirements for board members; and (iv) operational restrictions such as restrictions on the establishment of branches, acquisitions of land for business purposes, profit or capital repatriation, and reciprocity clauses in specific sectors.

Figure 3-6 shows an overview of the FDI RRI and its different aspects across the EU in 2020, the latest available data for the index. While the degree of FDI restrictiveness in the EU is relatively low (0.03 on average for 24 EU countries[22]), there is heterogeneity across Member States in the level and the standing of measures. Restrictions on foreign equity, including limits on foreign holdings and/or foreign ownership, are the main regulatory restrictions to FDI in the EU overall which is present, albeit to a different extent, among all the countries. Operational restrictions are also observed in almost all countries. By comparison, obligatory screening and prior approval of FDI projects only exist in three countries (mainly in Sweden and to a much lesser degree in Austria and Greece). Controls on key foreign personnel are also seen to be mainly prevalent in Poland and France.

[22] By comparison with other advanced economies such as Australia (0.15), Canada (0.06), Japan (0.05), Switzerland (0.08), Norway (0.09), the US (0.09) and UK (0.04).

Figure 3-6. FDI regulatory restrictiveness in the EU, 2020



Source: OECD (2020).

Note: The index ranges from 0, or not restrictive to 1, or fully restrictive.

To quantify the potential role of the regulatory barriers to intra-EU FDI, we conduct an empirical analysis where next to the usual FDI determinants used in the literature (considered to reduce risks of misspecification) the RRI is included in the model (see Box 3.1 for a description of the methodology). As expected we find a significant relationship between inward FDI and a set of economic factors such as the market size (measured by GDP), labour cost, and the degree of openness (defined as the sum of imports and exports of the host country as a percentage of its GDP), as well as institutional factors such as control of corruption. The geographical distance between pairs of countries, as well as language similarity, are also found to foster bilateral FDI. In addition, a statistically significant impact of the RRI is found and it suggests that reducing the index in a host country by 1 % boosts the (bilateral) inward FDI stock by around 7 %.

Looking into the impact of individual RRI sub-indexes, we find that the most restrictive regulatory barriers to cross-border investment within the EU are those related to business establishment and operations[23], which is consistent with findings from business surveys (European Commission, 2020b). Our analysis shows that lowering these barriers by 1 % would increase the FDI stock by around 21 % in the recipient Member State.

The freedom of establishment in the EU is hindered by restrictions on corporate ownership and the shareholding structure of businesses (Dahlberg et al., 2020). The root of this problem lies in restrictive national rules, which diverge significantly among Member States, as well as inadequate implementation of EU legislation (European Commission, 2020b).

Efforts have been made in recent years to enhance transparency, improve access to information, and reduce regulatory burdens for investors as part of the EU's Capital Markets Union initiative[24]. These include measures such as the European Single Access Point, being developed to centralise and enhance access to information related to EU companies and investment products for investors[25]. Additionally, the Markets in Financial Instruments Regulation and review of the Markets in Financial Instruments Directive II are expected to

[23] Our analysis of other categories of RRI finds a much larger weight (72 %) for the restrictions on key foreign personnel; however, only a few countries in the EU (i.e. France, Italy, Greece, Poland and Lithuania) still impose these restrictions. In addition, we also find a significant but relatively small (negative) coefficient for foreign equity restrictions (6.2 %). We do not capture any significant effect of restrictions related to the screening of or approval procedure for foreign investors.

[24] https://www.consilium.europa.eu/en/policies/what-the-eu-is-doing-to-deepen-its-capital-markets/timeline-what-the-eu-is-doing-to-deepen-its-capital-markets/

[25] https://www.consilium.europa.eu/en/press/press-releases/2023/05/23/easy-access-to-corporate-information-for-investors-provisional-agreement-reached-on-the-european-single-access-point-esap/

facilitate investors' access to consolidated market data at the EU level[26]. Yet, the recent developments do not address all the legal and regulatory discrepancies across Member States that concern investors and businesses. Similarly, the lack of harmonisation of corporate ownership rules and shareholder engagement, as well as tax disparities and the administrative burden of dealing with multiple legal frameworks, continue to be real hurdles for cross-border investment in the EU.

Table 3-4. Estimation result: the impact of regulatory restrictions on intra-EU FDI

	Dep. variable: Inward FDI Stock				
	Spec (1)	*Spec (2)*	*Spec (3)*	*Spec (4)*	*Spec (5)*
GDP of host country	0.83*** (0.04)	0.82*** (0.04)	0.78*** (0.03)	0.83*** (0.04)	0.78*** (0.03)
GDP of origin country	0.63*** (0.02)	0.63*** (0.02)	0.63*** (0.02)	0.63*** (0.02)	0.63*** (0.02)
Labour cost	-0.46*** (0.12)	-0.46*** (0.12)	-0.46*** (0.12)	-0.46*** (0.12)	-0.46*** (0.12)
Geographical distance	-0.65*** (0.05)	-0.64*** (0.05)	-0.63*** (0.05)	-0.64*** (0.05)	-0.65*** (0.05)
Corporate tax rate	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02* (0.01)	-0.02* (0.01)
Common language	1.59*** (0.15)	1.57*** (0.15)	1.59*** (0.15)	1.59*** (0.15)	1.66*** (0.14)
Control of corruption	0.03*** (0.0)	0.03*** (0.0)	0.03*** (0.0)	0.04*** (0.0)	0.03*** (0.0)
Trade openness	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)
All types of restrictions	-0.07*** (0.02)				
Equity restrictions		-0.06** (0.02)			
Screening & approval			0.02 (0.06)		
Restrictions on key foreign personnel				-0.72*** (0.02)	
Operational restrictions					-0.21*** (0.05)
Constant	-8.16*** (0.51)	-8.13*** (0.51)	-8.05*** (0.51)	-8.35*** (0.52)	-7.85*** (0.51)
R-squared	0.81	0.81	0.81	0.81	0.81
No. of observations	4787	4787	4787	4787	4787

Source: Authors elaboration.

Notes: Spec() refers to different model specifications. Specifically, Spec(2) to Spec(5) include individual sub-indexes of the RRI, which are analysed separately. This approach isolates the impact of each sub-index while addressing potential collinearity issues that could arise if all sub-indexes were included in a single regression. Robust standard errors in parentheses.
** p<0.1; ** p<0.05; *** p<0.01*

[26] https://www.consilium.europa.eu/en/press/press-releases/2023/06/29/capital-markets-union-council-and-parliament-agree-on-proposal-to-strengthen-market-data-transparency/

Box 3-1. Empirical analysis of regulatory barriers to FDI

For the econometric analysis, we use a linear panel-data model that is widely applied for the analysis of FDI determinants across countries (see for example Dellis et al., 2017; Economou et al., 2017; Pečarić et al., 2021; Islam and Beloucif, 2024).

As the baseline evaluation, a pooled OLS model is usually estimated. The pooled OLS, however, ignores any country-specific effects and assumes constant coefficients across countries and time. Thus, using a pooled OLS in the presence of unobserved country-specific factors can lead to omitted variable bias and therefore biased results. Random effects, instead, allow for country-specific effects following a distribution but this approach assumes that time-invariant factors are independent of the error term, which is a very strict assumption. Alternatively, a fixed effects method can provide consistent estimates by relaxing this assumption and fixing the time-invariant elements. A fixed effects model controls for the impact of any time-invariant determinant.

Still, this comes at the cost of not being able to estimate the effect of time-invariant variables on bilateral FDI, such as bilateral distance and common language (Baltagi, 2003). To overcome this, some authors have proposed using the correlated random effects estimator via the use of the Mundlak (1978) device, which is identical to the fixed effects estimator (Yang, 2022). In this approach, the fixed effect estimator is computed as a pooled OLS estimator using the original data, but adding the time averages of the covariates as additional explanatory variables. We are particularly interested in exploring the potential impact of different types of FDI regulatory restrictiveness as potential barriers to investment. However, the components of the OECD's FDI RRI, the index we use as a measure of these restrictions, show very little variability over time. A pooled OLS regression using the time average of variables, for each country, allows us to capture their effects.

In line with the standard practice in empirical FDI literature, a number of economic, political and institutional factors found to be significant determinants of FDI are used (see Islam and Beloucif, 2024) besides RRI. In particular, the real levels of GDP of the host and the partner countries are included in the estimations. These covariates count for the market size, the level of development and the market potential of the economies. In addition, the geographical distance between the country pairs (the host and the partner) is included in the model, considering the role of geographical distance in FDI propensity from an origin country. GDP and distance are traditional gravity variables that are found to have a high explanatory power for bilateral FDI (Blonigen and Piger, 2014; Erokhin, 2023).

In addition, other variables that can be potential determinants of FDI or affect the investment activities in a country, such as trade openness (defined as the sum of imports and exports of the host country as a percentage of its GDP) and the unit labour cost, as well as the corporate tax rate in the destination country, are considered explanatory variables. Moreover, governance indicators, such as control of corruption in the country recipient of the FDI, are included in the analysis.

We include the data for EU-27 countries over 2013-2022. The sample period is determined by data availability. FDI bilateral statistics are obtained from Eurostat. For each EU country in the sample, the bilateral inward FDI stock from other EU partners (intra-EU) is included. The FDI RRI index produced by the OECD is at the country level. The data related to the pair country common language and the distance are taken from the CEPII. Control of corruption, as in the World Governance Indicators, is obtained from the World Bank. Statutory corporate income tax rates are from the OECD. The rest of the variables are taken from Eurostat.

The FDI stock in the host/destination country as the dependent variable, while the levels of GDP in the host and in the origin country, labour cost (or compensation of employees plus taxes minus subsidies) and the distance between the country pairs are expressed in their natural logarithms. The statutory corporate income tax rate and the measure of trade openness are expressed as percentages. The control of corruption index and the FDI RRI in the host country are on a scale of between 0 and 100, by design. A higher rate represents better control of corruption in the country. For the RRI, a lower (higher) number indicates fewer (more) barriers.

We estimate the model by first including the aggregate RRI and then the four different types of RRI separately. The results are found to be robust across different specifications, and all the estimated coefficients are shown to have the expected signs. Overall, the estimation results indicate that regulatory barriers, high labour costs, corruption and a low degree of openness can deter intra-EU investment (the corporate tax rates appear only marginally significant in our estimation). Among all the factors, the role of regulatory frictions is found to be relatively strong.

4 FDI networks in EU Member States

Key findings

- Inward FDI in the EU grew from EUR 13.4 trillion (2018) to EUR 14.7 trillion (2022), with a rebound after 2020.
- Notably, 55 % of FDI came from non-EU countries (EUR 8.1 trillion) and 45 % from the EU-27 (EUR 6.6 trillion), maintaining a stable balance.
- FDI related to special purpose entities dropped from nearly 50 % in 2018 to 29 % in 2022, possibly stabilising after declines tied to the effects of the US Tax Cuts and Jobs Act in 2018.
- Direct FDI is rising, reaching nearly 95 % of real FDI in 2022 and highlighting the decline in the use of intermediary countries. This is good news for the reliability of official statistics.
- The US is the primary investor in EU Member States.
- Finance and insurance dominate FDI flows, with holding companies leading. In manufacturing, pharmaceuticals stand out, likely due to COVID-19 vaccine production.

The purpose of this section is to distinguish between FDI directed at companies that contribute little or nothing to the development of the receiving economy and those that do contribute. FDI is generally viewed as a significant factor in fostering international economic integration. It involves cross-border transfers of capital, skills, and technology that are seen as beneficial to job creation and productivity. But in recent years, there has been growing agreement that the benefits associated with FDI are overstated in current statistics.

This overestimation is largely due to official statistics not differentiating between investment that promotes economic development and that directed towards companies with little or no economic presence. These companies, referred to as special purpose entities, are often based in offshore centres or countries with favourable regulatory environments. This allows their parent companies to shift risks off their balance sheets and benefit from enhanced confidentiality and tax advantages. As a result, the real economic contribution of these FDI flows is less significant than if the investment were also operational in the host country. This contributes to the erosion of tax bases in some countries, benefiting others. SPEs are a global issue, but they hold particular importance for the EU and the functioning of its single market, making the issue especially relevant in this context.

A growing body of research seeks to break down FDI into its SPE and non-SPE components. After a period of contraction, FDI flows rebounded strongly after the 2007-2009 global financial crisis. A few countries attracted disproportionately large amounts of FDI. In contrast to portfolio instruments and other investment, Lane and Milesi-Ferretti (2018) argue that cross-border FDI positions continued to grow at least until 2016, with much of this growth attributed to positions in financial centres, suggesting that the corporate structures of large multinational firms played a crucial role.

Several studies have examined the role of tax incentives in FDI flows. Blonigen and Davies (2005) find a correlation between bilateral tax treaties and higher FDI between the parties involved. Similarly, Lejour (2014) provides evidence of ‘treaty shopping’ by analysing treaties focused on taxes on profits and retained earnings. The IMF emphasises the influence of taxation on the structure of direct capital flows, noting large FDI stocks in countries known for attractive tax regimes and extensive treaty networks. Researchers such as Hines (2010) and Zucman (2014) suggest that the large FDI positions of countries with relatively small levels of GDP can be explained by tax planning, citing countries like the Netherlands, Luxembourg, Hong Kong, Switzerland, Singapore, Ireland, Bermuda, the British Virgin Islands, and the Cayman Islands. The concentration of holding and intra-group financial activities in these tax-

favourable jurisdictions indicates that some FDI has no real connection to the economy of the receiving country.

Blanchard and Acalin (2019) discovered a strong correlation between quarterly FDI inflows and outflows, particularly for flows involving emerging market economies (EMEs), which runs contrary to the expectation of a near-zero or even negative short-term correlation. They also noted that increases in quarterly FDI inflows to EMEs and outflows from EMEs were associated with reductions in US monetary policy rates, which again defies expectations. The authors conclude that a substantial portion of what is classified as FDI is, in fact, capital that leaves and then returns to the original country. They attribute this to corporate tax conditions in other jurisdictions. Moreover, Blanchard and Acalin suggest that some of these FDI flows are closer to portfolio debt flows than investment made for productive purposes.

An emerging stream of research is investigating the role of SPEs in FDI by analysing firm-level data, as investment between firms within the same multinational group is categorised as FDI. This includes investment that passes through shell corporations involved in holding or intra-firm financing activities. These entities are often used for FDI rerouting, which refers to the practice of channelling investment through intermediary countries to take advantage of favourable tax treaties, regulations, or policies, rather than being directly made from the investor's home country to the target country.

SPEs obscure data on direct investment positions and capital flows for two main reasons. First, the immediate foreign counterparty of an FDI transaction is not necessarily the original investor but rather a shell company, increasing the potential for double counting. Second, the host countries of SPEs often inflate their FDI figures due to the inclusion of pass-through funds, which should be differentiated from economically meaningful investment.

To address this issue, Eurostat and the OECD have published statistics that separate FDI into SPE and non-SPE components and map bilateral investment relationships. However, data on SPEs is often challenging to collect, and the distinction between SPE and non-SPE investment is not always clear. Furthermore, these statistics are only available for certain countries and are often incomplete, limiting their overall utility.

Using disaggregated FDI positions from the OECD and similar estimates for countries that do not publish disaggregated data, Damgaard et al. (2019) found that only about 40 % of global FDI is driven by productive purposes. Luxembourg and the Netherlands host nearly half of global FDI. In comparative terms, Luxembourg hosts as much FDI as the US and significantly more than China, with its USD 4 trillion in FDI amounting to approximately USD 6 million per resident. It is evident that not all of this FDI represents a genuine investment in Luxembourg as a host country. The authors label inflows into SPEs as ‘phantom’ FDI, distinguishing it from ‘real’ FDI. The analysis further shows that the 50 largest economies are more interconnected than official statistics suggest, due to the channelling of FDI through favourable jurisdictions.

Given the importance of accurate FDI statistics for the EU’s single market, the following sections will apply the same methodology as Damgaard et al. (2019) to better distinguish between real FDI, i.e. not directed at SPEs, and that directed at SPEs. Additionally, we will aim to identify the economies of the ultimate investors, with a special focus on EU FDI positions. Furthermore, we will provide an overview of the evolution of these statistics over time. The goals of this exercise are to (i) estimate the share of total FDI in each EU country that is directed to resident SPEs; (ii) estimate the actual degree of EU FDI integration by excluding phantom FDI from total FDI networks; and (iii) distinguish between FDI in which the ultimate investor is different from the immediate one, and countries towards which investment is being rerouted before reaching its final destination.

The detailed methodology for deriving these statistics can be found in the original paper (Damgaard et al., 2019) and Alcidi et al. (2022 and 2023).

4.1 Real vs SPE FDI in the EU-27

The analysis begins by breaking down the total inward FDI stock in each of the 27 EU Member States[27] into intra-EU and extra-EU components, as well as flows into SPEs and non-SPEs.

According to Eurostat, the inward FDI stock in the EU-27, including equity and debt instruments, reached approximately EUR 14.7 trillion in 2022 (see Table 4-1), above the EUR 14.1 trillion recorded in 2021. This represents a smaller increase than the previous year's rise of EUR 0.7 trillion from EUR 13.4 trillion in 2020. Notably, 2022 marks the highest FDI level across the 4 years observed.

Over half (EUR 7.8 trillion or 54 %) of inward FDI in the EU-27 originated in other EU-27 countries, while the remaining 46 % (EUR 6.6 trillion) originated in non-EU countries. This balance remained stable compared with 2021 and 2020, with slight shifts of 1–2 percentage points observed in 2019 and 2018.

Table 4-1. FDI inward positions by immediate investor, 2018-2022

Year	Intra-EU FDI in EUR trillion (and % of total FDI)	Extra-EU FDI in EUR trillion (and % of total FDI)	Total FDI
2022	6.6 (45 %)	8.1 (55 %)	**14.7 (100 %)**
2021	6.5 (46 %)	7.6 (54 %)	**14.1 (100 %)**
2020	6.2 (46 %)	7.2 (54 %)	**13.4 (100 %)**
2019	6.5 (48 %)	7.2 (52 %)	**13.7 (100 %)**
2018	6.2 (47 %)	7.2 (53 %)	**13.4 (100 %)**

Source: CEPS (2024) analysis of ESTAT data.

In 2022, an estimated 29 % of inward FDI positions in the EU-27 involved SPEs (see Table 4-2), closely mirrored the previous year's share but continued the overall downward trend. Following a sharp decline in FDI into SPEs, dropping from 49 % in 2018 to 30 % in 2021, the share then appeared to stabilise.

Table 4-2. FDI inward positions by type of recipient, 2018-2022

Year	SPE FDI in EUR trillion (and % of total FDI)	Non-SPE FDI in EUR trillion (and % of total FDI)	Total FDI
2022	4.2 (29 %)	10.5 (71 %)	**14.7 (100 %)**
2021	4.3 (30 %)	9.8 (70%)	**14.1 (100 %)**
2020	5 (37 %)	8.4 (63 %)	**13.4 (100 %)**
2019	6.4 (47 %)	7.3 (53 %)	**13.7 (100 %)**
2018	6.5 (49 %)	6.9 (51 %)	**13.4 (100 %)**

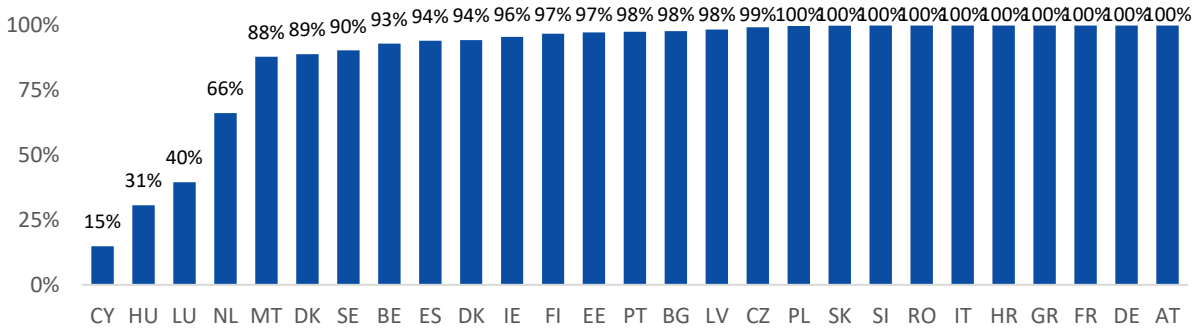
Sources: CEPS (2024) analysis based on Damgaard et al. (2019), Eurostat and OECD data.

The distribution of real FDI in 2022 varied significantly across Member States (see Figure 4-1). There are two Member States where the share of FDI in non-SPEs was less than a third. In Cyprus, inward FDI was almost entirely directed at SPEs (with 15 % going to non-SPEs). In Hungary, the SPE share amounted to almost a third (31 %), while in Luxembourg it still represented more than half of the overall flows (60 % SPE flows). In the Netherlands, the

[27] Data for Malta have been supplemented using figures published by the Maltese National Statistics Office. In Eurostat's publication, Malta only reports SPE FDI, while marking total FDI stocks as confidential. This approach may underestimate Malta's share of SPE flows relative to its total FDI.

share of real FDI constituted two thirds of the total FDI (66 %). In the larger EU economies (e.g. France, Germany, Italy and Spain), inward FDI is all or almost all real. This is consistent with the results from previous years.

Figure 4-1. Share of FDI in non-SPEs by EU Member State, 2022



Source: CEPS (2024) analysis based on Damgaard et al. (2019), Eurostat and OECD data.

4.2 The real EU-27 FDI network

Real FDI (i.e. FDI into non-SPEs) can be further disentangled into FDI by immediate and ultimate investors. For these estimations, the ownership structure of more than 400 000 companies based in the EU-27 countries was used[28]. The results cover the period 2018-2022[29].

The analysis reveals that in 2022, almost all real FDI in the EU-27 were **direct FDI** (EUR 9.8 trillion or 94 %), i.e. where the immediate investor's country matches that of the ultimate investor (see Table 4-3)[30].

Table 4-3. Direct and indirect real FDI, 2018-2022

Year	Direct FDI in EUR trillion (and % of total FDI)	Indirect FDI in EUR trillion (and % of total FDI)	Total FDI
2022	9.8 (94 %)	0.7 (6 %)	**10.5 (100 %)**
2021	9.2 (95 %)	0.5 (5 %)	**9.7 (100 %)**
2020	5.2 (61 %)	3.3 (39 %)	**8.5 (100 %)**
2019	4.7 (65 %)	2.5 (35 %)	**7.2 (100 %)**
2018	4.9 (71 %)	2 (29 %)	**6.9 (100 %)**

Source: CEPS (2024) analysis.

Notes: Direct FDI refers to investment positions in which the country of the ultimate investor corresponds to that of the immediate investor. Indirect FDI refers to investment positions in which the ultimate investor resides in a different country than the immediate investor. The breakdown between direct and indirect real FDI is calculated using ownership information from a sample of more than 400 000 companies.

This is similar to the 2021 level and confirms the stark increase in the share of direct FDI that year, in both absolute and percentage levels. This is accompanied by a small rise in **indirect FDI** – investment routed through an intermediary country (for example FDI from country A into country C, through country B). This implies that for a relatively small share of FDI (in country

[28] The foreign ownership threshold for defining FDI is set at 15 %, higher than the typical 10 % used in the literature. This more cautious approach is warranted due to the complexity of ownership structures used in the estimates, reducing the risk of overestimating FDI.
[29] For comparability, the UK is excluded from the EU throughout the period, even for periods before 2020.
[30] Indirect FDI includes round-tripping investment. The latter refers to real domestic investment in the domestic economy channelled through a foreign entity.

C), investment decisions and associated risks are ultimately borne by companies residing in a different country (country A) than the one (country B) where the FDI position is reported under the official statistics. This also means limited use of intermediary countries in FDI, beyond SPEs (which are excluded from these estimates).

In 2022, nearly two thirds (60 %) of direct (real) FDI into the EU-27 originated from five countries led by the US (see Table 4-4), followed by four other European countries. Among them, the UK and Germany appear systematically, while the Netherlands and Luxembourg show a lot of volatility in their share. The US share of real direct FDI, after peaking at 20 % in 2020 and dropping to around 15 % in 2021, rebounded to 17.1 % in 2022, aligning with historical levels.

As a counterpart, more than two thirds of direct real FDI is concentrated in the Netherlands (26.9 %), Ireland (12.7 %), Germany (10.7 %), Luxembourg (9.4 %) and Spain (8 %). Among recipient economies, the Netherlands maintained its top position from 2018 to 2022, consistently receiving at least a fifth of total real FDI. Its share spiked to 33 % in 2020 before stabilising at about 26 % in 2021 and 2022. The group of followers shows some variation, with Germany and Ireland appearing all years. Ireland's FDI share, which saw significant fluctuations – shifting by at least 8 percentage points between 2020 and 2021 – decreased again in 2022 to reach about 13 %, well below 18 % in 2021 and 2019.

Table 4-4. Origin of direct (real) FDI, 2018-2022

a) **Top 5 investor economies 2018-2022 (% of direct (real) FDI)**

2022	2021	2020	2019	2018
US (17.1 %)	LU (15.5 %)	US (20 %)	US (16 %)	US (16 %)
LU (13.7 %)	US (15.3 %)	DE (11 %)	DE (12 %)	NL (10 %)
NL (11.5 %)	UK (13.8 %)	UK (9 %)	CH (11 %)	LU (9 %)
UK (11.3 %)	NL (11.4 %)	LU(8 %)	UK (10 %)	UK (8 %)
DE (9 %)	DE (9.4 %)	FR (8 %)	FR (10 %)	DE (8 %)

b) Top 5 recipient economies 2018-2022 (% of direct (real) FDI)

2022	2021	2020	2019	2018
NL (26.9 %)	NL (25.8 %)	NL (33 %)	NL (20 %)	NL (20 %)
IE (12.7 %)	IE (18.4 %)	LU (9 %)	IE (18 %)	FR (11 %)
DE (10.7 %)	BE (8.8 %)	IE (9 %)	BE (9 %)	IE (11 %)
LU (9.4 %)	FR (8 %)	DE (8 %)	FR (8 %)	DE (10 %)
ES (8 %)	DE (7.9 %)	FR (7 %)	DE (8 %)	ES (9 %)

Source: CEPS (2024) analysis.

Note: Direct FDI refers to investment positions in which the country of the ultimate investor corresponds to that of the immediate investor. The breakdown of direct real FDI is calculated using ownership information from a sample of more than 400 000 FDI-recipient companies.

The US has consistently been the largest investor in **indirect FDI** across all years. In 2022, the US alone accounted for more than a third (37.5 %) of indirect real FDI (see Table 4-5), an increase compared with 2021 when its share dropped to 27 % – a 22 percentage point decline from its peak the previous year. This 27 % share marked the lowest contribution by the US as an investor in indirect FDI across all observed years. Conversely, France's share peaked at 24 % in 2021, rising by 19 percentage points, before sharply declining to 5.8 % in 2022, returning to levels seen prior to 2021.

After a year of closely matched shares at the top (with the US and France both around 25 %), the gap between the US and the second-ranked (Germany) widened again in 2022 to over 25

percentage points. This resembles the pre-2021 period, where the difference between the US and the second-ranked ranged from 20 to 40 percentage points.

Notably, Russia appeared among the top five investor countries in 2021 but dropped out in 2022. Between 2021 and 2022, the composition did not change much, with the US, UK, and France always being included and other countries such as Germany, Belgium, Japan and Russia interchanging their positions.

In terms of recipient countries of FDI, the top five recipients have remained largely consistent across all years, though their rankings fluctuated. Nearly every year, a different country claimed the top share, with four different countries (Luxembourg, the Netherlands, Germany and Ireland) leading across 4 years. The shares among the top three recipients were relatively comparable, except in 2022, which exhibited the largest gap.

Table 4-5. Origin of indirect real FDI, 2018-2022

a) Top 5 investor economies 2018-2022 (% of indirect (real) FDI)

2022	2021	2020	2019	2018
US (37.5 %)	US (27 %)	US (49 %)	US (35 %)	US (40 %)
DE (10.2 %)	FR (24 %)	DE (9 %)	UK (14 %)	UK (7 %)
UK (9.6 %)	UK (7 %)	UK (8 %)	DE (10 %)	BE (4 %)
JP (5.9 %)	DE (7 %)	FR (5 %)	FR (6 %)	NL (4 %)
FR (5.8 %)	RU (6 %)	JP (3 %)	NL (4 %)	FR (4 %)

c) Top 5 recipient economies 2018-2022 (% of indirect (real) FDI)

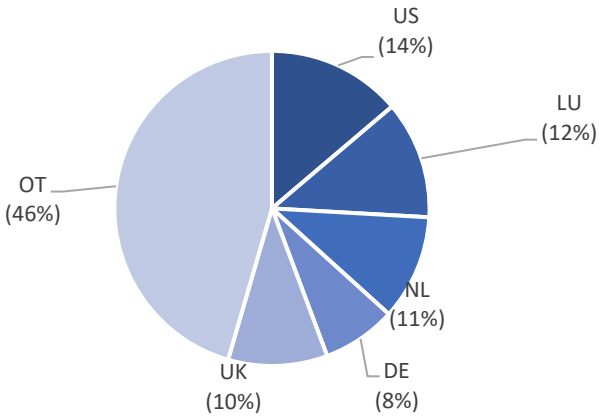
2022	2021	2020	2019	2018
LU (33 %)	DE (17 %)	IE (19 %)	DE (17)	NL (24 %)
FR (22.4 %)	NL (15 %)	DE (16 %)	NL (15 %)	DE (17 %)
IT (16.1 %)	FR (14 %)	FR (13 %)	FR (14 %)	IE (16 %)
NL (7.1 %)	ES (12 %)	NL (12 %)	ES (11 %)	FR (9 %)
PT (4.2 %)	IE (8 %)	ES (9 %)	IE (8 %)	ES (9 %)

Source: CEPS (2024) analysis.

Note: Indirect FDI refers to investment positions in which the ultimate investor resides in a different country than the immediate investor. The breakdown of indirect real FDI is calculated using ownership information from a sample of more than 400 000 FDI-recipient companies.

The concept of *indirect FDI* involves a country that intermediates (the immediate investors in official statistics) the investment between the ultimate investor's country and the recipient. In 2022, more than half of all FDI was channelled through just five countries: the US, Luxembourg, the Netherlands, the UK and Germany. Among these, the US takes the largest share with 14 %, although shares are all very similar for the four countries (see Figure 4-2). The rest of indirect FDI is channelled through other economies, including offshore centres.

Figure 4-2. Immediate country of real indirect FDI, 2022



Source: CEPS (2024) analysis.

Notes: Indirect FDI refers to investment positions in which the ultimate investor resides in a different country than the immediate investor. 'OT' stands for other countries: this is the residual group after excluding the EU-27, the UK, the US, Canada, Brazil, China, Japan, India, Hong Kong, Switzerland and Russia.

The distinction between ultimate and immediate investor countries, as well as between direct and indirect investment, allows us to separate intra- and extra-EU FDI with greater accuracy (see Table 4-6). The 2022 estimates indicate that nearly half of the total real FDI position in the EU-27 (about EUR 5.5 trillion) came from ultimate investors residing outside the EU-27 countries, of which a small part was intermediated by another EU-27 Member State. Such an amount is typically included in official statistics as intra-EU FDI because the immediate investor is based in an EU country. By contrast, a very small amount (EUR 8.7 billion, less than 0.1 %) is likely to be recorded as extra-EU, but the ultimate investor was based in an EU country. Lastly, about EUR 26.7 billion or 0.3 % of the real FDI inward positions of EU countries had another EU country as their counterpart, but different from the country of residence of the ultimate owner.

Table 4-6. Real FDI in the EU-27 by ultimate and immediate investor, 2022

Region of ultimate investors	Type of FDI	Region of immediate investors (intermediating country)	Total real FDI	
			EUR billion	% of total
EU-27	Direct		4 917.8	47.0
	Indirect	EU-27	26.7	0.3
		Non-EU-27	8.7	0.1
Non-EU-27	Direct		4 874.9	46.6
	Indirect	EU-27	475.1	4.5
		Non-EU-27	157.2	1.5
Total real FDI			**10 460.3**	**100.0**

Source: CEPS (2024) analysis.

Note: Direct FDI refers to investment positions in which the country of the ultimate investor corresponds to that of the immediate investor. Indirect FDI refers to investment positions in which the ultimate investor resides in a different country than the immediate investor. The breakdown between direct and indirect real FDI, as well as the region of the ultimate and immediate investor, is extrapolated using ownership information from a sample of more than 400 000 FDI-recipient companies.

To complete the picture for each of the EU-27 Member States, the amount of inward real FDI, broken down by type of FDI and by distinguishing round-tripping investment, was estimated (see Table 4-7). The latter refers to real investment in the domestic economy channelled through a foreign entity. This makes FDI look like a domestic investment. It is estimated that

real round-tripping FDI accounted for a very small percentage (less than 0.1 %) of the real inward FDI in the EU-27, or some EUR 26.7 billion.

Table 4-7. Real FDI in the EU-27 by recipient and type, 2022 (EUR billion)

Recipient country	Direct FDI	Indirect FDI		Total FDI
		Other partners	Round-tripping	
Austria	198.4	1.0	0.1	**199.5**
Belgium	494.1	12.8	0.1	**507.1**
Bulgaria	53.3	0.0	0.0	**53.2**
Croatia	21.4	5.8	0.0	**27.2**
Cyprus	54.7	4.8	0.0	**59.6**
Czechia	183.2	5.4	0.2	**188.9**
Denmark	119.9	4.6	0.0	**124.5**
Estonia	28.6	3.6	0.0	**32.1**
Finland	75.2	0.2	0.0	**75.3**
France	691.2	147.1	2.6	**840.8**
Germany	1 019.4	4.8	0.0	**1 024.2**
Greece	27.9	17.2	2.3	**47.4**
Hungary	82.1	17.1	0.0	**99.2**
Ireland	1 212.8	15.8	0.3	**1 228.8**
Italy	322.5	106.8	1.0	**430.3**
Latvia	21.4	0.8	0.0	**22.2**
Lithuania	27.8	2.1	0.0	**29.9**
Luxembourg	896.7	220.6	0.4	**1 117.7**
Malta	52.3	0	0	**52.3**
Netherlands	2 554.6	47.5	0.2	**2 602.3**
Poland	250.3	1.7	0.0	**252.0**
Portugal	138.3	27.1	0.7	**166.1**
Romania	106.8	1.0	0.0	**107.9**
Slovakia	52.0	1.8	0.0	**53.8**
Slovenia	20.2	0.0	0.0	**20.2**
Spain	758.2	3.1	0.0	**761.3**
Sweden	329.0	7.1	0.0	**339.1**
Total EU-27	**9 792.7**	**659.9**	**7.8**	**10 460.3**

Source: CEPS (2024) analysis.

Notes: Direct FDI refers to investment positions in which the country of the ultimate investor corresponds to that of the immediate investor. Indirect FDI refers to investment positions in which the ultimate investor resides in a different country than the immediate investor. The breakdown between direct and indirect real FDI is extrapolated using ownership information from a sample of more than 400 000 FDI-recipient companies.

As a last step, ORBIS data are used to estimate immediate and ultimate investor countries of the total real EU FDI stock (see Table 4-8), hence from the perspective of the investor, instead of the recipient. The comparison suggests that the total real immediate FDI from the EU-27, in the EU-27, is larger than the ultimate FDI, by about EUR 470 billion, and this holds for all Member States, with the notable exception of Estonia.

Table 4-8. Real FDI in the EU-27 by type of investor, 2022 (EUR billion)

Investor country	Real immediate FDI	Real ultimate FDI
Austria	131.9	126.4
Belgium	324.4	323.1
Bulgaria	1	0.9
Croatia	2.6	2.6
Cyprus	93.4	86.3
Czechia	44.4	46.8
Denmark	63.7	63.5
Finland	62.7	62.7
France	583.3	518.9
Estonia	7.9	7.8
Germany	835.7	769.6
Greece	6.2	9.3
Hungary	10.6	8.8
Ireland	289.3	286.7
Italy	190.0	165.9
Latvia	4.7	4.7
Lithuania	2.7	2.7
Luxembourg	1 289.0	1 182.0
Malta	31.8	27.1
Netherlands	1 115.4	962.2
Poland	12.6	12.4
Portugal	22.4	21.0
Romania	0.8	0.6
Slovakia	9.5	4.8
Slovenia	2.4	2.1
Spain	119.8	98.2
Sweden	161.3	155.4
Total intra-EU-27 FDI	**5 419.5**	**4 953.2**
Russia	58.2	52.9
Switzerland	626.6	629.3
United Kingdom	1 054.6	954.2
Brazil	-35.5	-34.7
Canada	129.6	120.1
United States	1 406.7	954.2
China	28.9	24.9
Hong Kong	103.6	103
India	0.9	2.2
Japan	200.5	195.5
Other world economies	1 466.7	2 019.7
Total extra-EU-27 FDI	**5 040.8**	**5 507.1**
Total EU-27 FDI	**10 460.3**	**10 406.3**

Source: CEPS (2024) analysis.

Note: See notes in Table 4.4.

Although these results are based on estimates and the exact figures involve some degree of uncertainty, the scale of the findings strongly underscores their significance, particularly given that SPEs have been excluded from these estimates.

In general, this analysis carries important implications for how FDI statistics should be applied when drawing conclusions about the state of investment connections and financial integration, on both a global level and within the EU-27. Standard FDI statistics tend to overstate the level of integration between EU-27 Member States and underestimate the connections between large EU Member States and non-EU countries.

4.3 Sectoral distribution of FDI

In addition to the country of origin, the sectoral distribution of real FDI is also important[31].

In 2022, nearly three quarters (71 %) of ultimate foreign investment originated in the finance and insurance sector (38 %) and in the manufacturing sector (33 %) (see Table 4-9), reflecting the capital-intensive nature of these industries. A closer glimpse at a few notable subsectors reveals that within manufacturing, the largest part (amounting to 30 % of all total foreign holdings), was investment by companies involved in the production of pharmaceutical preparations (NACE code 21.20), driven by continued vaccine production during the COVID-19 pandemic. Similarly, within the finance and insurance sector, the largest part, around 25 % of total investment, originated from business activities in holding companies (NACE code 6420).

On the recipient side, two thirds of investment (66 %) was directed towards finance and insurance companies, while 21 % went to professional, scientific, and technical activities. Among subsectors, holding companies were the largest beneficiaries, receiving about 50 % of total foreign investment, followed by head offices (NACE code 70.10), which accounted for 19 %. These two subsectors dominated overall FDI flows.

Table 4-9. Real FDI in the EU-27: top five direct FDI sectors, 2022

Direct			
Ultimate investor sector		Recipient sector	
Finance/Insurance	38 %	Finance/Insurance	66 %
Manufacturing	33 %	Prof. activities	21 %
Prof. activities	1 %	Wholesale/Retail	4 %
Wholesale/Retail	1 %	Manufacturing	2 %
Real estate	1 %	Real estate	2 %

Source: CEPS (2024) analysis.

Notes: Direct FDI refers to investment positions in which the country of the ultimate investor corresponds to that of the immediate investor. Indirect FDI refers to investment positions in which the ultimate investor resides in a different country than the immediate investor. The breakdown between direct and indirect real FDI is extrapolated using ownership information from a sample of more than 400 000 FDI-recipient companies.

Intermediated investment, like direct investment, was predominantly concentrated in financial and manufacturing companies, accounting for over two thirds of all investment (see Table 4-10). The financial subsectors of holding companies (30 % of total investment) and financial intermediation (13 %, NACE code 64.19) were particularly significant. Unlike direct investment, pharmaceutical production played a minimal role in intermediated investment.

[31] To identify the key sectors involved in FDI, in the absence of sector-specific FDI data from Eurostat, we use the NACE 2 classification for recipient companies, as well as for direct and ultimate investors in the ORBIS database.

As expected, the financial sector intermediated most investment (64 %), primarily through holding and intermediation activities, which together constituted around 40 % of total investment. Auxiliary financial services contributed 8 %, with most intermediating entities being holding-related.

Among recipients of intermediated investment, the financial sector dominated, receiving 71 % of total investment. Holding (28 %) and intermediation (26 %) subsectors led, while 'other credit granting' (NACE code 64.92) represented 10 %, a notable share absent in other categories.

Table 4-10. Real FDI in the EU-27: top five indirect FDI sectors, 2022

Indirect					
Ultimate investor sector		Intermediate sector		Recipient sector	
Finance/Insurance	55 %	Finance/Insurance	64 %	Finance/Insurance	71 %
Manufacturing	13 %	Manufacturing	14 %	Manufacturing	8 %
Prof. activities	4 %	Prof. activities	8 %	Wholesale/Retail	6 %
Electricity, gas, steam	3 %	Wholesale/Retail	4 %	Prof. activities	5 %
Wholesale/Retail	1 %	Admin. support	3 %	Real estate	2 %

Source: CEPS (2024) analysis.

Notes: Direct FDI refers to investment positions in which the country of the ultimate investor corresponds to that of the immediate investor. Indirect FDI refers to investment positions in which the ultimate investor resides in a different country than the immediate investor. The breakdown between direct and indirect real FDI is extrapolated using ownership information from a sample of more than 400 000 FDI-recipient companies.

4.4 Closing considerations on the FDI network in the EU

Between 2018 and 2022, the total stock of inward FDI in the EU rose from EUR 13.4 trillion to EUR 14.6 trillion, with a rebound in 2021 following a pandemic-induced decline in 2020. By 2021, FDI had exceeded pre-pandemic levels, reaching a record high for the period. Non-EU countries contributed 54 % (EUR 7.9 trillion), while the remaining 46 % (EUR 6.7 trillion) originated within the EU, reflecting a stable distribution.

The share of SPE-related FDI declined steadily, from nearly 50 % in 2018 to 29 % in 2022 – the lowest in the observed period. This trend may be linked to the US Tax Cuts and Jobs Act of 2017, which inflated SPE activity in 2018-2019, followed by stabilisation at around 30 % since 2020. Concurrently, direct FDI (net of SPEs) surged, nearing 95 % of real FDI in 2021, suggesting reduced reliance on intermediary countries for investment routing.

From a sectoral viewpoint, finance and insurance remained dominant in FDI inflows and outflows, especially through holding companies. In manufacturing, foreign pharmaceutical investment surged, likely due to COVID-19 vaccine production, though this appears more situational than structural.

5 Recent developments in payments and payment systems in the EU

Key findings

- Global payment systems in the EU are undergoing significant transformation. International players are expanding within the EU, leveraging its single market, while new business models are emerging.
- Merchants are driving demand for cheaper payment methods, favouring cards despite a decline in preference since 2021. E-commerce, both domestic and cross-border, is growing, with 31 % of online purchases in late 2022 involving other EU countries.
- Regulatory developments, such as the Interchange Fee Regulation (IFR), have lowered interchange fees for card transactions, though merchant service charges and scheme fees show mixed trends.
- National payment schemes continue to compete with international card networks, while cross-border instant payment initiatives gain traction. Meanwhile, EU authorities are advancing plans for a Digital Euro to complement commercial bank money.
- The euro's role in global trade invoicing has risen since 2020, particularly in exports, as the dominance of the USD slightly declines.
- However, fragmentation in global payment systems, arising from sanctions against Russia and shifts such as the push by China for yuan adoption, has mostly impacted the USD, with limited effects on the euro so far. Even so, as China- and Russia-led initiatives to de-dollarise multiply, fragmentation is expected to increase with widespread effects. These changes, while trade-focused, may extend to financial decisions globally.

This section reviews recent trends and key policy initiatives shaping retail payments in the EU and globally. Convergence of the digital transformation and geopolitical factors is spurring significant changes in retail payment infrastructure and processes, leading to the rise of alternative payment systems and instruments.

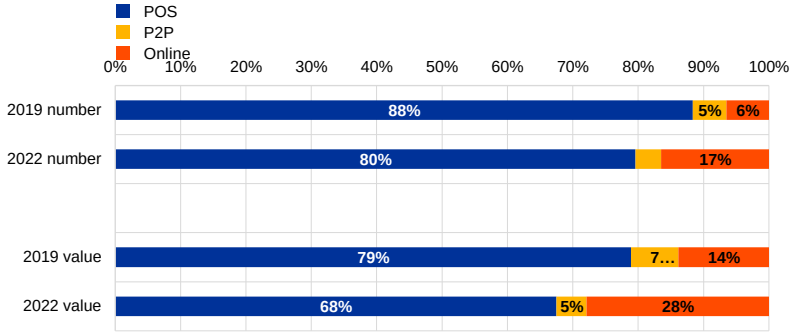
Over the past few years, payment markets and instruments have evolved dramatically on a global scale, with the EU experiencing similar shifts. As a result, consumer and merchant preferences have adapted, reflecting the broader transformation of EU retail payments. Yet, the EU retail payments landscape remains fragmented, although private actions such as the WERO by the European Payments Initiative and public projects like the Digital Euro are possible solutions to such fragmentation. Full interoperability and integration of the national payment schemes and payment methods across the EU are yet to be achieved. Variations in local payment preferences, the uneven adoption of digital payment technologies and the lack of technical interoperability between forms of payment from different Member States contribute to this complexity. As a result, seamless cross-border payments and a fully integrated market for EU retail payments are still a work in progress.

This challenge has been amplified by recent geopolitical tensions and growing concerns about the EU's reliance on foreign private card providers. In response, initiatives such as the mandatory introduction of instant payments in the EU, combined with the design of a pan-European instant payment infrastructure by the ECB and the payments market, the Digital Euro or WERO, could reduce the EU’s dependence on international card schemes for cross-border operations. This would strengthen the EU’s sovereignty in payments.

5.1 Development in EU consumer payments

Consumers are increasingly favouring online transactions[32] for non-recurring operations, although point of sale (POS) transactions are still dominant in terms of volume and value. According to the latest ECB 'Study on the payment attitudes of consumers in the euro area (SPACE)' of 2022, POS transactions continued to dominate in volume and value, but with a marked decline compared with 2019 of 8 and 11 percentage points, respectively. Peer-to-peer (P2P) transactions also declined by 2 percentage points, with online transactions gaining the share lost by both POS and P2P transactions, as can be seen in **Figure 5-1**.

Figure 5-1. Number and value of non-recurring payments by payment situation in the euro area, 2019-2022



Source: ECB, SPACE (2022).

The use of cash in POS transactions significantly decreased, with card payments gaining traction, but differences remained between Member States. Though volume-wise cash was still the most widely used payment method on average in the euro area, in terms of value it had already lost ground to cards, as can be seen in **Table *5-1***.

Table 5-1. Share of payment instruments used at POS by number and value of transactions in the euro area, 2019-2022

	Volume of POS only payments			
	Cash	**Cards**	**Mobile app**	**Other**
2019	72 %	25 %	1 %	2 %
2022	59 %	34 %	3 %	3 %
	Value of POS only payments			
	Cash	**Cards**	**Mobile app**	**Other**
2019	47 %	43 %	1 %	8 %
2022	42 %	46 %	4 %	8 %

Source: ECB, SPACE (2022).

Although in volume of POS transactions, the average share of cash in the euro area was 59 %, there were four Member States where cards were more widely used than cash. The cases of Finland and the Netherlands are especially remarkable with 70 % and 67 % of POS transactions, respectively, being paid with a card. Value-wise, cards were the most used payment method at POS, though this was not the case in more than 10 Member States, where cash was still king. In Malta, Latvia, Slovenia, Austria, Spain, Slovakia and Cyprus more than 50 % of the POS transactions by volume were paid with cash.

[32] Online payments include any payments made online except for regular bill payments such as electricity bills or rent. The term refers to the moment of payment, meaning that any orders made online but paid for at the point of sale (e.g. while picking up food from a restaurant or paying a courier at the door) are classified as point-of-sale payments.

Regarding P2P transactions, cash was still the preferred payment method by far, though its usage decreased in both the volume and value of transactions, with a rise in the use of mobile apps, as can be seen in **Table 5-2**. In terms of the volume of transactions, cash was most widely used in Germany, with an 87 % share. The Netherlands was at the opposite end, where mobile apps had a 43 % share and cash only 41 %. In terms of value, cash was more relevant in Slovenia, at an 87 % share, while mobile apps in the Netherlands had 52 %.

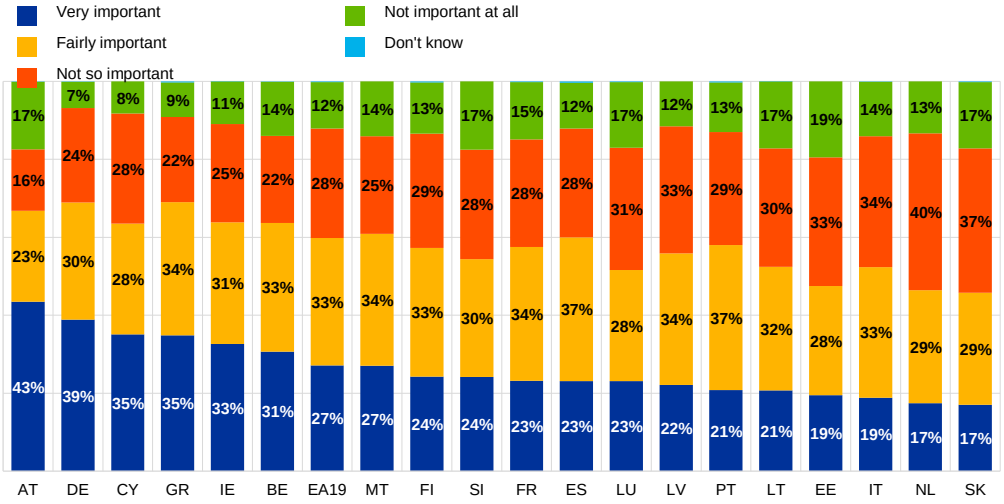
Table 5-2. Share of payment instruments used in P2P transactions by volume and value of transactions in the euro area, 2019-2022

	Volume of transactions			
	Cash	**Cards**	**Mobile app**	**Other**
2019	86 %	4 %	3 %	7 %
2022	73 %	5 %	10 %	12 %
	Value of transactions			
	Cash	**Cards**	**Mobile app**	**Other**
2019	65 %	8 %	4 %	23 %
2022	59 %	5 %	11 %	25 %

Source: ECB, SPACE (2022).

Even if the use of cash declined across all transaction types, 60 % of the euro area population deemed it very important or fairly important to have the option to pay with cash. This figure was below 50 % in only three Member States, namely Slovakia, the Netherlands and Slovenia, as can be seen in **Figure 5-2**.

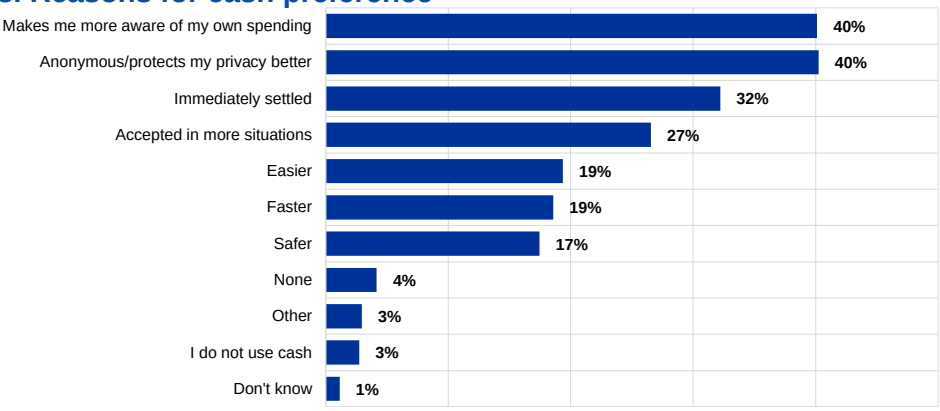
Figure 5-2. The importance of having the option to pay with cash, by country



Source: ECB, SPACE (2022).

As shown in **Figure 5-3**, the main reasons for cash preference were spending awareness and privacy protection. Immediate settlement, a higher degree of acceptance, ease, speed and safety held less relevance for cash users.

Figure 5-3. Reasons for cash preference



Source: ECB, SPACE (2022).

A card was the most widely used payment method in online transactions, though its usage has declined since 2019 in favour of other payment options, as shown in Table 5-3. Looking at the volume of payments, there was a very strong preference for e-payment solutions in the Netherlands (83 %), followed by Germany (48 %). In 13 Member States, more than 50 % of the number of online transactions were executed with cards. Value-wise, e-payment solutions were especially popular in the Netherlands (83 %) – most likely due to the wide acceptance of iDeal – Slovenia (45 %) and Germany (32 %), with cards being prevalent in Greece (64 %), Spain (58 %) and France (57 %).

Table 5-3. Structure of the number and value of online payments by payment instrument in the euro area, 2019-2022

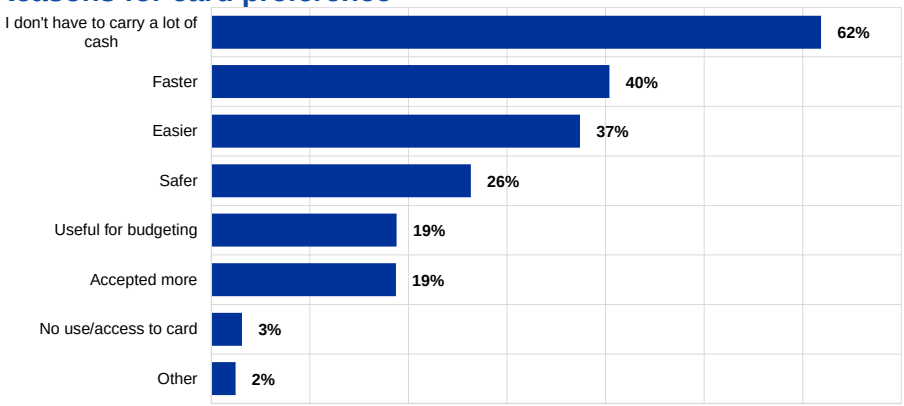
		Volume of transactions		
	Card	**Credit transfer**	**E-payment solutions**	**Other**
2019	54 %	7 %	29 %	10 %
2022	51 %	6 %	26 %	17 %

		Value of transactions		
		Card	**Credit transfer**	**E-payment solutions**
2019	**2019**	52 %	15 %	25 %
2022	**2022**	47 %	16 %	24 %

Source: ECB, SPACE (2022).

As per **Figure 5-4**, convenience was by far the main reason for card preference. Speed, ease and safety were also underlying reasons for card usage.

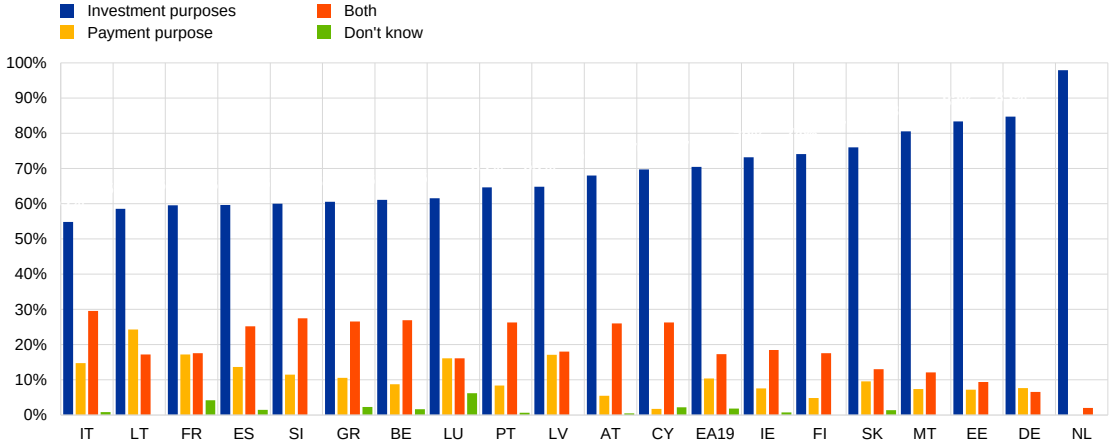
Figure 5-4. Reasons for card preference



Source: ECB, SPACE (2022).

Possession of crypto assets was still at very low levels, ranging from 2 % in Italy to 8 % in Luxembourg. As can be deduced from **Figure 5-5**, investment rather than payment was the main purpose of crypto asset possession across all Member States.

Figure 5-5. Use of crypto assets, by country

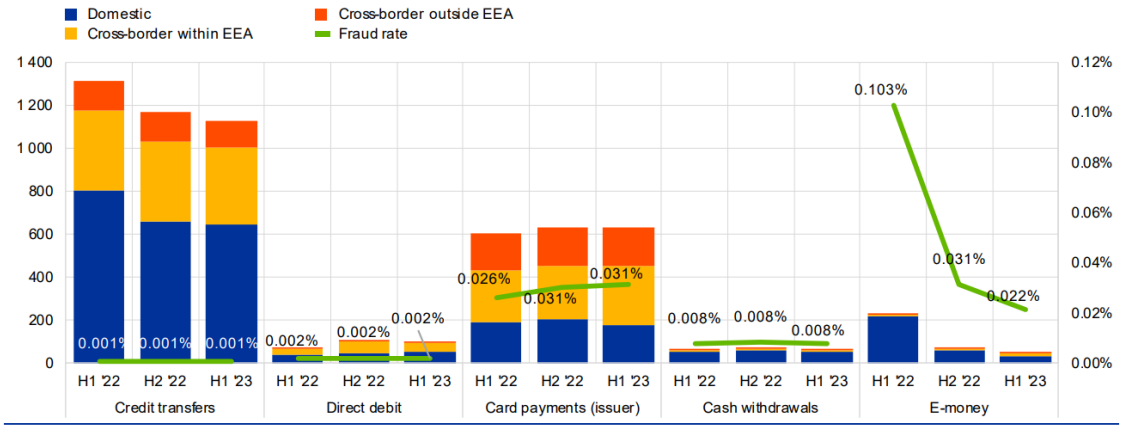


Source: ECB, SPACE (2022).

The advent of new digital and innovative means of payment and changes in consumer behaviour make fraud an increasing concern. According to the latest data by the ECB and the European Banking Authority (EBA) in 2022 and H1 2023 (see **Figure 5-6**), in relative terms fraud rates (i.e. fraud as a share of the total value of transactions) remained at low and stable levels for credit transfers, direct debits and cash withdrawals. In contrast, fraud rates were noticeably higher for card payments and e-money transactions.

Figure 5-6. Absolute and relative levels of fraud by type of payment instrument, in values

(left axis: total value of fraud (million EUR); right axis: fraud as a share of the total value of transactions of that type)

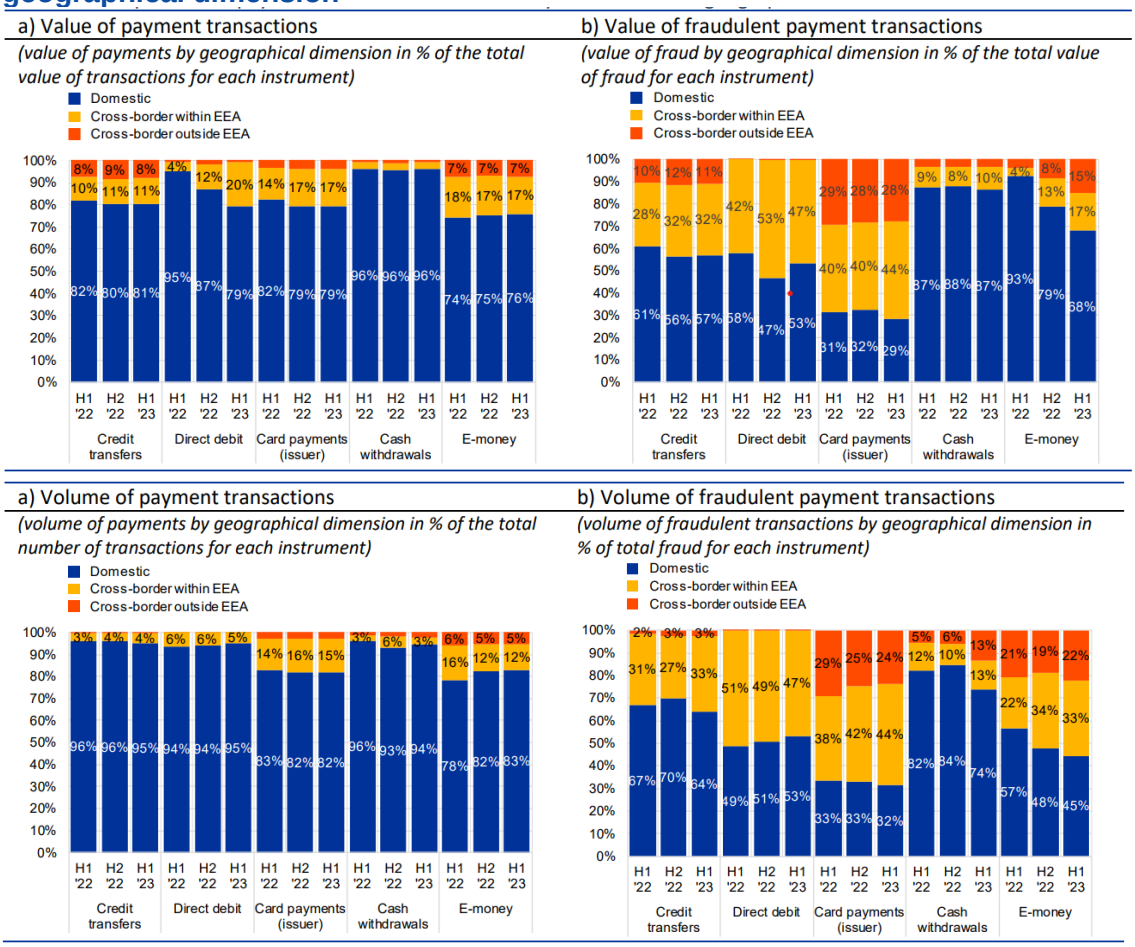


Source: ECB and EBA (2024).

Fraud rates were especially high in cross-border transactions, as can be gathered from **Figure 5-7**. For credit transfers, 43 % of the total value of credit transfer fraud and 36 % of the volume of fraudulent credit transfers were related to cross-border payments in the first half of 2023. For direct debits, cross-border fraud accounted for around half of total fraud in both value and volume terms. By contrast, the majority of fraudulent cash withdrawals was domestic (87 % in value and 74 % in volume terms in H1 2023). For e-money transactions, domestic transactions accounted for more than two thirds of the total value of fraud, while the share of cross-border fraud was higher in volume terms (55 % for H1 2023).

Significant shares of card payment and e-money fraud were related to cross-border transactions with payment service providers (PSPs) located outside the EEA. Cross-border transactions outside the EEA accounted for almost 30 % of the value of card fraud using cards issued in the EU/EEA in H1 2023 while representing only 4 % of the total value of card payments. Similarly, such transactions accounted for more than 20 % of e-money fraud in H1 2023 in terms of volume, yet only 5 % of total e-money payments.

Figure 5-7. Composition of payment transactions and fraud by instrument and geographical dimension



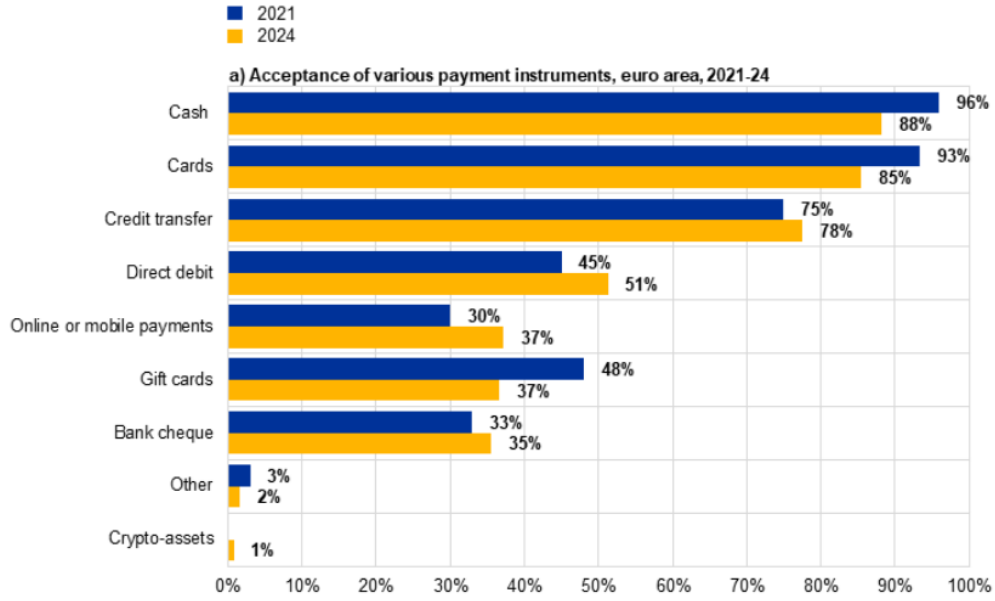
Source: ECB and EBA (2024).

The situation is even more acute with the emergence of new types of fraud, like manipulation of the payer, social engineering and technical scams or enrolment process compromise, which show the adaptability of fraudsters. As their techniques evolve in response to changing forms of payment, innovative measures by market players to protect consumers grow ever more important. The proposed Payment Services Directive 3 and the Payment Services Regulations by the European Commission suggest additional anti-fraud measures. These include an extension to all credit transfers of IBAN/name-matching verification services and a legal basis for PSPs to share fraud-related information between themselves in full respect of the General Data Protection Regulation. They also involve action to strengthen transaction monitoring, an obligation by PSPs to carry out education initiatives to increase awareness of payment fraud among their customers and staff, and an extension of refund rights of consumers in certain situations (Arnal, Andersson and Pozo, 2024).

5.1.1 Development in EU merchant payment instruments

Merchants are increasingly global and more digital. During digital shopping experiences, merchants prioritise conversion rates and support their customers' preferred payment methods. With most consumers largely unaware of the acceptance costs of different payment methods, merchants are key drivers in the push for cheaper means of payment. Cash is still the most widely accepted payment method by merchants, followed by credit cards, as can be seen in **Figure 5-8**.

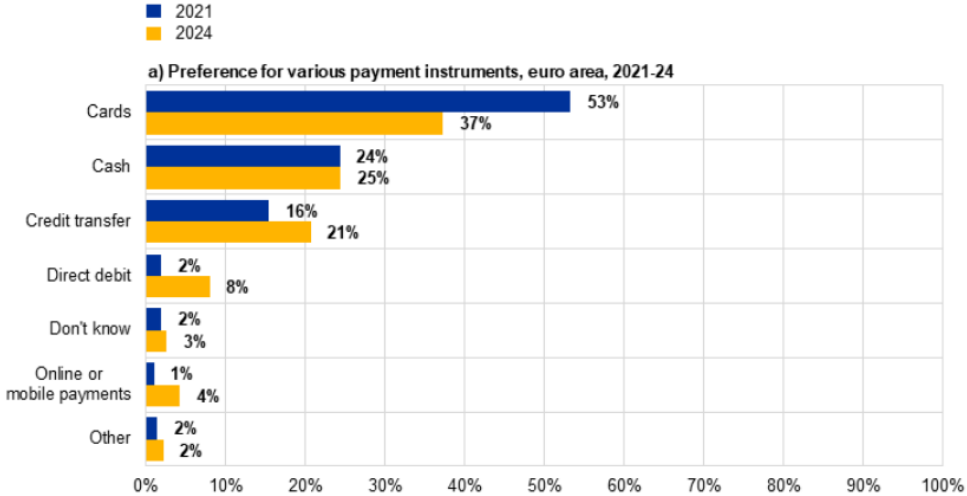
Figure 5-8. Acceptance of different means of payment



Source: ECB (2024).

Even if cash remains the most widely accepted payment method, merchants' preferred method, as shown in **Figure 5-9**, is cards. However, there has been a marked decline between 2021 and 2024 (16 percentage points) in favour of alternative methods. Cash preference has remained broadly stable at 25 %.

Figure 5-9. Preference for different means of payment



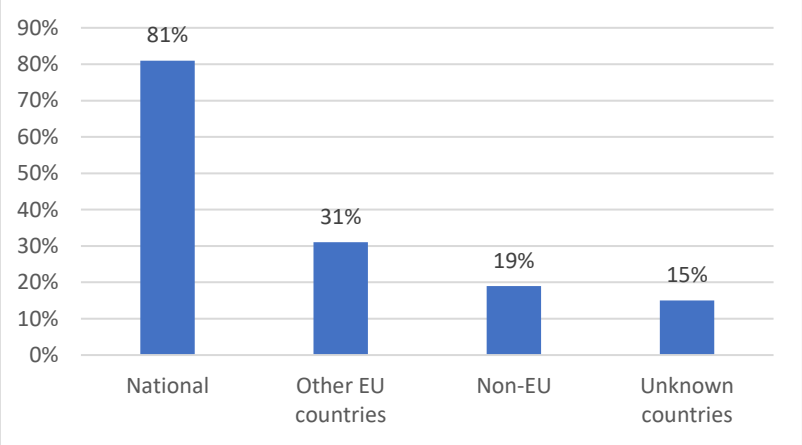
Source: ECB (2024).

As for the environmental cost of payments, as per a study by Lipis Advisors in 2022, traditional cryptocurrencies were by far the costlier instrument, at EUR/KWh 1 777.11 for Bitcoin and

EUR/KWh 125.36 for Ethereum, with cash coming in second place (0.22) but from a very large distance.

From the merchant perspective, the cross-border and e-commerce markets are expanding significantly and offer substantial room to grow. According to a report by Ecommerce Europe and Eurocommerce, in 2021, business-to-consumer e-commerce turnover in the EU reached approximately EUR 899 billion, equivalent to about 6 % of GDP. E-commerce trade in the EU encompasses both national and cross-border transactions. While domestic e-commerce remains sizeable, cross-border sales have also gained prominence. As can be seen in **Figure 5-10**, 31 % of the individuals who purchased online in the last quarter of 2022 did so from other EU countries.

Figure 5-10. Share of individuals in the EU who made an online purchase in the last quarter of 2022



Source: Implement Economics based on Ecommerce Europe and EuroCommerce (2023), European e-commerce report.

Multiple factors are considered by the merchant when selecting which payment solutions to offer, including price, transparency on payment fees, safety, ease of use and above all conversion rates. Merchants are increasingly accepting more means of payment and adjusting to consumers' payment preferences. There is a growing preference for a more customised, and even personalised customer journey, with an offer of ‘invisible’ payment journeys, such as merchant-initiated transactions, recurrent payments, and direct debits to ensure a seamless customer experience. Some merchants are now offering their own branded digital wallets and loyalty cards.

According to a report by the Directorate-General for Competition, the IFR has contributed to reducing the interchange fees for card transactions, which have stayed below the caps. Merchant service charges for debit card transactions increased between 2018 and 2022, while such charges for credit card transactions decreased. Scheme fees, not capped under the IFR, appear to have gone up. Providers of card schemes have argued that any rise in scheme fees is due to a combination of new regulatory requirements and new players joining the market, which require additional security measures. The report, however, states that this argument is based on limited evidence, covering only 12 Member States and with a limited sample of respondents. This was due to merchants, issuers, and acquirers citing non-disclosure agreements with card schemes for not participating, and card schemes citing confidentiality of the data.

5.1.2 The EU payment landscape

The European payments market today features a robust regulatory framework with a growing presence of national champions in digital payment services and a continual increase in the number of SEPA Inst credit transfers. While it relies on non-European players, new initiatives are emerging which may include a Digital Euro (Arnal and Andersson, 2024).

Global issuers of payment solutions are growing in the EU, with major international players leveraging the EU single market to expand. New business models are also developing, with Revolut having a market penetration of 40 % in Ireland, neobanks like Wise and N26 having grown their business to reach 10 and 8 million clients in 2023, respectively, and Big Tech entering the financial services market, starting with payments.

E-wallets are proliferating, though business models take different forms depending on the provider. Global fintech companies like Klarna are gaining traction in growing segments such as online or buy now pay later (BNPL). Neobanks base their model on standard financial apps with simplified onboarding processes. Big Tech firms such as Apple, Google or Meta aim to capture value by increasing their presence in market segments like BNPL, credit, card issuing or Tap to Pay, starting with the US and the UK, but progressively entering into the EU. Meanwhile, large merchants like Amazon, Alipay or Uber provide disintermediated solutions.

With the advent of e-commerce and the expansion of global merchants, there is an accelerated process of vertical integration between processors and acquirers. International card schemes, mainly Visa and Mastercard, are extending their presence in the payments value chain, moving into account-to-account (A2A), open banking and processing services, especially in the UK, but even more in the EU. For instance, Mastercard is moving pay-now functionality into a multi-rail/real-time world, whereas Visa is leveraging Visa Direct into a debit-like platform.

Until now, PSPs in the EU have largely followed a national approach and merchants have been dependent on international card schemes for cross-border payments. This was indeed acknowledged by the ECOFIN Council Conclusions of 22 March 2021 on the Commission Communication on a Retail Payments Strategy for the European Union. The conclusions state that ‘most domestic payment solutions based on cards or instant payments currently do not work across borders, which can constitute an obstacle for cross-border payments in shops and e-commerce’. They also note that ‘there have been a number of new public and private developments recently, with a view to the adoption of common European infrastructures, schemes and rules’.

National payment schemes, which are present in several EU Member States as can be seen in **Figure 5-11**, directly compete with international card schemes in their respective territories. Behind the multiple national solutions for instant payments in countries like the Netherlands, Spain and Sweden are mostly national banks. There is also an increasing number of European cross-border initiatives, such as the European Payments Alliance (EuroPA) or the European Payment Initiative. Other regional cross-border initiatives are being developed in the EU, promoted by leading national instant-payment companies. Likewise, EU legislative bodies are discussing a proposal to lay down the regulatory framework for the Digital Euro, with the ECB’s Governing Council leading technical work on the preparation phase. A decision still needs to be made on whether to introduce the Digital Euro, which would coexist with commercial bank money.

Figure 5-11. Digital payment market leaders

Source: SIBS- Forward Payment Solutions

Instant payments are evolving in the EU, with TARGET Instant Payment Settlement (TIPS), the settlement layer, having launched in November 2018 and SEPA Instant Credit Transfer Scheme in 2017. Adoption of the EU Regulation on Instant Transfers, published in March 2024, entails mandatory adherence for all PSPs that offer a payment service of sending and receiving credit transfers in euro. These initiatives will enable the development of new functionalities offering convenience and simplicity to users, especially at the point of interaction, and the emergence of other innovative payment solutions.

5.2 Invoicing and currency denomination in global payments

An important aspect of EU payments is the settlement of commercial transactions with non-EU partners, usually referred to as currency invoicing. In today's shifting geopolitical context, the key concern in extra-EU transactions is not the payment method but the currency used. While wire transfers remain the dominant method for international payments, typically processed through SWIFT, the choice of currency – particularly the rising use of non-traditional currencies due to geopolitical factors – is leading to more fragmented global payment systems.

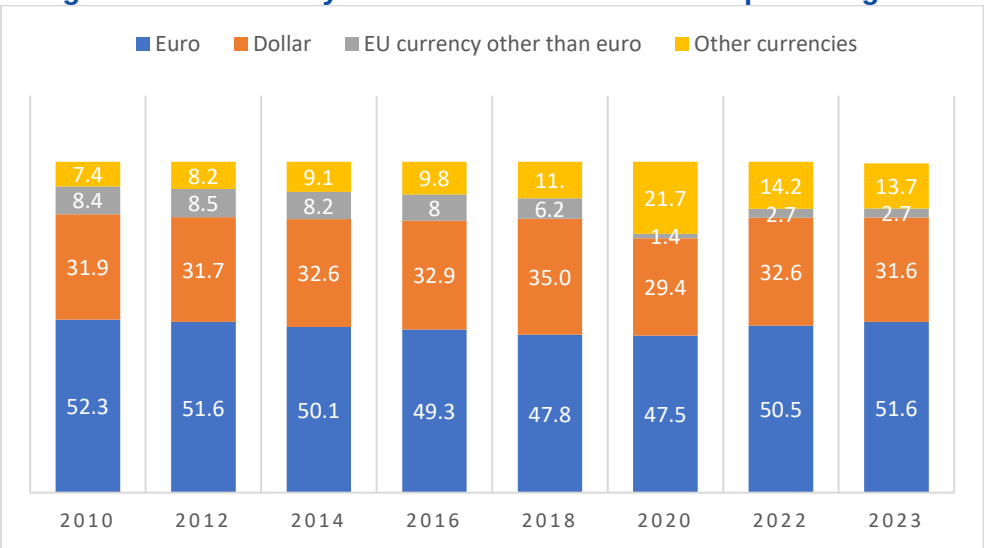
Interest in currency invoicing in global trade has been growing in the economic literature, especially as studies show that only a few international currencies dominate pricing and financing. Traders in non-reserve currency countries (essentially outside the US, euro area, and Japan) use one dominant currency for international transactions, even when the issuing country is not directly involved. Today, most international trade invoicing is done in USD, with the euro playing a secondary role as the world's second most important currency. According to Boz et al. (2020), outside of euro area transactions, the euro is mainly used as a vehicle currency within Europe and in some African countries, playing its largest role in euro area exports.

5.2.1 The role of the euro: Extra-EU payments

About half of extra-EU exports are denominated in euro. Since 2022, the euro's share has rebounded to over 50 % after a decade of decline. Estimates for 2023 indicate a further rise to 51.6 % (see **Figure 5-12**). Meanwhile, nearly a third of extra-EU exports are invoiced and settled in USD. This share has remained relatively stable, increasing slightly from 31.9 % in 2010 to 32.6 % in 2022, with 2023 estimates suggesting a decline to 31.6 %.

A notable change concerns EU currencies other than the euro, whose share fell by nearly 6 percentage points between 2010 and 2022. One reason could be the expansion of the euro area to include Estonia, Latvia, Lithuania, and Croatia. However, this decline was not offset by a corresponding increase in the euro's share. For about a decade, both euro and non-euro EU currency shares decreased, with the USD and other currencies gaining ground. In particular, the share of other currencies nearly doubled, from 7.4 % in 2010 to 14.2 % in 2022, with a slight decline projected for 2023.

Figure 5-12. Currency denomination of extra-EU exports of goods

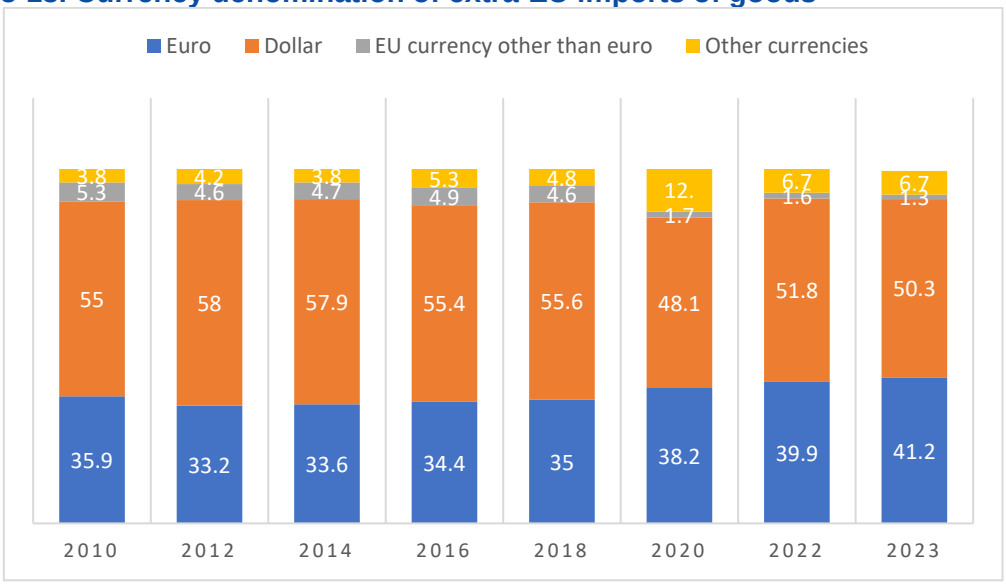


Source: Eurostat.

The role of the euro in extra-EU imports of goods is significantly lower than in exports. Until 2020, the euro accounted for just over a third of extra-EU imports, but recent data show a notable increase, with the euro reaching 41.2 % in 2023 – a historic high. The US dollar remains the dominant currency for invoicing extra-EU imports, with a share above 55 % for most of the decade up to 2020, when it dropped below 50 %. In 2022 and 2023, it fluctuated at around 51 %.

As with exports, the use of other EU currencies has steadily declined, accounting for less than 1.5 % in 2023. Interestingly, the share of other currencies nearly doubled from 6.7 % in 2010 to 12 % in 2020, before settling at around 6.7 % in 2022 and 2023. This spike in 2020 may be attributed to large imports of medical equipment and disposables from China, likely paid for in Chinese yuan.

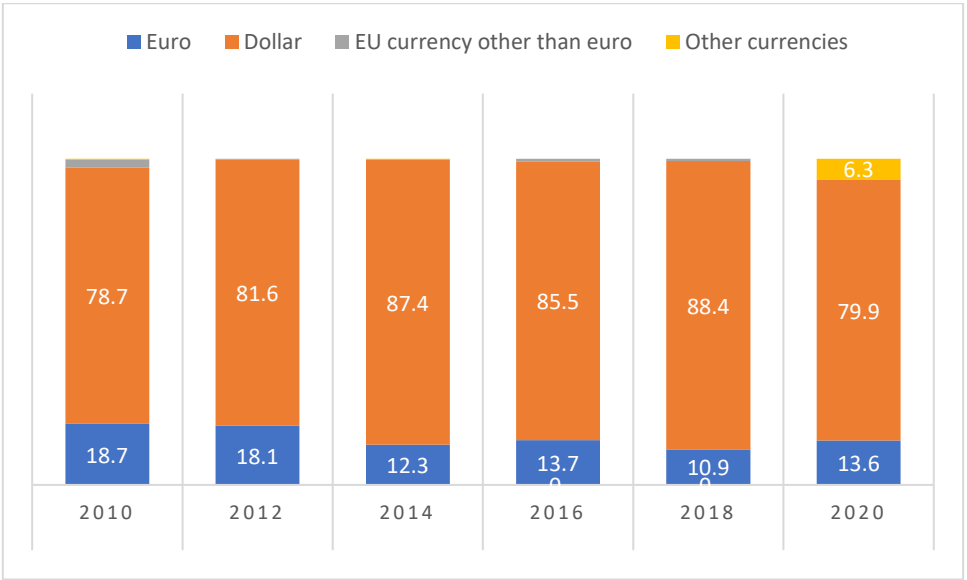
Figure 5-13. Currency denomination of extra-EU imports of goods



Source: Eurostat.

Importantly, trade shares by invoicing currency vary significantly depending on the types of exported goods. In the case of manufactured goods and primary goods (excluding petroleum), the share of the euro is at around 50 %. But in extra-EU imports, petroleum products and related materials hold considerable weight, and transactions for these commodities are typically denominated in USD globally. This is visible in the striking dollar dominance in the currency invoicing of these products (see **Figure 5-14**)[33], with the USD accounting for around 80 % of imports. Notably, the increased use of other currencies is also evident in 2020[34].

Figure 5-14. Currency denomination of extra-EU imports of petroleum, petroleum products and related materials



Source: Eurostat.
Note: Data only available until 2020.

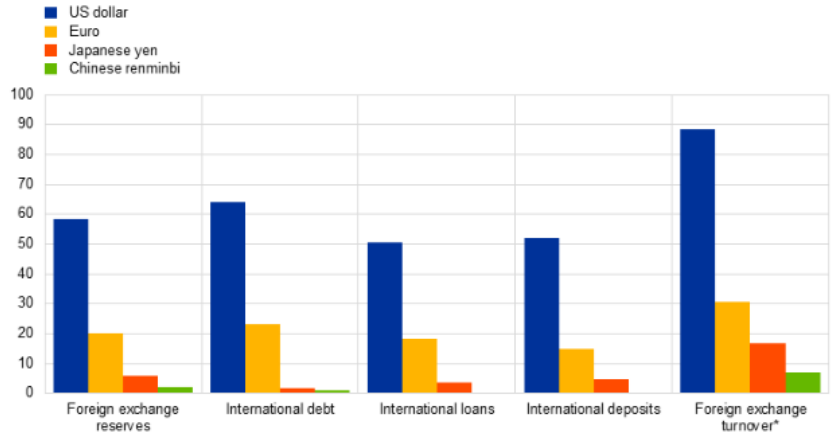
[33] We do not show the equivalent chart for extra-EU export shares, because EU exports of petroleum can be considered negligible when compared with total exports.
[34] More recent data are not available.

5.2.2 Emerging changes in the global payments landscape

Currency invoicing has gained renewed attention in policy discussions as growing geopolitical tensions reshape trade relations, particularly following the application of Western sanctions against Russia, and put into question the dominant role of the USD in the international monetary system.

The dollar has long dominated the international monetary system and remains the primary currency for foreign exchange reserves and financial instruments (see **Figure 5-15**).

Figure 5-15. Snapshot of the international monetary system, 2023Q2



Source: ECB, Chart 2, The international role of the euro, June 2024.

*Notes: The latest data on foreign exchange reserves, international debt, international loans and international deposits are for the fourth quarter of 2023. Foreign exchange turnover data as of April 2022. *Since transactions in foreign exchange markets always involve two currencies, foreign exchange turnover shares add up to 200 %.*

This dominance extends to currency invoicing, although comprehensive data on this is more difficult to gather. According to the ECB report on the international role of the euro in June 2023, data on global payments through SWIFT up to December 2022 showed that the USD accounted for around 50 % of global payments, while the euro stood at approximately 30 % (when accounting for intra-EU trade). The yuan, by comparison, represented less than 5 %. Changes in trade invoicing are usually costly and take time (strong path dependence), but are certainly not impossible, especially in the current geopolitical climate where political considerations increasingly outweigh those of economic efficiency.

The financial sanctions imposed on Russia have undoubtedly served as a warning for countries that view the US as hostile while providing China with a major opportunity to promote the international role of the yuan – a goal it has pursued for about a decade with very limited success. These developments pose an open challenge to the dominance of the US in the international monetary system.

When Russian banks were banned from using the SWIFT international banking system, effectively cutting them off from global financial networks, and the Russian central bank's reserve assets abroad were frozen, China agreed to increase yuan-ruble trade. This enhanced its economic influence over Russia while reducing or even eliminating the dollar's role in the two countries' economic partnership.

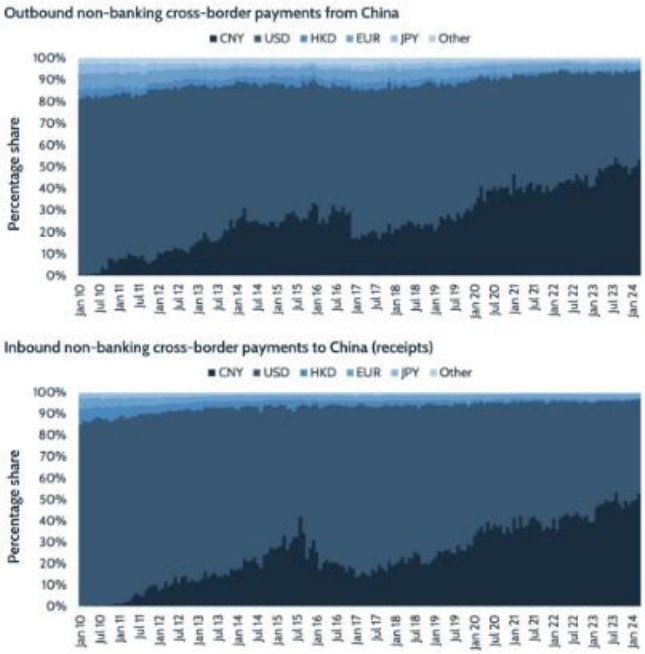
China has been trying for years to create an alternative method to SWIFT. CIPS was proposed in 2009 and launched in 2015 to provide an alternative international payment system that relied on China's yuan, connecting onshore and offshore accounts with participating banks,

without relying on the USD for transactions. While the initiative has not been very successful until now it has been replicated by others. Notably, to overcome sanctions, Russia's central bank created the System for Transfer of Financial Messages (Systema Peredachi Finansovykh Soobshchenii, SPFS) which solely uses domestic services and technologies to conduct transactions. Increasing trade with Iran, which began after the invasion of Ukraine, has led to meetings between the central banks of Iran and Russia and plans to combine the SPFS and its Iranian analogue, SEPAM. Ahead of the 2024 BRICS Plus Summit in Kazan, a new cross-border payment system was launched, called BRICS Pay, which was proposed by Russia and potentially backed by China.

China's prospective support may also be a response to the slow advancement of the mBridge initiative. This is a project for a cross-border payments system run by the central banks of China, Thailand, the UAE and Hong Kong, backed by the BIS Innovation Hub. It seeks to make transferring money internationally quicker and cheaper, relying on blockchain technology. Its key functions for participants include the issuance of central bank digital currency and redemption. It can allow countries to settle payments in their own currency instead of the more commonly used USD and make transactions much quicker using distributed ledger technology. The project, which has passed the minimum viability stage, now seems to be stalling amid concerns in the US and Europe about an international financial system underpinned by Chinese-developed technology.

Furthermore, other countries like Iran, Brazil, Argentina, and Bangladesh have made headway in de-dollarisation and using the yuan for trade. While it remains challenging to accurately track currency usage, the ECB report notes growing declarations of intent among some BRICS Plus members to explore using their own currencies for international trade and cross-border payments, seeking alternatives to the USD and euro, not least in response to sanctions on Russia. The Chinese yuan is mounting a challenge to the dollar's dominance. According to Bloomberg, in March 2023 usage of the yuan in China cross-border transactions jumped ahead of the USD. The most recent data (March 2024) from China's State Administration of Foreign Exchange show that the volume of outbound and inbound cross-border payments made in yuan outstripped those made in US dollars (see **Figure 5-16**). Meanwhile, the role of the euro remains minimal and continues to decline. Given China's importance in global trade, these trends are likely to soon be reflected in global statistics.

Figure 5-16. China cross-border payments



Source: FXC Intelligence, May 2024, based on China's State Administration of Foreign Exchange.

The yuan still faces significant limitations as an international currency. China's government maintains capital controls, and the yuan is not fully convertible – its exchangeability into other currencies remains conditional. Additionally, since 2005, China has operated a managed floating exchange rate system, where the currency is no longer pegged to the USD but is influenced by central bank interventions in the foreign exchange market, which entails higher exchange risks. From an economic perspective, these features make the yuan a weaker alternative to the USD and the euro. All the same, geopolitical considerations, far more than economic efficiency, are now driving the ongoing shifts in the global currency landscape.

The ECB’s 2024 report on the international role of the euro emphasises that while the euro’s position in global payments remained stable in 2023, such changes are increasing the risks of a potential fragmentation in global payment systems and the impacts could extend beyond trade. Economic literature suggests that choices regarding international invoicing currencies can spill over into other areas, creating feedback loops between trade and financial decisions, and multiplying the use of these currencies through economies of scope.

6 Extra-EU capital flows

Key findings

- The acquisition of extra-EU assets (capital outflows) and the incurrence of extra-EU liabilities (capital inflows) reached record highs in 2021 and early 2022, respectively. However, this growth trend came to an abrupt halt in mid-2022. Since then, EU investment abroad and foreign investment in the EU have both declined sharply, with some categories of investment, notably FDI, experiencing disinvestment. This retraction seems to be driven by rising geopolitical tensions, and economic and political uncertainty.
- Since 2022, EU FDI assets have exhibited large divestment operations. Yet EU portfolio investment assets have grown significantly (a trend that started in 2016) and seem to have partially replaced FDI in magnitude.
- Extra-EU FDI liabilities show a clear two-regime pattern. After a decade of strong and stable patterns, since 2018 FDI inflows have barely been positive, with major disinvestment waves around 2018 and post-2022, largely by US residents. Portfolio investment inflows, particularly in debt, have been relatively stronger and steadily increasing.
- EU-US FDI linkages have been undergoing important changes dominated by divestment operations on both sides for several years. The simultaneous increase in portfolio assets suggests that FDI increasingly reflects financial transitions rather than traditional greenfield investment.
- Since 2022, UK residents have undertaken significant divestment operations from EU assets, but mostly in the category of other investment. This could be related to the tightening cycle by major central banks. Over the same period, EU residents also divested heavily from UK assets, across all asset classes, though the feature is most pronounced for FDI.
- The Inflation Reduction Act likely underpinned the notable rise in US manufacturing FDI and reshoring activities in 2022 and 2023, including from the EU. Still, preliminary 2024 data suggest a marked slowdown, leaving its long-term impact uncertain.
- Rising concerns about foreign interference in critical sectors have intensified FDI screening in the EU. While justified, this may delay processes and discourage EU-based companies with foreign links, and its security benefits need to be weighed against the loss of technological transfer and production that come from openness to FDI.

This section considers the latest developments in extra-EU capital flows and their underlying factors. It first provides an overview of recent developments. It then examines in more detail EU bilateral investment relations with two key counterparts: the US and UK. Digging into bilateral flows helps us determine whether recent aggregate shifts in extra-EU flow patterns stem from changes in bilateral relations. Against this backdrop, the section also examines bilateral investment flows with Russia to assess whether the decoupling from Russia, since the start of the war in Ukraine may have contributed to the decline in extra-EU flows observed since 2022.

Finally, the last two subsections look at two different approaches and measures that have been in place in response to heightened geopolitical tensions, in order to enhance domestic economic security and their potential (unintended) effects on FDI. In the US, the Inflation Reduction Act (IRA) passed in 2022 to support domestic manufacturing and climate action

may have intensified the reshoring of activities from the EU in the US. In the EU, the economic security packages (especially the screening of FDI from non-EU countries) to mitigate potential risks that certain FDI poses to EU security may deter EU FDI investment.

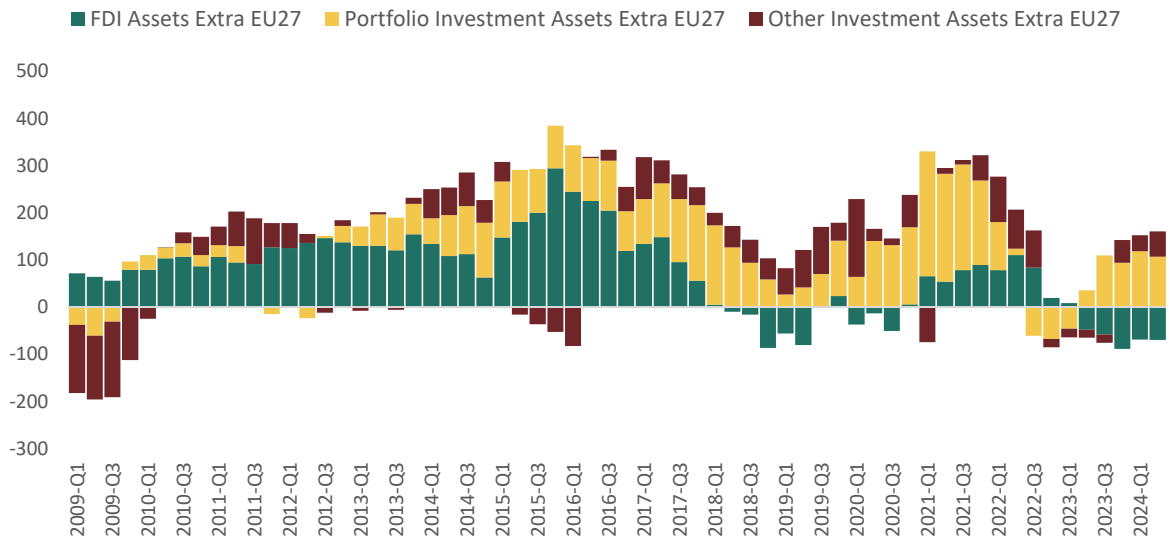
6.1 Extra-EU flows

When viewed from a long-term perspective, extra-EU assets and liabilities reveal significant shifts in both their total volume and composition. After a prolonged cycle that started with a low during the financial crisis and culminated in a contraction around 2017-2018, extra-EU assets and liabilities began recovering in 2019. This recovery continued through the COVID-19 pandemic, reaching record highs in 2021 and early 2022, respectively. But this growth trend came to an abrupt halt in mid-2022. Since then, both EU investment abroad and foreign investment in the EU have declined sharply, with some categories of investment, notably FDI, experiencing disinvestment (net sales of non-EU instruments by EU residents and EU instruments by non-residents). This retraction seems to be caused by rising geopolitical tensions, and the economic and political uncertainty related to the start of the war in Ukraine. While both assets and liabilities show similar trends, distinct fundamental factors are influencing each and their underlying categories of investment.

The swings in EU financial outflows (assets) over the past few years have to a great extent taken place in direct investment and portfolio investment, while other investment experienced a reversal but appears very limited in size.

Extra-EU FDI assets (Figure 6-1) appear to follow two distinct 'regimes', with a shift occurring around 2018. Prior to 2018, FDI flows were relatively large and stable and remained so even during the financial crisis and the euro area sovereign debt crisis. After 2018, flows significantly decreased in size, became more volatile, and entered a phase of retrenchment. As discussed more in detail in Section 6.2, the 2017 US Tax Cuts and Jobs Act is believed to be a key contributor to this trend up until 2019. However, the negative trend observed more recently, indicating a wave of FDI disinvestment, cannot be attributed to that event and must involve other factors.

Figure 6-1. Net acquisition of gross assets (capital outflows), extra-EU-27, 2009Q1-2024Q2 (EUR billion)



Source: Eurostat, BoP data.

Notes: Moving average over 4 quarters. The figures refer to investment abroad (purchases of foreign assets) by EU-27 residents. Negative values correspond to EU residents' net sales of foreign assets in the quarter.

Lane (2024) offers a potential explanation, for which it is worth recalling two documented facts. First, FDI flows, traditionally considered the least volatile category of international capital flows, have seen increased volatility in recent years, particularly in small open economies, largely due to the major role of multinational enterprises. Second, in Europe, developments in FDI over the past decade have been heavily influenced by euro-area financial centres (commonly including Belgium, Cyprus, Ireland, Luxembourg, Malta, and the Netherlands) due to the presence of multinational enterprises. These enterprises are often characterised by complex structures involving special-purpose entities and cross-country transactions. They frequently capture flows with little to no impact on the real economy of the host country, and hence complicate the analysis of headline FDI figures (see Section 4 for a detailed empirical analysis of the role of SPEs in EU FDI).

Against this backdrop and using sectoral analysis, Lane (2024) highlights two observations. One is that 'other financial institutions'[35], typically located in euro area financial centres, played an important role in the retrenchment (i.e. the reduction or withdrawal of investment by EU residents from foreign markets) observed since 2022. Another is that FDI flows, from the non-financial corporate sector, which chiefly come from countries outside the group of financial centres, have not seen a large-scale retrenchment, though there is evidence of a reduction in FDI transactions. This pattern corresponds with the weaker growth momentum in global and euro area economies and could signal that companies are reducing FDI in response to heightened geopolitical risks.

Interesting patterns can also be observed in **portfolio investment assets**, which since 2016 have grown quite dramatically and seem to have partially replaced FDI in magnitude, with such a trend becoming evident during the period 2018-2022. Extra-EU portfolio investment by EU residents, which had fuelled the post-2018 recovery, declined at the end of 2021 and turned negative during 2022 and the first quarter of 2023, but then recovered fast, pointing to markedly different behaviour from FDI.

The sectoral breakdown of euro area portfolio investment reveals the predominance (in 2023 it was close to two thirds for equities) of the investment funds sector as holders of portfolio investment securities issued by non-euro area residents. This group of investors tend to be procyclical, selling securities in periods of high levels of risk aversion, which in turn leads to higher volatility in financial flows (Emter et al., 2023). As detailed in Emter et al. (2023), in 2022 euro area investors reduced their exposures in a broad-based fashion across geographical counterparts. The disinvestment was pronounced, with large sales of equities issued by advanced economies (notably the US and the UK) and debt securities issued in emerging economies (mainly China, Mexico and Russia).

The surge in inflation across the world, which began in mid-2021, and the unprecedented and simultaneous hike in interest rates heightened the risk of global recession. This in turn deteriorated global investor sentiment, especially towards emerging economies. With inflation declining steadily in 2023, interest rate normalisation and (modest) growth recovery, the outflows of euro area portfolio investment picked up again in 2023, with net purchases of debt securities recovering strongly vis-à-vis most regions; the sentiment towards emerging economies and offshore financial centres[36] remained muted.

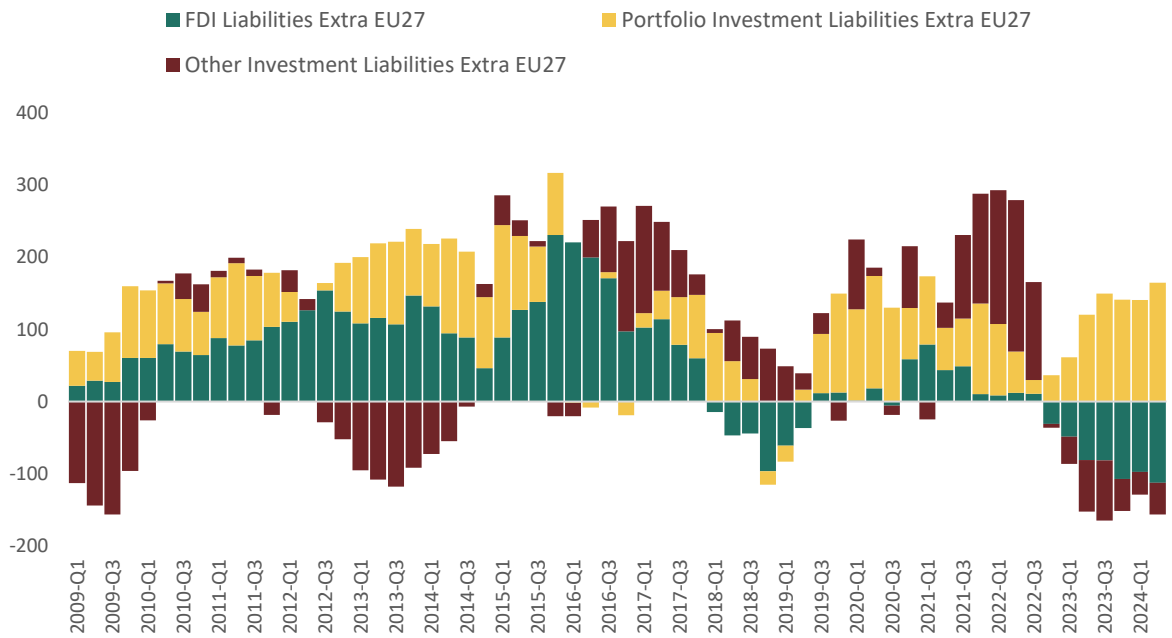
When looking at **extra-EU liabilities** (Figure 6-2), the broad patterns are quite similar to developments in assets. In particular, the 'two-regime' trend for FDI is even more clear-cut than for assets. Since 2018, FDI inflows have barely been positive. Two main disinvestment waves of non-EU residents occurred around 2018 and then after 2022. The latter is continuing

[35] 'Other financial institutions' is a broad category that refers to financial institutions which are not classified as banks, insurance corporations, or pension funds. This category includes a wide range of non-bank financial intermediaries, like investment funds, securities dealers and brokers, and finance companies.

[36] As indicated by Lane (2024), recent research indicates that euro area and US investment in emerging market corporate bonds is substantially larger when investment in issuance by offshore subsidiaries of emerging market corporations is taken into account.

into 2024 and has even grown. As illustrated in Lane (2024), net sales of FDI by UK but above all US, residents are producing the negative values in the last part of the sample. By contrast, portfolio investment in the EU has remained relatively stronger and increased steadily, driven by the debt component.

Figure 6-2. Net acquisition of gross liabilities (capital inflows), extra-EU-27, 2009Q1-2024Q2 (EUR billion)



Source: Eurostat, BoP data.

Note: Moving average over 4-quarters. The figures refer to non-EU residents' investment in the EU or their purchases of liabilities issued by EU residents. Negative values imply non-EU residents' divestment from the EU.

Lane (2024) argues that on the one hand, for foreign investors, euro area investment funds constitute important intermediation vehicles for global portfolio investment and the dramatic 2022 retrenchment, mostly in equities, can be explained by the low-risk appetite prevailing in global financial markets following the Russian invasion of Ukraine. On the other hand, the higher euro area interest rates and the ending of quantitative easing boosted the appetite of foreign investors for euro area debt securities, hence suggesting that monetary policy played a role in maintaining net foreign debt inflows in 2023.

6.1.1 New extreme episodes in capital flows?

The analysis above shows that the changes in capital flows the EU faced in 2022 and 2023, in some cases, appear comparable with those that occurred during the global financial crisis. The 'normalisation' phase that followed the pandemic was derailed in the wake of Russian aggression against Ukraine in February 2022, as well as rising geopolitical risks.

In the following discussion, we attempt to identify the possible abrupt impact of these developments on capital flows by testing for the existence of extreme changes in FDI, portfolio investment and other investment in EU Member States over the period 2009M1-2024M4.

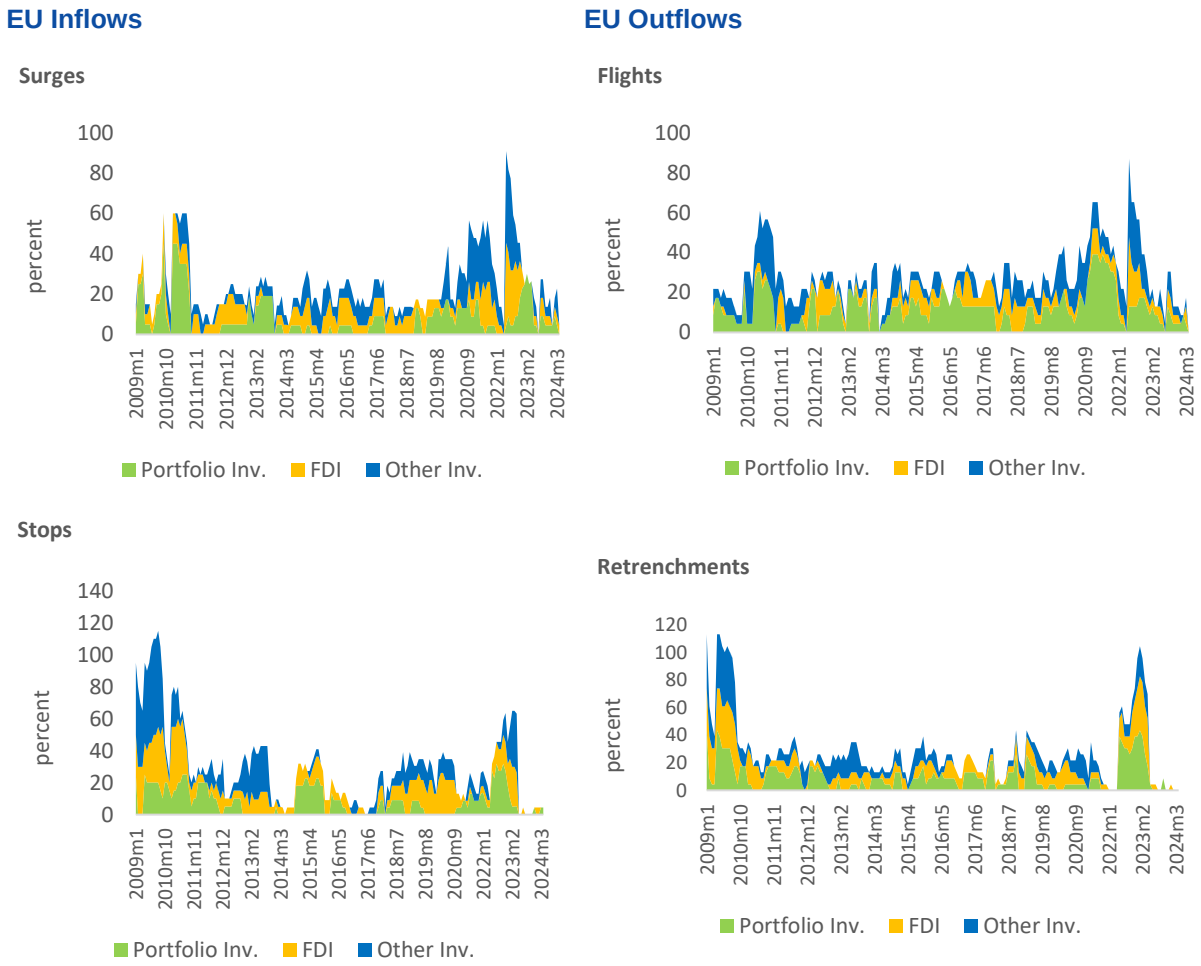
We follow the approach of De Crescenzio and Lepers (2021) and use the OECD Monthly Capital Flow Dataset. Consistent with the literature, the authors identify four categories of extreme events: 'surges' and 'stops' refer to sharp increases and decreases, respectively, of gross inflows (net foreign acquisition of domestic assets); 'flight' and 'retrenchment' refer to

sharp increases and decreases, respectively, of gross outflows (net acquisition of foreign assets by domestic residents).

The analysis (Figure 6-3) shows that the surge in capital inflow in 2022 was rather short-lived. Similarly, signs of capital flight of a very short duration, mainly in portfolio investment, but also retrenchment in both portfolio investment and FDI, were the most notable changes. These changes were comparable with those seen during the global financial crisis, although at that time the capital retrenchment was propelled by other investment. Interestingly, the extreme events that unfolded in 2022, particularly the significant decline in the outflow of portfolio investment and FDI, largely abated in the course of 2023. A closer look at the data in 2023 and the first quarter of 2024 indicates that several countries, including Germany, Italy, Portugal, Spain and Slovenia, have experienced some sort of capital flight, mainly in portfolio investment and FDI. The general magnitude, however, has been much smaller than during the events observed in 2022.

Overall, after the marked retrenchment that ended in early 2023, no extreme capital flows have been detected. On the contrary, the last part of the sample appears exceptionally flat.

Figure 6-3. Extreme events in EU capital flows, 2008M1-2024M4



Source: Authors' calculations, based on the OECD Monthly Capital Flow Dataset (introduced and presented in De Crescenzio and Lepers, 2021), August 2023 update.

Notes: Data are not available for Austria, Cyprus, Malta or Ireland. The vertical axis represents the share of EU Member States in the sample that experienced the corresponding episodes at each point in time. Given that three categories of flows are considered, the total could be higher than 100 %. An extreme episode is identified as an increase in annual changes in the cumulative sum (of the last 12 months) that is more than one standard deviation above its rolling mean, on the condition that for

one month during the episode it reaches at least two standard deviations above its mean. The episode ends once the increase falls back to within one standard deviation above its mean.

6.2 EU bilateral external flows: the US, UK and Russia

This section outlines recent developments in the EU's bilateral flows with three external partners. The first is the US, a historically significant trade partner and the EU's primary investment partner, as both a source of and destination for investment. The second is the UK, which since Brexit, has become a major external trade and financial partner. The third is Russia. Although Russia was not a major global investment player, it is legitimate to ask how EU sanctions against Russia have affected EU-Russia cross-border investment and whether such changes could contribute to explaining developments in EU aggregate flows since 2022.

6.2.1 Capital flows between the EU and the US

Two important FDI disinvestment episodes documented in the previous section can be associated with US policy changes. The first dates back to 2017 and is the change in US tax policy. The second one is the IRA in 2022.

The US Tax Cuts and Jobs Act was enacted in December 2017 and brought significant changes to the US tax system, with reforms that had important implications also for cross-border investment[37]. Among the extensive changes made by the IRA to both individual and corporate tax structures, the two most relevant ones affecting overseas flows were the tax incentive for the repatriation of overseas profits and the reform of the international tax system. The US Bureau of Economic Analysis (BEA) suggests that there was a significant surge in repatriated profits following enactment of the Tax Cuts and Jobs Act, with US companies repatriating an estimated USD 664.9 billion of foreign earnings in 2018[38].

Figure 6-4, which displays the EU net acquisition of assets (EU capital outflows) and the net incurrence of liabilities (EU capital inflows) vis-à-vis the US, clearly shows a large FDI divesting wave, around 2018, of both EU assets from US residents and US assets from EU residents. The wave gradually fades out in early 2020.

A new divestment episode started at the end of 2021. It expanded substantially in 2023 and it is still ongoing. Specifically, US divestment in the EU in the last quarter of 2023 and the first two quarters of 2024 is comparable with that observed in 2017Q4-2018Q1. This trend is likely spurred by the war in Ukraine and rising geopolitical risks, but US supportive industrial policy, through the IRA, may also have played a role (see Section 6.3 for a more detailed analysis).

While EU liability data for portfolio investment in the US is unavailable, EU residents appear to have offset FDI divestment by purchasing significant amounts of US portfolio assets, which have largely surpassed FDI in size and have not experienced divestment episodes, except briefly in 2022. The increases in the interest rates first in the US and then in the euro area, can partially explain large transactions on portfolio investment.

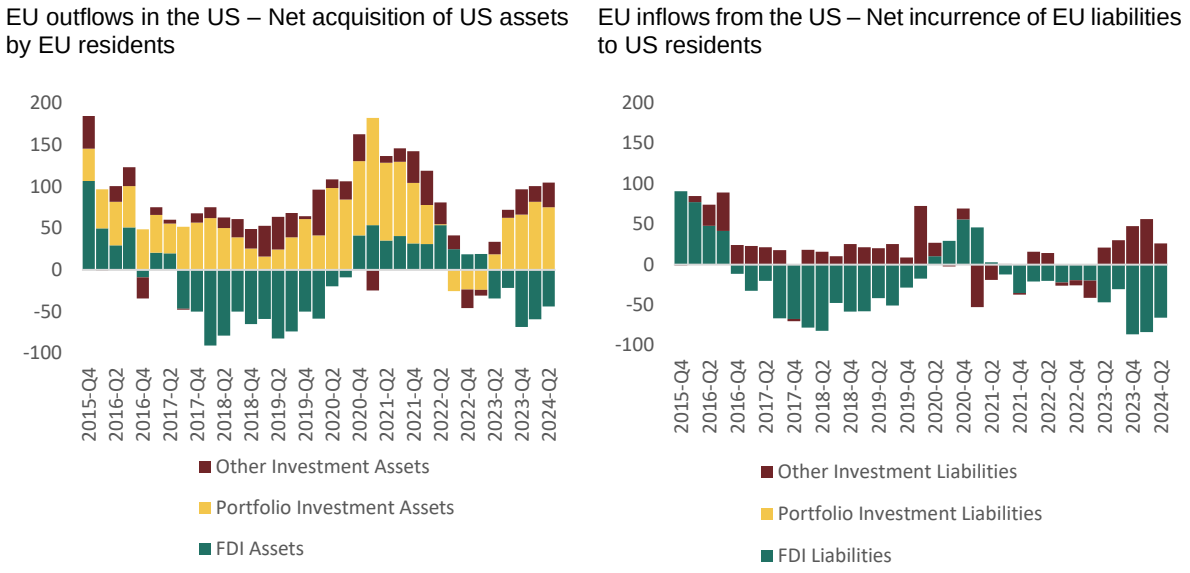
Overall, EU-US FDI linkages have been undergoing important changes dominated by divestment operations on both sides for several years. Simultaneous divestment in FDI and

[37] See an overview of the measures at https://www.irs.gov/newsroom/tax-cuts-and-jobs-act-a-comparison-for-businesses. The act imposed a one-time tax on repatriated earnings of foreign subsidiaries, encouraging companies to bring profits back to the US at reduced tax rates of 15.5 % for cash and 8 % for non-cash assets. In addition, the US moved from a worldwide tax system to a territorial system, where income earned by US companies abroad would generally not be taxed by the US, with certain anti-abuse provisions to prevent the shifting of profits to low-tax jurisdictions. Among others, Heinemann et al. (2018) and Matheson et al. (2022) look into the impact of these reforms on US foreign investment.

[38] See https://www.bea.gov/news/2019/us-international-transactions-4th-quarter-and-year-2018. According to the BEA, while the initial surge was notable, repatriation levels stabilised in subsequent years and companies brought back substantial amounts of foreign earnings in 2019 and 2020, but not at the same high levels seen immediately after enactment of the Tax Cuts and Jobs Act.

larger investment in portfolio assets support the observation made above that the nature of FDI has changed in recent years and FDI data increasingly reflect financial transitions rather than traditional greenfield investment.

Figure 6-4. Gross EU assets and liabilities vis-à-vis the US, 2015Q4-2024Q2 (EUR billion)



Source: Eurostat.
Notes: Moving average over 4 quarters. The data for portfolio investment liabilities are not available.

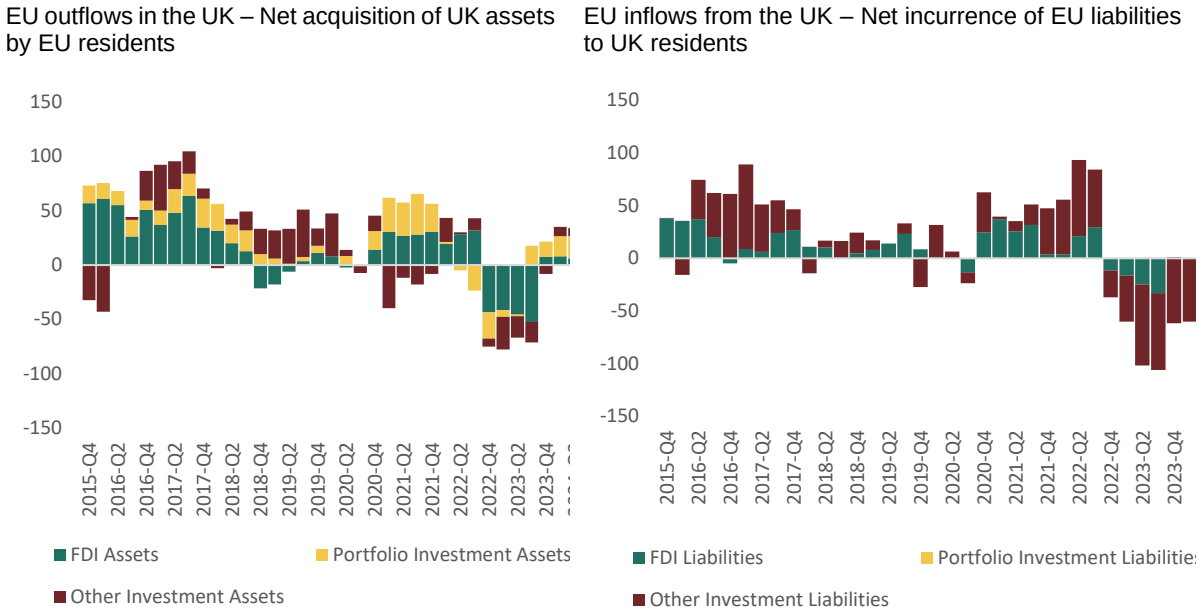
6.2.2 Capital flows between the EU and the UK

When looking at the EU-UK bilateral data (see **Figure *6-5***), it emerges that the fall in the extra-EU FDI liabilities around 2018 was fundamentally a US-related event. By contrast, the changes in the divestment wave started in 2022 and can be seen in both EU-US and EU-UK flows. Although the magnitude of UK divestment from EU assets has been much smaller than that of the US, it is the first time that UK FDI purchases of EU assets have turned substantially negative. The main part of the UK divestment from the EU can be observed in the category of other investment. This could be related to the tightening cycle by major central banks. The Bank of England was the first to raise its interest rate at the end of 2021, in response to the inflation hike. Disaggregated data by investment category, however, are not available to confirm this.

Interestingly, over the same period, EU residents also appeared to divest heavily from UK assets. This holds mostly but not only for FDI, as all asset classes are concerned. This development seems to have had a short duration. It began around the start of the war in Ukraine and the imposition of the sanctions against Russia and ended around mid-2023. Yet, FDI asset flows are still at zero. Besides the factors mentioned, Brexit is also likely to have had an impact on reducing FDI inflows to the UK. Although the direct impact of Brexit and its subsequent political and economic uncertainty on FDI (and especially on UK-EU relations) is ambiguous, there is evidence of its significant adverse effects on the availability of workers from EU countries[39], which is likely to have lowered the UK's attractiveness for EU investors.

[39] https://economic-research.bnpparibas.com/pdf/en-US/United-Kingdom-Brexit-truly-made-UK-less-attractive-economically-6/15/2023,48645

Figure 6-5. Gross EU assets and liabilities vis-à-vis the UK, 2015Q4-2024QQ2 (EUR billion)

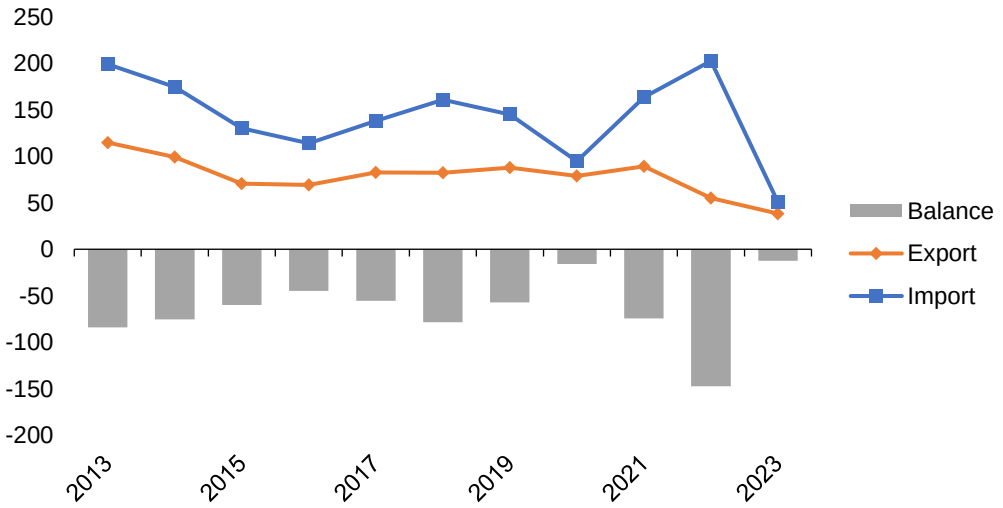


Source: Eurostat.
Notes: Moving average over 4 quarters. The data for portfolio investment liabilities are not available.

6.2.3 Capital flows between the EU and Russia

Since the start of the war in Ukraine, the EU has adopted a clear strategy to decouple from Russia. While trade relations have not completely vanished, imports from Russia have declined dramatically. Russia's invasion of Ukraine in 2022 disrupted the energy market substantially, sending prices to unprecedented heights, which in turn led to a surge in the value of imports from Russia (see Figure 6-6 **Figure 6-5**). This was followed by an abrupt fall in Russian exports, as the EU has almost completely stopped importing gas from Russia and continued to impose several rounds of sanction packages on Russia (see Box 6.1 on Russia's attempt to overcome the impact of the sanctions).

Figure 6-6. Decoupling: falling EU trade in goods with Russia, 2013-2023 (EUR billion)



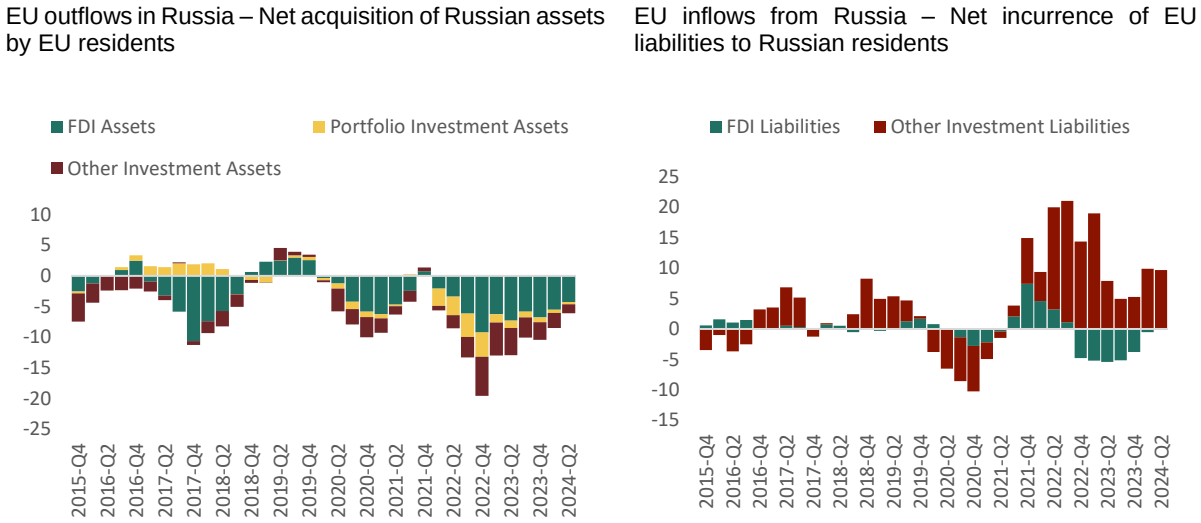
Source: Eurostat (online data code: ext_st_eu27_2020sitc).

As illustrated below, the decoupling is also visible in capital flows with evidence of FDI divesting. However, unlike in the US and the UK, the amounts are small and do not play a major role in explaining the large decrease in EU aggregate capital flows.

Bilateral EU-Russia flows suggest that EU residents have broadly divested from Russian assets throughout the last decade. This trend started in the aftermath of the Russian annexation of Crimea in 2014, which led to several EU sanction packages and shows three waves. The first was until 2018, the second during the COVID-19 crisis, and then the largest and more generalised one started in 2022. The latter has led to a downward trend in all three investment categories – especially in the case of FDI, but other and portfolio investment have also turned largely negative since the beginning of the war (see Figure 6-7). During this period, on average, Russian FDI disinvestment flows were at about EUR 4.6 billion per quarter.

Other investment flows from Russia (which, among other claims, include cross-border bank deposits and loans) into the EU expanded substantially when the sanctions were introduced. As suggested in the ECB Economic Bulletin (2022)[40], one reason for such increases is the sanctions. Restrictions on payments to Russian residents and asset freezes resulted in increased deposits in EU banks, as funds owned by Russian residents (e.g. generated by blocked coupon payments and redemptions of securities held in custody in the euro area) were prohibited from being transferred to Russia. In the first half of 2024, the amounts have increased again.

Figure 6-7. Gross EU assets and liabilities vis-à-vis Russia, 2015Q1-2024Q2 (EUR billion)



Source: Eurostat.

Notes: Moving averages over 4 quarters are shown, due to high volatility in the data. The data for portfolio investment liabilities are not available.

Box 6-1. Russia's attempts to overcome the impacts of Western sanctions

In the wake of Western sanctions, Russia has sought to form strategic alliances with countries like China, India, and Türkiye in order to counter the sanctions. Russia's relationship with China has been forged by shared strategic interests in challenging US dominance on the global stage. This alliance has gained traction as both nations anticipate significant geopolitical shifts. Meanwhile, India's refusal to

[40] See 'Euro area linkages with Russia: latest insights from the balance of payments' in ECB Economic Bulletin, Issue 7/2022.

join the Western sanctions against Russia has allowed for the continuation and strengthening of their long-standing political and trading relationship. Their energy cooperation and increasing alignment on geopolitical issues further solidify these ties. The economic partnership between Russia and Türkiye has also strengthened. Türkiye's strategic geographical position as a gateway between Europe, Asia, and the Middle East enhances its attractiveness for investment.

From 2022 to 2023, Russian FDI in Türkiye grew significantly. But in 2024, it experienced a dramatic decline, most likely due to new US sanctions. An executive order signed by the US president in December 2023[41] aimed at expanding sanctions on Russia and its access to the international financial system. Similarly, Turkish-Russian trade has allegedly been affected by these new sanctions and the subsequent disruptions in payments[42]. Türkiye's exports to Russia dropped by 30 % in the first half of 2024.

Regarding China, while trade with Russia surged in 2023, with a significant increase in exports, data for early 2024 indicate stagnation.

In India, Russian FDI had previously surged but plummeted by 93 % in early 2024. Despite this drop, India's trade with Russia remains robust, with exports growing by 36 % in mid-2024, notably in nuclear-related products.

Although there is not sufficient evidence to draw definitive conclusions about Russia's ability to counteract the effects of Western sanctions, the data point to a reconfiguration of Russia's trade and investment dynamics with Türkiye, China and India.

6.3 The US attempt to reshore: what impact on EU FDI?

The interplay of trade tensions, economic policies, and strategic initiatives has reshaped the flow of trade and investment among the major global players. US-China trade tensions, which began in 2018, have led to a re-evaluation of global supply chains and trade relationships. These changes have intensified amid the COVID-19 pandemic and geopolitical tensions, as well as climate risks.

This new context has increased uncertainty and has impelled companies to find ways to adapt to these shifts and mitigate risks associated with global trade and investment dynamics. Accordingly, the concepts of reshoring, nearshoring and friendshoring[43] have emerged as strategies for companies to adapt to these shifts. Reshoring refers to the process of bringing back production and manufacturing operations to the company's home country from overseas locations. This trend has gained traction through companies seeking to reduce their dependence on distant supply chains and mitigate geopolitical risks, and governments offering support. As global geopolitical dynamics continue to evolve, companies are exploring trade and investment opportunities with countries that share similar values and strategic interests.

The US government has been active in encouraging and promoting reshoring activities through the IRA, the Chips Act, and the Infrastructure Bill, which contain policies aiming to protect and promote local supply chains and production (Reshoring Initiative, 2023 Annual Report).

Such policies raise the question of whether new dynamics are emerging around US inward FDI and in particular the impact of investment originating in the EU. To document whether this is the case we trace reshoring activities in the US and new FDI in manufacturing sectors. The analysis primarily builds on data and industry reports provided by the Reshoring Initiative, a private repository tracking reshoring activities and FDI by US-headquartered companies and foreign companies shifting their production or sourcing from offshore back to the US.

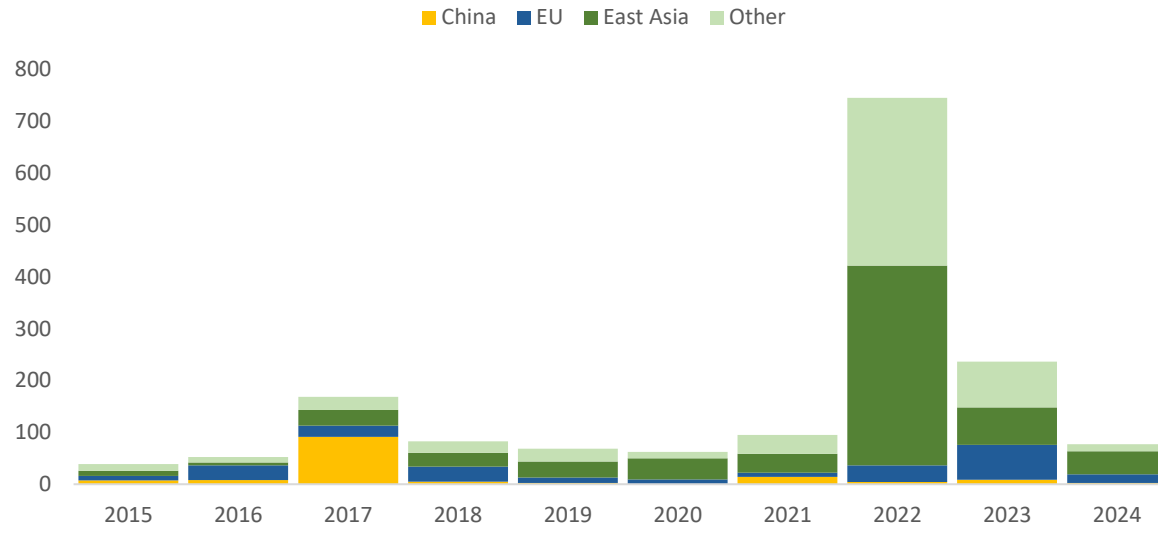
[41] https://www.whitehouse.gov/briefing-room/statements-releases/2023/12/22/fact-sheet-biden-administration-expands-u-s-sanctions-authorities-to-target-financial-facilitators-of-russias-war-machine/

[42] 'Exclusive: Turkish-Russian trade hit by fresh US sanctions threat', Reuters.

[43] Nearshoring involves moving production and sourcing closer to the home country, often within the same region or continent. This strategy offers advantages such as reduced transportation costs and greater proximity to key markets. Friendshoring, a relatively new concept, emphasises building trade and investment relationships with politically and economically aligned partners.

Based on the dataset[44], over the past decade, the EU has consistently been a source of reshoring to the US, without being the dominant player. East Asian (and other) countries appear to have played a much more significant role, especially in 2022 and 2023 (see **Figure 6-8**). However, the capital investment in the US originating from the EU is still relevant. Investment counts for a substantial share of US inward investment from the EU, 23 % and 47 % in 2022 and 2023, respectively[45].

Figure 6-8. Capital investment in the US related to FDI and reshoring (USD billion)

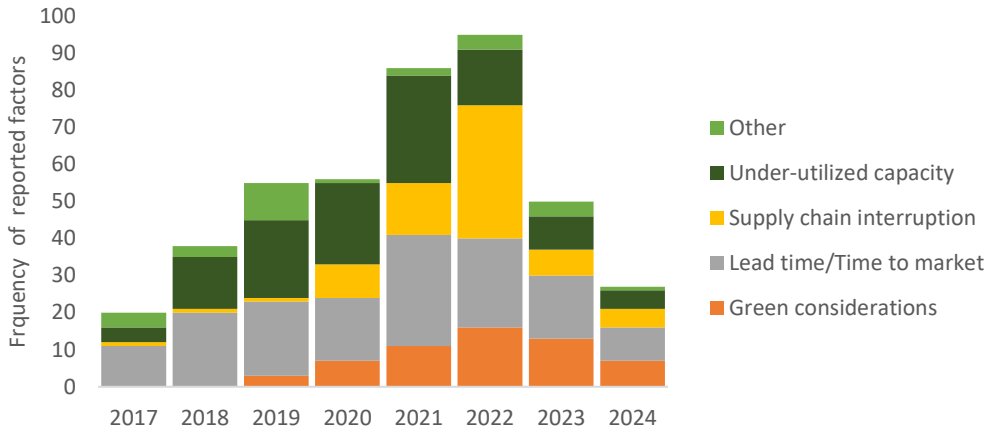


Source: Authors' elaboration based on the US Reshoring Initiative database.
Notes: East Asia includes Japan, South Korea, and Taiwan. Data for 2024 are annualised based on data until the end of September.

Such capital investment appears to be mostly motivated by the benefits offered by a return to the US, with government incentives at the forefront in 2019 and 2022, possibly referring to the residual benefits of the 2017 Tax Cuts and Jobs Act and the immediate benefits offered by the IRA of 2022 (see **Figure 6-9**). The factors pushing investment from the EU to the US appear mostly business-related, except in 2022, when supply chain interruptions, most likely associated with the Russian aggression against Ukraine, played a major role. Since 2020, 'green considerations' appear an increasingly relevant push factor for companies operating in the EU, possibly pointing to the costs for companies associated with the EU regulatory framework and on the other side tax credits and subsidies for clean energy, electric vehicles, and green technologies included in the IRA.

[44] This dataset has several limitations. First, it contains data solely related to the manufacturing sector. Thus, it is difficult to accurately assess how representative the dataset is of all reshoring and related investment. Additionally, many recorded instances of reshoring lack information about the total capital invested or the country of origin, hence it could be a low estimate of actual FDI.
[45] Among the EU Member States, Germany is the primary source of reshoring to the US.

Figure 6-9. Key factors behind EU capital investment in the US related to reshoring

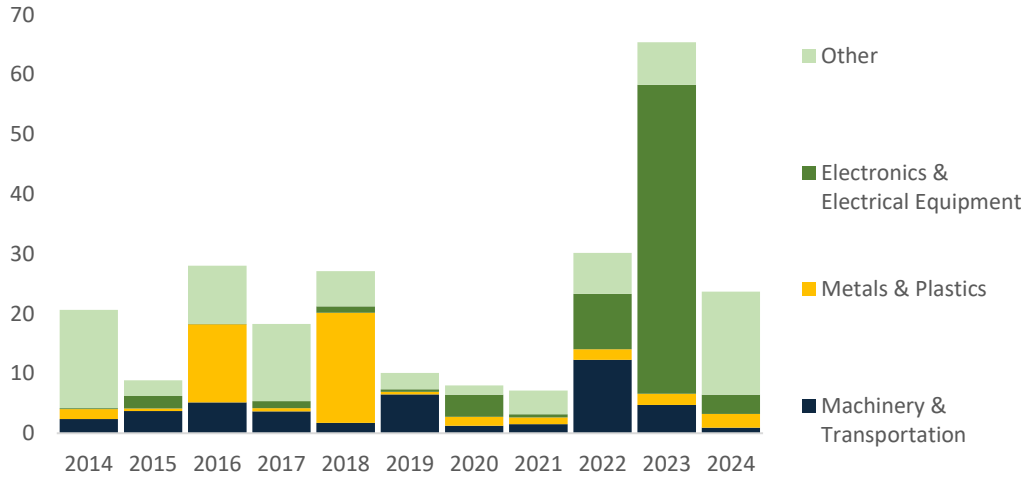


Source: Authors' elaboration based on the US Reshoring Initiative database.
Notes: The y-axis indicates the frequency at which the factors are referred to. Lead time refers to the amount of time from the start of a production process to launching the final product or service to customers. Data for 2024 are annualised.

As the dataset contains information by industry, it is also possible to identify the sectors (within manufacturing) where reshoring and FDI are more concentrated.

The industries that have dominated outward reshoring-related investment from the EU in recent years are electronics & electrical equipment and machinery & transportation equipment. In 2022 and 2023, investment was notably high in electronics & electrical equipment. Particularly in 2023, EU capital investment in the US in this sector increased massively – by more than 400 %[46].

Figure 6-10. EU capital investment related to reshoring in the US, by industry (USD billion)



Source: US Reshoring Initiative database.
Note: Other includes chemicals, food & beverage, and medical equipment.

Overall, it is extremely challenging to give an accurate assessment of the impact of the IRA on reshoring activities and new manufacturing FDI in the US. Nonetheless, a marked increase in the magnitude of capital investment occurred in 2022 and 2023, likely owing to US policies. The change not only concerns the EU but also Asia, which appears to have been more

[46] Instances of investment, which are not shown here for the sake of brevity, suggest that the increasing trend in this sector is continuing in 2024.

significantly impacted. More importantly, it remains to be seen whether the impacts will last. Preliminary data for 2024 point to a clear slowdown in capital investment plans, which raises doubt about the sustained capacity of the IRA to attract foreign capital or repatriate capital investment towards US manufacturing[47].

6.4 EU economic security: foreign investment screening

In January 2024, as part of the new EU economic security package (see Box 6.2), the European Commission proposed revisions to the FDI Screening Regulation (2019/452/EU), in effect since October 2020. This regulation provides a framework for screening FDI from non-EU countries to identify, assess, and mitigate risks to the security or public order of the EU and its Member States. Such risks include access to sensitive information, threats to critical supply chains, and control over key technologies. The screening mechanisms enable governments to evaluate investment proposals for potential threats.

In response to rising concerns about foreign interference through investment in EU firms involved in critical technologies, infrastructure, or state-sensitive information, the EU has intensified efforts to strengthen FDI screening. While the regulation has been positively assessed for its effectiveness and EU-level added value, significant shortcomings persist[48]. Notably, three Member States – Croatia, Cyprus, and Greece – have yet to establish national FDI screening mechanisms, undermining the EU's ability to address high-risk transactions. Although the current regulation does not mandate Member States to implement such mechanisms, growing concerns have prompted several to legislate in this area[49]. Furthermore, inconsistencies in Member States' timelines, the scope of national mechanisms, and the lack of an efficient cooperation framework for cross-border transactions further limit efficiency.

While traditional investors such as the US, UK, Canada, Switzerland, Norway, Japan, and Australia remain the primary sources of EU inward FDI, recent trends indicate increasing foreign ownership from emerging economies like China, Russia, India, and the UAE, including state-owned enterprises. Additionally, ‘offshore investors’ with opaque ownership structures are expanding in key sectors like oil refining, pharmaceuticals, electronics, and electrical industries.

The proposed revisions aim to address these issues by requiring all Member States to establish national FDI screening mechanisms, introducing minimum assessment criteria for investment, and expanding the scope to include investment by EU-based entities controlled by foreign investors. The latter reflects the intensification of geopolitical tensions and the risks of weaponised economic linkages.

In light of these changes, concerns about the potential negative impact on FDI flows are emerging. Screening regimes, by affecting investors' behaviour, may impact the value of individual transactions and the volume of total FDI (Bencivelli et al., 2024; Eichenauer and Wang, 2022). Investors may reduce their stake to avoid triggering a review in jurisdictions where thresholds apply or projected acquisitions may be prohibited, abandoned, or unwound by regulators leading to transactions being suspended or redirected to other jurisdictions.

Assessing whether this has happened following the adoption of the EU Regulation in 2019 and if it has led to a decline in FDI flows is challenging for several reasons. In practice, FDI inflows are influenced by a wide range of variables beyond screening mechanisms. Furthermore, FDI trends are often volatile, and robust evidence of impacts would require data spanning more than a few years. Despite these challenges, Bencivelli et al. (2023) estimate the impacts of screening mechanisms on FDI and find that while a significant proportion of transactions undergo scrutiny (approximately 20 %, based on data from 2020 to 2022 in the

[47] Evenett (2024) points to the same conclusion.
[48] See the Commission’s evaluation.
[49] According to the European Commission (2024), by March 2024, Belgium, Bulgaria, Estonia, Ireland, Luxembourg, Romania, Slovakia, and Sweden had adopted a new national FDI screening mechanism.

EU and other major Western economies), only a small fraction of deals are ultimately blocked. They find that screening appears to be particularly concentrated in the ICT and manufacturing sectors, reflecting a focus on critical infrastructure and technologies. Notably, investment plans originating from China and Russia face disproportionately higher scrutiny in relation to their overall foreign investment capacity. These findings suggest that screening mechanisms are fulfilling their intended purpose of securing strategic sectors, with limited impact on overall FDI flows.

A similar conclusion is drawn by an FDI Intelligence report, which highlights that while FDI inflows into the EU from Western economies such as the US, the UK, and Japan have increased following the adoption of stricter screening measures, inward investment from geopolitical rivals like China and Russia has declined sharply[50]. The evidence further shows that deterrent effects are most pronounced in strategically sensitive sectors, while investment in non-sensitive sectors remains largely unaffected.

Overall, the existing evidence suggests that a balance between openness to investment and protection of national interests is achievable. However, Bencivelli et al. (2023) caution that the stricter the screening regime, the higher the number of blocked transactions. Extending FDI screening to EU-based entities controlled by foreign investors addresses the complexity of modern ownership structures but effectively establishes a stricter regime, potentially resulting in a higher number of blocked FDI deals. In practice, this measure is likely to complexify the screening process, potentially discouraging EU-based companies with foreign links from pursuing strategic investments due to additional regulatory burdens. This may unintentionally negatively impact intra-EU FDI flows.

To mitigate these risks, it is crucial to reduce political and regulatory uncertainty, widely recognised as a primary deterrent to M&A activity at the macro and firm levels (Bonaime et al., 2018). Transparent regulations on foreign investment screening, consistent mechanisms across countries and efficient practices could play a pivotal role. Ultimately they could improve the predictability of government regulations and potentially even improve the business climate.

A final consideration is warranted. While inward FDI from third countries can pose risks, it remains crucial for EU growth and technological advancement. Despite being home to advanced economies, the EU benefits from FDI through technology transfers and sustained production within its territory[51]. It should also be acknowledged that for certain goods, FDI may even be necessary to ensure domestic production and reduce reliance on imports[52]. Overall, refraining from protectionism while striking a balance between security concerns and openness to FDI is crucial for fostering long-term economic and technological resilience.

Box 6-2. EU economic security packages*

Since 2023, the EU has outlined a number of new measures aimed at boosting its economic security. In its 2023 package, the focus was first on offering a comprehensive approach to managing risks related to economic linkages, which are evolving quickly in the current geopolitical and technological environment and increasingly merging with security concerns. This is why the EU must develop a comprehensive approach to commonly identifying, assessing and managing risks to its economic security. Its strategy covers the assessment of risks to economic security in four areas: (i) the resilience of supply chains, including energy security; (ii) physical and cybersecurity of critical infrastructure; (iii)

[50] Importantly, other factors than FDI screening are likely to explain such a fall.
[51] A typical example is given by US pharma and tech companies, which often transfer knowledge and establish production facilities in the EU through FDI. This involves sharing advanced technologies, setting up R&D centres, and integrating local supply chains.
[52] The recent bankruptcy filing by Northvolt, the Swedish battery manufacturer seen as Europe's strongest competitor to Chinese battery makers, highlights the huge challenges in competing with China in this sector. This development follows substantial EU support for Northvolt, including multiple loans backed by the European Investment Bank. The EU's financial exposure, reflecting the unrepaid loan value, currently stands at USD 313 million, guaranteed by the European Fund for Strategic Investments. This case may point to evidence that in strategic sectors like battery technology, EU companies may need Chinese FDI to access more efficient technologies.

technology security and technology leakage; and (iv) weaponisation of economic dependencies or economic coercion.

These initiatives have been complemented by another package in 2024 on trade and research to enhance its economic security and manage emerging risks. It includes (i) the screening of foreign investment into the EU to prevent investment that may pose a risk to the EU's security; (ii) a more coordinated approach to the EU's exports of dual-use goods to ensure they do not fall into the wrong hands (e.g. advanced technologies can be used to enhance the military capacities of actors that may use these against the EU); and (iii) the Commission's exploration of ways to support research and development in technologies that can be used for different purposes, and how to enhance research security across the EU.

** For more detailed information, see the European Commission's Memo on Economic Security.*

7 Conclusion and policy implications

The examination of recent developments in global and EU capital flows yields several nuanced conclusions with important policy implications. Each is influenced by a combination of macroeconomic trends, structural shifts in the nature of international investment, and geopolitical and economic factors.

Global risks: protectionism and the currency adjustments

As global inflation moderates and monetary policies stabilise, albeit at higher interest rates, the resulting macroeconomic conditions appear to be supportive of growth. However, trade tensions and the increasing prevalence of protectionist measures may lead to currency repricing on a global scale.

If China attempts to absorb the impact of US tariffs by depreciating the yuan, many emerging market economies will follow and come under stress, as the USD will appreciate even further. Heightened volatility in currency markets can have cascading effects on portfolio capital flows, particularly in economies dependent on external debt financing. Depreciation pressures in EMEs may compel central banks to adopt defensive measures to stabilise their currencies, from foreign exchange interventions in order to preserve currency pegs to raising interest rates and capital controls. These actions will deter foreign portfolio investment and hinder growth in these countries. For the EU, these dynamics could lead to indirect spillover effects, stemming from global financial instability and potentially reduced demand for euro-denominated assets.

Global risks: a fragmented international monetary system

Since the adoption of sanctions against Russia, efforts to reduce reliance on the US dollar – 'de-dollarisation' – have accelerated, especially among EMEs. These efforts, spearheaded by China over the past decade with limited success, have gained new momentum through Russia's active participation and the growing interest of BRICS nations and other countries in seeking alternatives to dollar dominance. Western sanctions against Russia, including the freezing of its foreign reserves, have heightened concerns for nations perceiving the US as hostile, offering China a pivotal opportunity to advocate for the yuan's internationalisation.

These developments challenge not only the dominance of the US dollar but also the stability of the current international monetary system. Profound changes in the global financial architecture can be seen in the rapid decline in the use of the dollar for trade invoicing to the benefit of the yuan; the creation of alternative systems for cross-border payments that bypass SWIFT; and discussions about leveraging digital currencies to further reduce dependency on traditional payment systems.

Nevertheless, despite the proliferating endorsement of the yuan, the currency faces significant limitations compared with a true international currency. China's capital controls and the yuan's limited convertibility are major risks for investors, currently overshadowed by geopolitical considerations. Furthermore, its managed floating exchange rate regime is de facto one with a residual linkage to the dollar, which complicates its role as a reliable alternative. If the yuan's exchange rate were to be adjusted to absorb the effects of US tariffs, de-dollarisation would only be a superficial achievement.

While the shift towards a more fragmented international monetary and payments system is evident, with China and the yuan at the forefront of alternatives, the difficulties of scaling up the yuan to rival the dollar's global role underscore the complexity of reshaping the international financial architecture. This fragmentation could ultimately lead to increased inefficiencies and vulnerabilities in global trade and finance.

The EU’s position as an FDI hub under strain

The EU's traditional role as a hub for FDI is increasingly under strain, reflecting evolving dynamics in global investment and structural hurdles within the EU itself. The persistent trend of divestment by both EU residents and non-residents points to a complex interplay of factors.

The changing nature of FDI

FDI, historically tied to long-term commitments in physical and productive assets, has progressively taken on characteristics similar to portfolio flows. This shift is largely driven by the strategies of multinational corporations, which often employ FDI channels for financial arbitrage – such as exploiting differences in tax regimes – rather than focusing on real economic investment like infrastructure or production capacity. This transformation dilutes the traditional economic benefits of FDI, such as job creation, innovation, and technology transfer. As data show, this accounts for a large part of the EU’s FDI stock. If this trend is dominant in the observed decline of FDI inflows and outflows in the EU, the ultimate impact on the real economy may be limited, as such flows are less connected to productive investment. Yet evidence in this direction is not unambiguous.

Declining attractiveness of the EU as an FDI destination

Another explanation for the decline in FDI flows is a potential loss of the EU's attractiveness as an investment destination. For decades, the EU has benefited from substantial inflows of US FDI, not only for financial purposes but also as a means of fostering strategic partnerships and technology transfer. The same holds true for EU investment in the US, which has contributed to innovation and economic ties. Therefore, a structural decline in FDI could have significant implications for the EU's growth prospects, particularly in the context of a widening investment gap. This rarefication of incoming capital is especially critical at a time when the EU needs substantial investment in digital transformation, green technologies, and infrastructure to maintain its competitive edge.

Impact of industrial policies

Industrial policies, such as the US Inflation Reduction Act, have introduced further complexity into global FDI patterns. By incentivising reshoring and domestic investment in the US, the IRA has the potential to redirect capital flows away from the EU. Still, while preliminary data for 2023 suggest that such policies may have attracted capital and investment plans, the evidence does not yet point to a sustained or large-scale impact in 2024. On the one hand, this highlights the need for vigilance and strategic adjustments to ensure the EU stays competitive in a shifting global investment landscape. On the other hand, it should warn policymakers against the high cost and potentially low impact of (erratic) policies built on subsidies.

Fundamental trade-off: openness and security in a changing global order

The intensification of geopolitical tensions driven by the US-China trade war, the conflict in Ukraine, and rising instability in the Middle East have accelerated global economic fragmentation. For the EU, this presents a fundamental trade-off: reconciling its deep-rooted commitment to openness, a principle enshrined in the Treaty on European Union and a cornerstone for trade and investment, with the pressing need to ensure economic security and strategic autonomy.

The adherence of the EU to the World Trade Organization principles underscores its commitment to an open, rules-based international order, even as the deployment of defensive tools to safeguard its economic interests has increased. A prominent example is the FDI screening mechanism, bolstered by recent proposals, to extend its scope. These measures aim to address potential threats to critical infrastructure and technologies, but they must be

carefully calibrated to avoid inadvertently deterring legitimate and growth-enhancing investment. Striking a balance between openness and security is challenging yet essential to sustain the EU's competitiveness and its integration.

The completion of the Capital Markets Union is a critical priority in this context. Beyond enhancing the EU's financial integration, the CMU offers a pathway to strengthen the bloc's economic stability by insulating it from external shocks. An integrated capital market can diversify funding sources, reduce reliance on foreign capital, and better channel investment towards strategic objectives, including green and digital transitions.

Broader policy considerations

Addressing these interconnected issues requires a multifaceted and forward-looking policy approach. Expanding intra-EU investment flows by reducing barriers to cross-border financial activities is a crucial step. Efforts must focus on ascertaining the extent to which the observed decline in FDI reflects structural internal impediments – such as high regulatory barriers, elevated energy costs, or fragmented markets – or external factors. Understanding the actual impediments is key to tackling them in a way that will spur investment momentum in Europe.

Revitalising the single market remains at the core of these efforts. Aligning FDI with strategic priorities, such as advancing the green transition and fostering innovation-led economic growth, will ensure that incoming investment generates tangible benefits for the real economy. This alignment also underscores the importance of facilitating technology transfer and strategic partnerships, particularly in key sectors like renewable energy, artificial intelligence, and advanced manufacturing.

Glossary

Assets and liabilities: The IMF defines financial assets as economic assets that are financial instruments. Most financial assets are financial claims arising from contractual relationships entered into when one institutional unit provides funds to another. These contracts are the basis of creditor/debtor relationships through which asset owners acquire unconditional claims on economic resources of other institutional units. The creditor/debtor relationship provides asset and liability dimensions to a financial instrument.

Balance of payments (BoP): Based on the IMF's definition, BoP is a statistical statement that summarises transactions between residents and non-residents during a period. It consists of a goods and services account, primary income account, secondary income account, capital account and financial account.

Capital account: According to the IMF, the capital account shows credit and debit entries for non-produced nonfinancial assets and capital transfers between residents and non-residents.

Financial account: As defined by the IMF, the financial account records transactions that involve financial assets and liabilities and which take place between residents and non-residents.

Current account: Based on the IMF definition, this is the record of all transactions in the balance of payments covering the exports and imports of goods and services, payments of income, and current transfers between residents of a country and non-residents.

Extreme events: Extreme episodes in capital flows refer to sharp changes in the growth of capital flows. Forbes and Warnock (2012) consider four events: 'surges' and 'stops', which are defined as sharp increases and decreases, respectively, of gross inflows (net foreign acquisition of domestic assets); 'flight' and 'retrenchment', defined as sharp increases and decreases, respectively, of gross outflows (net acquisition of foreign assets by domestic residents).

Foreign direct investment (FDI): In the IMF's definition, a cross-border financial flow qualifies as foreign direct investment when a resident entity in one nation, referred to as the direct investor, secures a long-lasting stake in an enterprise situated in another nation, known as the direct investment enterprise. This form of investment represents a durable association between the direct investor and the direct investment enterprise, and by a substantial level of influence (although not necessarily control) exercised by the direct investor. Direct investment encompasses not only the initial transaction that establishes this form of influence but also all ensuing transactions occurring among these entities and affiliated enterprises, whether incorporated or unincorporated.

Direct FDI: This type of FDI refers to investment positions in which the country of the ultimate investor coincides with that of the immediate investor.

Gross flows: According to the IMF, gross flows consist of gross capital inflows (defined as the net acquisition of domestic assets by non-residents) and gross capital outflows (defined as the net acquisition of foreign assets by domestic residents).

Indirect FDI: This type of FDI refers to investment positions in which the ultimate investor resides in a different country to the immediate investor.

Inflation (core): Core consumer inflation focuses on the underlying and persistent trends in inflation by excluding prices set by the government and the more volatile prices of products, such as food and energy, most affected by seasonal factors or temporary supply conditions.

Inflation (headline): Headline inflation is a sustained increase in the general price level, often measured by an index of consumer prices. The rate of inflation is the percentage change in the price level in a given period.

International investment position (IIP): As defined by the IMF, IIP is a statistical statement that shows, at a point in time, the value of financial assets of residents of an economy that are claims on non-residents and gold bullion held as reserve assets, and the liabilities of residents of an economy to non-residents.

Net flows: Net capital flows are defined as the difference between gross capital inflows (net incurrence of liabilities by domestic residents) and gross capital outflows (net acquisition of foreign assets by domestic residents).

Phantom FDI: Following Damgaard et al. (2019), phantom FDI is investment in empty corporate shells with no link to the local real economy, which are called special purpose entities (SPEs). These entities have few or no employees, production, physical presence or any other activities than holding and financing.

Portfolio investment: The IMF defines portfolio investment as cross-border transactions and positions involving equity or debt securities, other than those included in direct investment or reserve assets.

Official reserve assets: According to the IMF's definition**,** reserve assets are external assets that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs, for intervention in exchange markets to affect the currency exchange rate, and for other related purposes (such as maintaining confidence in the currency and the economy, and serving as a basis for foreign borrowing). They usually include gold, IMF Special Drawing Rights, currency and deposits, other claims and assets.

Real FDI: This term is defined as the difference between total FDI and investment directed at special purpose entities.

Round-tripping FDI: This is defined as domestic investment in the domestic economy routed through a foreign entity. While in essence round-tripping FDI is not a foreign investment, as the ultimate investor resides in the same country as the receiving company, the involvement of the foreign entity categorises it as FDI in official statistics.

Special purpose entity (SPE): An SPE is a subsidiary (it can also be a holding company) created by a parent company to isolate financial risk. Its legal status as a separate company makes its obligations secure even if the parent company goes bankrupt. According to the IMF (2004b), SPEs are legal structures that have little or no employment, operations, or physical presence in the jurisdiction in which they are created. They are typically used as devices to hold assets and liabilities, and do not undertake production. As legal devices, SPEs are relatively cheap to create and maintain while offering possible taxation, regulatory burden, and confidentiality benefits.

Supply chain: A supply chain is the network of workforce, organisations, resources, activities and technology involved in the creation of finished products from raw materials and distributing them to end consumers.

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