

ENHANCING EURO AREA COMPETITIVENESS

5. STATE OF PLAY ON COMPETITIVENESS DEVELOPMENTS

The fast rise in both energy prices and nominal wages since 2022 has dented cost competitiveness in the euro area and heightened divergences. The significant increase in energy prices since 2021 compared to trade partners puts euro area companies at a disadvantage on export markets. The depreciation of the euro in 2021 and part of 2022 compared to the rest of the world might have offset part of the deterioration. Still, the negative impact on exports has been visible in more energy-intensive countries and sectors, putting the strengthening of the euro-area competitiveness to the political fore. Differences in inflation across the euro area remain elevated (see Section 1), raising concerns about reallocation pressures in a context of global fragmentation and the developments of internal imbalances.

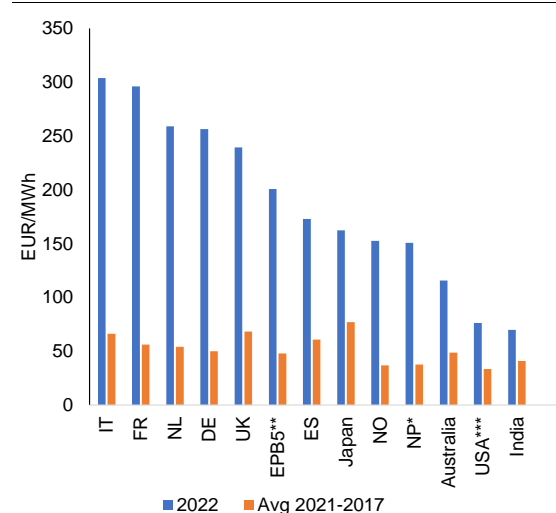
In the longer-term, productivity growth and the ability of the euro area to innovate will drive competitiveness. Aside from relative production costs, multiple non-cost factors contribute to the euro area's competitiveness, including in particular the ability to innovate. This makes competitiveness a multi-dimensional concept that reflects the ability for an economy to grow within an integrated trade system without creating imbalances. In that respect, the persistent gap in productivity growth compared to international peers, and rising risks of geoeconomic fragmentation could put the euro area at a disadvantage (see **Box 5.1**).

Price and cost competitiveness

High energy prices in the euro area have eroded its cost competitiveness with international partners. The global increase in energy prices has affected the euro area

more than several of its trading partners. In particular, in 2022, electricity prices rose more steeply than in the US and other trade partners (Tertre et al., 2023) (**Graph 5.1**). Similarly, in 2022 wholesale gas prices in the euro area were on average 13 times higher than in 2020, while those in the US and Asia were 3.5 and 9 times higher respectively (Emter et al., 2023). The share of firms reporting an increase in energy costs as a barrier to investment rose to 87% in 2022, up from 69 % in 2021 (EIB, 2023a).

Graph 5.1: **Electricity prices in selected euro area countries and international peers**



(1) *NP stands for wholesale electricity prices of the Nord pool market (NO, DK, FI, SE, EE, LT, LV)

(2) **EPB5 stands for European Power Benchmark. It represents the weighted average of wholesale electricity prices of main EU electricity markets (DE, ES, FR, NL) and Nord pool market (NO, DK, FI, SE, EE, LT, LV)

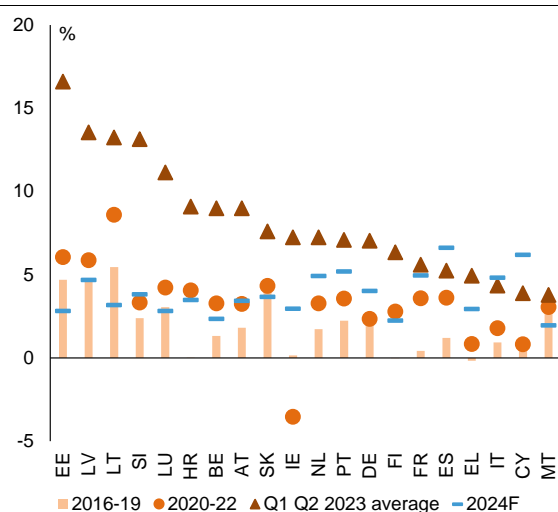
(3) ***USA is the arithmetic average of the day ahead prices of the following most representative US power Hubs: PJM Western, NYISO Hudson Valley, MISO Indiana, ISONE Internal, ERCOT North, CAISO SP15.

Source: S&P Global Platts, Japan Electric Power Exchange (JEPX), Indian Energy Exchange Limited IEX India

Despite their substantial drop since the beginning of the year, energy prices in the euro area are likely to remain higher

than before the crisis. In particular, the substitution of Russian gas supplies could imply structurally higher costs and prices⁽¹⁷⁾. The EU has stepped up efforts to move away from fossil fuels to renewable energy but during the transition its competitiveness will continue to be affected by many factors including the price of imported energy.

Graph 5.2: **Growth in unit labour costs (average annual growth nominal ULC) between 2016-19, 2020-22, Q1 and Q2 2023 and 2024 forecast**



Source: Eurostat and EU Commission Economic Forecast Autumn 2023

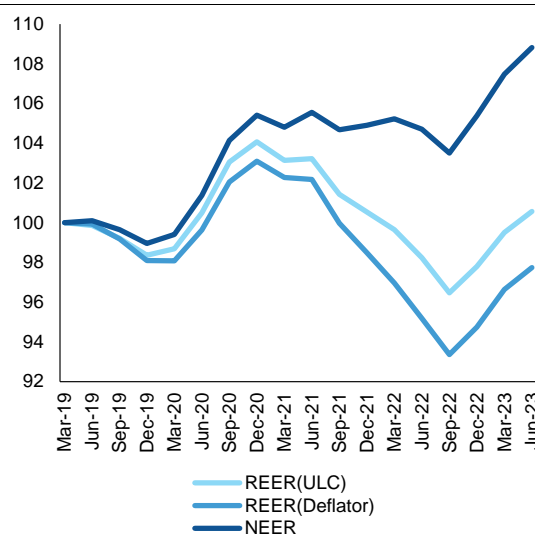
Unit labour costs (ULC) accelerated in most countries in 2023. ULC increased markedly in the year ending in Q1 2023 in a number of euro area countries most notably the Baltic countries and Slovakia (rising to significantly higher than pre pandemic level) **(Graph 5.2)**. This considerable rise in ULC was mainly due to sharp wage increases, while productivity stagnated. In 2024, ULC are expected to slow down as wage growth moderates and productivity is expected to increase. Increased use of environmental taxation could help reduce the burden on labour, further reducing unit labour costs and improving the EU's cost competitiveness over

⁽¹⁷⁾ The replacement of Russian gas pipeline supply by a diversified supply of LNG via cargoes. LNG includes processes (liquefaction, transport by sea at very low temperatures, regasification) which result in higher costs as compared with gas delivered by pipeline.

the medium-term. In particular, there is potential to increase resource and pollution taxes in line with the polluter pays principle, as these taxes only make up a small share of environmental tax revenues, accounting for 3.5% of environmental tax revenues in 2021 (European Commission, 2023f). Environmental taxes can be less distortive than other more commonly used types of taxation, e.g., labour or capital taxation, that were designed primarily with the objective to raise revenues.

Overall, the euro's real effective exchange rate appreciated compared to world trading partners in 2023 and trade performance in energy-intensive sectors suffered. The real effective exchange rate of the euro vis-à-vis a broad range of trading partners depreciated in 2021 and in the first part of 2022 but it appreciated more recently. As of Q2 2023, the euro's real effective exchange rate (HICP based) appreciated by about 2 pps since Q4 2019.

Graph 5.3: **Euro Real Effective Exchange Rate**

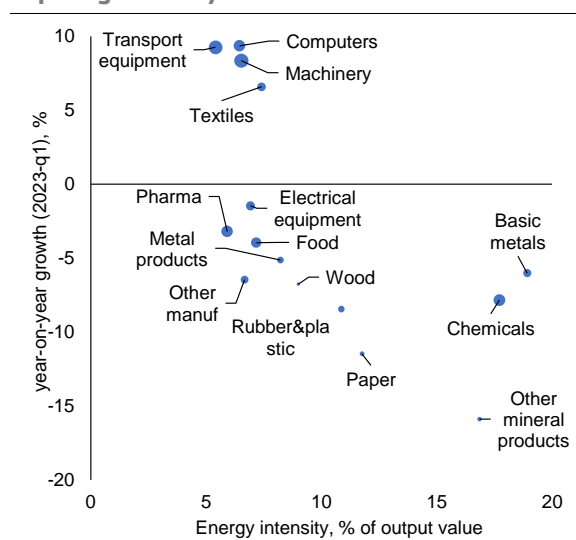


(1) REER refer to the real effective exchange rate of the euro against the currencies of 37 of the euro area's most important trading partners. A positive (negative) change corresponds to an appreciation (depreciation) of the euro. **Source:** European Commission.

Euro area companies rate their competitiveness at an all-time low, especially in high energy-intensive

sectors such as chemicals ⁽¹⁸⁾. Looking at trade developments, euro area export growth over the past 2 years mainly reflects depressed global demand and supply bottlenecks, with energy costs having a limited impact ⁽¹⁹⁾. However, exports in energy-intensive sectors have decreased strongly over the past year. Exports of mineral products, basic metals and chemicals were affected the most (**Graph 5.4**).

Graph 5.4: **Energy intensity and euro area export growth by sectors**



Source: Eurostat.

High inflation has had a particular impact on SMEs. While headline inflation reached more than 10% in 2022, the inflation experienced by businesses in certain sectors was much higher, with rates of up to 28.5% in the energy-intensive industries and 55% in energy renewables in the third quarter of 2022, followed by agri-food (over 15% in the first half of 2022) ⁽²⁰⁾. This inflation had impacts on SMEs in a variety of ways: on late payments, bankruptcies, investment, the adoption of digital and green technologies,

⁽¹⁸⁾ European Commission Business and Consumer Survey (BCS).

⁽¹⁹⁾ ECB modelling shows that the recent energy supply shock has contributed to dampen export growth although its relative importance was lower than the deceleration in global demand conditions and the effects of supply bottlenecks. See Emter et al., 2023.

⁽²⁰⁾ European Commission, 2023g.

participation in public procurement, access to skilled labour and, ultimately, profitability. While the effect of each impact in isolation may appear small, the total effects add up significantly from the perspective of a single firm. The effect is particularly pronounced on those firms that were unable to pass cost increases onto consumers – more often SMEs.

Over the last 2 years, the relative competitiveness of the economies of the euro area countries has diverged considerably. Since December 2019, the currencies of the Baltic countries and Slovakia appreciated significantly in terms of real effective exchange rate (REER) compared to the euro and the currencies of other trading partners. Such large divergences in price competitiveness, if sustained, raise concerns about possible imbalances within the euro area. In parallel, for part of the euro area, relative changes in cost competitiveness have resulted in some rebalancing. A number of Member States with some pre-existing cost competitiveness weaknesses, including for example Greece and Italy, recovered some ground relative to their peers thanks to more moderate wage growth since December 2019.

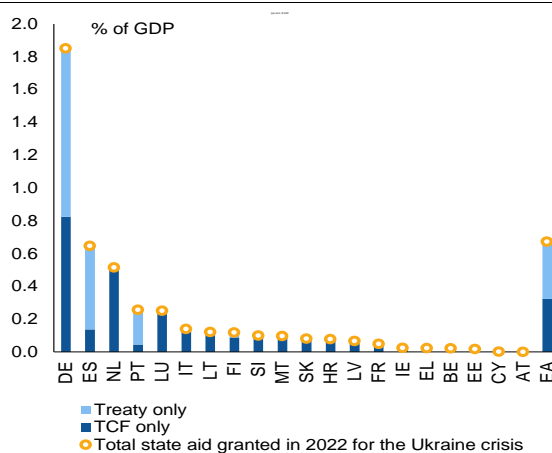
The EU and Member States introduced several initiatives to mitigate the impact of the energy crisis and support companies. In response to the energy crisis, Member States have made efforts to improve efficiency and reduce energy demand and to develop renewable energy. The EU reduced its demand for gas by 17% of gas between August 2022 and July 2023 compared to the average of the previous 5 years ⁽²¹⁾. In light of the economic difficulties faced by SMEs, the SME Relief Package, adopted on 12 September 2023, has renewed the Commission's commitment to ensuring a business-friendly regulatory environment that helps SMEs to be productive, competitive, and resilient ⁽²²⁾. In addition, Member States resorted to State aid to support specific sectors and companies adversely impacted by

⁽²¹⁾ Eurostat.

⁽²²⁾ See European Commission, 2023h and European Commission, 2023i.

the energy crisis. The state aid framework was adapted (Temporary Crisis Framework introduced in March 2022) to define criteria for the assessment of the compatibility of corporate support with Single market rules in the context of the energy crisis. The overall budget notified by Member States and approved by the Commission as part of temporary State aid measures in 2022 came to nearly EUR671.78 billion, representing 4.3% of combined EU27 GDP in 2022. More than half (53%) of this budget was approved in Germany (**Graph 5.5**) ⁽²³⁾.

Graph 5.5: **Granted state aid amount for 2022 (per cent of GDP)**



Source: European Commission.

PRODUCTIVITY

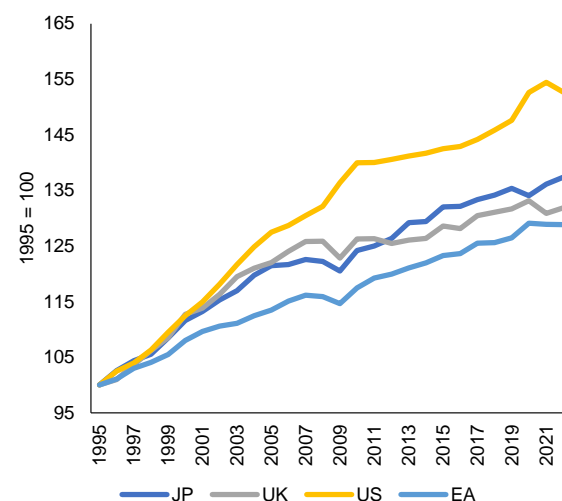
Labour productivity growth has steadily declined in the euro area since the early 2000s. The reasons for this slowdown remain a topic of scholarly and policy debate (Lopez-Garcia et al., 2021 and Andrews et al., 2015). While other advanced economies have experienced this slowdown, it has been more pronounced in Europe compared to for example the US. The productivity gap between the two regions has further widened for that reason (**Graph 5.6**). There is also substantial

⁽²³⁾ The amount granted are quoted in nominal terms, including in particular the full amount of guarantees, which may or may not be called upon. Information on the corresponding expenditures is available with a delay of about a year.

heterogeneity across euro area Member States, suggesting a risk that economic divergence could expand going forward, complicating the conduct of a single monetary policy.

The slowdown in labour productivity reflects both sluggish investment and a broad-based deceleration of technological progress. The labour productivity slowdown in the euro area is largely attributable to the persistence of relatively sluggish investment after the 2008 financial crisis (less capital deepening), a situation that Europe shares with the US (Licchetta et al., 2022a). An important difference between the two areas is the performance in terms of total factor productivity (TFP), where the euro area is lagging behind (Licchetta et al., 2022b). In the longer-term, evidence suggests that patents are becoming less disruptive (Park et al., 2023) and tend to require more resources to produce (Bloom et al., 2020).

Graph 5.6: **Labour Productivity (Index 1995=100)**



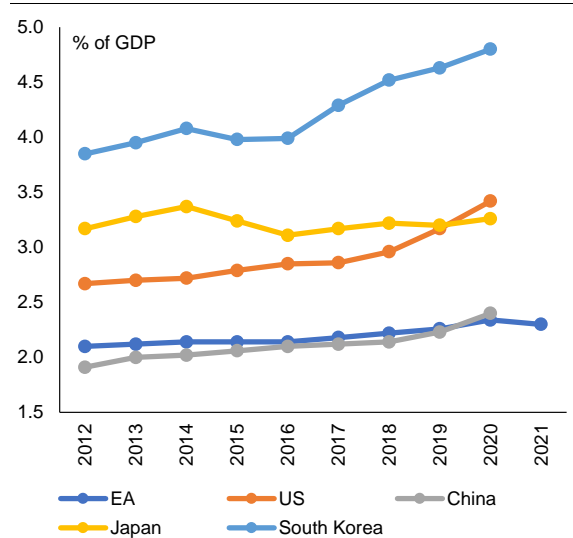
(1) GDP per hour worked, constant prices, 2015 PPP.

Source: OECD

The euro area's innovation performance has been lagging behind that of the US and Japan. In 2021, euro area countries spent on average 2.3% of their GDP on Research and Innovation (R&I) compared to around 3.4% in the US (**Graph 5.7**). Most of corporate R&I spending in the EU is

concentrated in the automotive industry, ICT products and services, and health care (European Commission, 2023m). The euro area is strong on advanced manufacturing and advanced materials, but it lags behind in critical fields, such as artificial intelligence (AI), big data, cloud computing, cybersecurity, robotics and microelectronics (European Commission, 2022a). Europe's disadvantage in key sectors is particularly problematic at a time when rising geopolitical tensions imply that technological leadership and the capacity for open strategic autonomy go hand-in-hand.

Graph 5.7: **Expenditure on Research and Innovation (% of GDP)**



(1) Gross domestic expenditure on R&I

Source: Eurostat and OECD.

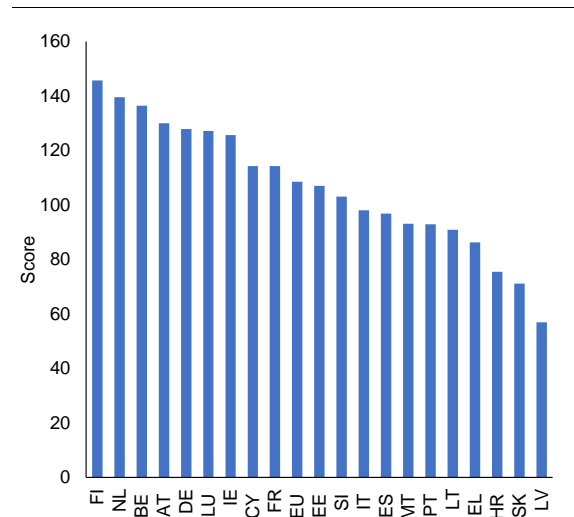
Europe is lagging behind on digitalisation.

TFP growth in Europe lagged behind the US, in particular in the area of ICT (manufacturing of computers and electronics, IT services). US TFP growth in the ICT sector reached its highest level during 2013-2019 and the TFP growth gap between the EU and the US was particularly pronounced during this period. The EU's ICT sector accounted for 4.9% of EU GDP in 2021, and its share in the global ICT market fell from 21.8% in 2013 to 11.3% in 2022. This has also had repercussions in other areas. For example, in 2022, only 69% of SMEs in the EU reached a basic level of digital intensity and, in 2021, only 8% of companies in the EU used AI technologies.

Innovation, including on green technologies, is uneven across the euro

area. Most innovation leaders and most strong innovators appear to be located in Northern and Western Europe, and most of the moderate and emerging innovators appear to be located in Southern and Eastern Europe (Graph 5.8), which makes productivity convergence harder to achieve. Similarly, on the number of green patents, several Member States (e.g. Austria, Finland and Germany) have been solid innovators, but multiple countries registered less than one green patent per million inhabitants. Failure to master key technologies related to the green transition could cause structural divergences between euro area countries in the medium-term.

Graph 5.8: **Innovation Index**



(1) Summary Innovation Index

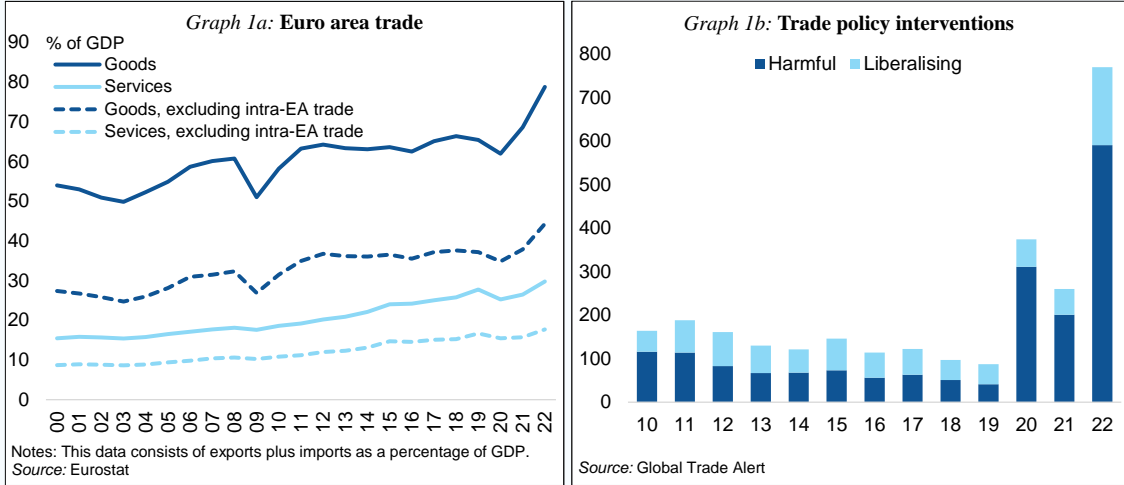
Source: European Innovation Scoreboard.

There are significant differences in productivity growth rates also at the regional level.

Over the 2001-2021 period, many less developed regions, especially those located in the Eastern Member States, had above average productivity and employment growth, offset only slightly by a decline in the share of working-age population, so that growth of GDP per head was above the EU average. This, however, masks the fact that in a number of these less developed regions, GDP per head fell over this period, with productivity falling and the employment rate declining or increasing relatively little (European Commission, 2022b).

Box 5.1: Risks of geoeconomic fragmentation

The euro area economy is strongly integrated in global markets. Europe represented about 16% of the world’s trade in 2022. The euro area trade-to-GDP ratio is significantly higher today than in 2000. Conversely, trade is a critical contributor to growth in the euro area, with trade flows between the euro area and the rest of the world reached more than 60% of euro area output (**Graph 1a**). Two thirds of the EU’s imports are inputs, such as raw materials, that contribute to downstream activities in domestic production processes (IMF, 2023).



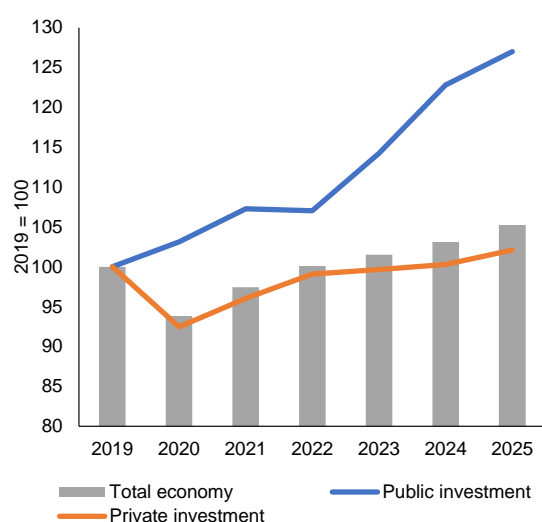
Geopolitical tensions and post-COVID supply chains realignments risk future adjustments of trade flows. The number of non-tariff barriers to trade has risen significantly since 2020 (Gaal et al., 2023) and countries are increasingly using foreign investment screening measures for reasons of national security (Panetta, 2023). Harmful interventions to trade increased in 2020 due to the pandemic crisis and in 2022 (**Graph 1b**) as a result of Russia’s war against Ukraine and the ensuing food and energy crises. These tensions have already contributed to reorienting of trade flows, in particular between the United States and China, and companies need to undertake measures to increase the resilience of supply chain in the face of geopolitical uncertainty (EBRD, 2022).

Such global trade fragmentation is likely to produce high economic costs. Recent tensions between the US and China, the COVID-19 pandemic, and the Russian war of aggression against Ukraine have put pressure on trade integration efforts. The ECB estimates that a global trade fragmentation scenario would lead to welfare losses, captured by the change in gross national expenditure, of around 1% to 2% in the euro area with losses in the euro area would be somewhat greater than those of the United States or China owing to its greater trade openness (ECB, 2023c).

6. SUPPORTING INVESTMENTS

Promoting investment is at the core of the EU's recovery strategy. The COVID 19 crisis led to a sharp drop in investment, mainly due to private investment contraction. However, contrary to the aftermath of the global financial crisis, investment rebounded fast after the COVID-19 pandemic (**Graph 6.1**). This was linked, in particular, to the supportive monetary stance, to the resilience of financial markets and to a decisive policy reaction to support public investment.

Graph 6.1: **Investment sectoral breakdown, euro area (volumes, 2019 = 100)**



(1) public and private investment volumes are calculated based on total investment deflator

(2) public investment includes aggregates of general government GFCF and GFCF financed with RRF grants

Source: European Commission

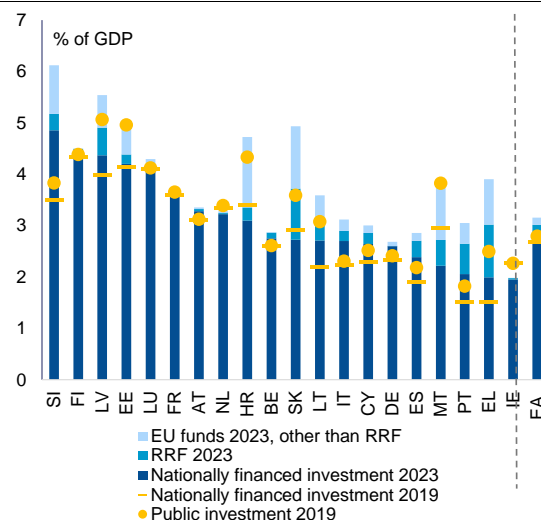
Private investment is slowing down due to tightening financial conditions.

Following the series of sharp policy rates hikes by the ECB (see Section 2), financial conditions tightened significantly, affecting credit dynamics. Most of enterprises expect further worsening of their access to bank financing

and credit lines ⁽²⁴⁾. The impact is particularly strong for construction investment, as tighter financing conditions are compounded by a drop in demand given the downturns in housing markets.

Policies to support investment

Graph 6.2: **Public investment in 2019 and 2023 by financing source**



Source: European Commission

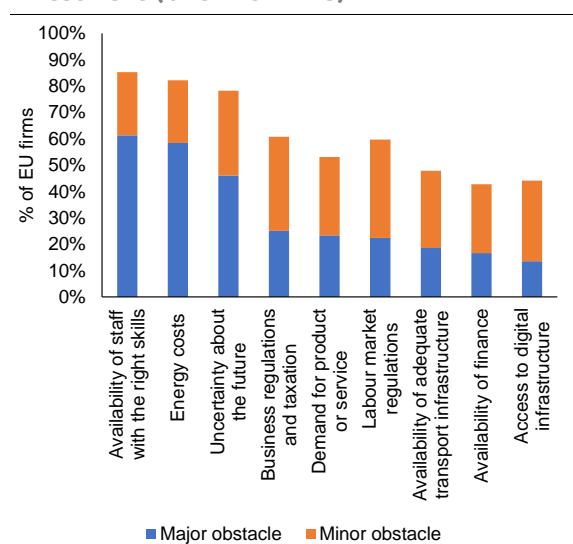
The Recovery and Resilience Facility (RRF) and cohesion policy funds provide a substantial boost to public investment and implementation should continue without delays.

The RRF, which is part of the Next Generation EU (NGEU), makes available EUR 723 billion to support investment and reforms. Two years into implementation, the RRF has contributed to the recovery in public investment (**Graphs 6.1 and 6.2**), including deployment of green technologies, modern digital infrastructures, as well as green and

⁽²⁴⁾ 28th Survey on the Access to Finance of Enterprises (SAFE), ECB 2023.

digital and skills development. The RRF is also expected to crowd-in more private investment (Pfeiffer et al. 2023). Although Member States are on track with their recovery and resilience plans, some – particularly Member States with very large allocations – are lagging behind on grant absorption. (European Commission, 2023j). Cohesion policy funds are also a crucial source of public investment funding. While Member States are finalising the implementation of the 2014-2020 funds, in 2021-2027, an additional EUR 392 billion is available to invest in the green and digital transitions. The implementation of these funds has started to pick up pace with, however, certain challenges.

Graph 6.3: Perception of long-term barriers to investment (% of EU firms)



(1) Survey answers for question: "Thinking about your investment activities, to what extent is each of the following an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?"

(2) Data for all surveyed firms from all sectors; data for answers for "no obstacle" and "don't know/refused" are not shown.

Source: European Investment Bank Investment Survey (EIBIS) 2023

Persisting obstacles weigh on investment, both private and public ones.

Administrative hurdles, linked in particular to permitting, undermine investment, particularly for projects related to the green transition. In addition, enterprises, regardless of size, consider the lack of skilled labour and increasing production costs to be among their biggest concerns (Graph 6.3) (European Investment Bank, 2023a). Such obstacles limit

the ability of firms to invest, and therefore have an impact on potential growth. They also impede a successful roll out of RRFs and cohesion policy funds. Accordingly, the 2023 revision of the euro-area Member States' plans aim to introduce additional reforms and investments, which are set to address specific regulatory hurdles and investment bottlenecks identified in the RRFs implementation so far (European Commission, 2023j).

Supporting the Green transition

In the context of the energy crisis and the need to accelerate net-zero industries, major EU trading partners have taken action to support investment in such technologies.

The success of Chinese global firms as producers of goods needed for the green transition (e.g., solar panels, batteries, electric vehicles, wind turbines) is surely determined by fundamental cost advantages but also the extensive use of government subsidies (Springford and Tordoir, 2023). Another key policy factor in this respect relates to different degrees of ambition of environmental policy across world areas. The approach to address climate-related issues chosen by the EU has centred on emission pricing and flanked by a variety of measures to support the development and deployment of green technology. Since the adoption of the Inflation Reduction Act in 2022, the US approach has been based mainly on large-scale subsidies to green technologies. While the jury is still out given the short timeframe since IRA adoption, such policy differences could have implications for competitiveness on a global scale, potentially leading to price pressures to relocate industry abroad (Clausing and Wolfram, 2023).

Support for industries that are critical to the green transition is essential even though it entails some risks.

Policy actions to support the green transition range from an acceleration of permitting and administrative procedures to industrial policy tools such as public subsidies and public procurement rules that introduce (within limits) a preference for domestic production. Industrial policy has been

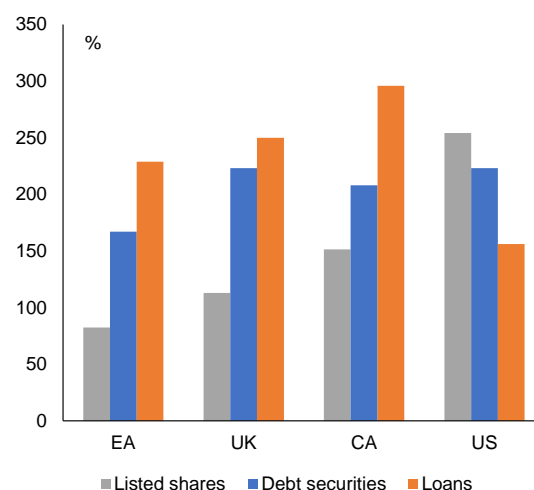
shown to be a powerful tool to complement carbon pricing and ensure a speedy and cost-effective way to boost innovation and rapidly shift towards climate neutrality (Acemoglu et al., 2012). Strengthening “strategic” industries that are considered critical for the net-zero transition of the economy is needed to avoid developing excessive dependencies from non-EU suppliers, while providing also a response to initiatives to subsidise green technologies by other major world regions, including China and the US (Inflation Reduction Act) (European Commission 2023k and Tagliapietra et al., 2023). Incentivising circular economy approaches in industry is also crucial to further reduce both greenhouse gases and other pollutants’ emissions, boost resource efficiency and reduce critical dependencies, thus strengthening the EU’s resilience and competitiveness. Nonetheless, while industrial policy is an important tool, it should not be seen as a panacea towards sustainable growth, notably because it will carry some downsides at the domestic and international level (Terzi, 2023). On the domestic side, if industrial policy is not well designed (Terzi et al., 2022), it is at risk of reducing competition and consequentially the rate of innovation, leading to higher prices for consumers. On the international side, a costly subsidy race between major economies could lead once again to increasing price and budgetary pressures.

The use of state aid to support strategic sectors carries important risks to the single market and may aggravate divergences within the euro area. In line with the March 2023 revision of the Temporary Crisis and Transition Framework (TCTF), a number of countries are using state aid to support the green transition. However, the greater reliance on state aid at national level runs the risk of destabilising the level playing field within the single market and missing the opportunity of fully exploiting economies of scale at the EU level. Absent some coordination in industrial strategy, larger Member States or those with greater fiscal space may have greater scope to support companies, to the partial detriment of other euro area countries and the integrity of the European Union. For that reason, the

Commission put in place the Innovation Fund to support the demonstration of innovative low-carbon technologies via EU-wide competitive calls for large-scale and small-scale projects. The Commission has been arguing further in favour of a European mechanism to support companies (Strategic Technologies for Europe Platform, STEP) and has taken measures to ensure the resilience of supply chains, including for Critical Raw Materials that constitute a crucial input to green technologies.

Developing capital markets

Graph 6.4: **Size of the different markets in terms of GDP**



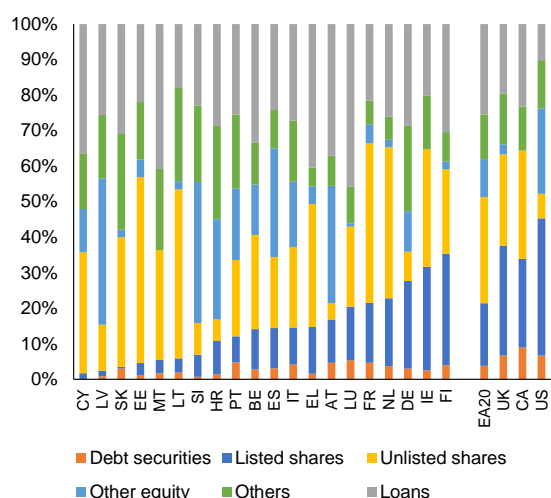
(1) 2021, latest available data

Source: Eurostat and OECD

Companies in the euro area predominantly use bank loans and their use of market-based finance remains limited. Loans represent close to 26 % of total liabilities of non-financial corporations while the share of tradable instruments (debt securities and listed equity) stands at 21 %. Market-based funding is much higher in Canada, the United Kingdom and the United States, where it stands at 34 %, 38 % and 45 %, respectively (Graph 6.4). The difference can partly be explained by a high share in the euro area of small and medium enterprises (SMEs) and family-owned businesses, which are financed predominantly through loans. As

a result, the size of capital markets (equity and debt securities) in the euro area is smaller than that of other large economies. In 2021, loan liabilities in the euro area represented 229 % of GDP, while debt securities were 169 % of GDP, and listed shares represented only 82 % of GDP (**Graph 6.5**). By comparison, in the United States, loans represent 156 % of GDP, while listed shares and debt securities are respectively 254 % and 223 %.

Graph 6.5: **NFC's share of liabilities by different types**



(1) 2021, latest available data

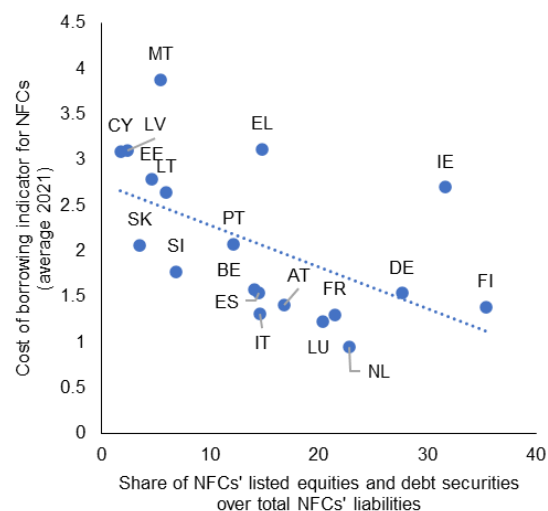
Source: Eurostat and OECD

In addition, capital markets in the euro area remain fragmented along the national lines. On average in the euro area, 78 % of equity and 49 % of debt securities held by investors are issued in the same Member State. Such a large home bias in security holding leads to disparities in capital costs and obstacles with respect to the access to financing across the euro area. It results in higher financing costs for companies and curtails potential returns for investors. Another sign of fragmentation is the large number of national and regional stock exchanges that continue to coexist in the EU, more than 30 compared to only a few in the United States.

The Capital Market Union agenda aims at reducing fragmentation, increasing access to finance and, in turn, supporting innovation and competitiveness. Fragmented capital markets imply lower

competition among financial institutions, high liquidity premia, and eventually a higher cost of funding. Evidence shows a strong correlation between access to capital market and cost of funding (**Graph 6.6**). Stronger and integrated capital markets can increase financing opportunities for innovative companies that are often based on intangible capital and have comparatively little physical collateral to secure bank loan. The development of innovative companies, and in particular start-ups, is therefore particularly dependent on the existence of well-developed capital markets. In particular, venture capital funds play a central role by supporting young, fast-growing companies. In the last ten years, venture capital investments have slowly increased in the euro area but remain significantly below those in the United States (**Graph 6.7**).

Graph 6.6: **Correlation between cost of borrowing for firms and the share of NFC's listed equities and debt security over total NFC's liabilities**



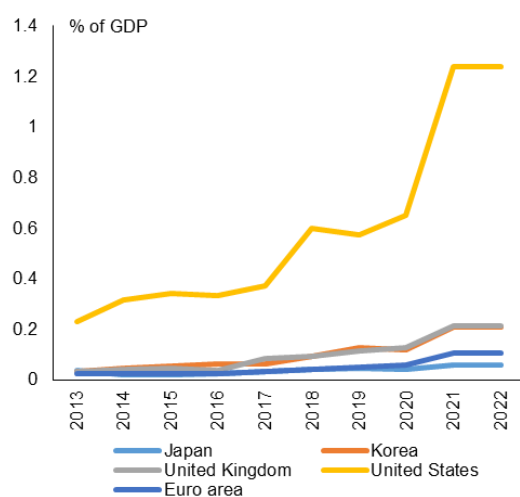
Source: ECB and OECD

In September 2020, a new CMU Action Plan was rolled out. The plan sets out three key objectives: to make financing more accessible for European companies, in particular SMEs, to increase citizen's confidence and participation in capital markets, and to integrate national capital markets into a genuine EU-wide single market for capital. The Commission has now delivered on all of the 16 actions included in the plan.

Stronger capital markets can enhance the international role of the euro.

The euro's global role remained resilient during the pandemic and despite Russia's aggression towards Ukraine (ECB, 2023d). The euro has consolidated its position as the second most used international currency. However, the euro's global role continues to punch below the euro area's economic and financial weight. In that respect, a deeper EMU, supported by a more integrated and better functioning Capital Markets Union would strengthen the international role of the euro.

Graph 6.7: **Venture capital investments as a share of GDP (stock)**



Source: OECD