Resilience and renewal in Europe
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About the report
The annual EIB report on investment and investment finance is a product of the EIB Economics Department. The report provides a comprehensive overview of the developments and drivers of investment and investment finance in the European Union. It combines an analysis and understanding of key market trends and developments, with a thematic focus explored in greater depth. This year, the focus is on how Europe is progressing towards a digital and green future amid an energy crisis. The report draws extensively on the results of the annual EIB Investment Survey (EIBIS) and the EIB Municipality Survey, combining internal EIB analysis with contributions from leading experts in the field.

About the Economics Department of the EIB
The mission of the EIB Economics Department is to provide economic analyses and studies to support the Bank in its operations and to help define its positioning, strategy and policy. The director of Economics Department, Debora Revoltella, heads a team of 40 economists.

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Published by the European Investment Bank.
Printed on FSC® paper.

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Acknowledgements
Julie Callaert (Centre for Research and Development Monitoring, KU Leuven), Giacomo Casali and Serena Sorrentino provided research assistance.

The full version of the Investment Report 2022/2023: Resilience and renewal in Europe can be downloaded at:

Introduction

A series of shocks have battered the European economy. Europe was rebounding strongly from the COVID-19 crisis, but now faces of a severe worsening of its terms of trade driven by a surge in energy prices, the cost of which must be shared between European businesses, governments and households. These added pressures risk delaying important investment to address long-term, structural challenges, including the climate transition and digitalisation. Europe’s future depends on being able to compete internationally and on leading in innovation, particularly in strategic technologies linked to the climate transition.

As growth slows and budgetary pressures mount, public investment must be protected to reduce economic scarring and to stimulate the private sector. The impact of the energy shock on individual EU members and their capacity to respond vary widely. Support for innovation and the climate transition must therefore be well coordinated to promote a level playing field in the single market, tackle uncertainty about policies and foster cohesion.

European firms navigated the pandemic better than expected, but they face strong headwinds from energy costs, a lack of skills, tightening financial conditions and uncertainty. High energy prices will provide an enhanced incentive for climate-related investment, but this effect may be outweighed by heightened uncertainty, which is dampening firms’ investment. Regulatory obstacles are constraining private and public investment, while a lack of available skills (such as environmental planning and engineering expertise) is hampering investment projects. Addressing technical skills and reducing administrative hurdles is critical for investment, particularly on the local level.
Key findings

The European economy has been hit by a series of shocks — and is still adjusting

The invasion of Ukraine and the energy crisis compounded existing supply constraints, delivering a severe blow to Europe’s terms of trade. In the first half of 2022, nominal energy imports rose from around 1.5% of gross domestic product (GDP) to 3.8%. At the same time, the EU trade surplus in non-energy goods also slumped, reflecting a mix of higher import costs and weaker global demand. The ramifications of higher energy prices therefore go beyond the direct hit to households and businesses. Higher energy prices are fuelling inflation and depressing demand, with the costs borne by Europe’s households, businesses and governments.

Figure 1
European Union trade balance (EUR billion, per month), 2016-2022

![Graph showing European Union trade balance from 2016 to 2022.]

Source: Eurostat.

The ability of European economies to absorb new shocks is complicated by the fiscal legacy of the pandemic. A strong fiscal policy response to the pandemic in 2020 and 2021 shielded households and business from an extensive loss of income. Those measures protected the productive capacity of the economy in a way that enabled it to rebound rapidly once COVID-19 restrictions were lifted. The fiscal support effectively reallocated a large share of net wealth from the public to the private sector (increasing public debt and private savings), and that transfer has not yet been unwound. Governments therefore have less fiscal space to soften the impact of high energy prices on households and firms.

Figure 2
Net lending by sector in the European Union (% GDP), 2019-2022

![Graph showing net lending by sector in the European Union from 2019 to 2022.]

Source: Eurostat.
EU members’ varying exposure to rising energy costs and levels of public debt risk widening gaps between countries. Disparities in countries’ dependency on fossil fuel imports and the energy intensity of production in their economies mean that the energy shock is not being felt uniformly. Meanwhile, higher interest rates caused by a new phase of monetary tightening and investors’ increased aversion to risk is complicating issues for countries with high public debt. Spreads between the bond yields of different EU members have widened as a result.

Meanwhile, Europe cannot afford to delay action to address the long-term, structural challenges of climate, digitalisation and innovation

Comparatively low levels of investment in innovation and machinery and equipment risk compromising Europe’s ability to compete in the long term. Investment recovered rapidly in 2021 and 2022, rebounding to pre-pandemic levels, but this success belies a persistent weakness in productive investment. When investment in housing is excluded, data show that a gap in productive investment of 1.5 to 2 percentage points of GDP opened between Europe and the United States after the global financial crisis, and still persists. This gap is driven by greater US investment in machinery and equipment and innovation, particularly in information and communication technology equipment (in the service sector) and intellectual property (in the public and defence sectors). Corporate spending on research and development is also low in the European Union relative to international competitors (1.5% of GDP in the European Union in 2020 vs. 2.6% in the United States and Japan).

Figure 3
Productive investment (excluding residential, % GDP)

Source: Eurostat and the Organisation for Economic Co-operation and Development.
Note: Data for the European Union exclude Ireland.

Figure 4
Share of firms investing in innovation (in %)

Source: EIB Investment Survey 2022.

Data from the EIB Investment Survey (EIBIS) also show that EU firms are less likely to innovate or to adopt new technologies than US firms. The gap actually widened by around 10 percentage points in the 2022 survey, to 19 percentage points. This gap is driven by less frequent investment by EU firms in the adoption of new technologies and practices.

Investments to limit climate change are increasing but are still well below what is needed to meet Europe’s target of net-zero emissions by 2050. EU climate investment has rebounded after dipping during...
the pandemic, but investment needs to step up considerably if Europe is to meet its goals. Investment of €1 trillion a year is needed in the European Union to reduce greenhouse gas emissions 55% by 2030. That is €356 billion more a year than from 2010-2020.

**Figure 5**
Annual investments needed for the Fit for 55 package

![Annual investments needed for the Fit for 55 package](image)

**Source:** European Commission, Bruegel, EIB staff calculations.

**Note:** The Fit for 55 package is a set of proposals to revise and update EU legislation and to put in place initiatives to ensure that EU policies are in line with the climate goals agreed by the Council of the European Union and the European Parliament. REPowerEU is the European Commission’s plan to wean Europe off Russian fossil fuels well before 2030.

Leadership in green technology will be critical to future competitiveness, but EU prominence in this area is under threat. While Europe is trailing the United States in digital innovation, green technologies have so far stood out as an area where the European Union leads. In patenting green technologies, Europe’s main strengths lie in the areas of sustainable mobility, smart grids and wind power, while it is neck and neck with the United States and China on energy storage and, to a lesser extent, solar. To stay competitive, Europe will need to consolidate its position and expand its involvement in more cutting-edge innovation, such as hydrogen technologies. However, the US Inflation Reduction Act, which is expected to provide almost $369 billion for energy and climate change projects, will strengthen the competitive challenge from US firms and has the potential to encourage international firms to move innovative green industries to the United States.

Amid slowing growth and fiscal pressures, public investment must be protected

**Sustained public investment is an essential complement to private investment, but it is under threat.** Historical data show that public investment is typically more vulnerable than other types of public spending in times of fiscal consolidation. The current phase of monetary tightening, combined with the debt built up during the pandemic, could pressure governments to consolidate their finances by cutting public investment. This would be counterproductive, however. Analysis of the past five decades shows that maintaining or accelerating public investment during crises is associated with less economic scarring in the medium term, as measured by economic output.
Local government investment (in digital infrastructure, for example) has a strong positive effect on GDP and in spurring private investment. This effect is particularly strong during downturns. Investments in education, research and development, efficient administration and local infrastructure are the most effective at promoting growth. For example, firms in regions with relatively fast internet services (reflecting better local digital infrastructure) were 7.1% more productive than other firms, an effect that rises to nearly 16% for firms that also invested in becoming more digital in response to the pandemic.
Key findings

National governments need to protect public investment by making it a priority in national budgets, and the effective implementation of the €723.8 billion Recovery and Resilience Facility (RRF) will help many countries to do that. The facility represents around 1% of EU GDP to be disbursed over four years, or almost one-third of total public investment. However, disbursements for green and digital investments under the Recovery and Resilience Facility are already proving slower than projects in other areas. Tackling technical skills, coordination and planning hurdles for more complex green and digital projects will be key to their successful implementation.

With the current shocks exacerbating risks for social and regional cohesion, addressing local investment barriers is vital

The energy crisis and inflation are disproportionately affecting poorer households and people already disadvantaged by the pandemic. Despite policy support, the financial situation of poorer, younger and less qualified people worsened as a result of the pandemic. These groups are also suffering more from rising prices, given that they spend a bigger share of their income on food and energy, have less savings to fall back on and are generally more vulnerable to the effects of inflation.

Regional cohesion is also at risk, with less developed regions in Eastern Europe more exposed to economic and political stress. One factor is the uncertainty created by the war, which is slightly higher in Eastern Europe, and which acts as a major deterrent to private investment. Less developed regions are also more dependent on energy intensive industries, while regions with higher unemployment are less able to benefit from the labour provided by new refugees and are facing greater pressure on social infrastructure and services. Cohesion regions seem to particularly lack the technical capabilities needed to access funds and increase investment. Tackling these barriers at the municipal or regional level is important.

A lack of funds, lengthy regulatory processes and regulatory uncertainty are the largest barriers to municipal investment and are linked to greater investment gaps, particularly in Central and Eastern Europe. Because 43% of municipal investment is funded by transfers, addressing local skills and regulatory hurdles will be particularly important to the successful implementation of the Recovery and Resilience Facility.

Figure 9
Barriers to municipal investment (% of respondents)

Source: EIB Municipality Survey 2022.
Skill constraints are slowing climate investment by municipalities. When asked about capacity constraints, 69% of municipalities say that a lack of environmental and climate assessment skills is a barrier. Digital skills, engineering and other technical skills, and regulatory understanding are not far behind.

**Figure 10**
Municipal skill constraints (% of respondents)

![Bar chart showing skill constraints](chart)

*Source: EIB Municipality Survey 2022.*

Firms navigated the pandemic better than expected, but they face strong headwinds

**Policy support enabled firms to recover rapidly after the initial COVID-19 crisis.** As of mid-2022, 84% of firms expected 2022 sales to be back to pre-pandemic levels, if not higher, according to EIBIS data. Only 16% of firms expected 2022 sales to be below pre-pandemic levels. Most of those (13%) were firms that suffered a year-on-year drop in sales during 2020 or 2021 and still did not expect sales to recover.

**Firms are increasingly concerned about energy costs, and a growing share say those costs are impeding investment.** A lack of skills and uncertainty are also challenging investment. Energy costs are now the second most frequently cited barrier to planned investment, with 82% of firms citing those costs as an issue (just below skills availability). Uncertainty also edged up to 78% of firms.

**Heightened uncertainty is likely to have a particularly strong effect on corporate investment.** Given the possibility of delaying investments, firms’ worries about uncertainty are a cause for concern. Simulations by the European Investment Bank suggest that corporate investment in 2022 would have been 10% higher (representing around 1.2% of GDP) if uncertainty had remained at its 2021 level, all else being equal.

**Finance conditions for smaller businesses also began to deteriorate in 2022, reflecting monetary tightening and investors’ increased reluctance to take on risk.** In mid-2022, the cost of corporate bank loans began to rise abruptly. Interest rate spreads between more and less risky loans also rose, which is likely to affect firms that are more indebted following the pandemic.
High energy prices alone will not be enough to accelerate green investment by firms

Overall, green investment by firms advanced in 2022, following a dip during the pandemic. 88% of firms reported some form of investment in climate change mitigation, with most taking action on energy efficiency and on minimising waste. 33% of businesses report taking steps to adapt to the effects of climate change.
However, the outlook for corporate investment to tackle climate change is mixed, with uncertainty and administrative barriers weakening investment incentives created by high energy costs. Energy supply disruptions and high prices could push firms to invest in energy efficiency, electrification and small-scale power generation from renewable sources. However, some emergency interventions to maintain the energy supply have also exacerbated uncertainty about public commitment to the green transition. An analysis of the drivers of green investment by firms suggest that uncertainty may outweigh the incentives created by higher energy prices. Firm that perceive energy costs as a major obstacle are 3 percentage points more likely to invest in climate measures, but the effect turns negative when uncertainty is also cited as a constraint. Tackling barriers, such as lengthy licencing processes for small renewable energy installations, is also essential.

**Figure 15**

**Impact of energy costs and uncertainty on climate investment** (change in the probability of investing, in percentage points)

![Impact of energy costs and uncertainty on climate investment](image)

*Source: EIBIS 2022, EIB staff calculations.*

**European policymakers need to act decisively to encourage critical investment**

More specifically, policymakers need to:

- **Provide clarity and preserve incentives to advance Europe’s transformation.** The response to the energy shock should lay the foundation for a more efficient and reliable EU energy market, tackling uncertainty and setting out a clear, ambitious path for the green transition.

- **Take advantage of the catalytic effect of public investment to crowd-in investment by the private sector,** drawing on resources such as the Recovery and Resilience Facility to protect public investment from spending cuts and to minimise economic scarring over the longer term.

- **Use risk-absorbing financial instruments to help shield strategic investment by the private sector.** EIB studies show that credit and guarantee instruments for small and medium companies and venture debt for firms with high growth potential can positively affect investment and innovation, countering market failures affecting smaller firms and higher-risk, innovative investment.

- **Reduce unnecessary administrative barriers to investment and address technical skills,** particularly for firms and municipalities in cohesion regions, and specifically for more complex green and digital objectives.
Key findings

Enhance support for innovation, which remains crucial at various stages of the climate transition, while preserving the benefits of the European single market. Uncoordinated responses risk undermining economic convergence and a level playing field, just when EU members are dealing with diverging effects and wider ramifications of the pandemic, climate change and the energy shock.