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Review of European Economic Policy

FORUM

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The 2028-2034 MFF: From Budgetary Accounting to Strategic Purpose

The current negotiations over the EU's 2028-2034 Multiannual Financial Framework (MFF) have settled into a familiar script: a zero-sum battle over the figures. "Frugal" member states are pushing for a smaller budget, net recipients are seeking to shield cohesion and agricultural spending from cuts, and others – notably the European Parliament – try to square the circle by proposing new EU own resources. While the headlines obsess over the size of the pie and who gets the biggest slice, a much more consequential issue is being sidelined: what the money will be used for, whether it makes sense to spend more together in certain areas (for economic or geopolitical reasons) and whether the mechanisms of delivery are fit to translate financial resources into tangible strategic outcomes for the EU and its citizens.

Questions about better spending are relevant in every MFF negotiation, but they are particularly important this time. The Commission has proposed far-reaching changes not only to spending priorities and programme architecture, but also to the way EU funds are planned and delivered. Looking across the MFF proposal, a common pattern emerges: an ambition to consolidate multiple programmes into fewer, strategically framed ones, much more flexibility to allocate funds and greater emphasis on simplification and performance. These are all welcome and much needed developments in the context of rapid technological, political and economic changes. Yet, the reform will also result in a reduction in predictable national envelopes, at a moment when many member states will be confronted with the NGEU "cliff edge" effect. Not surprisingly, this creates resistance to change. At the same time, bundling funds and increasing flexibility does not automatically lead to a more strategic or transformative use of EU funds. For this to happen, reforms should be accompanied by appropriate governance arrangements and robust accountability mechanisms.¹

The challenge for MFF negotiators is to steer between Scylla and Charybdis: avoiding both a retreat to business as usual, with rigid national allocations, and an embrace of flexibility and consolidation without the necessary governance and accountability safeguards, opening the door to unchecked discretion and political capture. Consolidation is, in principle, a victory of common sense. The National and Regional Partnership Plan reform will replace eight partially overlapping EU funds and instruments that are currently implemented through more than 500 different national and regional programmes into one single EU programme implemented through 27 national plans.² Similarly, the European Competitiveness Fund (ECF) streamlines 16 instruments into four thematic windows, with InvestEU acting as a horizontal delivery arm.

A common rulebook is attractive from an efficiency logic. But consolidation is not just about simplification. Breaking down existing silos should make it easier to adjust the use of EU funds to changing circumstances and needs. The MFF proposal provides greater scope for reallocating funds "in normal times", while also strengthening the capacity to react to crises, through new or reinforced crisis reserves and cushions. Greater flexibility, however, comes with a trade-off. Less earmarking means reduced predictability for final beneficiaries, making some safeguards essential. Dedicated allocations for those most in need and minimum spending targets to protect key policy objectives can help preserve continuity and ensure that political priorities are not crowded out by short-term pressures. Yet there is also a risk that, in seeking to preserve existing alloca-

1 Rubio, E., Alcidi, C., & Andersson, F. (2024). *EU cohesion policy post-2027: Why and how to enhance flexibility*. CEPS.

2 Rubio, E., & Alcidi, C. (2026). *Merging cohesion policy and CAP: What does it take for national and regional partnership plans to deliver?* (IAI Briefs No. 26|41). Istituto Affari Internazionali.

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tions, different stakeholders push negotiators towards a proliferation of new restrictions that undermine the flexibility the reform is intended to achieve.

A more strategic use of EU funds will not emerge from consolidation and flexibility alone. It also requires governance arrangements capable of setting priorities, allocating responsibility and ensuring accountability. Across the EU spending headings, the underlying question is: who defines “strategic” once the big number is fixed? The negotiation of the ECF provides the clearest illustration.³ The Commission proposes using the advisory procedure to adopt work programmes to bypass member state obstruction. This can help shield funding decisions from short-term political pressures and fragmented industrial interests. But it risks making decisions overly technocratic.

The alternative proposed by the Council – using the examination procedure for all ECF work programmes – raises a different concern. While it can strengthen political ownership, a member state’s right to decide the specific project eligibility rules and award criteria inevitably increases the risk of political capture. The core governance challenge is therefore to combine Commission steering capacity with a structured, well-informed and transparent process to set priorities without reverting to “business-as-usual”, member state-centric comitology. Similar tensions arise in the negotiations of the Global Europe Instrument, where both the Council and Parliament propose changes to reduce the Commission’s discretion in planning the use of resources. These are not technical details. They will determine whether “strategic” spending reflects a coherent EU-level assessment of where value is created while remaining politically accountable, or rather a patchwork of national capture, excessive technocratic discretion and business as usual under a new label.

Another key change of the next MFF will be the delivery mode: a shift towards a more performance-based approach, with greater emphasis on outputs and outcomes. This is a sensible change that can help focus EU spending towards what it has actually achieved and reduce administrative burdens by giving beneficiaries greater flexibility over how agreed objectives are delivered. Yet, as already seen with the Recovery and Resilience Facility, performance-based funding does not necessarily translate into simplification for every part of the process. In practice, moving from input controls to output and outcome requirements can create new layers of complexity in terms of measurement, monitoring and verification. This can be avoided by providing guidance on definitions, control and audit requirements but above all by ensuring adequate technical support for administrations with more limited capacities.

A more fundamental tension between simplification and performance should also be recognised. Simple rules can accelerate spending and reduce administrative costs, but excessive simplification may weaken safeguards against fraud and circumvention, undermine fair competition and compromise the achievement of increasingly complex policy objectives. The challenge is therefore to pursue “smart simplification”, cutting red tape and unnecessary administrative burdens while preserving the safeguards and procedures needed to ensure accountability, protect the EU’s financial interests and deliver effective policy outcomes.

The final Council agreement will inevitably be framed as a story of winners and losers. But the more consequential decisions are being made in parallel tracks on how priorities are set, how resources are allocated and reallocated, and how performance and accountability are built into the new architecture. Hence the issue is not simply how much money is available, or how it is divided between headings and member states, but whether the architecture through which it is delivered is fit for purpose. If flexibility is not matched by accountability, performance requirements by sufficient capacity, and consolidation by effective governance, the potential benefits of the reform may not materialise. Getting this architecture right will be essential if the EU budget is to deliver value for money while retaining the flexibility and strategic capacity needed to invest in Europe’s future.

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³ Rubio, E., & Alcidi, C. (2026). *The European Competitiveness Fund and the new InvestEU: How to make them transformational?* (IAI Briefs No. 26|40). Istituto Affari Internazionali.

Europe's Fiscal Space in an Age of Geopolitical Pressure

Europe faces a changing fiscal landscape shaped by rising investment needs, high public debt and growing geopolitical pressures. This Forum examines how the European Union's fiscal framework can respond to these challenges, highlighting the limitations of existing fiscal arrangements and exploring options for adapting European fiscal policy to a more demanding strategic environment. The contributions consider the treatment of public investment, the restructuring of legacy sovereign debt, alternative approaches to financing common European defence and the implications of geopolitical exposure for fiscal outcomes.

EU Fiscal Rules and Public Investment in the Green and Digital Transitions

Philipp Heimberger, The Vienna Institute for International Economic Studies, Austria.

Reviving PADRE: A Balance Sheet Approach to Euro Area Debt in an Age of Geopolitical Risk

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Financing European Defence – A Proposal

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Geopolitical Fiscal Exposure: A New Lens for EU Fiscal Governance

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EU Fiscal Rules and Public Investment in the Green and Digital Transitions

Policymakers in the EU must substantially increase public investment to achieve ambitious green and digital objectives, even as many member states face fiscal consolidation, rising ageing-related expenditure and higher defence spending. This article examines how the reformed EU fiscal framework treats public investment and whether it provides sufficient fiscal space for the green and digital transitions. Investment and reform commitments can justify extending national adjustment periods, provided that public investment ratios are at least maintained. However, most nationally financed investment counts towards net expenditure and therefore remains constrained by agreed net expenditure paths, while the framework takes no account of the public assets created through such spending. Medium-term fiscal-structural plans suggest that downward pressure on public investment is stronger in countries facing larger adjustment requirements. Merely safeguarding current investment levels will be insufficient to deliver the green and digital transitions. The article assesses five options for expanding fiscal space. It argues that technical adjustments within the existing framework could provide meaningful, but largely temporary, relief. More ambitious reforms will be necessary to create durable fiscal space and sustain political support for higher public investment.

Investment in the European Union must rise substantially to deliver the green and digital transitions, which will require a major renewal and expansion of the capital stock over the coming decades. The Draghi report estimates the EU's annual investment gap at €750-€800 billion, or around 4.5% of GDP, across areas including energy security, decarbonisation and digital infrastructure (Draghi, 2024). Much of this investment will need to be initiated by the public sector because essential projects such as electricity grids or transport infrastructure have great social benefits but often provide private investors with returns that are too low, uncertain or long-dated to justify investment on a sufficient scale. Public investment can also crowd in private capital, particularly when it forms part of a credible and coherent long-term strategy that

raises investment in support of strategic green and digital objectives and sustains it at a sufficiently high level. This points to the need to increase public investment by at least 1% of EU GDP annually and maintain that effort over time (Heimberger & Lichtenberger, 2024).

After several years of suspension under the general escape clause in response to the COVID-19 pandemic, the reformed EU fiscal framework entered into force in April 2024. At the same time, many member states face growing public spending pressures from population ageing and higher defence commitments (e.g. IMF, 2025). With fiscal deficits and public debt ratios often still above levels recorded before the pandemic and subsequent energy crises, governments face pressure to consolidate public finances while addressing substantial long-term spending needs.

Against this background, I assess whether the EU fiscal framework provides sufficient scope for strategic investment in the green and digital transitions and discuss options for expanding fiscal space for these priorities.

Public investment in the EU fiscal framework

The reformed EU fiscal framework is built around country-specific multi-year fiscal-structural plans negotiated

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between national governments and the European Commission. Its overarching objective is to place public debt ratios on a plausibly downward path while ensuring that fiscal deficits remain below 3% of GDP. Country-specific adjustment requirements are translated into multi-year paths for net expenditure growth, defined as government expenditure net of interest payments, cyclical unemployment spending, temporary measures, discretionary revenue changes and national funds for co-financing EU expenditure (Heimberger, 2026).

Public investment is generally included in net expenditure and is therefore subject to the same constraints as most nationally financed spending. The main exceptions relevant to public investment are expenditure on EU programmes fully matched by revenue from EU funds and national expenditure on the co-financing of EU-funded programmes. Member states may obtain an extension of the fiscal adjustment period from four to a maximum of seven years if they submit an investment and reform package that supports growth and debt sustainability, addresses common EU priorities and country-specific recommendations, and maintains nationally financed public investment at least at its previous level. Eight member states received such an extension in the first application round in 2024–2025: Austria, Belgium, Finland, France, Germany, Italy, Romania and Spain.

An extension of the adjustment period to seven years reduces the required annual consolidation; however, it neither exempts (strategic) public investment from the net expenditure path nor necessarily lowers the total adjustment requirement substantially (Darvas et al., 2024). Governments seeking to increase green and digital investment must therefore generally create room within their net expenditure paths by hiking taxes or restraining other spending. The fiscal framework may help preserve existing investment in countries granted an extension, but it does not ensure the additional fiscal space required for the green and digital transitions.

A further weakness is the framework's narrow focus on bringing down public liabilities over the medium run. It disregards the accumulation of public assets through investment, even though stronger government net worth, i.e. the value of public assets minus liabilities, can support economic growth and the long-term sustainability of public finances (Ball et al., 2021; Chai et al., 2024). By focusing on public debt while ignoring the assets created by public investment, the rules fail to provide incentives for financing projects that strengthen future productive capacity.

Maintaining current investment levels will in any case be insufficient to meet the EU's climate and digital objectives.

Boivin and Darvas (2025) find that nationally financed public investment is projected to decline in around one-third of member states over the period 2025–2028. Public investment is particularly vulnerable during consolidation because projects can often be postponed or cancelled more easily than current expenditure (Jacques, 2021). Consistent with this, stronger adjustment requirements are associated with greater downward pressure on public investment (Boivin & Darvas, 2025).

These constraints are becoming more binding as governments face mounting pressure not only to increase military expenditure, but also to sustain it at a structurally higher level over the longer term (Heimberger et al., 2026). Financing higher green and digital investment through tax increases or cuts to social protection, health, education or other spending may prove contentious, potentially increasing the risk of political instability (Heimberger & Matzner, 2026).

Options for expanding the fiscal space for public investment

This section discusses five options for creating additional fiscal space for public investment in support of the green and digital transitions. Three could be implemented largely within the existing EU fiscal framework: using the national escape clause, revising the Debt Sustainability Analysis (DSA) underlying the EU fiscal rules, and making greater use of national co-financing of EU funds. Two others would require more far-reaching institutional reform: a legislated exemption for public investment and a permanent EU investment fund.

Using the national escape clause for energy security investment

The European Commission initially invited all EU member states to activate the national escape clause for additional defence expenditure. Participating member states may temporarily deviate from their net expenditure paths during 2025–2028 by up to 1.5% of GDP per year, measured relative to defence spending in the 2021 base year (e.g. Heimberger et al., 2026). In its 2026 European Semester Spring Package, the European Commission (2026) communicated that, upon request, this flexibility could also cover measures undertaken since February 2026 to reduce dependence on imported fossil fuels.

Eligible measures include investment in electrification, electricity grids and storage, energy efficiency and clean-energy capacity. This could allow governments to finance projects that strengthen energy security and decarbonisation without worsening compliance with their agreed expenditure paths.

However, the additional fiscal space is both limited and temporary. Energy-related measures are capped at 0.3% of GDP per year and 0.6% cumulatively over 2026–2028, while the escape clause's overall ceiling remains unchanged. The measure may therefore offer targeted short-term flexibility; however, it does not provide a structural solution to existing investment gaps.

Adjusting the European Commission's framework for debt sustainability analysis

The DSA plays a central role in determining country-specific adjustment requirements under the new fiscal rules, as it is used to assess how much fiscal consolidation is needed to put the public debt ratio on a plausibly downward trajectory. Relatively small changes in DSA assumptions can substantially affect the required fiscal adjustment (Heimberger et al., 2024). Changing the treatment of public investment in the DSA could therefore create extra fiscal space.

The current framework encourages investment and reform plans by allowing the adjustment period to be extended from four to seven years. Yet the DSA does not systematically recognise that these measures raise potential growth (Fournier, 2016). This creates an inconsistency between the incentives built into the rules and the technical framework used to assess debt sustainability.

A more coherent approach would incorporate potential growth effects into the DSA. Investment multipliers could be used to translate additional public investment into higher potential growth (e.g. Suresh et al., 2024). Where the DSA-based constraint is binding, stronger projected growth would reduce adjustment requirements.

Such changes would not require legislative reform, as the legal framework does not prescribe the DSA's detailed assumptions. Nevertheless, the fiscal space generated would remain constrained by the safeguards stipulating minimum fiscal consolidation requirements¹ and, for countries in an Excessive Deficit Procedure (EDP), the general requirement to improve the structural balance by at least 0.5% of GDP annually. Any additional room would also not automatically be allocated to green or digital investment. In any case, recognising that public investment

can raise potential growth would make the framework more internally consistent (Gottschalk et al., 2025).

Using national co-financing of EU programmes

National co-financing of EU-funded programmes is excluded from the net expenditure indicator used to assess compliance with national fiscal plans. Although the immediate effect is likely to be modest, this provision could eventually encourage governments to channel more investment through EU programmes.

Its importance will depend on the design of the next Multi-annual Financial Framework (MFF) for 2028–2034 and the extent to which future programmes permit or require national co-financing (Hansum et al., 2025). The Commission's proposal to replace narrowly defined programmes with a more flexible envelope linked to EU objectives could strengthen this channel.

The EU budget could also be reoriented more strongly towards climate investment. Cohesion and agricultural expenditure could become more climate-friendly, while a more ambitious climate spending target could be set for the next MFF (Heimberger & Schratzenstaller, 2024). New green own resources such as levies on aviation and cryptocurrency transactions, could further reduce pressure on national budgets (Schütz & Heimberger, 2026).

Introducing a legislated investment carve-out

A substantial reform would be a legislated carve-out, or "green golden rule", allowing governments to borrow for eligible public investment without the expenditure counting against the net expenditure indicator used to assess compliance. The rationale is that public investment creates assets and benefits over many years. Charging its entire cost to the year in which it is undertaken can bias fiscal policy against investment, particularly during consolidation. A broad rule could exclude total net public investment (Truger, 2016), while a narrower version could focus on climate, energy and digitalisation investment priorities (e.g. Darvas & Wolff, 2023; Pekanov & Schratzenstaller, 2023).

Such a rule could protect investment from the cuts it often experiences during fiscal consolidation. It would also make the fiscal framework more consistent with the EU's strategic objectives by preventing the rules from discouraging nationally financed investment in areas where substantial additional spending is required.

However, a legislated carve-out would require careful design. There are concerns that a broad exemption would

¹ The deficit resilience safeguard requires countries to continue adjusting until the structural deficit falls below 1.5% of GDP, even after the headline deficit has been reduced to below 3% of GDP. The debt sustainability safeguard, meanwhile, requires countries with debt ratios above 90% of GDP to plan an average annual reduction of at least one percentage point during the adjustment period, while those with debt ratios between 60% and 90% must plan a reduction of at least 0.5 percentage points per year. Where these safeguards imply stricter adjustment than the DSA-based requirements, they become binding.

weaken fiscal discipline, encourage the relabelling of current expenditure and favour physical infrastructure over education or R&D spending. Eligibility therefore needs to be defined, linked to EU priorities and subject to transparent accounting and independent monitoring (e.g. Blesse et al., 2023).

A legislated carve-out would represent a more significant political and legal change than DSA reform or using more national co-financing of EU funds; it would also need to account for debt sustainability risks in high-debt countries. Nevertheless, it represents an option for directly addressing the absence of systematic support for nationally financed public investment for the green and digital transitions.

Creating a permanent EU investment fund

An ambitious option is a permanent EU fund for climate, energy and digital investment. National budgets alone are unlikely to meet the scale of investment required, particularly where member states face tight constraints under the fiscal rules (Heimberger & Lichtenberger, 2024).

A permanent EU investment fund could build on the experience of the Recovery and Resilience Facility (RRF), the central component of NextGenerationEU, which was established in response to the COVID-19 crisis. The RRF provides grants and loans to member states based on agreed investments and reforms, with substantial resources allocated to climate and digital objectives. It is financed through borrowing by the European Commission on behalf of the EU.

The RRF demonstrated that common EU borrowing can be used to support national investment while advancing shared policy priorities. However, it is temporary and too limited to meet the EU's longer-term investment needs, with payments scheduled to end in 2026. Cornago and Springford (2021) show that achieving the EU's 2030 climate target would require green public investment several times larger than the green component of the RRF.

Following this model, the European Commission could issue EU bonds and use the proceeds to finance climate, energy and digital investment. The debt would be issued at the EU level rather than becoming the direct liability of individual member states. Its servicing would nevertheless need to be accounted for. This could be achieved by introducing new own resources that generate a dedicated revenue stream in the MFF or by refinancing maturing bonds and gradually establishing a permanent stock of common EU debt (Heimberger & Lichtenberger, 2024; Schütz & Heimberger, 2026).

A permanent EU investment fund could concentrate on projects with clear European added value and substantial cross-border benefits. These could include European public goods in energy, transport and digital infrastructure (Beetsma & Buti, 2024). In transport, an integrated high-speed rail network could help reduce emissions and improve cross-border connectivity (Creel et al., 2020; Angers et al., 2023). In energy, priorities could include stronger cross-border electricity grids, storage capacity and infrastructure for green hydrogen. Digital projects could include ultra-fast broadband, cross-border 5G networks, European cloud capacity and high-speed data networks (Heimberger, 2026).

By financing projects that are difficult to organise efficiently at the national level, a permanent EU investment fund could accelerate the green and digital transitions, and reduce pressure on national budgets under the EU fiscal rules.

Conclusions

National fiscal policy is becoming increasingly constrained in many EU member states just as public investment needs to rise to meet ambitious climate and digital objectives. The Draghi report and related studies call for a significant expansion of investment to advance the green and digital transitions. At the same time, ageing-related expenditure, rising defence spending and the reformed EU fiscal framework are narrowing governments' room for manoeuvre. Many member states must therefore reduce fiscal deficits and debt ratios over multi-year adjustment periods while simultaneously financing investment in decarbonisation, digitalisation and energy security.

Safeguarding current investment levels will not be enough. Meeting the EU's strategic objectives will require additional public investment of at least 1% of EU GDP annually and credible long-term financing arrangements. The tension between fiscal consolidation and the EU's investment agenda is therefore real, but not unavoidable. Much will depend on the willingness of national governments and EU institutions to create additional fiscal space.

The national escape clause, adjustments to debt sustainability analysis and greater use of national co-financing for EU programmes could provide limited and temporary relief within the existing framework. More far-reaching reforms – such as a targeted exemption of strategic investment from net expenditure or the creation of a permanent EU investment fund – would address the investment constraint more directly.

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Biagio Bossone

Reviving PADRE: A Balance Sheet Approach to Euro Area Debt in an Age of Geopolitical Risk

Euro area governments face mounting geopolitical demands on their budgets while carrying legacy debt that European Central Bank instruments can stabilise but not reduce. This article revisits the politically acceptable debt restructuring in the eurozone (PADRE) proposal of Pierre Pâris and Charles Wyplosz from 2014, which converts excess sovereign debt into zero-coupon perpetuities held by the Eurosystem, at no cost to creditors or other member states, and argues that its revival is now warranted.

The euro area is entering a new phase of macroeconomic vulnerability. An energy shock linked to the conflict in the Middle East has revived inflation and led the European Central Bank (ECB) to resume raising rates, while growth prospects weaken. Heightened geopolitical tensions – persistent conflicts at Europe's borders, global trade fragmentation, an increasingly volatile tariff environment and energy insecurity – are tilting the outlook towards stagnation. These pressures are also compressing public revenues and raising contingent fiscal demands, at a moment when governments are least well placed to absorb them.

These shocks operate through several reinforcing channels: disrupted supply chains, weaker investment, higher precautionary savings and tighter credit conditions following past interest rate increases. The result is a fragile macroeconomic configuration, characterised by weakening demand, subdued growth prospects and elevated uncertainty, precisely when fiscal policy would typically be expected to provide counter-cyclical support. Yet several euro area governments enter this phase carrying a structural handicap: high and uneven public debt ratios that severely constrain their room for manoeuvre.

It is precisely this combination – geopolitical pressure raising the need for fiscal action while legacy debt stocks foreclose it – that gives the case for a structural balance sheet solution its renewed urgency.

Debt overhang as a binding constraint

Public debt-to-GDP ratios in several member states remain significantly above pre-pandemic levels. While the prolonged era of negative or near-zero real interest rates had previously contained the burden of debt service, this condition no longer holds. Even a moderate stabilisation of nominal rates leaves governments carrying heavy legacy debt stocks whose servicing claims crowd out productive expenditure. The empirical literature documents a persistent negative association between elevated public debt ratios and long-run growth, operating through channels including higher risk premia, lower public investment and heightened fiscal uncertainty (Reinhart & Rogoff, 2010; Pescatori et al., 2014; Eberhardt & Presbitero, 2015).

The reactivation of EU fiscal rules, however reformed, re-introduces binding consolidation requirements, frequently in a pro-cyclical direction: member states are pressured to tighten budgets precisely when macroeconomic conditions would call for fiscal support.

This combination produces a textbook debt overhang problem (Myers, 1977; Krugman, 1988): governments rationally restrict productive spending, private investment is depressed by expectations of higher future taxation or fiscal instability, and recovery remains precarious and incomplete. The political economy consequences compound the problem. Prolonged austerity, weak growth and social discontent fuel polarisation and extremism, while financial markets internalise political uncertainty, amplify sovereign spreads and close the adverse feedback loop.

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The limits of current policy instruments

Over the past decade, the euro area has relied heavily on the ECB to stabilise sovereign debt markets. Large-scale asset purchase programmes, targeted long-term refinancing operations, and contingent instruments have compressed spreads and preserved orderly market functioning. Their effectiveness in addressing liquidity stress and market dysfunction is not in question.

What is in question is their structural adequacy. These tools share a fundamental limitation: they operate on flows, not on stocks. Quantitative easing absorbs sovereign bonds into the Eurosystem's balance sheet but does not extinguish the underlying liabilities. Governments continue to service the full stock of debt, whether held by the private sector or by the central bank. Spread-compression instruments are conditional and contingent: useful for managing market expectations but incapable of reducing debt burdens in any durable sense.

As a result, the euro area finds itself in an unsustainable configuration: debt stocks are persistently high, fiscal space is structurally constrained, and monetary policy is bearing a disproportionate share of the macroeconomic stabilisation burden. Managing this configuration becomes progressively more difficult as geopolitical and recessionary risks intensify. In effect, the euro area has developed a sophisticated set of instruments to manage liquidity and market functioning but lacks a mechanism to address the legacy stock of public debt directly.

The PADRE mechanism

Addressing the debt overhang calls for a conceptual shift: from flow adjustments – fiscal consolidation, market interventions – to a direct operation on the stock dimension of public sector balance sheets.

The politically acceptable debt restructuring in the eurozone (PADRE) proposal, advanced by Pâris and Wyplosz (2014), provides a coherent framework for exactly this purpose.¹ It was formulated within an orthodox macroeconomic framework and explicitly designed to remain within the institutional and legal architecture of the euro area.

¹ The author has previously argued for the relevance of the PADRE proposal in the context of democratic resilience and advanced economy debt sustainability (Bossone, 2024, 2026). The present article offers a more systematic treatment of the mechanism's economic and institutional logic, with particular attention to legal uncertainty, enforcement design and the conjunctural case for revival.

The mechanism involves three core steps.

Step 1: Secondary market acquisition. An agreement is struck between the highly indebted eurozone governments and the European System of Central Banks, under the formal aegis of EU institutions. The ECB and the relevant national central banks (NCBs) purchase a defined share of each country's sovereign debt on the secondary market. The share is calibrated to reduce each country's outstanding public debt to a pre-agreed sustainable threshold, for example, 80% of GDP. Purchases take place over a defined time window, using established secondary market procedures.

Step 2: Conversion into perpetual, zero-coupon instruments. The acquired debt is converted into perpetuities bearing zero interest. These instruments carry no coupon and no redemption date, making them economically close, from the issuer's perspective, to a permanent maturity transformation: interest payments cease entirely, and the principal never falls due. Existing private bondholders are fully protected – bonds are purchased at market prices, no haircuts are imposed, and no bank balance sheet losses arise. The operation therefore avoids the bank losses and contagion that conventional restructurings trigger.

Step 3: Monetary neutralisation through note issuance. To prevent the debt purchases from generating an inflationary monetary expansion, the NCBs simultaneously issue interest-bearing notes in the market in amounts equivalent to the bonds acquired. The increase in the monetary base is thus fully offset by new NCB liabilities. There is no debt monetisation: new money creation is matched by new central bank obligations. The operation extends, rather than breaks with, the logic of existing secondary market programmes. It is designed to be compatible with the prohibition on monetary financing under Article 123 of the Treaty on the Functioning of the European Union (TFEU), though its precise legal admissibility would depend on institutional design details and, ultimately, on the interpretation by the European Court of Justice (ECJ). In this sense, PADRE can be understood as a restructuring of the public sector's consolidated balance sheet, rather than a transfer across sectors.

Box 1 is a simple illustrative calibration that helps clarify the scale and intertemporal logic of the mechanism.

The economics of cost absorption: Who pays and when

The critical economic question is not whether the PADRE operation involves a cost – it does – but who bears it and how it is distributed over time. The answer has two layers that must be carefully distinguished.

Box 1

Illustrative calibration: Italy

To gauge the order of magnitude involved, consider a purely illustrative application to Italy. Italy's general government gross debt stood at 134.9% of GDP at the end of 2024 (Istat), while Eurostat recorded the ratio at 138.3% in Q2 2025. The figures below use the end of 2024 ratio.

Item	Formula	Value
Initial public debt ratio	—	134.9% of GDP
Target post-operation debt ratio	—	80.0% of GDP
Debt converted into zero-coupon perpetuities	$134.9 - 80.0$	54.9% of GDP
Annual coupon saving (average funding cost 3%)	0.03×54.9	1.65% of GDP
Annual coupon saving (average funding cost 4%)	0.04×54.9	2.20% of GDP

A PADRE-style conversion of debt equivalent to about 55% of GDP would remove the corresponding coupon burden from the government budget. If the relevant average funding cost were between 3% and 4%, the gross annual fiscal space effect would lie between roughly 1.6% and 2.2% of GDP.

Symmetrically, the NCBs would incur an income shortfall by issuing interest-bearing notes while holding zero-coupon perpetuities. At a 3%-4% remuneration rate on the notes, this shortfall would be of the same order: approximately 1.6%-2.2% of GDP per year, before recovery through retained seigniorage, withheld transfers, tax offsets or extraordinary fiscal allocations. These figures should be read as an upper bound: to the extent that NCBs command a lower funding cost than sovereigns, the effective shortfall would be correspondingly smaller.

Source: Author's calculations based on Istat and Eurostat data.

The NCBs as intermediary vehicle

The immediate accounting cost falls on the NCBs. Since they pay market interest on the notes issued but receive no interest on the zero-coupon perpetuities they hold, they incur a structural income shortfall – an ongoing loss that will persist until their future earnings exceed it. It is the NCBs' unique institutional nature as sovereign money issuers, unconstrained by the capitalisation requirements that govern private financial institutions, which makes them the only plausible vehicles for an operation of this kind. There is no private agent nor government that possesses the financial resilience and institutional longevity needed to absorb losses over the decades-long time horizon that PADRE requires.

It bears noting, moreover, that NCBs would likely fund their notes at a lower rate than the governments whose bonds they absorb, since, as money-issuing institutions, they face none of the rollover risk that sovereigns face: the effective interest differential – and thus the income shortfall – is therefore smaller than a naive comparison of sovereign borrowing costs would suggest, making the inter-

temporal recovery path more favourable than the baseline calibration in Box 1 implies.

Future national taxpayers as ultimate bearers

The NCBs, however, are not the ultimate bearers of the cost. They are the conduit through which the restructuring cost is distributed to the future taxpayers of the participating countries. Recovery proceeds through three channels, each of which reduces future public revenues: first, the NCBs retain seigniorage transfers that would otherwise flow to national treasuries; second, they withhold annual tax payments owed to governments; and third, they receive shares of any extraordinary fiscal revenues that governments elect to allocate to accelerate the process. In each case, it is the national fiscal base – and thus succeeding generations – that ultimately absorbs the restructuring cost.

This is, in essence, a form of debt restructuring whose burden falls on national taxpayers, through the fiscal channel, rather than on private creditors or foreign partners. PADRE does not make debt disappear; it converts

a present sovereign liability into a deferred fiscal cost, spread across time through the intermediation of the central bank. As Pâris and Wyplosz (2014) demonstrate, under plausible GDP and interest-rate dynamics, several decades would be required before cumulative NCB earnings begin to exceed the cumulative interest burden on outstanding notes.

The intergenerational allocation of costs is both economically efficient and ethically defensible. The debts being restructured are themselves a legacy of past policy choices, accumulated over decades; distributing the adjustment burden across future generations reflects sound principle. From a consolidated public-sector perspective, the operation does not eliminate the resource cost of past borrowing; it reallocates its timing and distribution across agents and time.

Central bank losses and intertemporal solvency

Central bank capital matters, and the concern about NCB losses under PADRE deserves a direct answer rather than dismissal. A central bank that operates with severely impaired equity over a prolonged period faces genuine risks to its credibility and, ultimately, to its operational independence. These concerns are legitimate. The correct response, however, is not to reject the PADRE mechanism on these grounds, but to assess it on its own intertemporal terms.

The NCBs' losses under PADRE are real but not permanent. Evaluated in present-value terms, the cumulative cost of the operation – the net present value of the interest differential between notes liabilities and zero-coupon assets – is covered by the present value of future earnings through the three recovery channels described above. The NCBs are, in this precise sense, intertemporally solvent with respect to the operation: losses are front-loaded; recovery is back-loaded. The present-value arithmetic closes (Del Negro & Sims, 2015).

Central banks, as sovereign money issuers, can sustain this temporal mismatch between near-term losses and long-term recovery – without impairing their monetary policy functions. For precisely this reason, they are the only institutional agents capable of bridging this gap (Buiter, 2008). History confirms this: several central banks have operated through extended periods of negative or near-zero equity without any impairment of their monetary policy effectiveness. Episodes in Chile, Israel and the Czech Republic illustrate that central banks can operate with impaired equity for extended periods, provided their institutional credibility and policy mandates remain intact (Stella, 1997, 2005).

The key conclusion is that PADRE does not entail a subsidy to indebted governments at the expense of the Eurosystem. It entails a deferred fiscal burden borne by national taxpayers, intermediated through institutions that uniquely possess the balance sheet resilience and longevity to make such deferral credible and operationally viable.

Legal framework and moral hazard

On legal compatibility, PADRE is designed to operate within existing Treaty constraints. Purchases occur exclusively on secondary markets – as under current programmes – and the concurrent issuance of notes neutralises any inflationary monetary expansion. The structure is therefore analogous in key respects to arrangements the ECJ has assessed in connection with the ECB's asset purchase programmes (ECJ, 2015, 2018). That said, the conversion of acquired bonds into zero-coupon perpetuities is a novel feature for which no direct ECJ precedent exists. Its compatibility with Article 123 TFEU cannot be assumed; it would require careful institutional design and, ultimately, judicial clarification. This legal uncertainty is a genuine challenge that any revival of PADRE would need to address frontally, not *finesse*.

A related issue is statistical: under current rules, government bonds held by NCBs remain in Maastricht debt at nominal value, so the reduction in reported debt ratios would require a specific classification decision by Eurostat.

On moral hazard, the risk is real and must be taken seriously. Governments that regain fiscal space through PADRE might be tempted towards renewed fiscal imprudence. The proposal addresses this through a self-enforcing mechanism: participating governments would be required to enact a formally binding commitment through national parliaments – thereby binding present and future governments alike – not to exceed the agreed sustainable debt threshold. Enforcement is automatic: in the event of a breach, a commensurate share of the zero-coupon perpetuities held by the NCB is reconverted into ordinary market-rate bonds at short maturity, instantly reinflating the debt burden and triggering an immediate deterioration in sovereign creditworthiness.

This design merits scrutiny. The self-enforcing character of the reconversion mechanism depends on the institutional capacity and political will to monitor compliance and activate the trigger without discretionary delay. Strengthening this dimension – for example, by embedding independent surveillance in EU fiscal frameworks and making the threshold subject to qualified majority confirmation before any modification – would make the deterrent more credible and the commitment more durable.

It is also worth noting that the current policy regime already involves substantial implicit support for sovereign debt markets, a consequence of the structural fragility of sovereign borrowing in a monetary union without a fiscal backstop (De Grauwe, 2012). A one-off, rule-based PADRE operation would, in this light, enhance rather than undermine fiscal discipline: by resetting debt ratios to sustainable levels, it would allow EU fiscal rules to function with genuine effectiveness, rather than as paper constraints on economies that remain structurally over-indebted.

Policy implications for the current conjuncture

A common instinct is to treat any sovereign debt restructuring as inherently destabilising – a signal of distress that triggers contagion, penalises creditors and unsettles markets. PADRE inverts this logic entirely. Bonds are purchased at market prices, no haircuts are imposed, no credit event is triggered, existing holders are made whole. But the market implications go beyond mere neutrality. By reducing sovereign debt ratios to sustainable levels, PADRE structurally improves the repayment capacity of participating governments on the residual debt that remains in private hands. Creditors of that residual stock find themselves in a materially stronger position than before: rollover risk is lower, the probability of future fiscal distress is reduced, and sovereign spreads can be expected to compress accordingly. The operation does not redistribute risk from debtors to creditors; it reduces aggregate sovereign risk, to the benefit of both. Markets would not be disrupted by a well-designed PADRE operation – they would price it as the durable stabilisation that decades of temporary interventions have failed to deliver.

The broader policy case follows directly. PADRE would restructure sovereign debt in a transparent, rule-based and institutionally accountable manner. It would restore fiscal space for counter-cyclical policy, reduce the excessive stabilisation burden currently borne by monetary policy and mitigate the political economy risks – extremism, polarisation, erosion of democratic trust – that protracted austerity and weak growth typically generate.

Whether the ECB and the NCBs would welcome such an operation is a separate question. It is one on which this article takes no position: the case for PADRE rests on its own analytical merits and on the structural gap it addresses in the policy architecture of the euro area. The relevant question for policymakers is not whether PADRE is administratively convenient, but whether the euro area can durably manage a combination of persistently high debt stocks, constrained fiscal space and mounting geopolitical pressure without a mechanism of this kind.

Conclusion

The euro area has demonstrated considerable institutional adaptability through successive crises. But its approach to the stock dimension of public debt has remained resolutely incremental, relying on temporary instruments that address symptoms without correcting the underlying balance sheet imbalances.

The current conjuncture calls for a more fundamental response. PADRE offers a coherent, operationally feasible, and – subject to careful institutional design – legally defensible mechanism. Reviving this proposal is not an exercise in nostalgia for past debates; it is a response to a type of imbalance that current policy instruments are not designed to address, and whose political and economic costs are becoming harder to defer.

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Financing European Defence – A Proposal

The growing security threats facing Europe have renewed the debate over a common European defence architecture and how it should be financed. Since defence is a European public good, there are strong economic arguments for financing it at the supranational level. However, existing EU instruments remain fragmented and are neither designed nor sufficiently equipped to support a comprehensive European defence architecture. This article compares national borrowing, structured sovereign bond products, EU bonds, Eurobonds and a dedicated special purpose vehicle. It argues that a special purpose vehicle offers the most promising balance between collective financing and political feasibility, while performing best in terms of efficiency, fiscal risks and governance. By issuing earmarked defence bonds exclusively for joint European projects and combining them with strict governance rules, additionality requirements and safeguards against fiscal substitution, a defence special purpose vehicle could strengthen Europe's defence capabilities while avoiding many of the political and fiscal concerns traditionally associated with Eurobonds.

The debate on financing European defence through common debt instruments has gained renewed momentum. In response to the growing spectrum of threats on Europe's eastern flank, most EU member states have already increased their national defence expenditures. Yet, decades of chronic underinvestment mean that it will take considerable time to close the capability gaps that persist across key areas – from ammunition stockpiles to precision-strike systems and advanced technologies. From a macroeconomic perspective, the introduction of common borrowing for defence purposes would not only test the fiscal integration capacity of the European Union but could also redefine the balance between national sovereignty and collective security provision within the EU's economic governance framework.

However, the question is how to finance joint defence spending. There are three options to finance the increased need for more defence spending: taxes, budget reallocations and debt. Marzian and Trebesch (2025), collecting data from 22 countries over 150 years, find

that budget cuts did not play a major role in financing higher defence expenditures; almost all rearmament was financed in the short term through deficits and higher tax revenues. The authors propose that, in line with economic theory, Europe should finance the increased defence spending in the short term through debt, while in the medium term it should raise taxes and cut subsidies and social spending. This article asks what options exist for financing joint defence spending at the EU level via debt, assesses how these options should be evaluated and proposes a new solution.

The case for financing European defence

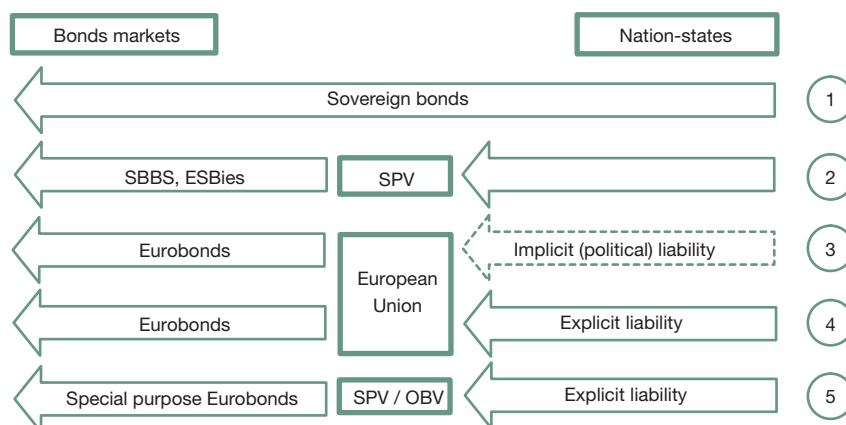
There are economic arguments for pooling defence tasks at the EU level: first, common defence as a response to an imminent threat to European security can be considered a European public good (see, e.g. Steinbach & Wolff, 2024). Defence, as a public good, is non-excludable and (almost) non-rivalrous: all citizens of the EU benefit from the deterrent and protective effect of European defence. Therefore, EU-wide financing instruments may be necessary to avoid underinvestment and free riding. Moreover, there are spillovers: stronger defence capabilities of a country or alliance can promote regional stability, which supports trade, investment and growth in neighbouring states; and defence cooperation in the EU may spread knowledge and capabilities across industries. From the viewpoint of fiscal federalism, defence is one of the (supra-)national public goods that provide services to the entire population of the entire re-

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Figure 1
Models of sovereign and common debt



Notes: ESBies: European Safe Bonds, OBV: off-budget vehicle, SBBS: sovereign bond-backed securities, SPV: special purpose vehicle.

Source: Author's elaboration.

gion and therefore should be provided by a centralised institution (Oates, 1999). Moreover, coordination mechanisms could ensure that national defence spending is complementary rather than redundant.

From both a military and an economic standpoint, the establishment of joint European armed forces – probably in addition to national forces – appears to be a rational and efficient alternative to maintaining fragmented national armies only. Economies of scale in procurement, training and logistics would significantly reduce duplication and enhance interoperability. Nevertheless, different geoeconomic and geopolitical necessities as well as different preferences concerning size and structure (professional army vs conscript army) of armed forces may make European forces a common overarching protection shield.

Proponents of common European defence expenditures see three main advantages to a joint European defence policy (Scazzieri & Tordoir, 2024):

- It would increase overall European defence spending and enhance European defence research and production as well as joint procurement;
- Pooling could make investments in defence more efficient, thereby generating economies of scale. At the moment, Europe's defence industrial base is rather

fragmented and largely organised along national lines, which leaves little room for using economies of scale;

- Common investment in defence would reduce free riding by some member states that are reluctant to increase defence investment.

European defence financing options

At present, the European Union employs a range of instruments to foster joint military research and defence cooperation, such as the European Defence Fund (EDF), the Act in Support of Ammunition Production (ASAP), the European Defence Industry Programme (EDIP), the European Defence Industry Reinforcement Through Common Procurement Act (EDIRPA), the European Peace Facility (EPF) and the Connecting Europe Facility (CEF). Given the state of European defence and the growing spectrum of threats, these instruments are too limited, fragmented and politically difficult to scale up. Currently, all instruments used by the EU as a means of financing European defence expenditures cannot be seen as common European debt or defence Eurobonds as they lack the most important features of such instruments: joint issuance and joint liability. What other options are there?

Given the recent developments, several proposals to jointly finance collective defence projects and the Euro-

pean defence industry have been made. Figure 1 gives an overview of different possibilities for financing European defence spending by means of debt.

The first line in Figure 1 shows sovereign debt: a country issues its own debt on the bond market and has full liability as well as complete freedom of choice regarding scope and duration of the bonds. In its White Paper on European Defence Readiness 2030, the EU proposes to activate the national escape clause of the Stability and Growth Pact, thereby allowing member states to increase defence spending (European Commission, 2025). The Commission estimates that this could mobilise additional defence expenditures of up to 1.5% of GDP, which would translate into €650 billion over four years. However, this measure would only increase national defence efforts, rather than promote the development of European defence architecture. It preserves national control but does not address fragmentation, under-provision or the lack of joint procurement.

Countries in the second line in Figure 1 still issue sovereign debt, but as structured products. An example of such instruments are European Safe Bonds (ESBies; Brunnermeier et al., 2011), which pool existing national government bonds and create new securities with varying risk levels – similar to structured finance. A central special purpose vehicle (SPV) purchases national government bonds from euro area countries in shares corresponding to each country's capital stake in the ECB. These bonds are pooled and divided into a senior (jointly secured) and a junior (nationally risky) tranche. The member countries remain liable only for their own debts; the risk is distributed through the structure of the tranches, not through national guarantees, i.e. there is no joint liability. The European Commission (2017) proposed a private or public SPV that buys national government bonds in proportion to the countries' capital holdings in the ECB, so-called sovereign bond-backed securities (SBBS; for problems with that proposal, see Demary & Matthes, 2017). Structured products such as ESBies or SBBS address national risks and financial market fragmentation but do not create joint liabilities and a common EU financing instrument. They are therefore unsuitable as a financing mechanism for common defence projects.

The third line in Figure 1 contains EU bonds and EU bills (the latter with only one-year maturity and senior debt repayment status) issued by the European Union. Under a scheme called the unified funding approach, the Commission issues single-branded EU bonds and allocates the proceeds to a central funding pool from which the EU's different policy programmes are funded (e.g. Secu-

rity Action for Europe, SAFE).¹ The issuances are guaranteed by the EU budget so that member countries have only indirect joint liability through the EU budget, as repayment is supposed to be financed via future EU own resources (European Commission, n.d.). One may suspect that the member countries would step in if the EU's solvency is threatened. Therefore, one can assume that an implicit, politically motivated liability exists. Compared to Eurobonds – another option to finance defence spending – instruments like SAFE bonds are intended as a specific-purpose (defence) vehicle, but the programme itself has – as far as can be said now – a limited lifetime. Therefore, it seems not to be suitable for a long-term task like financing European defence.

The fourth line in Figure 1 represents Eurobonds in the narrower sense, the debt of member countries pooled together. Countries are explicitly liable for the common debt, i.e. risk is shared among member states. Some proposals suggest that only debts amounting to a certain threshold (60% of GDP) should be mutualised. Blanchard and Ubide (2025), for example, propose issuing two types of bonds: senior blue bonds and subordinated national bonds; the blue bonds would replace part of the stock of national bonds, while red bonds would continue to be national debt for which other member states would not assume liability.² Eurobonds would provide a powerful financing tool and create a large safe asset but face strong political resistance because they raise concerns about long-term fiscal integration and moral hazard.

In the fifth line of Figure 1, joint debt is issued by an SPV or an off-budget vehicle (OBV) like the European Stability Mechanism (ESM; Letta, 2024). Institutions such as the European Investment Bank (EIB) can also serve as OBVs by providing loans or guarantees to support investment in defence, infrastructure and technology. Most recently, the EIB adapted its financing guidelines for the security and defence industry, updated the definition of dual-use projects, and provided credit lines for small and medium-sized enterprises (SMEs) and innovative start-ups in security and defence (EIB, 2024). Such instruments must be considered Eurobonds but with one crucial difference: the funds raised through these vehicles are earmarked for specific purposes. Funds are allocated only to joint projects, and governance can (and must) be tailored to ensure control, accountability and additionality.

1 The Commission will take up debt to €150 billion in capital markets and re-loan the funds on demand to member states, based on national plans. This means that that members facing high financing costs can take advantage of the EU's better rating and take up debt with lower interest rates. The money has to be spent on joint procurement projects with at least one other EU member; 65% of the money must be spent on products that are produced within the EU.

2 Delpla and von Weizsäcker (2010) were among the first to introduce this concept. See Beck and Wentzel (2011) for a critical review of this proposal.

Because the instrument is strictly earmarked, it is politically more acceptable than broad Eurobonds models.

Euro debt problems

All these proposals to finance European defence by means of common debt face the same problems: consensus, control, shifting and distribution. First of all, there seems to be no unanimity among EU members regarding how serious the threat really is. Therefore, it will be difficult to reach consensus on the volume of joint defence spending. One can assume that all instruments requiring unanimity face high political hurdles. The second problem is control: joint debt needs robust oversight to prevent inefficient procurement, protectionist industrial policies, or national capture of European funds. Clear governance frameworks are indispensable.

The third problem is shifting: common spending must complement, not replace, national defence budgets. It must be ensured that joint defence spending is additional and does not lead to member states reducing their national defence spending. Without safeguards, member states might reduce their own contributions and rely disproportionately on joint debt, undermining both credibility and deterrence. This will only succeed if member states are obliged to maintain their national defence spending at NATO's 2% target, regardless of joint spending at the EU level. In addition, it will be necessary to define precisely what counts as defence spending so that other national expenditures that have nothing to do with defence are not reclassified under the guise of defence spending. Joint defence spending must not lead to a hidden reduction in national budgets. Otherwise, joint debt for defence spending will reduce the debt discipline of member states – if they can finance parts of their national expenditure through joint borrowing. The current debate about the extra-budgetary funds in Germany for defence may serve as a negative example: Deutsche Bundesbank (2025) finds that an increase in debt of €32 billion will be offset by an increase in military spending of only €11 billion.

The last problem with debt-financed defence spending is distribution: how are the benefits and burdens of collective defence distributed among member states? Eurobonds (or other forms of common debt) imply opaque redistribution effects, which tend to shift resources from countries with high credit ratings to countries with low credit ratings (see Beck & Wentzel, 2011 for details). This is not true for defence Eurobonds, which are intended exclusively to finance joint defence spending and, unlike Eurobonds, are not designed to make it easier for highly indebted countries to take on new debt. Nonetheless, any agreement about how to share the burden of common de-

fence implies distribution effects. This is likely to lead to debates, national resistance and conflicts over distribution, which could make it difficult to agree on a budget for European defence spending, especially with differing perceptions of the military threats.

It is important to understand that common debt to finance European defence is different from the early idea of Eurobonds, which were supposed to end the debt crisis of 2009/10 by supplying cheaper access to capital markets to heavily indebted countries, and to create a larger and more liquid market for European government bonds and safe investments (see, e.g. Zettelmeyer & Álvaro, 2018). Defence Eurobonds may serve as a safe investment, but the amount of bonds issued (i.e. their liquidity) is too small to play a major role on capital markets. Given that, it is important to understand that all these proposals to finance European defence spending will not help with the aim of creating a safe, liquid investment for financial markets, as the volume of any debt issuance financing European defence will be too small.

The defence special purpose vehicle: A politically feasible solution

Given the limits of existing tools and the political difficulty of Eurobonds, an SPV for European defence may offer a pragmatic middle ground: it combines the advantages of joint borrowing with a clear, narrowly defined mandate. An SPV would be in line with the idea that common defence is a central project that requires central coordination and control – all resources and competencies would be pooled in a single entity. Furthermore, it takes into account the fact that defence is a (European) public good, as it avoids the free-rider problem. Therefore, there is no leeway for opt-out clauses. The SPV would be the central hub for European defence efforts. To ensure that member countries will not reduce national defence spending, this SPV must come with strings attached: it is supposed to finance only defence-related projects with clear European added value, such as joint procurement, shared capabilities or industrial scaling. A tool for this purpose could be, for example, memoranda of understanding that explicitly state that the common expenditures complement existing defence budgets (see IEP, 2025) for a similar proposal concerning SAFE).

The SPV issues bonds with the funds that are raised. The initial financing for establishing a European defence architecture would have to be provided through debt, i.e. by issuing bonds backed by the member states. Afterwards, there are two options.

First, the SPV could still be financed by debt. In this case, one could speak of European defence bonds. Compared

to Eurobonds, the difference would be that these funds are earmarked and that the volume of this debt is smaller than that of all-purpose Eurobonds. Otherwise, all the consequences, benefits and risks of Eurobonds previously discussed would apply (see, e.g. Beck & Wentzel, 2011; Meyer, 2014).

The second option would be – at least once a European defence infrastructure has been established – to cover the ongoing costs of maintaining it by own resources provided by the member states to the SPV. Similar to the current financing of the EU, these could be national contributions from member states based on gross national income or VAT-based own resources. This would transform the SPV into a kind of European defence agency, if not a defence ministry, in the long term. At the same time, this arrangement would avoid all the negative aspects of Eurobonds that have been discussed.

The redistributive effects of the second solution depend on how the contributions to the joint debt are structured and how the subsequent financing of current expenditure is organised – there is considerable scope for political negotiations. Apart from that, such a proposal means a restriction of the financial leeway available to member states and thus possibly also a deterioration in their credit ratings; however, that is not a consequence of the proposal itself, but rather a result of the fact that higher expenditure is necessary for a common European defence.

Risks and governance safeguards

The existing proposals for financing the European defence architecture can be compared on the basis of several criteria. First of all, there is allocative efficiency. From the viewpoint of fiscal federalism, national defence expenditures alone are the least efficient solution: there are no economies of scale, no European coordination, and a risk of free-rider effects. All other approaches avoid these problems. However, the disadvantage of financing through EU bonds or EU funds is that it could be difficult to provide the necessary funds: EU funds are too small, and financing through the EU budget requires unanimity, which is likely to make it difficult to allocate funds. Besides that, these solutions are not a real defence budget.

Eurobonds and a solution via an SPV would theoretically be able to provide the necessary funds. However, Eurobonds are met with mistrust due to their potentially universal applications – politically speaking, they could pave the way for a transfer union. This risk is less likely with an SPV solution, as long as its funds can only be used for defence purposes. Because the mandate is limited and issuance volumes are moderate, political resistance will

Table 1
Proposals for financing European defence expenditures

Proposal	Preventing free riding	Efficiency	Fiscal risks	Long-term perspectives
National defence budget	Weak	Low	Low	None
EU bonds	Strong	Medium	Low	Stepwise integration
Eurobonds	Strong	High	High	Fiscal union
Defence SPV	Strong	High	Medium	European ministry of defence

Note: SPV: special purpose vehicle.

Source: Author's elaboration.

be lower than for universal Eurobonds. This is another reason why such a solution would be easier to implement politically than Eurobonds.

However, the risk of misuse of funds may be the same with both solutions. It is important that a European defence SPV comes with the member state obligation to maintain their national defence budgets (e.g. NATO's 2% benchmark). This prevents substitution effects and preserves incentives for national contributions. Taken together, the solution to finance European defence by means of an SPV avoids fragmentation of European defence spending, is allocatively efficient, and has the potential to provide the funds that are actually needed. In addition, political resistance is likely to be lower than in the case of Eurobonds. In the long term, this solution also opens up the prospect of an institutionalised pan-European defence architecture with a potential transition to a European ministry of defence. Table 1 provides an overview of the proposals.

The biggest problem with the proposal to finance European defence through an SPV is probably political, as it means partially relinquishing defence policy sovereignty and transferring national revenue and power to a higher (EU) authority.³ Additionally, the way decisions are made on the use of funds must be clarified, since potential misuse of funds is another problem – but one that every proposal entails, apart from a national defence budget.

Moreover, the impact of an SPV on industrial organisation of the European defence industry will depend on the design of procurement procedures, transparency obliga-

³ Another option would be to go on with a “coalitions of the willing” (see Tordoir, 2025). But this, again, would bring up the topic of free riding.

tions, and the enforcement of European value-added criteria. A defence SPV would, in principle, create incentives for consolidation within Europe's fragmented defence industry by bundling demand, standardising technical requirements and enabling a larger production series. This would strengthen cross-border cooperation, enhance interoperability and support investment in critical technologies and capacities. However, without strict governance rules, the opposite outcome is equally plausible: political pressure to serve national industries could reinforce existing structures, perpetuate parallel supply chains and entrench the current pattern of fragmented procurement.

Therefore, to prevent misuse of funds, the SPV could adopt a three-tier governance structure. A governing board, composed of representatives from the finance and defence ministries of the member states as well as the European Commission, would decide on joint projects and financing volumes by qualified majority. An independent supervisory board, acting as an autonomous oversight body made up of experts and a representative of the European Court of Auditors, would review all projects for additionality and proper procurement. A third, technically oriented authority would be responsible for operational implementation; it would carry out procurement procedures, harmonise standards and monitor project execution. To ensure that funds are strictly earmarked for clearly defined European defence projects, sanctions should be imposed in cases of misuse, and procurement should take place through transparent, competitive procedures based on standardised criteria and disclosure requirements. In addition, annual public reports, audit rights for the European Court of Auditors, and parliamentary hearings should further safeguard against the misuse of funds.

Conclusions

The current political climate calls for higher defence spending. From an economic and political perspective, it makes sense to pursue these efforts at the supranational level, at least when it comes to joint defence efforts. Among all the alternatives being discussed, financing through joint debt makes sense given the urgency and long-term significance of these expenditures. Borrowing via Eurobonds raises questions about the many problems that were already discussed in the wake of the 2009-2010 financial crisis, in particular the feared loss of sovereignty and the possible erosion of national debt discipline that could accompany it.

For this reason, one option is to finance defence spending through a special purpose vehicle with expenditure strictly limited to defence spending, which must also meet the

criterion of additionality. In the long term, this special purpose vehicle could be the starting point for a genuine European defence union. Using the ESM for this purpose, as recently suggested by Arnal (2025), may not be an option, as this would likely lead to a blurring of the original tasks of the ESM and the task of financing European defence. It is likely more appropriate to use separate institutional vehicles for separate tasks.

The problems associated with this proposal – i.e. the criterion of additional expenditure, the definition of what counts as defence expenditure, and political acceptance – cannot be ignored, but they also arise with all other solutions.

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Rui Teixeira Santos

Geopolitical Fiscal Exposure: A New Lens for EU Fiscal Governance

Conventional fiscal governance indicators – structural balances, cyclical adjustment rules, expenditure ceilings – treat geopolitical shocks as exogenous noise around an otherwise cyclical fiscal process. This article proposes a geopolitical fiscal exposure framework, which models a small open economy's fiscal outcome as a joint function of conventional fiscal space fundamentals and three politically determined exposure channels: energy dependence, security and alliance commitments, and the concentration of contingent liabilities in strategically salient industries. The framework is illustrated through Portugal's 2026 budget, where a four-year record of target outperformance was followed by an in-year execution reversal once two exposure channels were activated simultaneously. The framework is then tested across a seven-country euro area panel, showing a 6.6 percentage point spread in outcomes that is more closely associated with fiscal space than with the shock itself. The article concludes by asking what an explicit accounting of geopolitical exposure would mean for the reformed EU fiscal framework.

Fiscal governance research has, for two decades, converged on a technocratic vocabulary – structural balances, output gaps, expenditure rules – built for a world in which the main source of variance in fiscal outcomes was the domestic business cycle. That vocabulary is increasingly strained. Within a single fiscal year, a small open economy can be simultaneously exposed to an armed conflict thousands of kilometres away that moves its energy import bill, an alliance commitment that raises its defence-spending floor and a contingent liability concentrated in a strategically sensitive state-owned enterprise – none of which are business cycle phenomena, and all of which are, in the vocabulary of international political economy (IPE), geopolitical.

This article develops a geopolitical fiscal exposure framework (GFEF) to make that observation tractable for fiscal governance and asks a more pointed question for European policy: what would it mean for EU fiscal surveillance –

built, both before and after its 2024 reform, around cyclical adjustment logic – to take geopolitical exposure seriously as an explicit variable, rather than folding it into the residual of “temporary” or “one-off” measures? The claim is deliberately modest in form: not that public finance has become political science, but that its analytical toolkit is incomplete without an explicit accounting of energy, security and strategic-industry exposure.

A framework for geopolitically exposed fiscal governance

The structural budget balance remains the workhorse indicator of EU fiscal surveillance. Its cyclical adjustment procedure apportions all deviation from the structural target to two sources: discretionary policy and the output gap. Reforms since 2023 have shifted the emphasis towards expenditure rules and debt-sustainability safeguards, but neither the old nor the new framework has an explicit place for a shock whose transmission channel is geopolitical rather than cyclical. Treating their fiscal cost as “temporary”, as official statistics typically do, obscures rather than resolves the analytical gap.

Four strands of the IPE literature supply the building blocks for a more adequate model. Strange (1988) locates power in the international system in the structures – security, production, finance, knowledge – that condition what states and firms can do, rather than in observable bargaining outcomes alone. Kirshner (1995) shows that

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currency and monetary arrangements are themselves instruments of state coercion and vulnerability, a logic directly applicable to a small state's exposure to externally driven energy-price and interest-rate shocks. Blackwill and Harris (2016) coin “geoeconomics” to describe the geopolitical determination of economic outcomes – precisely the mechanism by which an energy shock transmitted through armed conflict becomes a fiscal shock. Farrell and Newman (2019) show how networked economic interdependence creates chokepoints that states can weaponise; energy supply chains and defence-industrial commitments are two such chokepoints with direct fiscal transmission.

GFEF models the fiscal outcome of a small open economy in a given year as jointly determined by two conventional fundamentals (debt and the primary balance track record) and three exposure channels (energy dependence, security commitment and strategic industry exposure) conditional on the external shock. The two fundamentals determine a country's fiscal space, which in turn determines its capacity to absorb a shock without recourse to unsustainable financing. Energy dependence captures the share of energy needs met through imports exposed to geopolitically driven price volatility; security commitment captures a state's defence-spending trajectory as set by alliance membership rather than domestic threat assessment alone (for European economies, NATO's 2% and emerging 3.5% of GDP targets); strategic-industry exposure captures the concentration of contingent liabilities – state-owned enterprises, public-private partnerships – in geopolitically sensitive sectors (energy, transport, semiconductors, defence). A shock's fiscal footprint scales with these three channels and is dampened, but not eliminated, by fiscal space. The framework is conceptual rather than estimated at this stage; the two empirical sections below probe it qualitatively and, in the seven-country panel, semi-quantitatively through cross-country variation.

The article first sets out GFEF as an explicit, if qualitative, model before illustrating its mechanics through Portugal's 2026 budget – a diagnostic case chosen because it combines, within a single fiscal year, a documented strengthening of conventional fiscal fundamentals with the simultaneous activation of two geopolitical exposure channels. The article then probes the framework's external validity across a seven-country euro area panel exposed to a broadly common 2026 shock, before extending it, briefly and qualitatively, to five economies with sharply contrasting exposure profiles. It closes by asking what an explicit accounting of geopolitical exposure would imply for the EU's own fiscal surveillance architecture, which is the article's central policy contribution.

Table 1

Applying the geopolitical fiscal exposure framework to Portugal's budget

GFEF component	2025	2026 (as of July)
Fiscal space (debt/primary-balance record)	Debt <90% of GDP; third consecutive surplus	Debt on declining path; four-year record of target outperformance
Energy dependence exposure	Low salience	Activated: Middle East energy-price shock
Security commitment exposure	Low salience	Rising: NATO-aligned defence-spending pressure
Strategic-industry exposure	Latent	Flagged by the European Commission: financial fragility of state-owned enterprises, public-private partnership contingent liabilities
Realised fiscal outcome	+0.7% of GDP (surplus)	Forecasts converge near 0.0%; in-year cash execution already below the annual target after four months

Note: Qualitative diagnostic summary, not an estimated model.

Sources: European Commission (2026), International Monetary Fund (2026), Organisation for Economic Co-operation and Development (2026), Banco de Portugal (2026), Conselho das Finanças Públicas (2026) and Unidade Técnica de Apoio Orçamental (2026).

Portugal's 2026 budget: The framework in action

Portugal offers a diagnostic illustration because it combines, within a single fiscal year, a documented strengthening of fiscal space fundamentals with two textbook exposure shocks. Portugal recorded a third consecutive annual surplus in 2025 (0.7% of GDP), and public debt fell below 90% of GDP for the first time in sixteen years (see Table 1). On exposure, the country absorbed a severe winter-storm shock (January-February 2026) and the energy-price shock transmitted by the escalation of the Middle East conflict, both incorporated into every major forecaster's 2026 projection – the European Commission, the International Monetary Fund, the Organisation for Economic Co-operation and Development, Banco de Portugal and the Conselho das Finanças Públicas.

A longitudinal comparison of original budget targets against realised outturns is diagnostic of how the balance between fundamentals and exposure has shifted. In every year between 2019 and 2025 for which a comparable target is documented, the realised outturn exceeded the target – a systematically conservative pattern consistent with low geopolitical exposure. In-year execution data for January-April 2026, published by the Unidade Técnica de Apoio Orçamental in June 2026, show a cash-basis deficit of €1,548 million, already exceeding the full-year deficit target embedded in the 2026 state

Table 2

Fiscal space and 2026 fiscal outcomes in a seven-country euro area panel

Country	Fiscal space proxy	2026 balance (% of GDP)	Geopolitical fiscal exposure framework reading
Ireland	Debt 32.4%, lowest in panel; sustained surpluses	+1.4%	Strong fiscal space; growth dip is an export base-effect, not shock transmission
Greece	Debt 140.7%, highest in panel; decade of primary surpluses	+0.8%	High debt but strong credibility largely absorbs the shock
Portugal	Debt 86.7%; three-year surplus record, now under pressure	-0.1%	Moderate fiscal space; transmission visible, more so in-year
Spain	Debt ≈99.6%, falling; narrowing deficit	-2.1%	Improving fiscal space partly offsets exposure
Italy	Debt 139.2%; rising primary surplus but interest burden 3.9% of GDP	-2.9%	Debt composition, not just level, conditions exposure
France	Debt ≈120%, rising; sizeable primary deficits	-5.1%	Weak fiscal space term; limited buffer
Belgium	Debt 112.8%, rising; structurally high deficit	-5.2%	Weakest fiscal space term; consolidation stabilises, does not reduce, exposure

Note: Ireland's balance reflects a narrow, concentrated corporate-tax and export base rather than shock exposure.

Source: European Commission (2026) country forecasts.

budget (€975 million) after four months. This reversal – from systematic outperformance to in-year slippage – is consistent with GFEF's prediction that a sufficiently large exposure shock can overwhelm even a strong fiscal space term.

It is worth being explicit about what GFEF is not claiming. It is not a substitute for the structural balance or for debt-sustainability analysis, both of which remain the correct starting point for assessing a country's underlying fiscal position. Nor does it claim that every fiscal deviation has a geopolitical explanation – most do not, and the framework would be analytically empty if it did. Its claim is narrower and, the empirical sections below suggest, defensible: that a specific, identifiable subset of fiscal deviations is geopolitically rather than cyclically transmitted, that this subset is growing in salience for small open European economies, and that current surveillance practice has no vocabulary for isolating it from ordinary discretionary slippage.

A seven-country check

If GFEF has explanatory content beyond the Portuguese case, a common geopolitical shock should produce fiscal outcomes that track exposure and fiscal space fundamentals across other economies, not idiosyncratic national narratives. Table 2 compiles, from the European Commission's Spring 2026 Forecast, a seven-country panel – Portugal, Ireland, Spain, Italy, France, Belgium and Greece – all subject to the same 2026 Middle East energy shock and rising defence-spending pressure, but differing sharply in fiscal space fundamentals.

The panel is consistent with GFEF's core prediction: under broadly common exposure, the 6.6 percentage point

spread in outcomes (from Ireland's +1.4% to Belgium's -5.2%) tracks the fiscal space term far more closely than it tracks any observable difference in shock exposure itself. Greece and Portugal, with strong primary-balance track records, outperform Italy, France and Belgium, whose fiscal space term is comparatively weaker. Ireland is a useful boundary case: its fiscal space is exceptionally strong by conventional metrics but rests on a narrow, concentrated corporate-tax base – a reminder that fiscal space itself has more than one source. This seven-country probe is descriptive rather than causally identified, but it rules out a purely Portuguese idiosyncrasy.

What this would mean for EU fiscal surveillance

Two implications follow for EU fiscal governance specifically. First, the reformed fiscal framework's 2024 shift towards expenditure rules and debt-sustainability safeguards can be read as an implicit, if unacknowledged, move towards the fiscal space logic at the core of GFEF, since an expenditure rule lets shocks to revenue and to the cycle flow through to the budget balance rather than requiring offsetting adjustment, as a structural balance rule does (Bušs et al., 2024). That shift, however, remains incomplete: it changes how fiscal space is measured, but it still has no explicit mechanism for distinguishing a geopolitically driven deviation from a cyclically driven one. When a member state overshoots its expenditure path because of an energy-price shock transmitted by armed conflict rather than because of discretionary policy slippage, the current framework has no vocabulary for saying so – and the political cost of that silence falls asymmetrically on the more exposed member states, which is precisely the pattern the seven-country panel above documents.

Second, if GFEF's exposure channels prove empirically significant – and the seven-country panel here is only a first, descriptive pass – EU fiscal surveillance may need something comparable to the cyclical adjustment procedure itself: an explicit accounting of energy dependence, alliance-set defence spending floors, and strategic-industry contingent liabilities, reported alongside the structural balance and the debt trajectory in each country's Stability and Convergence Programme and assessed by the Commission and by national independent fiscal institutions such as Portugal's Conselho das Finanças Públicas. This would not replace the existing framework; it would give the Commission, the Council and national fiscal councils a shared vocabulary for a category of shock – geopolitical rather than cyclical – that the current framework has no explicit place for, and that 2026 has made difficult to ignore. It would also give member states a more defensible basis for requesting the escape clause flexibility that the reformed framework already allows for exceptional circumstances. This is because geopolitical exposure channels, unlike a generic reference to “exceptional circumstances”, are *ex ante* observable and, in principle, quantifiable before the shock materialises.

A further, more speculative implication concerns the defence spending dimension specifically. As NATO's defence spending targets rise from 2% towards 3.5% of GDP over the coming decade, member states with weak fiscal space terms, as Table 2 shows for France and Belgium, will face a structurally higher security commitment exposure than member states with strong fiscal space, such as Ireland or Greece, even though the underlying alliance commitment is nominally uniform across the euro area. A fiscal surveillance framework blind to this channel risks treating a structurally determined, alliance-driven expenditure floor as if it were ordinary discretionary spending subject to the same consolidation expectations everywhere – an equivalence that GFEF suggests is analytically unwarranted and that this article's seven-country evidence, while preliminary, does not support.

The immediate research agenda is to build the country-year panel data needed to operationalise each channel – energy import shares weighted by price shock elasticity, defence expenditure relative to alliance-set floors, and the contingent liability stock of state-owned enterprises and public-private partnerships in a small set of geopolitically salient sectors – across, at minimum, the euro area. With such a panel, GFEF's central prediction becomes directly testable with panel-regression methods, including interaction terms between a shock indicator and each exposure channel, and EU fiscal surveillance would have an evidentiary basis for deciding whether, and how, to formalise the distinction this article proposes.

Conclusion

Portugal's 2026 budget shows a country with strengthening fiscal space fundamentals nonetheless recording an in-year execution reversal once two geopolitical exposure channels were simultaneously activated. A seven-country euro area panel shows this is not a Portuguese idiosyncrasy: under broadly common 2026 exposure, fiscal outcomes diverged by 6.6 percentage points of GDP, tracking fiscal space fundamentals rather than exposure itself. Rather than claiming that public finance has become political science, the more defensible claim is that contemporary fiscal governance in geopolitically exposed economies is increasingly shaped by variables that conventional macro-fiscal models – and EU fiscal surveillance in particular – treat as exogenous, and that a combined economics-IPE framework captures dynamics that cyclical adjustment methodology alone cannot.

For EU policymakers, the practical question this raises is not whether to abandon debt- and expenditure-based surveillance, but whether to complement it, for the subset of member states most exposed to energy, security and strategic industry shocks, with an explicit and comparable accounting of that exposure. The 2026 experience, documented here for Portugal and, more tentatively, across six neighbouring economies, suggests that question can no longer be deferred to the next crisis.

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Davide Romaniello and Antonella Stirati

Import Shocks, Inflation Propagation and Distribution: Lessons from the Italian Experience

Recent geopolitical events and fuel price shocks could reshape inflation dynamics. This article analyses them from a cost-push perspective with a focus on distributive effects. This framework shows how rises in imported input costs can generate persistent inflation and increases in the profit share, even without changes in markups or profitability. Using evidence from Italy in 2021-2023, the article examines how energy shocks propagate through production networks. Recent energy volatility and assessments of the European Central Bank confirm the ongoing relevance of these channels.

Recent fuel price hikes have reignited fears of cost-driven inflation across Europe, fuelled by escalating geopolitical tensions. The European Central Bank warns that these shocks hit not just directly via energy costs, but through indirect, second-round effects across prices (Lagarde, 2026). US data echo this: inflation lingers above target due to slow sectoral spillovers (Ho, 2026). Italy – deeply reliant on energy imports – mirrors its 2021-2023 surge, where import shocks and muted wage growth drove persistent pressures. In March 2026, the Federal Open Market Committee raised similar concerns: energy price shocks generate lagged transmission, particularly through manufacturing channels (Powell, 2026). The International Monetary Fund (IMF) projects an EU inflation rate of 5% by 2027, reinforcing the view that these pressures may prove durable (Kammer, 2026).

This contribution extends Romaniello and Stirati (2024) to today's shocks, spotlighting cost-push channels and expected distributive shifts. Imported input spikes trigger persistent inflation through production-chain propagation – no wage-price spirals or markup hikes needed. Crucially, profit shares rise and real wages fall, even with flat profitability.

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The purpose here is to demonstrate that this mechanism remains highly relevant in the current context. The recent increase in fuel prices, and the associated policy responses, such as temporary reductions in excise duties, suggest that inflationary pressures may once again originate from external cost shocks. While such measures may mitigate the immediate impact on consumer prices, they do not eliminate the underlying propagation mechanisms that can sustain inflation over time.

Understanding these mechanisms is therefore crucial for timely and effective policy intervention. In particular, distinguishing between cost-driven and demand-led inflation is key to avoiding improper responses. If import costs and their propagation dominate – as our framework suggests – then demand-compression or wage-restraint policies risk being both ineffective and costly in terms of output and employment. Identifying cost-propagation channels is thus vital to tame inflation without excess macroeconomic damage.

The current increase in energy prices can be interpreted as a new instance of the same mechanism identified for the 2021-2023 period, suggesting that inflationary pressures may re-emerge through similar cost-push transmission channels.

Using Italian evidence, this note illustrates how import price shocks fuel persistent inflation and distributional shifts. Cost increases propagate via intermediate inputs, which sustain price pressures, while nominal wages lag and compress real wages in the process.

Analytical framework

To clarify the transmission of import price shocks, we rely on the analytical framework developed in Stirati (2001)

and Romaniello and Stirati (2024). Unlike standard models that represent the economy as a vertically integrated sector, this approach explicitly accounts for inter-industry linkages and the propagation of cost increases across production networks.

An increase in the cost of imported inputs raises production costs both directly (for firms using imported inputs) and indirectly (through intermediate goods traded across sectors). This generates successive rounds of cost increases and price adjustments. Crucially, the cumulative impact of the shock depends not only on its magnitude but also on the structure of production: the presence of domestically produced intermediate inputs amplifies the initial impulse through a chain of cost–price interactions. It can be shown that given a certain initial increase at time t_0 in the cost of imported inputs equal to m , the cumulated effect on the price level will be:¹

$$\frac{(P^* - P_0)}{P_0} = \frac{\beta m}{(1 - \alpha)}, \quad (1)$$

where P^* is the price level towards which the economy tends to converge as the result of several rounds of adjustment of prices to changes in the costs of circulating capital; β is the fraction of total costs of production represented by the historic cost of imported inputs at the time of purchase plus the given rate of profit charged on them; α is the fraction of total costs represented by domestically produced inputs at their historic cost at the time of purchase plus the rate of profit charged on their value. For simplicity, we assume all capital to be circulating and lasting one period. Labour costs do not appear since we are assuming there is no change in nominal wages. Since by definition $\alpha < 1$, the denominator of equation (1) acts as a “multiplier” of the effect of the initial impulse from imported inputs (in the case of Italy, on the basis of accounting data, its value is close to 0.5).

Importantly, this mechanism does not require changes in nominal wages or mark-ups. Even with constant nominal wages and a given nominal rate of return on capital, an initial, once-for-all increase in imported input costs leads to both a higher price level, reached through a process of (gradually fading) inflation, and an increase in the profit share (measured on value added).

The increase in the profit share reflects the increased value of circulating capital rather than changes in real

profitability. When the relative price of intermediate inputs rises, gross operating surplus increases relative to value added, even if the real profit rate – evaluated at the replacement cost of capital – remains broadly unchanged or even declines. Therefore, increases in the profit share should not be interpreted as evidence of higher mark-ups or increased profitability.

Finally, the propagation process is inherently persistent. Even when the initial shock to import prices is temporary, domestic price adjustments unfold gradually due to production lags, contractual rigidities and the turnover of intermediate inputs. As a result, inflation may remain above target for some time even after the initial impulse has weakened.

Implications for recent inflation dynamics

The analytical framework developed above provides a useful lens through which to interpret recent inflation dynamics in advanced economies. The surge in inflation observed in 2021–2023, particularly in countries with a strong reliance on imported energy, such as Italy, is consistent with a cost-push mechanism originating from import prices. The sharp increase in energy and imported intermediate goods prices initially affected a limited set of sectors but subsequently propagated across the production structure, generating successive rounds of price adjustments. This is in line with the mechanism described above, whereby inter-industry linkages amplify and prolong the impact of the initial shock.

At the same time, nominal wages remained relatively subdued, leading to a substantial decline in real wages. This suggests that wage dynamics did not play a primary role in triggering or sustaining the inflationary process, which instead can be understood as the outcome of a propagation mechanism driven by input costs. This pattern has also persisted in subsequent years, contributing to a marked deterioration in income distribution in several advanced economies (OECD, 2025; International Labour Organization, 2024).

The analysis has several implications for the interpretation of current energy price shocks and for policy interventions that can affect both the intensity of these transmission processes and the resulting distribution of income.

Temporary fiscal measures aimed at mitigating the impact of energy price shocks, such as reductions in excise duties introduced by the Italian government in the first weeks of March 2026, can reduce the initial increase in consumer prices but do not eliminate the underlying propagation process. As long as higher input costs per-

1 See Stirati (2001) and Romaniello and Stirati (2024). Let P_t denote the aggregate price level. The difference between price levels between any time t and $t-1$ after the change m in the terms of trade is given by: $P_t - P_{t-1} = \alpha^{t-1} \beta m$ so that the cumulative increase is $P_t = P_0 + \sum_{i=0}^{t-1} \alpha^i \beta m$. Since $0 < \alpha < 1$, for $t \rightarrow \infty$, the series converges and $\frac{(P^* - P_0)}{P_0} = \frac{\beta m}{(1 - \alpha)}$.

sist, inflationary pressures may continue through successive rounds of cost transmission.

Cross-country evidence highlights the importance of structural interventions. For instance, the introduction of a cap on gas prices in electricity generation in Spain (the so-called Iberian exception) weakened the transmission of energy price shocks to domestic prices. By limiting the pass-through from imported energy costs to electricity prices, the policy reduced both the initial inflationary impulse and its propagation across sectors. In terms of the analytical framework, such measures act not only on the size of the initial shock but also on its transmission across intermediate inputs. More generally, interventions should be aimed at a decoupling between the prices of gas in the highly speculative and volatile European gas market and domestic prices of gas and electricity for households and firms.

The Spanish case suggests that policies aimed at reducing the dependence on imported fossil energy and limiting pass-through mechanisms can attenuate both the initial impact of shocks and their propagation. The ongoing transition towards domestically produced low-carbon energy may further reinforce this effect by reducing structural exposure to international commodity price volatility (Kammer, 2026). By contrast, purely temporary fiscal measures mainly smooth short-term effects without addressing the underlying dynamics.

Recent advice from the IMF (Gourinchas, 2026; IMF, 2026) appears mostly oriented towards preventing any further impulse to inflation arising from nominal wage adjustment to price increases and from firms' responses to rising labour costs. This, however, effectively amounts to suggesting that the burden of increasing import costs should be borne entirely by workers – as has already largely occurred in Italy in the aftermath of the 2021–2023 energy price surge. As the econometric exercise of Romaniello and Stirati (2024) demonstrates, an initial shock to imported intermediate or energy goods can generate long-lasting effects on the consumer price index, a pronounced decline in real wages – reflecting a larger increase in the harmonised index of consumer prices relative to nominal wages – and a consequent persistent increase in the profit share, even in the absence of mark-up adjustments. Without adequate wage policy or countervailing policy intervention, the burden of the current shock is therefore likely to fall disproportionately, if not exclusively, on labour, with potentially adverse consequences for private consumption and aggregate demand. This is particularly concerning in a country where real wages have long been alternating between stagnation and decline, and where low-income groups remain especially exposed.

According to Istat (2025), the incidence of absolute poverty among households whose main income earner is a blue-collar worker reached 15.6% in 2024. In this context, policies should be aimed at containing energy prices and the consequent inflationary pressure, and at distributing the costs of adverse terms-of-trade shifts as equitably as possible across firms, employees and social strata.

Conclusions

This paper revisits the implications of the recent shock on oil prices using the analytical and empirical framework developed in Romaniello and Stirati (2024). The analysis shows that import price shocks can generate persistent inflation and changes in income distribution through input-output propagation mechanisms.

In the Italian case, inflation was largely driven by energy prices and was associated with a decline in real wages and a rise in the profit share without a generalised increase in profitability. These results highlight the importance of distinguishing between changes in distribution and changes in profitability, and of accounting for the structural transmission of cost shocks.

In the current context, characterised by renewed volatility in energy prices, these mechanisms remain central for understanding inflation dynamics and for designing policy responses that contain inflation while limiting adverse distributional and macroeconomic effects.

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Ralf Fendel and Florian Herget

Europe's Scale-Up Funding Gap: Six Constraints on Venture Capital Supply and a Reform Agenda

European Union produces fundamental research output comparable to that of its main international competitors but struggles to transform it into successful commercial innovations and economic growth. This article shows that a crucial reason is that beyond their start-up stage, European scale-ups are consistently underfunded. We argue that this funding gap is mainly driven by supply-side constraints that fall into two distinct categories. First, structural constraints that reduce the pool of capital available for venture investments, including pension system architecture, the absence of large endowments and foundations, and a bank-dominated financial system. Second, disincentive constraints that discourage existing capital from flowing into venture capital, even when it is available, due to regulatory capital charges for institutional investors, capital market fragmentation within the EU and a weak exit environment. The existing EU policy responses are first steps in the right direction, but still insufficient. The article therefore provides policy recommendations to address the funding gap.

The European Union faces a paradox that threatens its future: it excels at creating world-class research but struggles to transform it into successful economic growth. Recent policy debates, most prominently the Draghi (2025) report, have therefore placed Europe's ability to scale innovative firms at the centre of the EU's competitiveness agenda. Europe's innovation dilemma exemplifies what scholars term the "European paradox": the EU produces fundamental research output comparable to that of its main international competitors, yet significantly lags behind in transforming research excellence into commercial innovations and competitive advantage (Argyropoulou et al., 2019). Beyond the start-up stage, European scale-ups are consistently underfunded due to structural capital constraints, resulting in EU scale-ups raising 50% less capital than their US counterparts over their first decade of operation (European Investment Bank, 2024). This raises a fundamental question: why does a persistent invest-

ment gap exist for scale-ups in the EU compared to its competitors, and what actions can be taken to close it? We argue that the gap is fundamentally driven by supply-side constraints in venture capital (VC) availability.

The stage-specific funding gap

The innovation funding journey follows a pattern, as illustrated in Figure 1, from an idea to fundamental research and development, through startup formation, to eventual commercialisation and market expansion. At each stage, companies require different types and amounts of capital. Initially, modest seed funding is required to support the proof of concept, enabling companies to validate their products and achieve initial market entry. Later, substantial growth capital is required for commercialisation and expansion at scale. The so-called Valley of Death (VoD), the funding gap when companies struggle to secure sufficient growth capital, emerges during the proof-of-concept phase and can persist until full profitability (Gbadegeshin et al., 2022). During this phase, innovative firms run out of R&D funding but are not yet generating sufficient revenue to be profitable or attractive to debt financing (Natsheh et al., 2021).

This growth capital, typically needed after the proof-of-concept phase, is often provided by VC. It is a form of private equity financing that invests in high-potential growth companies in exchange for equity stakes, offering not only growth funding but also strategic guidance during the critical stage when companies are competing to establish themselves at scale in the market (Gompers & Lerner,

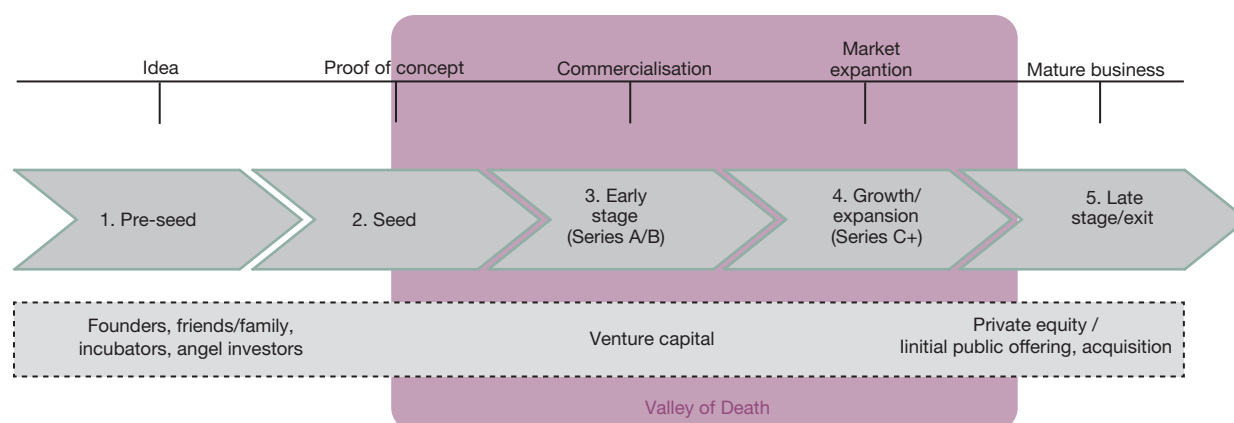
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Figure 1
The Valley of Death in the innovation funding journey

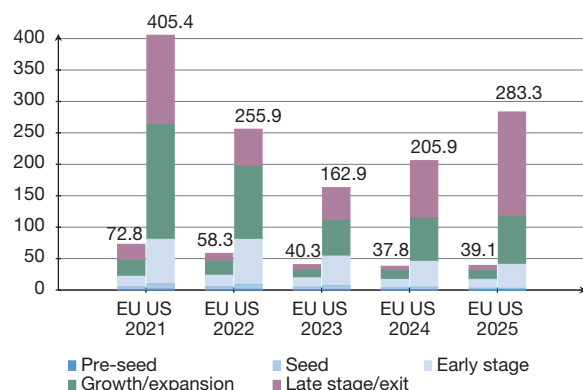


Source: Authors' own elaboration based on European Investment Bank (2024).

2001). According to Budi and Aldianto (2020) as well as Helman (2022), insufficient VC availability is the primary driver of innovative firms becoming trapped in the VoD, representing a critical bottleneck in Europe's innovation ecosystem. The extent of the VC funding gap faced by the EU becomes clear when compared with its main competitor, the United States. In 2021, at the height of the post-pandemic investment boom, US VC transactions reached US \$405.4 billion, more than five times the US \$72.8 billion VC investments recorded in the EU (Dealroom, 2025). Since then, both markets have cooled down significantly, but the structural asymmetry has, if anything, intensified. By 2025, US investment had recovered to US \$283.3 billion, while volume in the EU stagnated at US \$39.1 billion.

Figure 2
Venture capital deals by stage

in billion US dollars



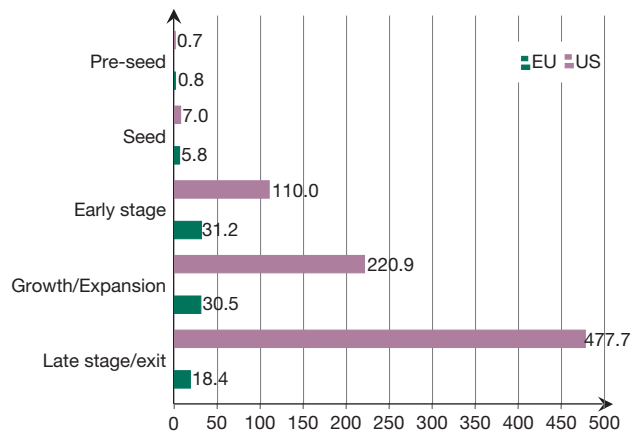
Source: Dealroom (2025).

A closer examination of VC investments by stage reveals a more nuanced picture (see Figure 2). In 2025, pre-seed and seed investments in the EU amounted to approximately US \$3 billion, compared to US \$2.7 billion in the United States, indicating no meaningful deficit in seed venture activity for the EU. However, the discrepancy is particularly evident where VoD is most apparent – in the early- and growth-stage phases, once start-ups move beyond seed funding. The United States accounted for US \$115 billion in venture investments across early- and growth-stage rounds in 2025, while the EU recorded only US \$28 billion in transaction volume, a gap of US \$87 billion. This imbalance between funding rounds becomes even more apparent when adjusted for population size, as shown in Figure 3. At each funding stage, the disparities between the EU and the US become larger, and for late stage and exit rounds the difference is 26-fold.

These patterns suggest that European start-ups face no significant funding disadvantage when launching their businesses, but rather after the seed funding when scaling their operations. Far greater sums are invested in US growth- and late-stage rounds, whereas European venture activity remains concentrated at the seed stage. In addition, European scale-ups also receive less support from domestic capital than their US counterparts. For example, while 76% of early-stage VC financing in the US comes from domestic investors, the figure in Europe is only 55%. The difference widens even further in the later stages: in the US, 81% of late-stage VC financing comes from domestic sources, while in Europe, only 30% comes from local investors (Dealroom, 2025).

Figure 3
Venture capital investments per capita 2025

in billion US dollars



Source: Dealroom (2025).

Why the gap persists: Six supply-side constraints

We argue that the funding gap is fundamentally driven by supply-side constraints in VC availability. While demand-side constraints, such as entrepreneurial risk aversion and a weak commercialisation environment, are recognised as relevant factors, it is critical to recognise that even a fully optimised demand side cannot attract VC that does not exist.

Examining dry powder, i.e. uninvested VC available for deployment, reveals the stark disparity in available growth capital between the United States and the EU. US VC firms held US \$307 billion in dry powder in 2024, compared to Europe's US \$62 billion dry powder (Invest

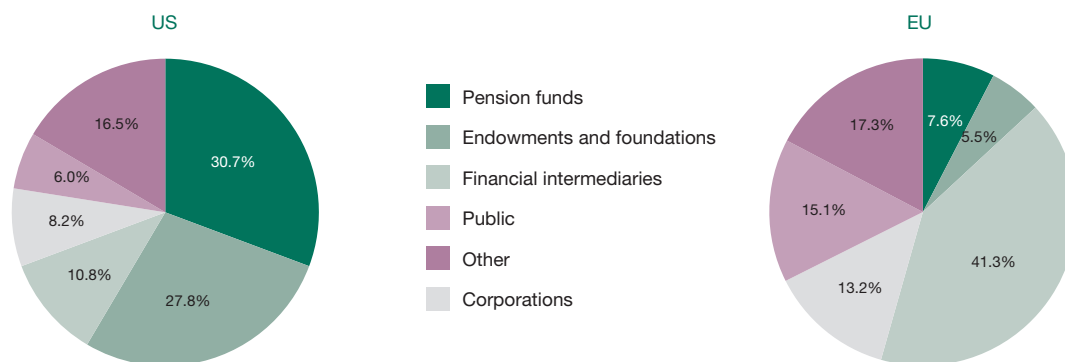
Europe, 2024; NVCA, 2025). On a per capita basis, this translates to approximately US \$887 available per American versus US \$138 per European, a more than 6:1 disadvantage for European entrepreneurs seeking growth capital.

This gap is not the product of a single policy failure, but rather the outcome of several constraints, which can be organised into two distinct categories. First, *structural constraints* that reduce the pool of capital available for venture investments, including pension system architecture, the absence of large endowments and foundations, and a bank-dominated financial system. Second, *disincentive constraints* that discourage existing capital from flowing into VC, even when it is available, due to regulatory capital charges for institutional investors, capital market fragmentation within the EU and a weak exit environment. Together, these six constraints discussed in more detail below are the key factors that systematically limit European VC supply.

Structural constraints: An insufficient capital pool

Examining how VC funds are financed across different investor types reveals structural deficits in the European capital pool for possible VC investments. Figure 4 breaks down VC funding sources by investor type. In the US, VC funds primarily raise capital from pension funds, endowments and foundations. These funding sources, which account for almost 60% of VC funding in the US, are significantly underrepresented in the EU, where they make up only 13%. By contrast, the VC landscape in the EU relies heavily on financial intermediaries, such as banks, insurance companies and investment firms, reflecting a bank-dominated financial system.

Figure 4
Venture capital funding sources by investor type, averaged over 2019-2023



Source: European Commission (2024).

The first structural driver is the different role of the pension system architecture. In the US, VC is drawn heavily from pension funds (30.7%) while in the EU, pension funds (7.6%) play a much smaller role as a funding source for VC. This shortage of pension assets represents a deeply structural constraint on EU VC availability. European pension systems rely heavily on pay-as-you-go (PAYG) structures for their primary pension pillars. In contrast, the US pension system relies primarily on funded individual accounts and collective pension funds that accumulate and invest assets over time, creating vast capital reserves available for investments. These funded pension systems serve as major capital sources for US VC.

Second, the near absence of endowments and foundations as VC investors represents another major gap. As shown in Figure 4, endowments and foundations account for 27.8% of VC funding in the US compared to 5.5% in the EU.

The third structural constraint arises from the way European financial markets are organised. In the EU, the major source of VC originates from financial intermediaries (41.3%), such as insurance, banks and other investment firms, compared to only 10.8% in the US. This reflects Europe's bank-dominated financial system, in which capital allocation primarily occurs through intermediaries, adding a layer of risk-averse institutions compared to the US. Such a bank-dominated system reinforces conservative investment patterns and leaves little room for allocations to higher-risk investments such as VC (Saillard & Url, 2011). Conversely, the United States relies far more on a market-based system, supporting risk pooling that allows investors to allocate risk more easily.

Disincentive constraints: Capital that does not flow to venture capital

Beyond the mentioned structural constraints that limit the available European capital pool, the dominance of financial intermediaries in the European VC ecosystem creates additional barriers. Capital that could otherwise be deployed in VC is further discouraged by regulatory capital charges as well as tax and legal fragmentation across the EU member states. Additionally, a bank-dominated system limits exit opportunities through weak initial public offering (IPOs) and acquisitions, thereby lowering expected returns in the European VC market and further disincentivising investment. Three aspects are crucial.

First, regulatory capital charges, such as Solvency II and Basel III serve legitimate objectives to protect financial stability. However, these regulations have unintended consequences as they restrict banks and insurance com-

panies from investing in VC (Laas & Siegel, 2017). Under Solvency II and Basel III, insurance companies and banks are required to reserve a specified amount of capital for each VC investment. These capital charges imposed in the EU for VC investments are comparatively high relative to other investment classes (Arnold et al., 2024), thus increasing the cost of VC investments.

Next, the tax and legal fragmentation across the 27 member states further increases the cost of investment and thus the incentive to invest in the European VC market. Cross-border VC investments within the EU trigger withholding taxes that investors can theoretically reclaim, but the reclaim procedures differ across the 27 member states and can take over 12 months, tying up capital for months and increasing investment cost. The European Commission (2023) estimates that withholding refund procedures cost investors €6.62 billion per year. Besides tax fragmentation, the EU, unlike the United States, also suffers from fragmented laws between member states.

Lastly, the Capital Markets Union (CMU) initiative, launched in 2015, has yet to resolve capital market fragmentation, which continues to produce a weak exit environment. With liquidity spread across multiple national exchanges and listing requirements varying across EU member states, European public markets lack the size to support high-valuation exits for VC-backed mature companies. Dealroom (2025) estimates that total VC-backed IPOs in the EU amounted to US \$18.6 billion in 2025, compared to US \$178.9 billion in the United States.

Together, the structural and disincentive constraints form a reinforcing system that limits VC supply, explaining the funding gap from a supply-side view. These constraints are deeply embedded in Europe's institutional landscape and will not self-correct through market forces alone. This raises a critical question for European policymakers: are the policy responses deployed so far sufficient to address them?

EU policy responses and their limits

EU institutions have not been passive in deploying meaningful policy responses to close the European VC funding gap. Yet these initiatives fall short of fully addressing the disincentives and structural constraints.

Beginning with disincentive constraints, these represent the low-hanging fruit from a policy perspective, and considerably more progress has been made here than on the structural side. The revised ELTIF 2.0 Regulation, an EU framework allowing private market funds such as VC to be sold to retail investors, broadened the defini-

tion of eligible assets and removed minimum investment thresholds,¹ easing the path for private capital to flow into European VC. Together with AIFMD II, which aims to harmonise fund manager rules across member states, these policies represent meaningful steps towards a less fragmented regulatory environment. Nevertheless, both frameworks still leave room for national divergence, particularly in tax treatment, maintaining legal fragmentation across EU member states. The Faster and Safer Relief of Excess Withholding Taxes (FASTER) Directive, which targets the cost of withholding tax refund procedures, is a further welcome step. Yet it is not scheduled for implementation until 2030.² The 2023 Solvency II revision³ addresses the regulatory capital constraints faced by European insurers by introducing the Long-Term Equity Investment (LTEI) category, which reduces capital charges on qualifying equity holdings from 49% to 22%. This is a further meaningful step, as it recognises that long-term VC investments should not be treated as risky short-term equity positions. However, the practical effect of the reform has not yet fully materialised. Delayed transposition into national law and complex eligibility criteria, combined with deep-seated insurer preferences for bond investments, mean that few insurers have increased their VC allocations as a result (Invest Europe, 2024).

Regarding capital market fragmentation, the EU has taken incremental steps towards a Capital Markets Union to improve the exit environment for VC investments, like the EU Listing Act,⁴ which reduces the cost of going public by simplifying prospectus requirements and reporting obligations for companies listed across multiple EU stock exchanges. Similarly, the Commission's Market Integration Package⁵ targets trade barriers, such as cross-border clearing and settlement fragmentation, aiming to further harmonise cross-border trading. Yet, these initiatives reduce administrative barriers without addressing the fundamental problem of having too many small exchanges with separate pools of capital. In this sense, the CMU remains a regulatory harmonisation project rather than a structural transformation programme. Achieving truly integrated capital markets through consolidated stock exchanges and a unified investment law framework would also address structural constraints on Europe's VC

supply by shifting the European financing system from a bank-based to a market-based model.

As discussed above, pension funds and foundations and endowments account for almost 60% of US VC funding yet remain largely absent as VC sources in the EU. In the absence of such large institutional capital pools, the EU has increasingly turned to public co-investment in recent years, seeking to substitute for the capital sources that drive US venture markets. Programmes such as the European Innovation Council's Accelerator invest public capital into European start-ups at seed and early stage, thereby mobilising private VC funding that might otherwise not flow into European start-ups. According to the EIC, the Accelerator Programme has so far signed investments of more than €1.4 billion under Horizon Europe (2021-2027), having mobilised private capital with a leverage of 3.5 (European Commission, 2026a), suggesting that approximately €5 billion in additional VC flow into Europe's seed and early-stage start-ups over the programme's lifetime.

While this represents a meaningful step towards closing the funding gap through public co-investment, the most significant shortfall in EU VC occurs not at seed and early stages but at the growth and late stages. Also, the EU has not been passive in addressing the gap here, most notably through the European Tech Champions Initiative (ETCI), a fund-of-funds that has committed more than €3.9 billion to European VC and PE funds since 2023 (EIB Group, 2026), thereby channelling public capital to growth- and late-stage funds rather than directly investing into companies. Beyond the fund-of-funds ETCI, the European Commission (2026b) has recently announced a new Scaleup Europe Fund that aims at providing several billion euros in additional investment in European growth- and late-stage scale-ups.

Taken together, these instruments represent a welcome step in the EU's efforts to address the VC funding gap through public co-investment. Yet their combined scale remains far short of what is required.

Policy pathways

The constraints fall into two categories, and so must the policy response. Disincentive constraints that discourage existing capital from flowing into VC can be addressed through near-term regulatory reform. Structural constraints that limit the total capital pool available require longer-term structural transformation. Both reform horizons are complementary: removing disincentives alone merely optimises a capital pool that remains too small, while expanding the pool without addressing disincentives will not ensure that new capital reaches EU venture

1 Regulation (EU) 2023/606 of the European Parliament and of the Council, OJ L 79, 16.3.2023.

2 Council Directive (EU) 2025/50 of 10 December 2024, applicable from 1 January 2030.

3 Directive (EU) 2025/2 of the European Parliament and of the Council of 27 November 2024, OJ L, 8.1.2025, applicable from 30 January 2027.

4 Regulation (EU) 2024/2809 of the European Parliament and of the Council, OJ L, 14.11.2024.

5 European Commission, Market Integration and Supervision Package, 4.12.2025.

markets. We outline three policy recommendations, beginning with the near-term reforms where progress can be most immediate: EU Inc. and a redesign of the Scaleup Europe Fund as near-term regulatory reforms, as well as a European Supplementary Pension as a long-term structural transformation.

EU Inc.

Existing EU policies reveal a recurring pattern: while the EU has deployed meaningful initiatives to address the disincentive constraints, these efforts consistently fall short because they harmonise around 27 national systems rather than replacing fragmentation at its source. In this sense, the EU is fixing the symptoms but not the disease. The 28th regime, an EU-level corporate form (EU Inc) operating alongside national frameworks, as recommended by the Draghi (2025) report, offers a fundamentally different approach: rather than harmonising 27 national systems, it bypasses fragmentation at the level of the company itself. A fully realised EU Inc. would directly address several of the disincentive constraints simultaneously.

First, it would eliminate legal fragmentation for VC investors. A single EU-wide company form means a single governance framework, a single set of investor protections, and a single risk model applicable across all member states, functioning, in effect, as a European equivalent of the successful US Delaware jurisdiction. Investors would no longer need to hire legal counsel in each jurisdiction, run separate due diligence, or price legal risk differently for each investment. Second, by creating a standardised legal corporate form that is equally legible to investors across member states, the EU Inc. removes a key constraint for deeper capital market integration. A company incorporated under EU-wide rules can, in principle, list on any European exchange without adapting to local company law, thereby reducing one of the barriers that currently fragment European exit markets and depress expected VC returns. Third, and more indirectly, a functioning EU Inc. with viable cross-border exit channels would generate spillover effects, gradually attracting more direct institutional capital into European equity markets and reducing dependence on bank-based finance.

Fragmentation across 27 national legal systems also explains why the reforms have so far delivered limited results. ELTIF 2.0, AIFMD II, FASTER and the Listing Act each remove one friction in the investment chain, yet continue to operate under 27 different company laws. A functioning 28th regime supplies the missing investee-side layer that turns these partial harmonisations into a coherent reform package. The Commission's proposal for the EU Inc. Regulation of March 2026 represents a welcome

step towards this logic (European Commission, 2026a). However, as Ringe (2026) and Enriques et al. (2026) argue, the proposal falls short in several critical areas. The EU Inc. Regulation does not create a fully self-contained legal regime. Article 4(2) provides that matters not covered by the EU Inc. Regulation are governed by the national law of the member state in which the EU Inc. has its registered office. In practice, as Ringe (2006) argues, this creates a German-style EU Inc. or a French-style EU Inc., rather than the single legal framework that cross-border investors require. Moreover, the proposal's harmonised insolvency law applies only to EU Inc. companies classified as innovative start-ups, while all other companies fall back on national insolvency law. This is particularly consequential given that the most significant funding gap occurs at the growth and late stages. Finally, the proposal creates no dedicated exit pathway. Article 41 refers to EU Inc. companies seeking to restructure or relocate across borders to the same cumbersome procedures that govern traditional public companies.

For the 28th regime to close the growth-stage funding gap, the legislative process must address these shortcomings. The EU Inc. Regulation must minimise national law gap-filling to deliver the single legal framework that cross-border investors require. Harmonised insolvency rules must extend beyond start-ups to encompass scale-ups, where the funding gap is most acute. Moreover, the EU Inc. must be complemented by harmonised tax treatment and credible exit infrastructure, building on the FASTER Directive and the Listing Act discussed before, to ensure that a uniform corporate form operates within a uniform investment environment.

Scaleup Europe Fund as a regulatory gateway

The EU already deploys public co-investment through instruments such as the EIC Accelerator and the ETCl, yet their combined scale remains far short of closing the funding gap in growth and the late stage. This does not reflect a flaw in the instrument itself. Public co-investment is a well-documented mechanism for crowding in private VC, as demonstrated by Israel's Yozma programme (Avnimelech & Teubal, 2004), and by Bpifrance (OECD, 2025). What is needed is a vehicle that applies this proven logic at the European scale, targeted precisely where the deficit is most acute. The Commission's proposed Scaleup Europe Fund represents exactly this shift (European Commission, 2026b). Unlike the EIC Accelerator, which operates at the seed and early stages, the Fund is explicitly directed at growth- and late-stage rounds. Its co-investment structure, in which public capital invests alongside private investors rather than replacing them, preserves the crowding-in mechanism

that made Yozma and Bpifrance effective. Yet the Fund's impact will ultimately be constrained by the size of public budget allocations.

Next to public spending, such a public co-investment fund should serve as a regulatory gateway that unlocks the institutional capital currently held back by the disincentive constraints European insurers face, disproportionately high capital charges on VC holdings relative to other asset classes (Arnold et al., 2024), making VC allocations unattractive. Insurers' long-term liability structures naturally align with the investment horizon VC requires, and their equity holdings should not be penalised to the same degree as short-term equity positions. The Scaleup Europe Fund can address this constraint by serving as the vehicle that enables the existing LTEI relief to be used. Investments routed through the Fund should be presumed LTEI-eligible under the regulations, automatically qualifying for lower capital charges without the complicated eligibility criteria that have so far deterred insurer participation.

The same logic can be extended to pension funds. National tax incentives, the conventional lever for redirecting pension capital towards VC, fall outside the EU's competence, and enacting them uniformly across 27 member states has proven politically difficult. The Scaleup Europe Fund could offer a way around this constraint. By coupling Fund participation with an EU-backed first-loss guarantee, as deployed in the InvestEU Fund, the EU can absorb a defined share of downside risk and align the Fund's risk-return profile with the liability-matching constraints that govern pension investment decisions. This converts the Fund into a regulated, EU-level channel through which existing pension capital can flow into growth-stage VC without relying on national tax competencies or requiring pension funds themselves to take on risk exposures that their mandates would otherwise prohibit. Together, these two mechanisms transform the Scaleup Europe Fund from a budget-constrained co-investment vehicle into a regulatory gateway that mobilises insurance and pension capital at a scale public spending alone cannot achieve.

European Supplementary Pension

The policies proposed above can reallocate existing capital towards VC, but they address only disincentive constraints, not the structural deficit of the capital pool itself. The most fundamental constraint on European VC supply is architectural: the dominance of PAYG pension systems across the EU. The result is that pension funds account for only 7.6% of European VC funding, compared to 30.7% in the US, a gap that no regulatory gateway can close if the

underlying capital does not exist. Closing this structural gap requires a gradual shift towards funded supplementary pension provision at the EU level. We propose the creation of a European Supplementary Pension, a capital-building European pension pillar that operates alongside, not in place of, existing national pension systems. Unlike the Pan-European Personal Pension Product, which was conceived as a narrow Pillar III savings product and has seen negligible market uptake, the European Supplementary Pension could encompass both employer-sponsored and individual contributions, creating a single, EU-wide pool of funded pension assets that can be invested in European capital markets, including VC. Furthermore, it would provide a strong political statement towards a closer EU identity.

Such a pillar would generate a substantial EU-wide capital pool of funded pension assets invested across the European economy, including capital markets in equities, bonds and infrastructure. VC would be one component of this broader allocation, allowing European venture markets to benefit from pension capital. The long-term investment horizon of pension savings aligns well with the long lock-up periods required by VC investments, and historically, VC has delivered returns that make it a suitable element of a diversified pension portfolio.

A funded supplementary pension pillar at the EU level would thus address several of the constraints diagnosed in this article simultaneously. It generates an investable capital pool that European PAYG systems cannot provide structurally, gradually building the pension base that European venture markets currently lack. It reduces the EU's dependence on bank-based intermediation by channelling household savings directly into capital markets, shifting the European financial system towards the market-based model. And it creates a tangible, EU-level financial entitlement for citizens, strengthening the political legitimacy of deeper capital market integration.

Conclusion

The funding gap between European and US scale-ups is neither uniform across the innovation journey nor reducible to a shortage of research, innovation and entrepreneurial ambition. European start-ups face no significant funding disadvantage at the seed stage, but the gap widens sharply once companies move into growth- and late-stage rounds. European founders can launch their businesses, but they cannot scale them in Europe. Beyond economic growth, this shortfall threatens Europe's strategic autonomy in the technologies that will define the coming decades.

This article focused on six supply-side constraints on VC availability, organised into two categories: first, structural constraints that limit the size of the available capital pool, including the dominance of PAYG pension systems, the near-absence of endowments and foundations, and a bank-dominated financial system; and second, disincentive constraints that discourage existing capital from flowing into VC, including regulatory capital charges, tax and legal fragmentation across the 27 member states, and a weak exit environment.

Existing EU policy responses are necessary steps but insufficient. They harmonise around 27 national systems rather than replacing fragmentation at its source, and they leave the structural capital deficit largely untouched. The EU is treating symptoms rather than the causes. The policy recommendations proposed by this article are therefore best understood not as parallel options but as a sequenced reform package, each addressing a different layer of the diagnosis.

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Christian Rusche

Chips Act 2.0 – A Game Changer?

Semiconductors have become a strategic input for digitalisation, artificial intelligence and industrial competitiveness. Global value creation is highly concentrated in the Americas and the Asia-Pacific region, while the European Union increasingly depends on imports, particularly from China. In response, the European Commission has proposed the European Tech Sovereignty Package, including the Chips Act 2.0. This article evaluates the initiative by analysing the global value chain, recent trade developments and the shortcomings of the Chips Act 1.0. Adopting a more comprehensive approach, the Chips Act 2.0 targets innovation, manufacturing and crisis preparedness across the entire value chain. However, persistent structural obstacles – fragmented markets, weak lead-market conditions, limited economies of scope, strong path dependencies and rising geoeconomic risks – limit its transformative potential. The article concludes that while the Chips Act 2.0 strengthens Europe's position in the chips market, additional measures will be required to achieve strategic sovereignty.

The international political environment has become noticeably more challenging in recent years, with geopolitical tensions and disruptions to global trade routes highlighting the vulnerability of internationally integrated value chains. These developments underscore the growing strategic importance of semiconductors for the European economy. The automotive sector – one of Europe's key industries – illustrates this particularly clearly: according to an analysis by the Joint Research Centre (Bonnet et al., 2025), the sector accounts for 37% of all chips shipped to the EU, with electric vehicles requiring more than 3,000 chips compared to up to 1,500 in conventional vehicles. At the same time, the rapid expansion of American and Chinese digital firms, especially in artificial intelligence, is reinforcing Europe's dependence on external technological ecosystems. In response, the European Commission (2026a) presented the European Tech Sovereignty Package in June 2026, comprising four initiatives: the Chips Act 2.0, the Cloud and AI Development Act (CADA), a strategy for open digital ecosystems, and a Strategic Roadmap for Digitalisation and AI in the energy sector.

This article examines the Chips Act 2.0 (European Commission, 2026b). The first Chips Act (Regulation 2023/1781) was adopted only in the second half of 2023, at a time when the relevant supply-chain disruptions and the strategic importance of semiconductors were already well understood. This raises the question of why a second legislative initiative was required so soon thereafter, and which gaps in the initial regulation made further intervention necessary. To address this, the article first outlines the semiconductor value chain and the global market, including regional developments. It then analyses recent EU trade data to identify current patterns and dependencies. Building on these insights, the main provisions of the Chips Act 2.0 are described and the shortcomings of the first Chips Act are examined. This provides the foundation for the political-economic assessment presented in the conclusion. Throughout the article, the term “chips” is used as a simplified reference to microchips, semiconductors, integrated circuits and related components, further discussed below.

Chips value chain and the market for chips

The term “chips” simplifies a highly heterogeneous set of products, and the underlying value chain is equally complex. The following overview, based on Hillrichs and Wölfl (2025), OECD (2025), and Haramboure et al. (2023), is only a simplified representation of the chip market, which is highly globalised and shaped by companies that are deeply interconnected both internally and across borders. This article analyses the core value chain for chips, which consists of three main stages:

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Design. According to Haramboure et al. (2023), Japan, South Korea and the United States are dominant at this stage, where the requirements for the chip are defined, its architecture is designed, and the design is validated on a test bench. This stage represents around 50% of value added, but only 10%-15% of capital expenditure.

Fabrication/foundry. China, Japan, South Korea and Taiwan are important players at this stage, where the previously designed integrated circuit is printed or etched onto the wafer (Haramboure et al., 2023). This occurs in so-called wafer fabrication facilities (fabs) and requires highly complex manufacturing processes involving specialised equipment and chemicals. This step represents around 25% of value added, but more than 60% of capital expenditure.

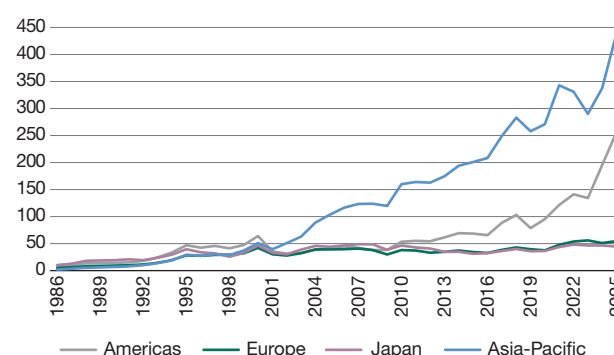
Assembly, test and packaging. China, Taiwan and South-east Asia (Malaysia, Vietnam, the Philippines) hold strong positions in this segment (Haramboure et al., 2023), which represents around 5% of value added in the value chain, and 10%-15% of capital expenditure. This stage comprises wafers being cut into individual chips, packaged into frames or resin shells, and subsequently tested.

Upstream stages – for example, raw materials, intermediate goods, and manufacturing equipment – as well as downstream stages that cover the steps up to the final product are not addressed in this article. Nevertheless, it should be noted that the EU plays an important role in the value chain, particularly as a net exporter in the equipment segment (Bonnet et al., 2025, p. 5). However, for certain raw materials, the EU is almost entirely dependent on imports, for example from China.

To illustrate the scale and dynamics of the global chip market, Figure 1 presents regional data from the World Semiconductor Trade Statistics (WSTS, 2026a, 2026c). Global semiconductor sales increased from US \$26 billion in 1986 to US \$204 billion in 2000 and exceeded US \$795 billion in 2025. For 2026, WSTS projects a market volume of roughly US \$1.5 trillion (WSTS, 2026b), driven largely by rapid memory-chip expansion linked to substantial AI-related investments. Major US technology firms alone have announced AI investments of US \$725 billion for 2026 (Tagesschau.de, 2026), a significant share of which is expected to flow into AI and memory chips for data-centre infrastructure.

Figure 1 also illustrates that the rapid development of the chip market is occurring primarily in the Americas and in the Asia-Pacific region. In 2025, around 32% of global chip sales were generated in the Americas and roughly 55% in the Asia-Pacific region. Japan and Europe lag far

Figure 1
Total semiconductor revenue by region
in US \$ billion



Source: World Semiconductor Trade Statistics (2026a); author's depiction.

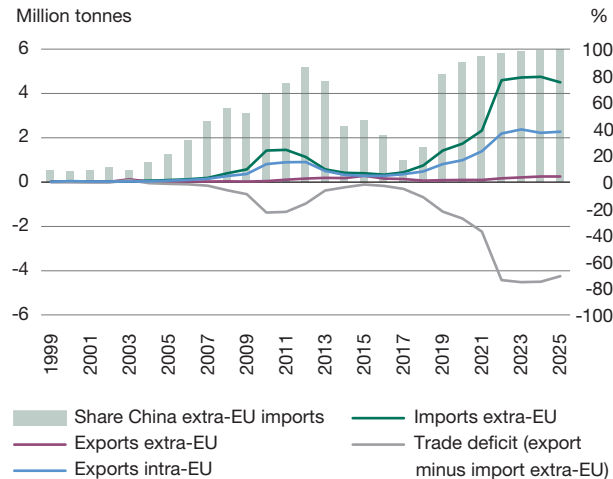
behind, at a similar level of around 6%-7%. The growth rates likewise show the Americas and Asia-Pacific pulling further ahead. Between 2019 and 2025, market volume in the Americas grew by more than 220% and in the Asia-Pacific region by almost 93%. In Europe, growth over the same period amounted to more than 37%, and in Japan to more than 24%. The global chip market is expanding rapidly, but Europe is constantly falling behind. Against this backdrop, it is useful to examine the EU's trade patterns to better understand current dependencies.

The development of the EU's trade in chips

The following analysis of trade draws on data from Eurostat (2026). The trade statistics report trade flows according to Harmonised System (HS) codes for individual product categories and products. Following Röhl and Rusche (2022, 2024), the product categories with HS codes 8541 (semiconductor devices, e.g. diodes, transistors, LEDs, photovoltaic cells and mounted piezoelectric crystals) and 8542 (electronic integrated circuits and parts thereof) are used for the analysis. In contrast to Röhl and Rusche (2022, 2024), these categories are examined separately. The rationale is that this allows different stages of the value chain to be analysed. While HS 8541 includes essential intermediate goods for computer chips, thus approximating the second value-creation stage described in the chip value chain section, HS 8542 covers finished chips and therefore corresponds to stage three.

In addition, the analysis does not consider values in euros but instead the weight of the goods, as is done in Rusche (2026). This is to correct for price-based effects. If the val-

Figure 2
EU trade in semiconductor devices (left axis) and
China's share of extra-EU imports (right axis)



Notes: Semiconductor devices include, for example, diodes, transistors and semiconductor-based transducers. HS code 8541.

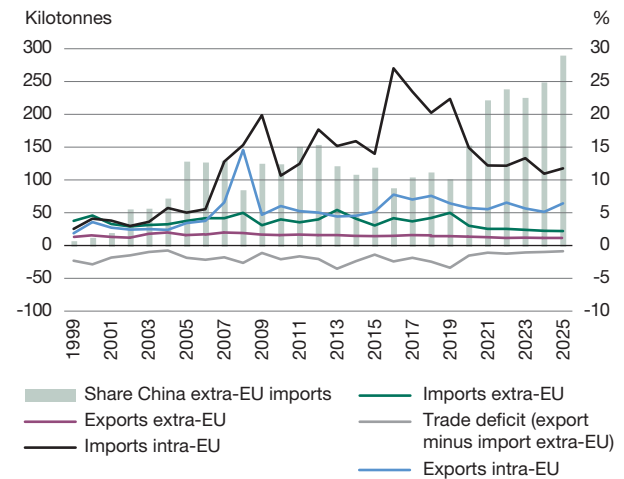
Source: Eurostat (2026); author's depiction.

ue were used, the trade balance would indicate balanced trade relations if a small number of high-value chips were exported while a large number of low-value chips were imported, or vice versa, although dependencies might still prevail.

Based on Eurostat's (2026) weight data for trade in semiconductor devices, Figure 2 shows developments since 1999. It shows that the EU maintained a largely balanced trade position until around 2016, with the exception of the period following the financial crisis. Since 2017, however, imports – particularly from China – have risen sharply, and as a consequence, the trade deficit in semiconductor devices has increased rapidly. Since 2022, the annual deficit has exceeded four million tonnes. Moreover, essentially 100% of extra-EU imports originate from China. When values in euros are considered, the deficit has been declining since 2022 (see Röhl & Rusche, 2024).

For HS 8542, a different pattern emerges (Figure 3). Measured by weight, the EU's trade deficit in integrated circuits has declined steadily since 2019, falling from 34 kilotonnes to around 8.5 kilotonnes in 2025. As EU export volumes remain consistently low, this reduction is driven entirely by falling imports. China's share of extra-EU imports has increased to nearly 30%, and more than

Figure 3
EU trade in electronic integrated circuits and parts
thereof (left axis) and China's share of extra-EU
imports (right axis)



Notes: HS code 8542.

Source: Eurostat (2026); author's depiction.

half of the EU's extra-EU trade deficit in integrated circuits is attributable to trade with China.

Intra-EU trade in integrated circuits exceeds extra-EU trade, yet Eurostat data reveal a persistent discrepancy between reported intra-EU imports and exports. Imports are systematically higher and more volatile, although – by definition – they should match. This phenomenon is not new and not limited to chips: The EU has recorded a long-standing “trade deficit with itself” (Kiel Institute for the World Economy, 2020), which may be linked to value-added tax fraud.

Overall, the EU remains heavily dependent on semiconductor imports, particularly from China, and China's role in integrated-circuit trade continues to expand. Moreover, the rapid global growth of the semiconductor market is not reflected in EU trade dynamics, confirming the weak growth performance observed in WSTS (2026a) data. These structural dependencies and limited market dynamics form the backdrop for the analysis of the Chips Act 2.0 in the following section.

Chips Act 2.0 description and evaluation

Before discussing the Chips Act 2.0 in detail, it is useful to briefly recap the shortcomings of the first Chips

Act (Regulation (EU) 2023/1781) from a policy perspective. Alongside the proposal for the Chips Act 2.0, the European Commission (2026c, 2026d) also published an impact assessment of the first Chips Act as well as an evaluation of policy options. In addition, the Draghi report (2024) also contains an analysis of the semiconductor market.

First, the Commission's communication accompanying the Tech Sovereignty Package emphasises that "Europe risks falling further behind in the global tech race" (European Commission, 2026a, p. 29). This reflects the recognition that the EU's semiconductor market is expanding far more slowly than those in the Americas and Asia-Pacific (Figure 1), and that additional action is required to prevent further divergence.

Second, the impact assessment highlights structural weaknesses in Europe's capital markets (European Commission, 2026d). The absence of a genuine Capital Markets Union limits the availability of late-stage financing for start-ups and constrains large-scale investment by European firms. Although the EU performs strongly in science and early-stage innovation, restricted access to growth capital often forces innovative firms to relocate or be acquired by non-EU actors. In the chips sector, this dynamic is described as the "lab-to-fab-gap". As a result, other regions ultimately benefit from innovations initially supported by European taxpayers. Draghi (2024, p. 68) similarly notes that European tech firms lack the scale needed to sustain long-term R&D. The first Chips Act did little to address this issue, as it focused primarily on supply-side measures (European Commission, 2026a).

Third, these scale limitations are closely linked to persistent fragmentation in the Single Market. The impact assessment stresses that a fully integrated Single Market has not yet been achieved, as national support schemes remain insufficiently coordinated (European Commission, 2026c, 2026d). This fragmentation weakens Europe's capital-market performance and hampers the mobilisation of the very large investment volumes required for semiconductor projects – volumes that individual member states cannot shoulder alone. The European Commission (2026a) therefore seeks to strengthen coordination, communication and cooperation across the value chain.

Finally, supply-chain security remains a concern. The first Chips Act was drafted partly in response to the COVID-19 pandemic, the Ever Given blockage of the Suez Canal and disruptions linked to Russia's war against Ukraine. As a result, crisis preparedness formed a central component of the regulation. However, the impact assessment shows

that the EU still lacks sufficient insight into both European and global chips supply chains (European Commission, 2026d).

To address these shortcomings, the European Commission (2026b) proposed the Chips Act 2.0. According to the proposal, the regulation aims to enhance competitiveness and strengthen crisis preparedness. To this end, the Chips Act 2.0 is structured into three pillars: Pillar 1 focuses on innovation (set out in Chapter II: Chips for Europe Initiative 2.0), Pillar 2 on manufacturing (Chapter III: Security of supply and demand) and Pillar 3 on crisis response (Chapter IV: Monitoring and crisis response).

Pillar 1 – the Chips for Europe Initiative 2.0 – seeks to build large-scale technological capacities and promote research and innovation activities within the EU (Art. 4). Six operational objectives are defined:

- support for the development of advanced design capabilities
- promotion of new or existing pilot lines
- strengthening of advanced technology and engineering capacities
- establishment and networking of competence centres
- development and reinforcement of advanced design prototyping, and industrial deployment capacities for photonic integrated circuit technologies and other photonic technologies
- facilitating access to finance through a dedicated "Chips Fund".

Pillar 2 focuses on securing supply and demand. This is achieved by supporting domestic production and by promoting investment in response to sufficient demand for the products concerned, for example through public procurement. Domestic production is strengthened through public support schemes (Art. 12(2)), the coordination of financing – such as by the Commission (Art. 20) – and the reduction of administrative burdens by introducing one-stop shops (Art. 22) and a single access portal (Art. 24). This chapter also outlines the European Semiconductor Regions of Excellence label (Art. 26), which is awarded by the European Commission. However, such label policies assist investors but do not resolve structural bottlenecks. Positive effects can arise only through enhanced networking.

Pillar 3 sets out the crisis-response mechanism. It first includes a strategic mapping of the Union's semiconductor sector carried out by the European Commission in cooperation with the European Semiconductor Board (Art. 33). Together with the Board, the Commission develops early-warning indicators. The European Semiconductor Board

consists of one representative from each member state and is chaired by a representative of the European Commission (Art. 44).

Furthermore, a B2B platform is established (Art. 34) through which companies can provide data to enable the creation of a digital twin of the chips sector and its value chains. If disruptions occur that lead to shortages and affect critical sectors, the crisis stage can be activated by the Council (Art. 39). Three instruments can then be used in response: first, information on the crisis, its impacts, and related developments is collected (Art. 41); second, priority-rated orders may be introduced (Art. 42); third, joint purchasing can be undertaken (Art. 43). The latter two instruments apply only to critical sectors.

Conclusion

The analysis presented in this article shows that the Chips Act 2.0 constitutes a meaningful step forward compared to its predecessor. By broadening the scope from supply-side interventions to a more comprehensive value-chain approach – including research, design, manufacturing, testing and demand creation – the regulation addresses several structural weaknesses that limited the effectiveness of the Chips Act 1.0. The initiative also reflects a more realistic assessment of Europe's position in the global chip landscape, where dynamic growth in the Americas and Asia-Pacific continues to widen the gap.

However, the transformative potential of the Chips Act 2.0 remains constrained by persistent structural obstacles. Fragmentation in the Single Market continues to hinder the scaling of production capacities and the efficient allocation of public support. Europe lacks strong lead markets capable of generating the demand intensity required for large-scale investment and rapid learning effects. Existing economies of scope in Asia and North America reinforce path dependencies that draw talent, capital and firms toward established clusters. In addition, rising geo-economic tensions may complicate Europe's access to critical inputs, equipment and specialised labour.

Against this backdrop, the Chips Act 2.0 can stabilise and strengthen Europe's chip ecosystem, but it is unlikely to close the competitiveness gap on its own. Achieving genuine strategic sovereignty will require deeper capital-market integration, more closely coordinated industrial policies across member states, stronger demand-side instruments, and sustained investment in talent and infrastructure. Without these complementary measures, Europe risks remaining structurally dependent on external chip ecosystems despite regulatory advances.

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The Abject Failure of the US–Canada Trade War

In recent months, the Trump Administration has engaged in another inscrutable series of trade actions against its neighbor to the north, relying on a never-before-used tariff authority from the 1930 Smoot–Hawley tariff legislation (Section 338) to levy tariffs up to 50% on a subset of Canadian trade. Canada followed with “dollar for dollar” retaliation, and since then Trump has announced more measures, including import bans on certain goods and moves to strip Canadian products from government procurement programs. Canada has not backed down, instead making overtures to Europe that have produced an invitation to become the EU’s first “associate member”. President Trump has called these steps a possible “hostile act”, leading to more tariff threats.

This logic is puzzling. The Trump Administration has spent more than a year making itself an unreliable partner to Canada. Yet, as Canada reaches out to search for more reliable partners, its actions are viewed as an affront. Indeed, Trump’s latest singling out of Canada for aggressive trade action is mysterious, but it is not new. One of the first actions of the second Trump Presidency was to target Canada (alongside China and Mexico) for aggressive tariffs, supposedly over border security and fentanyl, though there was scant evidence of these problems originating in Canada. Regardless, the tariffs deployed (relying on the International Emergency Economic Powers Act, or IEEPA) were ultimately ruled unlawful by the Supreme Court. Since then, the IEEPA tariffs have been replaced by tariffs based on other questionable authorities that are also under challenge.

At this point in the second Trump Administration, economic research has demonstrated that the tariffs are clearly failing by any tax policy criteria. First, consider tariff incidence. Despite frequent claims that foreigners will pay the tariffs, the research has been clear that the lion’s share of the burden falls on American consumers and businesses, confirming the findings of studies based on the 2018-2019 US tariffs. Minton et al. (2026) find that pass-through to consumer prices is one-to-one, and that tariffs account for the entirety of post-pandemic excess inflation relative to pre-pandemic inflation. Cavallo et al. (2026) find a cumulative effect on the consumer price index (CPI) of about 0.8 percentage points by early 2026. Amiti et al. (2026), Fajgelbaum and Khandelwal (2026), and Gopinath and Neiman (2025) all find a degree of pass-through that implies that US buyers of imports – US consumers and firms together – bore about 90% of the tariff burden in 2025. Evidence in Ahn et al. (2026) also suggests that the *quality* of US imports has declined.

Second, tariffs have harmed economic efficiency by destroying the gains from trade and hampering US production processes, since about half of what the United States imports are intermediate goods. Indeed, this concern is likely even larger with respect to Canadian trade, since Canadian and US production processes are deeply entwined in many sectors. At some level, the Trump Administration seems to recognize the harms of tariffs on inputs, as it has exempted some industries (including AI) from tariffs. Yet other manufacturing firms have been less fortunate, and JPMorganChase finds that midsize firms are facing significant cost pressures.

Third, tariffs are also a regressive tax. Unlike the income tax, tariffs exempt savings, and they thus disproportionately burden those lower in the income distribution who spend nearly all of their income, as discussed in Clausing and Obstfeld (2026a). And these costs are significant. At present, the Budget Lab estimates US household tariff costs of about \$1,100 per year.

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Presumably the Trump Administration is after something other than efficient, fair taxation. What are its possible goals? One constant refrain has been that the tariffs would supply a revenue stream, held up as a source of funding for multiple administration desiderata. In reality, revenues from the tariffs have disappointed; they are below forecasts, short of what would be required to pay for the 2025 tax cut legislation, and far below what modest corporate tax increases would raise (Clausing, 2026). Revenues turned sharply negative for two months in mid-2026, as refunds outstripped new tariff collections (Clausing & Obstfeld, 2026b). What about manufacturing jobs? There, too, the record is disappointing. As of August 2026, manufacturing jobs were tens of thousands below their level at the beginning of 2025, according to the Bureau of Labor Statistics, and blue-collar employment (including industries like construction) has been essentially flat over the same period.

What about the mercantilist desire to drive up US exports and drive down US imports? Both US exports to Canada and US imports from Canada shrank in 2025 as a result of the trade war, causing damage to both economies. The trade deficit with Canada is structural, and more than accounted for by the energy sector, so even if the Trump Administration wanted to rectify the imbalance, it would likely raise energy costs. So far, Trump's tariffs have exempted energy. Because the United States is a larger share of the Canadian economy than vice versa, the pain is larger north of the border, but Canada has been seeking to diversify trade and liberalize with other nations, whereas the United States has a relatively uniform protectionist stance. Importantly, the American public is growing impatient with tariffs, with polling data indicating deep disapproval; both chambers of Congress have voted against prior rounds of tariffs on Canada.

In contrast, the Canadian public is strongly supportive of Canadian retaliation, despite the personal cost. The Trump Administration's rhetoric, which belittles Canada's sovereignty, has fueled strong anti-American sentiment, which has shown up in both reduced tourism and reduced US exports. Even though tariff retaliation clearly harms Canadians themselves, the public is willing to endure costs to stand up to bullying. Meanwhile, Canada has strengthened ties with other trading partners, not just Europe, and Canadian exports to the rest of the world have risen strongly.

At the same time, the Canadian Prime Minister, Mark Carney, has emerged as the most vocal and eloquent critic of President Trump on the world stage. His Davos speech in January 2026 called out the US protectionist stance, as well as broader changes in US foreign policy that have been particularly transactional, undermining rules-based norms across multiple issue areas. His subsequent September speech to the European Parliament was an eloquent statement of the need for the rest of the world to continue their efforts on joint collective problems, with or without the United States. In the end, what is most clear from the US–Canada trade war is how little the United States has achieved, and how much damage has been done to a longstanding partnership.

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