

BRUSSELS ECONOMIC SECURITY REVIEW



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BRUSSELS
ECONOMIC
SECURITY
REVIEW

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Volume 1: What is critical?

Editorial: What is critical?

by **Editorial Board**

In just a few years, economic security has become a central concept in European Union policymaking. Clearly, we are no longer living in the halcyon days of the 90s, when free trade was touted as an unconditional good and interdependence was something to invite, not fear.

Rather, a deep sense of insecurity has taken hold. External shocks and crises continually roil economies globally, illustrating their vulnerabilities. Value chains contract at the behest of governments, while our critical infrastructure is targeted in covert and overt attacks. Technologies once treated as commercial goods now sit at the centre of geopolitical competition.

Economic security as a concept has become inescapable. Yet the appropriate policy responses are still up for debate. Something must be done, but exactly what is still far from clear.

Also in Brussels, not all European Union actors agree – even if they may recognise that collective EU policy delivers common benefits. Some member states will balk at dictates from Brussels in policy areas they see as encroaching on national security. Too much risk for one may be justifiable for another. Economic insecurity may be accepted to maintain access to cheap or cutting-edge technologies. Equally, the green transition may hinge on using tech from countries Europe otherwise distrusts.

Identifying risks is one challenge. Governing them is another. In the European Union, economic security requires coordination and unity across the Single Market. Economic security must also be baked into how Europe works with partners across the globe, many of whom share European concerns but not all European priorities.

Across the globe and beyond differing priorities policymakers, academics and other experts are trying to define economic security and how to achieve it. Yet something is missing, especially in Europe. We lack a longform, non-academic platform where experts and informed readers can explore these dilemmas in depth.

The *Brussels Economic Security Review* aims to fill this gap. It is a space for serious, accessible and policy-relevant debate on economic security and geoeconomics. It is not an academic journal, nor another outlet for short-term commentary. Its purpose is to provide room for argument and reflection, where established experts and emerging voices can test ideas and sharpen concepts.

This first issue asks a basic but difficult question: what is critical? It may look different from Brussels, Berlin or Tallinn – and different again from Singapore, Japan, India or China. We are opening a new window for exploration and expert insights to guide readers to better grasp and enable more – rather than less – economic security in our new insecure world.

Economic security must also be baked into how Europe works with partners across the globe, many of whom share European concerns but not all European priorities.

Interview: Edward Fishman on the evolution of economic statecraft

1

The golden age of economic statecraft

Edward Fishman, interviewed by Varg Folkman

In his 2025 book *Chokepoints: American Power in the Age of Economic Warfare*, former US State Department Official Edward Fishman lays out the history of modern US economic statecraft and the rise of tools that have become central to contemporary geopolitics, from financial sanctions to export controls.¹ The book is an indispensable guide to the logic, institutional foundations and strategic assumptions behind these instruments.

In this interview, Fishman explains the modern explosion of US sanctions and the evolution of Trump's China policy. He also provides a clear account of the US economic statecraft system and a useful heuristic for understanding the structural anxieties driving the use of coercive economic tools.

The interview was conducted in January 2026 and has been edited for length and clarity.

Varg Folkman: *What are some of the main tools of economic statecraft available to US authorities and what are they designed to achieve?*

Edward Fishman: There are different ways that you can look at the levers of economic statecraft. I think traditionally the way that most people in the United States look at it is through the specific legal mechanism that's used.

We have sanctions that tend to be imposed by either the Treasury Department or State Department that cut individuals and companies off from the US financial system. You have export controls, which are administered by the Commerce Department, which restrict the sale of specific technologies and goods to other countries. You have tariffs, which are implemented by several different agencies, including the US Trade Representative and the Commerce Department.

There are also investment restrictions. The Committee for Foreign Investment (CFIUS) in the United States restricts the ability of foreign investors to buy assets in the US. There's a whole agency body that oversees that. I actually

think that, as an official, it's useful to understand these different tools and levers, it can actually confuse more than it clarifies. Part of what I try to do in my book, *Chokepoints*, is to really look at the sources of economic leverage as opposed to looking at it through a legal mechanism of which agency is doing what, or what specific laws are being used.

So what the levers of economic power does the United States have? The framework I use is, again, what I call chokepoints. These are areas of the global economy where one country has a dominant position, and there are few, if any, substitutes. For the US, the most important chokepoints are primarily, first and foremost, the US dollar, used in 90% of foreign exchange transactions. If you want to operate as a global financial institution, or even a multinational corporation, or if you want to trade across borders, most of the time you need access to the dollar. That is the key chokepoint the US has, and financial sanctions are used to exploit that chokepoint.

Other important chokepoints at the US disposal are a lot of the technologies coming out of Silicon Valley, like the designs for AI chips. Nvidia is designing something like 80% of the world's advanced AI chips. Semiconductor manufacturing equipment from companies like Applied Materials and Lam Research and KLA can be quite important to manufacturing semiconductors.

Economic pressure is a coercive tool of statecraft. You're trying to force other countries to do something they otherwise wouldn't want to do. There are actually not that many coercive levers of statecraft. At the lowest end of the intensity scale, you have just words of condemnation, social pressure or stigmatisation. At the highest end, you have kinetic force – using the military. And in between, you have economic pressure.

So I think a major reason why we've seen the proliferation of economic warfare is that you have great power competition that's returned with a vengeance against a backdrop of economic interdependence, which means there are a lot of chokepoints that can be exploited.

VF: In the past, there was a lot of uncertainty whether sanctions worked or not. Then, during the Bush years, the use of sanctions exploded and have remained high. Why this change?

EF: I tend to view things primarily from the lens of history, and I always think that individuals matter. It is important to understand the contingent historical factors that have led to the rise of economic warfare. And I think a major one in the United States was in 2005, when Mahmoud Ahmadinejad was elected president of Iran and restarted the country's nuclear enrichment.

The US was already fighting two wars, one in Afghanistan and one in Iraq. Neither was going very well. There was no appetite in the United States for another war in the Middle East ... against an even bigger country like Iran. I do think there's that historically contingent factor that when Iran shoots to the top of the US national security agenda after 2005, military force just seemed like a bad option. So economic pressure became a bit of a default option.

If you look back over the last two decades, you have seen this secular trend of exponential growth in the use of economic warfare on the US side, but increasingly also internationally. And so I think it is important to look beyond history and look for structural drivers. The way I think about this is through a framework I call the 'geoeconomic impossible trinity', in which you have these three factors: economic security, economic interdependence and geopolitical competition. You really can only fulfil two of them at the same time. During the Cold War, the West and the Soviet Union were intense geopolitical rivals, but they had very little economic interdependence. And so, the two sides still felt a sense of economic security.

When the Cold War ends in the 1990s, we no longer have geopolitical competition to speak of. The US starts viewing Russia and China more as potential friends than rivals. We feel free to embrace economic interdependence without losing our sense of economic security. There is a period in the 90s in which US and European companies started relying on 'just-in-time' supply chains from China. You can get inputs from China that are cheap and efficient, and you're not worried that you're going to lose access to them. Why would the Chinese government cut off your access? They're your friend. Or if you're Europe, why not buy cheap natural gas from Russia? Because it wouldn't make any sense for Russia to cut off your access. They're your friend.

Then what happened in the last 10-15 years is that geopolitical competition has come back with a vengeance while economic interdependence has persisted, and so we've lost our sense of economic security. And when I say 'we', it's definitely true in the United States where one of the few things that Democrats and Republicans agree on is that we have a deficiency of

economic security. We're vulnerable to Chinese weaponisation of rare earth minerals and pharmaceutical additives. And it's not something that makes us comfortable. And I think it's true in Europe. It's true in Japan, where they have a cabinet minister for economic security. This is true everywhere.

I don't think it's politically tenable for most countries to feel this lack of economic security. I think it's a very disconcerting position to be in. In some ways you can view the proliferation of sanctions and export controls and tariffs and all these various restrictions as sort of a haphazard effort by countries around the world to retrofit the global economy to align with the new geopolitical reality. In my view, the likely scenario in the coming decade is that you'll see less economic interdependence – that'll be the part of the trinity that's sacrificed in the name of economic security.

VF: Sanctions on Russia and Iran aim to cut them out of the global economy, while measures on China focus on halting its technological development and restricting key technologies. What challenges arise when shifting from traditional sanctions to this kind of technology-focused economic pressure?

EF: I go back to even my own experience in government. If anyone were to say that we're imposing sanctions to punish some other country or to restrict their economic development for its own sake, you would be shot down. They'd say, no, the whole point of sanctions is behaviour change, right? The normal assumption of economic relations between any two countries is open trade and open finance. Being sanctioned is sort of like being put in the penalty box, and you will stay in the penalty box until you fix your behaviour. But then you come out and you're welcomed back into the ordinary global economy.

I do think that something significant changed during Trump's first term with the export controls and tariffs on China, because they did not have any behavioural calculus. The idea was to try to restrict China's technological development, to try to rebalance the US-China trading relationship, and to move manufacturing jobs away from China to the United States. These are structural goals. They're not behavioural goals. What these are really doing is use economic statecraft to try to remake an economic relationship, as opposed to trying to pressure China to do something different. I do think in some ways that inaugurated a whole new model of economic warfare – a new paradigm where some sanctions and export controls are intended to be permanent. And I'd argue that the Russia sanctions of 2022 are similar.

When you [sanction] for the sake of technological competition it can feel quite aggressive to those on the receiving end. The Chinese have not liked this, and they view it as a technology blockade. What it also means for the US is that it's not enough just to restrict. You also have to invest at home because if you're in a tech race, one part of the dynamic is about holding your opponent back, but the other is about running faster. The US and Europe haven't been particularly practiced in this kind of industrial policy, and the Chinese have done it a lot more. It's a terrain that they have an advantage on.

VF: *So, it's about remaking the economic relationship between China and the US, but part of it is also about maintaining the chokepoints the US already has?*

EF: Definitely. I think there is an understanding now that these chokepoints aren't just profit centres. Chokepoints are formed by businesses for economic reasons. The businesses that seize the most valuable chokepoints – whether it's controlling the reserve currency, the international financial system (which I would say Wall Street really has accomplished) or large parts of the global technology ecosystem, which Silicon Valley has accomplished – make an incredible amount of money.

Governments have come to appreciate that these chokepoints can either be used as economic leverage if you possess them, or they can be weaponised against you [if you don't]. This knowledge has now proliferated all around the world. And I think the US government is aware that other countries are trying to reduce the salience of some of the chokepoints the US has. In the financial system, that's very clear with China building their own central bank digital currency and platforms like mBridge to try to clear cross-border payments without touching the dollar. The Trump administration is trying to create new models for dollar dominance through dollar-pegged stablecoins.

VF: *From Europe, it's hard trying to gauge what the reasoning behind Trump's policy is right now. Especially when it comes to containing China. During his first presidency, he was torn between economic containment and striking a deal to be the one who brings China back into the fold. That seems to be the case now as well. What is Trump's strategy?*

EF: China is a special case. I think that the pattern on China policy that's played out over the last year is not all that different from how China policy worked during the first Trump term.

Trump is of two minds and always has been on China. He's not a straightforward China hawk. I think he likes Xi Jinping. He sees the benefit of trade with China. I don't think he really cares that much about the Chinese national security threat to the US. In this first term, you did have a sort of factionalism where you had a China Hawk faction – people like Bob Lighthizer, the US Trade Representative and Matt Pottinger, the Deputy National Security Advisor – and then you had a Dove faction that was primarily led by Steven Mnuchin from the Treasury and Gary Cohn, the Director of the National Economic Council.

There were moments where one faction had the leg up and the other didn't. And it was only in a few spurts of aggressive behaviour that Trump really lashed out against China. You had the Huawei export controls in 2019 that were driven by frustration that Xi Jinping had reneged on some of the agreements that he had made on trade, and then you had the substantial ramp up of export controls in the summer of 2020, including the foreign direct product rule, which I think were driven in large part by COVID.

But really, other than that, a lot of his first term was about chasing a trade deal. It's not dissimilar from this term. There has been a similar pattern in which you have a China Hawk faction, though it is less powerful than in the first term because no members have the stature of Lighthizer in this administration. You've got Peter Navarro, and I think he drove the Liberation Day tariffs in April 2025, including the tariffs that eventually went up over 100% on China. But we all know what happened. We imposed tariffs on China. China imposed tariffs on the US. They imposed these export controls on rare earth minerals that shut down some factories in the US, and the stock market collapsed. It raised trillions of dollars of value in the stock market. You had analysts saying that the US might fall into a recession.

I think two things happened there that were important for China policy. One, I think it freaked Trump and other elements of his administration out about the leverage China might have. This wasn't just the US bashing China; it was actually a two-way situation. China was quite well prepared for economic warfare in 2025. They had been preparing since the first Trump term. Then I think the second thing that happened is that it empowered the China doves. It discredited Navarro. We haven't heard very much from him since April of 2025, and you've heard a lot more from people like Scott Besson and David Sachs, who are much more dovish on China policy.

I think that's where we are. The China Hawk faction is weaker than it was during the first term. I think it was discredited by Liberation Day, and I think China has shown that it can retaliate effectively. For the time being, the US has completely taken its foot off the gas on economic warfare with China. We've actually reversed course. We started authorising the sale of powerful AI chips to China. And it seems like absent some major dust-up between Trump and Xi at one of their many *tête-à-tête* plans for 2026, that this could be the case moving forward.

VF: *In your book, you write that we have lived through the golden age of economic warfare. As you note, this has potentially led to a burgeoning regionalisation or fracturing of the world economy into blocks of likeminded countries. Since you sent the book to print, how would you say the situation has developed?*

EF: I do think that it's not tenable for countries to feel like they lack economic security. You can get rid of geopolitical competition and say we're all friends again to maintain economic interdependence, but I think it's likelier in the next 10 years that you have substantially less economic interdependence.

There are two possible outcomes. One is you do move to a block-based global economy in which there's a big US block that sees even deeper interdependence with Canada, Mexico, Europe, India, Japan, but less with China, Russia, etc. And then you have the non-aligned countries in the middle that may play both sides. That's kind of where I saw things headed during the Biden administration.

But I think there's another possibility. I think Trump is taking us more in a second direction, which is more like every nation for itself. Here, the US says friendshoring is not sufficient. We want onshore. We want to do everything ourselves. We don't even feel comfortable relying on Canada for pharmaceuticals. We want to make them all in the US. And that's more like autarky. The thing I worry about is that, historically, when the mentality of a leader is autarky, where we can't access resources or markets through trade agreements and alliances, you're tempted into things like imperialism and conquest. You're tempted into invasion. From the beginning, I was a little worried about Greenland – as soon as Trump started talking about the mineral resources.

Territorial expansion hasn't made sense for Western statecraft for a long time because we felt like we had an open economic system. But in a closed economic system, territorial aggrandisement does make sense. That's how you expand your market. That's how you expand your resources. I worry that even if you don't see Trump launch some sort of imperialist war during his tenure, the trend towards a global economy that is much more autarkic in nature will make kinetic warfare more likely. I hope that even if the US moves in that direction, other countries can come together and say they are actually going to integrate with each other. This was the plea that Mark Carney made at Davos. I think it'll be hard, though.

¹ Edward Fishman, *Chokepoints: American Power in the Age of Economic Warfare* (New York: Portfolio/Penguin, 2025).

Essays

2

Conditional openness, contingent security and wicked trade-offs

by Fabian Zuleeg

Economic security is often framed as a trade-off with openness. But in a world shaped by strategic rivalry, uncertainty and political intent, the real challenge is not choosing between the two. It is understanding how they interact. That requires moving beyond conventional economics towards an approach that integrates strategy, political economy, game theory and forethought.

For decades, Europe's economic model rested on a simple premise: openness delivers prosperity, and interdependence fosters stability. That premise no longer holds true consistently. In today's geoeconomic environment, openness can be weaponised, dependencies can be exploited, and supply chains can become channels of coercion rather than efficiency. Economic relationships are no longer politically neutral; they are strategic. As the EPC argued in its early paradigm-setting work, economic security is not just another policy add-on but "a new EU paradigm" requiring a long-term effort to change policymaking, identify critical systems, draw up contingency plans and invest in analytical capability to anticipate and adapt before security is compromised.¹

Economic security has therefore moved from the margins of policy debate to its centre. But while the politics has advanced quickly, the underlying analytical framework remains underdeveloped. Too often, economic security is still treated as if it were an extension of conventional economics: a matter of correcting market failures, adjusting incentives or accepting a simple trade-off between security and efficiency. That is too narrow. The critical next step is not simply to identify what is critical. It is to understand the economics of economic security itself.

From openness to conditional openness

The traditional model of openness assumed that economic exchange was governed primarily by comparative advantage, efficiency and relatively stable rules. Political interference was treated as a distortion around the edges. That assumption is increasingly untenable. As the EPC's work on

the economics of economic security has argued, once interdependence can be weaponised, the analytical starting point must change. Openness can no longer be understood as an automatic good. It must become *conditional openness*: openness shaped by risk, resilience, reciprocity and the behaviour of others.

That does not imply a retreat from the world. Europe still depends on openness for prosperity, innovation and influence. But it does mean that openness must be assessed not only by its static efficiency gains, but also by the vulnerabilities it creates and the contingencies it may trigger. This is one reason why economic security cannot be analysed adequately through standard models that assume stable preferences, observable risks and largely depoliticised exchange. Here, intentions matter, politics change, trust can erode quickly and the relevant question is often not what is efficient today, but what leaves you exposed tomorrow. That is why forethought matters: anticipating future contingencies before they materialise, rather than merely reacting once the damage is done. EPC's 2023 paradigm paper made exactly this point in calling for contingency plans and stronger analytical capability to act in advance.²

Like-mindedness and the limits of cooperation

This also reshapes the debate on like-mindedness. As the recent EPC To the Point on the subject argues, like-mindedness is not binary. It can be *functional*, where countries' interests align on a specific issue, or *value-based*, where they share deeper political principles such as liberal democracy and the rule of law. That distinction matters enormously for economic security. Functional alignment can enable pragmatic cooperation. But deeper openness, including the acceptance of mutual vulnerabilities, depends on value-based trust.³

That is why a common approach is often far more effective than a fragmented one, but only under a strict condition: the countries involved must be equally committed to the underlying principles. A fragmented approach increases duplication, leaves gaps, weakens collective leverage and often raises costs. A genuinely common approach can pool resources, create scale and improve effectiveness. But if some participants do not share the same commitment to the underlying norms or want the benefits of collective security without bearing the costs or respecting the rules, then common action becomes weaker rather than stronger. The EPC's economics piece makes this explicit: no policy is likely to succeed if it allows free riding on the costs this paradigm shift imposes, whether by companies or governments.⁴

This is why ‘like-minded’ cannot be used as a vague diplomatic label. It must do real analytical work. The more cooperation depends on trust, the more it depends on whether partners are merely functionally aligned on one issue or genuinely committed to the same political and economic principles over time. That is not a semantic distinction. It is a practical condition for whether a common approach to economic security will hold when pressures intensify.

Not conventional economics

At its core, economic security is not a standard economic problem. It cannot be reduced to a familiar exercise in market correction or welfare optimisation. It sits at the intersection of economics, strategy and politics.

It contains an inherent element of game theory because outcomes depend not only on one’s own choices, but on how others respond. Measures designed to reduce vulnerability may invite retaliation, adaptation or escalation. It is deeply shaped by political economy because the costs and benefits are unevenly distributed, domestic politics condition what governments can do, and strategic dependencies are often sustained by vested interests. It depends on forethought because the point is to build contingencies for possible future misbehaviour before it happens. And it revolves around intentions as much as capabilities. Even though intentions are hard to observe, they can shift quickly and may be deliberately concealed. In this sense, economic security is closer to decision-making under strategic uncertainty than to textbook economics.

That is why the language of trade-offs on its own is insufficient. Yes, there are trade-offs. Resilience, redundancy and diversification can raise costs in the short term. But the challenge is not just to optimise across known variables. It is to make judgments under deep uncertainty in a world where the underlying distribution of risks may itself be unstable. That is a very different analytical task.

Type I and type II errors in economic security

This is particularly clear when distinguishing protection from protectionism. In conventional policy debates, the temptation is to assume that one can identify the ‘right’ level of intervention with reasonable precision. In economic security, that confidence is misplaced.

A *type I error* is failing to act when there is a real security risk. In this context, that means leaving yourself exposed to coercion, disruption or

strategic dependency because you judged the threat to be too low or too remote. A *type II error* occurs when the perceived risk is overstated or misunderstood. That means imposing unnecessary restrictions, raising costs, reducing competitiveness or damaging cooperation when the underlying threat was not serious enough to justify the intervention. The EPC's economics paper explicitly uses this framing because both kinds of mistakes can be very costly.⁵

The difficulty is that these errors cannot be assessed in the neat statistical way familiar from standard modelling. The probabilities are uncertain, the intentions of other actors are not fully observable, and the political context can shift rapidly. That is why better metrics matter, but only as aids to judgment, not substitutes for it. The goal is not false precision. It is better structured decision-making under uncertainty.

Public goods, common costs, common funding

Economic security also has the characteristics of a European public good, or in some cases a club good. The benefits of resilience, deterrence and protection from coercion are shared broadly, but the costs are often concentrated. That creates a classic collective action problem. The EPC has argued that European public goods should be funded collectively, not through fragmented national measures, and that for club goods the rules of membership and cost-sharing must be explicit. The implication is clear: if economic security is treated as a common good, it also implies common costs and, to a significant extent, common funding.

This strengthens the case for a common approach over a fragmented one. Fragmentation can leave some member states or firms carrying disproportionate burdens, while others benefit indirectly. It can also produce internal distortions that weaken the very system Europe is trying to secure. By contrast, a common approach can reduce duplication, share burdens more fairly and create stronger incentives for collective investment. But again, it works if and only if those participating are equally committed to the underlying principles and willing to bear their share of the costs. Otherwise, fragmentation reappears through the back door.

The concept of an Economic Security Alliance (ESA) builds directly on this logic. It recognises that the effectiveness of a common approach depends not just on coordination, but on the depth of shared commitment among participants. An ESA would bring together countries that are sufficiently

like-minded – in both values and strategic outlook – to move beyond loose coordination towards genuine joint action: sharing risks, aligning instruments, coordinating responses to coercion and, where necessary, accepting mutual dependencies. This allows for deeper, more trusted openness within the alliance, while maintaining conditionality towards others. Crucially, it also addresses the problem of free riding by linking participation to clear commitments and burden-sharing. In a world of fragmented alignments, the ESA is therefore not simply another forum for cooperation. It is a mechanism to operationalise economic security among those willing and able to act together – turning shared principles into effective collective capability.⁶

From cost to competitiveness

Much of the current discussion focuses on the cost of economic security. That is understandable. Security is not free. Building resilience, diversifying suppliers, protecting infrastructure and maintaining strategic redundancy all carry costs.

But this is only part of the picture. A better understanding of the economics of economic security should also improve competitiveness over time. If risks are priced more intelligently, if contingencies are planned for earlier and if common approaches reduce duplication and leakage, Europe can manage the trade-offs more effectively. The EPC's recent work on security leakage pushes this logic further, arguing that trusted supply chains, secure infrastructure and predictable regulation are not just safeguards but economic assets, and that reliability and resilience can command a premium in a riskier world. That suggests economic security is not simply a cost to be absorbed. Properly designed, it can become part of Europe's competitive offer.⁷

What is truly critical

The next stage of the debate should not be another endless attempt to categorise ever more things as 'critical'. The more important task is to understand what is critical analytically: the economics of economic security itself.

The crucial question is how to generate economic knowledge and to operationalise it. Here, the Commission can play a crucial role, unconstrained, but potentially assisted, by member states and international partners.

By investing significant resources (in the short term) into a major research effort at the interface between academia and think tanks, alongside a pragmatic application roadmap, the necessary step change in thought leadership could be generated in a timely way.

That means accepting that this is not conventional economics. It means integrating strategy, game theory, political economy and forethought. It means building frameworks that can deal with contingencies, intentions, changing politics and unequal commitments. It means recognising that a common approach is more effective than a fragmented one only when it rests on genuinely shared principles and credible burden-sharing. And it means understanding that better management of costs and trade-offs is not only about reducing vulnerability, but also about strengthening Europe's long-term competitiveness.

In a world of conditional openness, contingent security and wicked trade-offs, that is what is truly critical.

¹ Zuleeg, Fabian (2023), *Economic security: A new EU paradigm?* Brussels: European Policy Centre.

² Ibid.

³ Zuleeg, Fabian (2025), *What does "like-mindedness" really mean?* EPC To the Point. Brussels: European Policy Centre.

⁴ Zuleeg, Fabian (2025), *The economics of economic security*. Brussels: European Policy Centre. See also: Riekeles, Georg, Paweł Świeboda and Varg Folkman (2025), *From firefighting to strategy: How the EU's new economic security doctrine can deliver*. Brussels: European Policy Centre.

⁵ Zuleeg, Fabian (2025), *The economics of economic security*.

⁶ Zuleeg, *Economic Security Alliance*, BESF Compendium, 2025.

⁷ Zuleeg, Fabian (2026), *The hidden cost of security leakage*. EPC To the Point. Brussels: European Policy Centre. See also: Folkman, Varg (2024), *Finding economic security through growth*. Brussels: European Policy Centre.

From openness to deterrence: Europe's doctrine of reactive assertiveness

by Georg Riekeles and Varg Folkman

In his memoirs, *Present at the Creation*, former US Secretary of State Dean Acheson described the enormous task facing American planners after the Second World War.¹ Europe was in ruins and the United States had a clear objective: “to create a world out of chaos ... without blowing the whole to pieces in the process.” Much indeed was done. Under American leadership, the foundations of a new world economic order were laid through the Bretton Woods institutions, the General Agreement on Tariffs and Trade and an expanding architecture of multilateral cooperation. Today, that order is breaking down.

The significance of Donald Trump is not simply his personality or rhetoric. It is that large and increasingly bipartisan sections of the American political class have turned against the very trade system the United States once built. Washington now increasingly sees the old order as one in which America absorbed global surpluses while hollowing out parts of its own industrial base. Tariffs, export controls, industrial subsidies and economic coercion are no longer temporary instruments. They are becoming permanent tools of American statecraft.

At the same time, the United States is retrenching strategically. Burden shifting, hemispheric defence and economic nationalism are becoming organising principles of American power. Even future administrations may soften Trump's language without fundamentally reversing the underlying trajectory.

Yet Europe's challenge does not stem from Washington alone. In tearing down the old system, Trump is aided by Xi Jinping. Chinese industrial policy is now placing unbearable strain on the world economy. Through massive state support, subsidised financing, government procurement and strategic demand creation, Beijing has built manufacturing capacities without historical precedent. China is no longer merely competing within the global trading system. It is increasingly reshaping it around the logic of state-driven industrial power. The result is a macro-imbalances shock to the world economic system.

Europe increasingly finds itself squeezed between two revisionist powers that are reshaping the international economic order in their own image. Washington is weaponising market access, tariffs and financial leverage in pursuit of reindustrialisation and geopolitical advantage. Beijing is weaponising overcapacity, export dependencies and state-backed industrial dominance. Both increasingly treat economic interdependence not as a stabilising force, but as an instrument of power. The old assumptions of mutually beneficial interdependence are eroding rapidly. Economic security, industrial policy and geopolitics are merging into a single strategic question.

Europe's China shock

Europe is entering a China shock of historic proportions. European assessments identify between 400 and 800 Harmonised System customs categories exposed to significant Chinese overcapacity pressure. The impact is already visible across steel, photovoltaics, electric vehicles, batteries, chemicals and machinery. But the deeper issue is not simply Chinese scale. It is the accumulation of structural industrial leverage.

Over the past two decades, China has built extraordinary power not only through manufacturing capacity, but through the concentration of critical dependencies. From critical minerals processing and battery supply chains to clean technologies and advanced manufacturing inputs, Beijing increasingly occupies positions from which it can shape prices, squeeze competitors and weaponise access.

China is no longer simply the world's factory. It is becoming the world's systemic industrial surplus power. This is not simply a trade problem. It is a question of whether Europe retains an industrial economy capable of sustaining technological leadership, military power and political autonomy in the future.

The danger is not sudden collapse, but cumulative industrial erosion through dependence, market displacement and gradual loss of productive capacity. Europe increasingly finds itself in what many member states and businesses privately describe as a boiling frog scenario. Industrial capacities and technological ecosystems disappear slowly, until suddenly they are gone and dependencies become a fact.

The next waves are already coming. Clean technologies, chemicals and machinery, the foundations of Europe's industrial model itself, are increasingly exposed. Aerospace, semiconductors and advanced manufacturing are likely to follow. This challenge is sharpened further by China's latest Five-Year Plan.² Beijing is doubling down on self-reliance in strategic technologies including semiconductors, AI, aerospace, advanced manufacturing, quantum technologies and clean energy. Critically, overcapacity in strategic sectors is no longer treated as an unfortunate side effect of industrial policy, but increasingly as a strategic capability in itself.

Chinese authorities are prepared to deploy the full power of the state to secure industrial supremacy: subsidised finance, protected home markets, state procurement, localisation requirements, export controls, technology absorption, strategic standard-setting and the deliberate creation of industrial scale through engineered demand. The objective is no longer merely development. It is strategic dominance across the industries that will define economic and military power in the twenty-first century.

Europe should understand what this means. China's self-reliance agenda is increasingly a displacement strategy: replacing foreign suppliers first in China, then in third-country markets, and ultimately inside Europe itself. The implications are profound. Europe risks being hit simultaneously by a double shock: losing access to the Chinese market while also losing competitiveness inside Europe and globally. Some European companies already understand this reality. Others still operate under assumptions formed in an earlier era of interdependence.

Europe's coercion lesson

For years, Europe approached economic relations through the assumption that openness itself would ultimately generate convergence and stability. That assumption is breaking down. China increasingly treats economic interdependence as a strategic instrument. The United States increasingly treats economic leverage as an extension of geopolitical power. Europe has learned this lesson the hard way. It first confronted it in its relationship with Russia, where dependence on pipeline gas was turned into a form of weaponised interdependence. The energy shock surrounding Russia's war against Ukraine demonstrated that economic exposure can no longer be treated as separate from hard security, but must be understood as one of its central dimensions.

Over the past year alone, Europe has faced repeated cycles of coercion from multiple directions: Trump's Liberation Day tariffs and threats of wider economic retaliation, Chinese export controls on critical minerals, coercive pressure during the Nexperia affair, and even American threats linked to Greenland.^{3,4}

As European Council President António Costa said following the Turnberry negotiations with Washington, “Escalating tensions with a key ally over tariffs, while our Eastern border is under threat, would have been an imprudent risk.”⁵

Taken together, these episodes reveal a fundamental shift. Europe is no longer operating inside a rules-based system in which economic relations are insulated from geopolitical pressure. It is increasingly operating in a world in which economic coercion is becoming normalised.

The Greenland episode was particularly revealing. Only once Washington began seriously to believe that the EU might deploy the Anti-Coercion Instrument did European signalling begin to regain credibility. Europe discovered something important: deterrence begins only once others believe you are genuinely prepared to retaliate.

Beijing noticed this as well. The immediate question then becomes: if Europe has red lines vis-a-vis the United States, what are its red lines vis-a-vis China? This is now Europe's urgent economic security question: how can Europe face simultaneous American and Chinese power play and the macro-imbalances shock reshaping the world economy?

Capabilities without credibility

Europe's problem is not that it lacks leverage. It is that others do not believe it will use it. On paper, the European Union possesses formidable economic capabilities. The Anti-Coercion Instrument gives the Commission broad authority to respond to coercive actions against the Union or its member states. The true power of the instrument lies in the leverage afforded by the Single Market itself. Few markets are as valuable for American technology companies or Chinese exporters as the European one. The EU also possesses anti-subsidy instruments, safeguard measures, procurement tools and foreign-subsidy rules capable of restricting market access.

Europe additionally hosts several strategic industrial chokepoints. A recent report by the Geostrategic Europe Taskforce identified “41 critical chokepoints where China depends on the EU for more than 80 per cent of its imports, and 67 such dependencies for the United States.”⁶ Dutch company ASML dominates advanced lithography equipment essential for semiconductor production, and Infineon power components are critical for next-generation Nvidia processors and AI data centres. European firms remain critical suppliers in specialised machinery, chemicals and energy systems.

Yet capabilities alone do not deter. As Edward Fishman argues in *Chokepoints*, economic coercion does not emerge spontaneously. It is built patiently through institutional, financial and technological control over critical nodes of the global economy.⁷ The United States spent decades constructing the legal and institutional machinery that allows it to weaponise the dollar system today. China is now attempting something similar across industrial supply chains and critical materials.

In theory, deterrence is easy. As former US Secretary of State John Foster Dulles once put it, you “deter aggression by making it costly to an aggressor.” How and in what way those costs are signalled and implemented is the harder question.⁸

As the US strategist Thomas Schelling understood better than anyone, deterrence ultimately rests not simply on material power, but on the ability to communicate credible willingness to impose costs. Schelling’s central insight was that deterrence is fundamentally communicative: the ability to shape an adversary’s expectations.⁹

Deterrence requires credibility. At present, neither Washington nor Beijing appears particularly convinced that Europe is willing to impose significant costs in response to coercive behaviour. Over the past years, Europe has repeatedly signalled reluctance to act in ways that might also impose costs on itself. This has created a profound credibility deficit.

As Robert Jervis put it, a credible deterrent depends on “the perceived cost of the punishments that the actor can inflict and the perceived probabilities that he will inflict them.” Europe’s problem is not primarily lack of capability. It is that both Washington and Beijing increasingly discount Europe’s willingness to bear the costs of confrontation.¹⁰ Europe today is widely perceived as predictably pliant. That perception matters enormously because coercion works best against actors perceived as unwilling to bear economic pain.

The problem is ultimately political. European leaders still struggle fully to grasp the scale of the geoeconomic shift underway. Many continue to engage China primarily through a traditional market-access lens focused on deals and commercial opportunities, even as Beijing accelerates self-reliance and strategic decoupling. Yet if Europe fails to prepare politically now, the options may simply disappear. Within a few years, industrial decline, technological dependence and supply-chain displacement may lock in irreversibly across key sectors. Europe therefore requires not merely new instruments, but a new strategic mindset.

A doctrine of reactive assertiveness

In late 2025, many in Europe expected the Commission finally to articulate a genuine economic security doctrine. Instead, what emerged was a halfway communication: important in parts, but ultimately still hesitant about the scale of the geoeconomic rupture now confronting Europe.¹¹ The problem is no longer simply one of refining trade policy tools. It is one of strategic doctrine.

The European objective cannot realistically be to reshape China or restore the world of hyper-globalised interdependence that characterised previous decades. Rather, the emerging task is one of resilient coexistence: ensuring that Europe can continue to prosper and remain politically autonomous without allowing either Washington or Beijing to shape its strategic choices.

To achieve this, Europe requires its own doctrine of reactive assertiveness.¹² Such a doctrine would not seek confrontation for its own sake, nor pursue indiscriminate protectionism. Rather, it would define clear red lines, prepare credible response mechanisms in advance, and react automatically and proportionately when coercive behaviour occurs. The key lesson from recent years is straightforward: deterrence without visible willingness to act does not deter.

As Keren Yarhi-Milo has argued “a reputation for resolve is one of the hardest things for leaders or states to control.”¹⁵ Resolve is not declared. It is inferred from behaviour. Europe therefore cannot restore credibility through declarations alone. It can do so only through repeated demonstrations that coercion and escalation will trigger meaningful European responses.

Europe can no longer afford to remain trapped in a pattern in which it is perceived as always barking and never biting. As Jervis noted, “while subtlety

and sophistication in a policy are qualities which observers usually praise and statesmen seek, these attributes may lead the policy to fail because they increase the chance that it will not be perceived as it is intended.” Europe’s problem today is not excessive strength, but insufficiently legible resolve. This requires a psychological shift. The era in which Europe could separate competitiveness policy from economic security policy is over. Industrial erosion is now a strategic vulnerability. Dependence creates coercion risks. Supply chains have become geopolitical assets.

A European Section 301

The EU’s first priority must be to strengthen and accelerate the current toolbox. Europe should refine import surveillance mechanisms and deploy safeguard measures far more rapidly in sectors facing systemic overcapacity shocks, such as chemicals and machinery. At the same time, traditional product-by-product trade defence instruments are too slow to address challenges of this magnitude. Europe must be prepared to stack measures, absorb short-term costs and defend strategic sectors before industrial ecosystems disappear irreversibly.

But beyond that, Europe requires a more credible assertive instrument of its own. Existing EU mechanisms remain too fragmented, too legalistic and too slow to address systemic geoeconomic pressure. Europe should therefore seriously consider creating a European equivalent to Section 301 of the US Trade Act. What Europe currently lacks compared to the United States is not trade instruments as such, but speed, centralisation and strategic discretion. Existing European tools remain fragmented across anti-subsidy investigations, safeguards, procurement measures and legal procedures that often take years to conclude. They are still designed for a slower WTO-centred era.

A European Section 301 would represent something fundamentally different: a mechanism capable of rapidly investigating systemic distortions, assertive behaviour and macroeconomic destabilisation, and of deploying proportionate retaliatory measures before industrial damage becomes irreversible.

The critical shift would be doctrinal as much as institutional. Existing European instruments still largely depend on lengthy legal procedures and narrowly defined evidentiary thresholds rooted in a WTO-centred system. A European Section 301 would move closer to the logic long embedded in American economic statecraft: that political determination of systemic unfairness or

coercion can itself justify action. Alternatively, such a mechanism could operate through automatic triggers tied to clearly defined thresholds of overcapacity, loss of own productive capacity or discriminatory behaviour. The point would be to reduce the gap between recognising a strategic threat and acting upon it.

The purpose would not be indiscriminate escalation. The purpose would be credibility. Europe must be capable of putting something on the table that credibly signals that sustained coercion, overcapacity dumping or strategic market distortions will trigger a response, including, if necessary, restrictions on access to the Single Market. Such an instrument should not formally target China or any other country specifically. Rather, it should provide Europe with a mechanism capable of managing the consequences of simultaneous American and Chinese power politics and the macro-imbalances shock reshaping the global economy.

Europe must stop thinking purely defensively. The task is not simply to shield Europe from pressure, but to create enough credible leverage that others must factor European responses into their own strategic calculations. EU leaders must prepare institutionally for a world of permanent escalation management. Economic coercion increasingly emerges simultaneously across trade, technology, security, critical minerals and geopolitics. The EU currently lacks the transversal capacity required to analyse and manage such multi-domain escalation scenarios. Proposals for a European Economic Security Council therefore deserve serious consideration.¹⁴

Finally, Europe's challenge is not purely economic. China's partnership with Russia, the re-export of dual-use technologies and the possibility of a Taiwan crisis all raise urgent questions for European deterrence. Can Europe deter a Chinese blockade of Taiwan? What economic response capacities would Europe actually possess? How would Europe expose the global costs of such a scenario? How would it communicate credibly to Beijing that a Taiwan crisis would become a path of mutual economic destruction? Europe has barely begun to confront these questions.

At the same time, Europe should avoid caricaturing China as invulnerable. China itself faces slowing growth, weak domestic demand, high youth unemployment and increasing reliance on exports. Beijing needs access to the European market more than ever. That reality matters because it also constitutes leverage, if Europe is willing to use it.

The price of action and the price of inaction

The EU does not need to dominate the international system, nor mirror either American unilateralism or Chinese state capitalism. But it cannot remain a bystander as Europe becomes a playing field for the power politics of the US and China.

The era of unconditional openness is ending. The task now is to preserve Europe's industrial capabilities, political autonomy and strategic room for manoeuvre in a world increasingly defined by coercion, overcapacity and great-power rivalry. Europe must therefore prepare its publics for an unavoidable reality: there is a price to pay for acting against coercion and industrial distortion through retaliation, higher costs and economic friction. But there is also a price to pay for not acting. That price may ultimately be much higher: industrial decline, technological dependence, loss of innovation ecosystems, strategic vulnerability and gradual loss of political autonomy.

The central challenge for Europe is therefore no longer simply competitiveness. It is whether Europe retains the industrial, technological and political foundations required to remain an autonomous power in the future. To do so, Europe will require not only capabilities, but credibility, not only markets, but red lines, not only instruments, but the willingness to use them. The costs of action will be real. But the costs of strategic passivity may prove irreversible.

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Addressing the criticality trilemma in the life sciences sector

by **Elizabeth Kuiper** and **Pawel Świeboda**

It is often assumed that the life sciences sector is largely insulated from today's geopolitical rivalries and resulting tensions. Unlike semiconductors or AI, it is not typically viewed as part of the race for technological dominance, nor is it immediately associated with the physical goods that get blocked in the world's chokepoints.

Nothing could be further from the truth. Pharmaceuticals and geopolitics are now deeply intertwined, reshaping the relationship between economic and national security. Global supply chains for medicines are as much part of the geopolitical awakening triggered by COVID19 and reinforced by disruptions ranging from the Strait of Hormuz to broader trade tensions such as those in oil, energy or the automotive sector. In addition, drug pricing policies, including Most Favoured Nation approaches, are increasingly emerging as instruments within broader strategic rivalry.

Criticality in the life sciences and pharmaceutical industry is anchored in three important dimensions. First, it has to do with access to medicines in times of crisis or in the face of unexpected supply shocks. Secondly, it is about growing a sector which has strategic importance for today's competitiveness, especially given its projected dynamic and the emergence of China as a significant player. Thirdly, it is about being at the frontier of innovation in a field which is witnessing a growing number of breakthroughs and in which there is no such thing as a status quo, given how rapidly it tends to be upended in the face of new developments.

Criticality as resilience

The last two decades have witnessed an avalanche of disruptive events. From pandemic-era supply chain breakdowns and man-made upstream bottlenecks, such as the blockade of the Strait of Hormuz, to natural disasters including earthquakes and climate-related events, the system has been tested to its core. At the same time, significant knowledge gaps remain regarding areas of exposure, with the resulting need for more structured approaches to risk and

value assessment. Resilience strategies are not yet sufficiently integrated into mainstream planning, including when it comes to investment pipelines within the EU, supply diversification and strategic stockpiling.

Since the establishment of the Health Emergency Preparedness and Response Authority (HERA) in 2020 to improve crisis preparedness, health has increasingly been framed as a core component of EU economic security. The proposed Critical Medicines Act (CMA) introduced a toolbox aimed at supporting a more sustainable pharmaceutical market while ensuring stable supply and patient access. As we argued in a recent EPC Policy Brief on the CMA, a broad range of policy measures will be required to operationalise the principles of open economic security in this field and replace concentrated dependencies with diversification strategies.¹

These measures include requiring the use of supply chain data from the European Medicines Verification System to anticipate and prevent shortages, introducing risk assessment criteria that prioritise continuity of supply and allow fast-track approval for investment in critical medicines manufacturing, promoting international agreements to prevent export restrictions during health emergencies, and coordinating health, research, and industrial policy budgets more systematically to strengthen supply chain resilience. Collectively, these measures should help shift EU medicines shortages policy from reactive crisis management to a proactive industrial policy approach. The latter needs to reflect as well the realisation that resilience of supply cannot be achieved without continued collaboration with trusted partners.

Criticality as competitiveness

For the life sciences sector, the frontier of criticality in economic security does not lie solely in responding to shocks and vulnerabilities, important as these are. Given the major contribution of the pharmaceutical, biotechnology and medical technology industries to the European economy, the competitive position of the life sciences sector is equally central, as it will decisively influence resilience in times of disruption.

The life sciences sector is a beating heart of value-creation. Pharmaceutical companies support around 2.3 million jobs in the EU and generate more than €366 billion in exports each year. New research by Charles River Associates for EFPIA indicates that without the pharmaceutical industry, the EU's overall trade balance would shift from a €133 billion surplus to an €88 billion deficit.²

On the other hand, Europe's medical technology sector, employing 930,000 people in its 38,000 companies, filed over 15,700 patents in 2024, which is equivalent to one every 30 minutes.³

Responding strategically to the ongoing developments in the United States and China is of particular relevance. The competitive landscape is being reshaped not only by trade measures, including the 15% US tariffs on non-generic medicines, but also by evolving drug pricing policies and the closely related question of how innovation is financed. Taken together, these developments are creating additional uncertainty for the pharmaceutical sector, with the risk of delayed investment decisions and negative impact on patient access to new medicines in Europe.

There is also a growing phenomenon of supplementing broader trade policy with drug pricing measures. The US administration has recently put forward its "prospective Most-Favored Nation (MFN)" approach that would link US medicine prices more closely to prices in other high-income countries, including across future product launches and selected existing medicines. The approach is becoming embedded in the actions of the US administration, and bipartisan in nature. The latest report of the White House on the issue⁴ summarises expected savings for US public programmes and patients, with a stated objective of encouraging higher contributions of non-US markets on the side of the revenue streams. These developments require a thorough transatlantic debate on the financing of pharmaceutical innovation, which needs to find the right balance between efforts to increase affordability and preserve incentives for R&D, while maintaining timely patient access to innovation.

China poses a similarly significant, albeit different, challenge. Its rise in biotech has been driven by long-term strategic planning through successive Five-Year Plans. Growth has been rapid, transforming the country in a relatively short time from a producer of generics and a base for contract manufacturing into a major source of biopharmaceutical innovation. Chinese companies are now active across the value chain, from laboratory research to advanced cell and gene therapies.

China applies a consistent playbook: strategic planning, large-scale public and private funding, regulatory support through acceleration pathways, an increasingly sophisticated scientific base, vast health data resources and a large domestic market as a springboard for international scaling. The growing number of licensing agreements between multinational pharmaceutical

companies and Chinese biotech firms, coupled with shifting capital flows toward China’s innovation ecosystem, confirm the country’s emergence as a leading source of advanced, next-generation therapies. The country has also been able to create dense regional innovation ecosystems linking universities, hospitals, startups, major pharmaceutical companies and local governments.

Already two years ago, China had reached parity with the United States when it comes to the number of medicines entering clinical testing. Chinese biotechnology companies have developed more than 600 first-in-class drug candidates over the last five years.⁵ As indicated in a 2025 report from China’s National Medical Products Administration, the country approved a record number of 48 first-in-class innovative drugs across 20 therapeutic areas, as well as a “significant number” of medications for pediatric and rare diseases.⁶

The combined impact of the new MFN policy in the US and the growing attractiveness of the Chinese market may put additional pressures on biopharma companies and lead them to reconsider investment in the EU, with likely short- and long-term consequences – including delayed launches or even withdrawals from the EU27. On the one hand, China’s growing role as a major pharmaceutical producer contributes to affordability and supply chain efficiencies, but it also creates significant strategic vulnerabilities and augments competitive pressures.

Criticality at the frontier of innovation

As the scientific revolution continues, with further breakthroughs expected in oncology, obesity treatment and brain health, the race for leadership in the life sciences sector is growing fiercer. Much of it is a function of whether innovation is seen as a genuine launchpad for value creation or a cost to health systems. When translated into procurement policies, the difference is between continued provision of established solutions or readiness to create demand for new diagnostic and therapeutic approaches.

Creating world-class conditions for innovation in the life sciences sector is now essential to economic security. To do so, Europe must pursue a two-track approach: tackle existing structural weaknesses, particularly regulatory fragmentation, while harnessing the transformative potential of medical technologies, digital health, and biopharmaceutical breakthroughs.

Full attention needs to be focused on several strategic enablers of European health innovation, from the foundational role of research to a Single Market

2.0 approach to life sciences. Clinical trials are the bedrock of innovation, and, by extension, investment, manufacturing and jobs. Their performance should therefore be seen as a measure of competitiveness rather than a regulatory metric. Concerningly, the EU's global clinical trial share has been in decline – it dropped from 30% in 2016 to just 21% in 2024. Clinical trial activity in advanced therapies is twice as high in the US and three times higher in China.⁷

The absence of a fully implemented single authorisation process for clinical trials across the EU has been a significant barrier. Similarly, varying approaches to ethical reviews across member states have contributed to greater fragmentation. Conducting multicountry clinical trials in the EU means navigating a complex patchwork of national requirements, resulting in delays and higher costs. Therefore, the EU Biotech Act rightly places a strong emphasis on the issue, proposing shorter approval timelines, quicker assessment of substantial modifications and the introduction of 'regulatory sandboxes' to handle advanced therapies.

Legislating for change is an important precondition of success, but the real difference on the ground will be a function of timely implementation. The latter often does not need to wait for the legislative change to come full circle. Member states can start to rely on each other's assessments and limit late-stage procedural objections. The Clinical Trials Information System should become easier to use. One of the key aspects of competitive advantage is speed. As Dr. Alexandra Zemp of McKinsey's Pharmaceuticals & Medical Products Practice in Europe has put it, "The next decade will not be won by who discovers the best science, but by who develops it fastest, proves it earliest, and de-risks it smartest".⁸ To regain a position of strength in clinical trials, Europe needs to match the speed and agility of the world's most innovative regions.

Resilience is a key rationale for European preference criteria. But in comparison with China, the issue goes beyond security of supply to the ownership of technology. Slower clinical trial implementation in Europe, compared with faster execution in the US and China, is holding back innovation, even if the EU still appears to retain a cost advantage over both.

Navigating the criticality trilemma

The life sciences sector will decisively shape Europe's future competitiveness and resilience. However, if one steps back from the immediate focus on critical medicines and looks instead at sectors such as steel, solar panels and electric

vehicles, a broader pattern is clear: Europe began from a position of strength, with advanced technology, industrial capacity and global companies, and has been systematically outcompeted in all three. The risk is that a similar scenario will repeat itself in life sciences, albeit in a more gradual and non-linear fashion.

Criticality, as understood in economic security terms, is especially relevant at a time when Europe's influence in the life sciences sector is declining. It refers to the ability to ensure resilience, strategic autonomy and economic vitality at once, particularly in times of disruption or geopolitical tension. Achieving economic security requires coordinated action across the policy system to strengthen crisis preparedness and supply security, maximise current value creation and enhance Europe's capacity to lead through excellence in frontier innovation.

Ultimately, Europe's position in life sciences will depend not only on its ability to manage risks and vulnerabilities, but on its determination to lead this increasingly important sector of the global economy.

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³ MedTech Europe's Fact and Figures 2025, MedTech Europe, 4 September 2025.

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The EU's financial security in a shifting transatlantic relationship

by **Maria Demertzis**

The EU's economic security rests on foundations it does not fully control. As a strong supporter of open trade with a functioning multilateral system, the EU has been left with significant dependencies on energy imports, strategic vulnerabilities in critical raw materials and defence, and an overreliance on trade as a primary source of growth.¹ In a harsher geoeconomic and geopolitical environment where coercion is frequent, the EU needs to rethink not only its growth model but also how to preserve its 'business continuity'.

A significant vulnerability to add to this list is a financial dependence on currencies, assets and payment infrastructures that can be weaponised. The EU's financial dependencies stem directly from the dollar's centrality in the global system of financial flows. Instruments such as the currency itself, sovereign and private assets and the payment and settlement infrastructure can be (and have been) employed to sanction and coerce adversaries. This has occurred alongside decades of increasing cross-border financial integration, as evidenced by growth in global banking claims and total financial assets.^{2,3} The deep financial integration and reliance on the dollar are attractive means of exerting economic coercion, and in recent decades, US financial sanctions have spiked accordingly.

Renewed geopolitical conflicts threaten this level of integration and can cause severe economic damage. Emter et al. show that negative geopolitical shocks can cut credit activity between rival blocs by 10–20%, and that such declines are harder to reverse than comparable falls in trade because finance depends more heavily on trust.⁴

Financial exposures to US assets and infrastructure, which up till recently were considered innocuous, add an additional layer of vulnerability for the EU. If Washington's priorities change or the global financial safety net that the US has traditionally provided falls through, Europe could face shocks it neither triggers nor controls, with spillovers from finance into the real economy. The EU, therefore, needs a derisking strategy – not full decoupling – by

strengthening payment sovereignty, expanding the euro's international role, and building stronger internal financial backstops through measures such as the digital euro.⁵

The EU economy suffers from four key vulnerabilities: financial institutions' funding mismatches, the EU's exposure to US assets, particularly US fiscal debt, reliance on non-European card schemes and wallets, and weak cross-border payment autonomy. A successful strategy would reduce single points of entry, increase autonomy where possible, and advance innovation in digital finance to help set international standards and better defend its economic interests. As the EU advances in protecting its financial security, it would gain more choices, greater bargaining power, and more European-owned responses to future challenges.

The centrality of the US in the global financial system

The United States remains the anchor of the global financial system. It provides the currency, assets, institutions and infrastructure, and emergency liquidity on which international finance depends. The dollar remains the leading reserve currency for most central banks and the main currency for cross-border finance, trade invoicing, and international banking, while the euro remains a distant second.⁶ This monetary dominance gives the United States a uniquely powerful position as most countries, firms, and financial institutions must interact with dollar markets to borrow, save, settle transactions, and protect themselves against shocks.

Alongside the dollar as the preferred currency, US centrality is reinforced by control over the infrastructure of global payments. The Clearing House Interbank Payments System (CHIPS) is the world's largest private-sector dollar network, clearing and settling \$1.9 trillion in domestic and international payments each day.⁷ Even when payments are merely messaged rather than settled in the United States, Washington retains leverage over the messaging system SWIFT, as the Iranian sanctions experience showed in 2018, despite SWIFT being based in Belgium and therefore subject to Belgian law.⁸

The US's dominant position has rested not only on its market size but also on policy choices. First, the US has been willing to provide abundant safe assets and to act as a global lender of last resort. Treasury securities, the US sovereign debt, are widely treated as a safe-haven investment by foreign holders and have facilitated capital inflows into the US by being widely available.⁹

Second, the United States has been willing to hold the global financial safety net firmly in place. Scheubel and Stracca define the safety net as the set of institutions and mechanisms that support countries during financial crises, including reserves, IMF lending, swap lines, and regional arrangements.¹⁰ The Federal Reserve, the US Central Bank, has provided abundant liquidity through currency swap lines that have proved invaluable in times of crisis.¹¹ Indeed, the Federal Reserve swap lines peaked at over \$580 billion in 2008 and \$470 billion in 2020, with EU banks being clear beneficiaries. This illustrates how US authorities backstop global dollar funding when markets freeze. The US also remains central to the global financial architecture, including as the IMF's largest shareholder with about 17.4% of quota and 16.5% of voting power, according to the International Monetary Fund.¹²

To be clear, the US has benefited from being the global financial anchor. By making these policy choices, the Fed encourages foreigners to invest in US dollar-denominated assets, it manages the exchange rate by bringing it closer to its parity and reduces the borrowing cost for itself. All of this ensures that the US continues to benefit from an “exorbitant privilege”.¹³

Whether the US maintains its dominant financial position or not depends on whether the US itself is willing to uphold the policies needed. In the past year, the United States has taken actions that may be weakening the very system it has built and benefited from. A strategy aimed at shrinking the US current-account deficit, for example, would also reduce the capital inflows that help sustain global demand for the dollar. Lo and Wessel highlight growing concern that future US authorities might politicise or limit dollar swap lines.¹⁴ It is encouraging to see that the European Central Bank has taken steps to partially plug the gaps this would open by broadening access to its repo facility for central banks, thereby making euro liquidity more readily available outside the euro area.¹⁵

In a similar vein, the US has recently announced withdrawal from 66 international organisations, signalling broader scepticism toward multilateral commitments.¹⁶ Similarly, US fiscal debt that is the underwriting asset for the US economy is expanding beyond levels that may be considered safe. The US debt is projected to increase over the next 10 years.^{17, 18} Trust in the dollar is tied to the trust in how sustainable this debt can remain.

Meanwhile, foreign central banks now hold more gold than US Treasury, a striking sign of reserve diversification.¹⁹ The implication is not that dollar supremacy is ending immediately. Rather, the United States may be

voluntarily reducing its own central role by becoming less willing to provide the public goods – safe assets, liquidity, and institutional leadership – on which that role has long depended.

Mapping the EU's financial dependencies

The EU's financial vulnerabilities stem from its dependence on a dollar-centred financial system and on infrastructures it does not fully control. This means that the EU financial system is dependent not only on the economic volatility of the dollar and the US economy, but also, increasingly, on the US ability to exert economic coercion. We identify four direct exposures that at the very least need to be monitored.

First, European banks remain exposed through foreign-currency mismatches, in other words, the differences in the way their assets and liabilities are exposed to foreign currencies. The European Banking Authority found more than 2,000 euro-area banks above the 100% net stable funding ratio in late 2024, but close to 30% of EU banks' exposures are still denominated in foreign currency (two-thirds of which are loans).²⁰ On the liability side, 21% of euro-area banks' funding is in foreign currency, with roughly 17% in US dollars, much of it from short-term US markets. The mismatch is significant: 22% of banks with USD exposure (60 of 267) and 38% with GBP exposure (25 of 66) lack adequate foreign-currency funding. Abbassi and Bräuning show that such mismatches can amplify exchange-rate shocks by weakening credit growth.²¹ The ECB stresses that euro-area dollar liquidity is concentrated and dependent on short-maturity EUR/USD swaps, raising rollover risk.²²

Second, the EU is exposed to the systemic role of US Treasuries even if direct national holdings are modest. Demertzis and Farcas argue that country-level balance-sheet exposure is limited, but any shocks arising from US Treasuries would still be detrimental to EU countries because of the systemic relevance of US Treasuries in global finance.²³ The US public debt is \$36 trillion, with 24% held abroad and 85% of foreign-held debt being long-term. Europe, including the EU, the UK, Switzerland and Norway, holds 38% of foreign-owned Treasuries, or \$3.28 trillion. Although the exposures are not large, holdings are concentrated among systemic investors, such as long-term investors like pension funds. With US debt currently at 124% of GDP and projected to rise, any erosion of the Treasuries safe-asset status would be felt strongly in Europe.²⁴ If US debt were to follow an unsustainable path, it would not be difficult to imagine the world facing a new financial crisis.

Third, the EU is losing autonomy in retail payments as digital payments become increasingly more popular. Online payments rose from 7% of day-to-day payments in 2019 to 21% in 2024, and their value share doubled from 18% to 36%. Point-of-sale (POS) payments fell from 87% to 75% in number and from 76% to 58% in value. At the POS, cash still accounts for 52% of transactions, down from 72% in 2019, while card and mobile payments now account for 52% of value, up from 44%. Clipal and Zamora-Pérez show that cashless preferences increased from 43% in 2019 to 55% in 2024, with most consumers under 52 preferring cashless methods, while those aged 53 and above still favour cash.²⁵ This would normally not be an issue, except that the vast bulk of digital payments is intermediated by non-European firms. Lane notes that Visa and Mastercard process 65% of euro-area card payments, while non-European tech firms handle nearly a tenth of retail transactions and mobile app payments are growing at double-digit annual rates.²⁶ In the era of the weaponization of finance, this is a vulnerability for the EU, and a number of projects the ECB is pursuing in retail and wholesale payments are clear attempts to increase the EU's autonomy and therefore resilience.²⁷

Fourth, the EU remains dependent on dollar-based cross-border payment systems and therefore is vulnerable to sanctions. Tran estimates that the euro's share in truly international SWIFT payments is only about 9.4%.²⁸ The EU pays for 40% of extra-EU imports in euros and 51% in dollars (partly because oil imports are mostly priced in dollars), while it receives euros for 52% of exports and dollars for 31%. As Cipriani et al. argue, restricting access to payment infrastructure has become a more prominent coercive tool.²⁹ Indeed, after the Russian invasion of Ukraine, the only way that European energy buyers could continue to pay Russia was by paying in roubles (even in breach of contract), as Russia was excluded from the dollar and euro payment infrastructure.³⁰ This was an unexpected side effect of the EU's own economic statecraft and clearly demonstrates how infrastructure control can be used strategically.

The broader trend identified by Felbermayr et al. is clear: sanctions have become more numerous and more financial, and the US has historically been the dominant sanctioning power.³¹ Altogether, these dependencies limit the EU's resilience and strategic autonomy and urgently need to be rethought and adjusted.

The need for policy action

The international financial system requires a financial anchor to ensure that networks operate efficiently. For the best part of the last 70 years, after the

end of WWII, the dollar and the US economy assumed that role, playing an important stabilising role to the benefit of all, on the one hand, but delivering important benefits for the US, on the other.

Since 2025, the US has seemed much more reluctant to assume this role. In the best case, its policies are confused between wanting to reduce its trade deficit, which would, by itself, reduce capital inflows and therefore demand for the dollar, and pursuing a narrative of wanting to sustain a dominant dollar,³² through, for example, US-backed stablecoins. In the process, significant volatility has been introduced into the system, and uncertainty has increased again. The EU is very concerned, as up to now it has organised its financial system centred on the dollar. It now needs to start preparing for a system that would be at least more fragmented and less stable, and in which the US economy would not provide a safety net in times of crisis.

To address the dependencies identified above, the EU would need to pursue the following. First, expand the use of the euro in trade invoicing and settlement, allowing European firms to price, pay, and hedge more transactions in their own currency. Increasing the international role of the euro is a pivotal way of regaining greater flexibility in the way that the EU economy relies on currencies.

Second, the objective of internationalising the euro cannot easily take off in the absence of a single safe asset, namely, common debt. The US has been willing to provide abundant assets to meet global demand and, as a result, sustained the dollar's global status.

Third, to make the euro more international, the ECB must take on greater responsibility for providing a financial safety net. This involves establishing a liquidity-line framework, commensurate with the international role of the euro it envisioned, to have a clearer role as a global supplier of euro liquidity during crises. The ECB has already made some progress in this area by expanding the repo facility for central banks, but for the world to increase its demand for the euro, it would need access to liquidity, similar to what the US has provided in the past.

Finally, the euro area needs to strengthen its payment sovereignty through the digital euro for retail purposes. As digital payments become increasingly popular, the euro zone needs both a single domestic pan-European payment method, currently lacking, and less dependence on non-European providers that could be weaponised.

Both functions of the dollar, as a store of value and a means of payment, are currently being challenged. While the US economy, which underpins the dollar's credibility, is not under an imminent threat of collapse, there are signs of both economic uncertainty and a reluctance on the part of the US to support the global economy. The dollar as a means of payment is already under challenge, not least by the imposition of sanctions by the US itself, which have de facto fragmented international payments and pushed countries to innovate to provide alternatives. The direction of travel for the dollar's international role is clear; the speed less so.

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³ Financial Stability Board (2024), "Global monitoring report on non-bank financial intermediation 2024".

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⁵ Cipollone, Piero, "Empowering Europe: boosting strategic autonomy through the digital euro," introductory statement at the Committee on Economic and Monetary Affairs of the European Parliament, Brussels, 8 April 2025.

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The critical in critical technologies

by **Bart Hogeveen**

Emerging technologies were once treated as engines of prosperity. Today they are instruments of power. As global politics hardens and states weaponise technology for coercion, defence and strategic advantage, the question is no longer which technologies are critical but how nations manage foreign ownership, control and influence over the systems that now underpin their sovereignty.

Only a few years ago, governments viewed AI, quantum, biotech, advanced communications and robotics primarily as drivers of productivity and social benefit. By the mid 2020s, they had become assets to be protected: research to be ringfenced, firms to be shielded, intellectual property to be defended. Today, they are strategic positions within a globalised market where control over chokepoints, standards and supply chains confers geopolitical advantage.

Autonomy without illusions

An instinctive response to this shift is the pursuit of technological autonomy. While this impulse is visible across the United States, China, Europe and other advanced economies, only a few have the capacity to pursue it meaningfully. The United States and China benefit from large, deeply integrated domestic technology bases, built over decades and supported by markets of scale.

Most other economies lack these structural advantages. They are too small to replicate autonomy across all technology layers, too exposed to rely on market forces alone, and too dependent on foreign capital, intellectual property and infrastructure to dictate terms. For them, autonomy would take years to develop – if it is achievable at all – within a global technology ecosystem that is oligopolistic, globalised, highly competitive and fast-moving.

If autonomy is out of reach, the alternative is not naive trust but the active governance of dependency. This shifts the question from which sectors are strategic to which dependencies are critical as a function of trust, substitutability and control.

The question that actually matters

Consider a simple scenario. Your national digital identity system is operated by a foreign company. The firm is efficient, the technology is reliable, prices are competitive and its engineers are excellent. Is that a security problem?

The answer has little to do with the company's ownership or the quality of its products alone. It depends on who can reach into the layers that make up the system and direct how that system functions. If the answer is a foreign government with interests that are hostile to yours – and if the legal, technical and political architecture means you cannot prevent or even detect interference – then you have surrendered control of an artery of your national life.

This is the core insight of ASPI's In Whose Technology We Trust series. In reviewing how five Indo-Pacific democracies navigate the intersection of technology dependence and national security, the core finding is simple: the decisive variables are ownership, control and influence.

These variables are not hypothetical but real. Databases with our personal identifiable data are hosted abroad. Energy grids rely on proprietary software maintained remotely. Government data is stored in cloud infrastructures governed by foreign legal regimes. These dependencies become especially consequential when systems in question fall under foreign legal authority. They require active governance — and a redefinition of what trust means in a technologically interdependent world.

It's the stack, not the product

Public debate still imagines risk as a matter of product substitution: a Huawei router is replaced for Cisco, TikTok for ZigaZoo, WhatsApp for Signal and BYD for Tesla. Indeed, these are products seemingly easy to substitute. But modern digital infrastructure systems do not run on products. They run on stacks – intricate, interdependent layers of technology assembled from components sourced across the globe, often without the knowledge of the sellers or resellers deploying them.

A government agency's digital services could run on an American cloud platform, with data centres in the Gulf, which runs on semiconductors designed in the United Kingdom and manufactured in Taiwan, managed via

software whose components include open-source libraries maintained in China, updated remotely by engineers in multiple jurisdictions, through data centres across multiple sovereign territories.

These stacks are global, not American, Chinese or European per se. When you ban a vendor, you only address the visible layer. But the stack below it – the chips, firmware, cloud orchestration layer, software dependencies, legal jurisdiction governing remote access – may contain exposure just as significant, and far less visible.

Technology as deterrence, leverage and industrial policy

In a stable international environment, where alliances are durable, states act in accordance with agreed norms, legal frameworks are predictable and disputes are resolved within agreed rules, these dependencies might be tolerable. But the global order is no longer stable. States increasingly use technological capabilities as tools of deterrence, coercion and industrial strategy.

When Iranian drone strikes hit Autonomous Weapons Systems (AWS) data centres in the UAE and Bahrain in March 2026, the regime was not just notionally aware that digital infrastructure matters – they were actively targeting it. Iran named Microsoft, Google, Meta, Nvidia and other major technology companies as targets. Critically, the systems that proved most resilient were not the ones nationally controlled. They were the ones most intelligently distributed. Digital infrastructure is now a domain of power in its own right.

But the exercise of power through technology does not begin at the point of disruption. It is embedded in the structure of systems themselves. A persistent assumption in policy debates is that technology is neutral until it is misused – that risk arises only when malicious actors intervene. This view obscures how authority is already encoded in infrastructure. Systems are designed and embedded with assumptions about control, access and oversight.

The US–China technological race should be seen in that context too. Despite it often being framed as a competition for innovation, it is in fact a competition for technological dominance and asymmetrical dependencies. Those who dominate set the rules and conditions for how a technology is used and for the future direction of development. While the US may be the most visible and vocal actor, it is China we should watch the most intensely.

ASPI's Critical Technology Tracker shows how China over a 20-year period acquired a significant lead in research output across most of the emerging technologies that will form the foundation of tomorrow's stacks. Not just in manufacturing volume, but in intellectual property, standards-setting bodies and the supply of engineers trained at institutions with links to state security apparatus.

The risk of stack-based monopolies is not a present-day problem that can be solved by present-day bans. It is a forward accumulation of dependency being locked in right now, as the next generation of technology is designed, built and distributed.

Trust is the allocation of risk under uncertainty

This compels us to re-think our approach to 'trust'. Trust has been the primary language through which technological dependencies have been justified in policy. Think of conceptions like trusted vendors, trusted geographies, zero-trust network architecture and trustworthy AI. It implies a choice made under uncertainty: a willingness to rely on another actor despite the possibility of failure or betrayal. It assumes both awareness and reversibility. However, many technological relationships today lack both. In fact, most dependencies are better understood as acquiescence.

Yet, most of the dependencies now considered undesirable started as rational procurement decisions, presumably based on performance and price. While vendors may have offered contractual assurances, no amount of corporate goodwill can override legal obligations to compel cooperation with state objectives.

Moreover, trust and risk are neither stable nor fully knowable. It changes with political relations, regulatory regimes, and technological development. There is no fixed boundary between secure and insecure systems, and no definitive list of reliable suppliers.

Under these conditions, trust cannot function as a moral or value-driven judgment. It is better understood as a way of allocating risk across systems and relationships. To trust a technology is to accept that certain forms of failure are tolerable, while others are not; that some dependencies are manageable, while others create unacceptable exposure.

Yet public debate often oscillates between extremes: assuming that all foreign technology is inherently suspect or none of it is. Both approaches flatten important distinctions between systems, functions and levels of dependence. A more realistic approach begins from asymmetry.

Why 5G was the right call – and why it is now not enough

The 5G debate crystallised the issue of high-risk vendors. 5G telecommunications infrastructure did not only promise faster mobile connectivity, but it would form the nerve system through which a modern economy functions: financial transactions, emergency services, logistics, military communications and the data flows that underpin government itself. Foreign ownership, control or influence of that infrastructure provide the capability to monitor it, degrade it or shut it down – not only during times of conflict but at any moment of political coercion.

With reason, the US and its allies – albeit begrudgingly – moved to exclude Chinese firms from their 5G networks. Not because of corporate malpractice but because of their subjection to China’s domestic laws. The contrast with European providers is instructive. Sweden’s Ericsson and Finland’s Nokia as well as Japanese and Korean component suppliers are also foreign companies but they do not answer to a state that has explicitly made clear its intention to use economic and technological levers against democratic nations.

The 5G decision was relatively clean because 5G is a discrete, identifiable layer of infrastructure with named vendors and clear procurement points. Many of the other technologies that underpin our economies are not like that. The lesson of 5G is not that bans work, but that bans only work when you can clearly identify the layer of concern, enforce the boundary and substitute an alternative. Those conditions don’t hold across most of our emerging technology landscape.

Towards a manageable model of technological dependence

We should embark on a more viable pathway towards risk management, one that includes a stratified model of trust. This suggests governments not just articulate security principles but political-economic ones: how they weigh market concentration, supplychain chokepoints, capital ownership, legal jurisdiction and the strategic behaviour of firms and states.

Practically, this means distinguishing between explanatory transparency – clarity about the principles and frameworks governing decisions – and operational discretion – confidentiality about particular cases where disclosure would itself create risk – political, economic or technological. This distinction matters because it allows states to preserve both operational discretion and institutional accountability. Sometimes, governments need to make strategic decisions without publicly disqualifying a specific vendor, system, technology stack or foreign state.

It also means recognising that not all dependencies are equal. Some systems – identity infrastructure, command networks and critical utilities – require tight control and domestic alternatives. Others can tolerate foreign provision if governance, redundancy and oversight are robust.

A stratified model of trust does not resolve the problem of dependence. It clarifies it. It accepts that modern technological systems are structurally interdependent but insists that interdependence can be governed differently depending on its strategic consequences. Trust in this context is not a moral judgment about the intentions of a supplier.

This requires us to engage in the unglamorous work of stack governance: mapping exposure, regulating procurement, shaping markets, investing in alternatives and doing so in coalition with partners who share both vulnerabilities and values.

Foreign ownership of technology is inevitable. Foreign control is not. The path from one to the other runs through the stack, not just through a visible, nameable vendor or product. This leaves us with only one right answer to the question “In Whose Tech We Trust?” That is: in no technology, not without conditions. Trust is a relationship that needs governing. That’s what is critical.

This article is based on two ASPI publications titled “In Whose Tech We Trust”, published in November 2025. Justin Bassi, Executive Director of ASPI, and James Corera, Director of the Cyber, Technology and Security programme at ASPI, also contributed to this article.

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