STUDY

Requested by the ECON committee

Monetary Dialogue Papers, March 2025

European Parliament

Euro Area Risks Amid US Protectionism

EGOV

MONETARY POLICY

External authors:

Laura BOTTAZZI

Carlo FAVERO

Ruben FERNANDEZ FUERTES

Francesco GIAVAZZI

Veronica GUERRIERI

Guido LORENZONI

Tommaso MONACELLI

Economic Governance and EMU Scrutiny Unit (EGOV)
Directorate-General for Economy, Transformation and Industry
PE 764.186 - March 2025

EN

Euro Area Risks Amid US Protectionism

Abstract

This paper examines the impact of US protectionist trade policies on the euro area economy, focusing on macroeconomic and financial repercussions. While direct tariff effects are mitigated by exchange rate adjustments and ECB policies, broader risks arise from global trade disruptions and financial contagion. Increased risk premia on US bonds elevate European financing costs, posing fiscal challenges. We highlight the importance of trade diversification, innovation incentives, and prudent monetary policy to mitigate economic vulnerabilities and sustain long-term growth.

This document was provided by the Economic Governance and EMU Scrutiny Unit at the request of the Committee on Economic and Monetary Affairs (ECON) ahead of the Monetary Dialogue with the ECB President on 20 March 2025.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

AUTHORS
Laura Bottazzi, University of Bologna, IGIER and CEPR
Carlo Favero, Bocconi University, IGIER and CEPR
Ruben Fernandez-Fuertes, Bocconi University
Francesco Giavazzi, Bocconi University, IGIER and CEPR
Veronica Guerrieri, The University of Chicago Booth School of Business
Guido Lorenzoni, The University of Chicago Booth School of Business
Tommaso Monacelli, Bocconi University IGIER and CEPR

ADMINISTRATOR RESPONSIBLE
Giacomo LOI
Drazen RAKIC
Maja SABOL

EDITORIAL ASSISTANT
Adriana HECSER

LINGUISTIC VERSIONS
Original: EN

ABOUT THE EDITOR
The Economic Governance and EMU Scrutiny Unit provides in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact Economic Governance and EMU Scrutiny Unit or to subscribe to its newsletter please write to:
Economic Governance and EMU Scrutiny Unit
European Parliament
B-1047 Brussels
E-mail: egov@ep.europa.eu

Manuscript completed in March 2025

This document was prepared as part of a series on "US Shift to Protectionism: Impact on the Euro Area Economy", available on the internet at:
https://www.europarl.europa.eu/committees/en/econ/econ-policies/monetary-dialogue

CONTENTS

LIST OF ABBREVIATIONS

APP	Asset purchase programme
CPI	Consumer Price Index
ECB	European Central Bank
ECB SPF	European Central Bank survey of Professional Forecasters
EP	European Parliament
EU	European Union
FOMC	Federal Open Market Committee
GDP	Gross domestic product
HICP	Harmonised index of consumer prices
NAFTA	North American Free Trade Agreement
PPI	Producer Price Index
TPP	Trans-Pacific Partnership
USD	US dollar
USMCA	United States-Mexico-Canada Agreement

LIST OF BOXES

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

- **The shift towards US protectionist trade policies has significant implications for the euro area economy.** The imposition of tariffs affects European exports, financial markets, and overall economic stability.
- **Direct effects of tariffs on EU exports are mitigated by exchange rate adjustments and ECB monetary policy.** A depreciation of the euro helps maintain European competitiveness despite US trade restrictions.
- **A greater risk arises from indirect financial contagion effects.** Increased risk premia on long-term US bonds raise financing costs in Europe, affecting public debt sustainability and investment decisions.
- **The "second China shock" could amplify economic pressures.** Trade restrictions on China may divert Chinese exports to Europe, intensifying competition and affecting key European industries.
- **Policy responses are crucial in determining the overall economic impact.** Overly restrictive monetary policies or reactionary protectionist measures could exacerbate economic downturns rather than provide relief.
- **Strategic trade diversification and innovation incentives are essential for long-term resilience.** Strengthening partnerships with alternative trade partners can reduce dependency on the US and mitigate risks.
- **Survey-based forecasts suggest that financial market reactions to US policy shifts pose a significant challenge.** Higher bond yields in the US translate to increased borrowing costs for European governments, limiting fiscal flexibility.
- **A coordinated fiscal and monetary approach is necessary to manage economic risks.** Ensuring prudent fiscal policies and maintaining a flexible monetary stance will help navigate rising trade and financial tensions.
- **Overall, the euro area economy remains resilient but requires careful policy navigation.** Avoiding unnecessary economic disruptions and leveraging macroeconomic tools effectively will be key to sustaining stability and growth.

1. INTRODUCTION

The shift towards protectionist trade policies in the United States, particularly in the form of tariffs, has significant implications for the global economy. This paper focuses on the effects of these policies on the euro area, assessing their macroeconomic and financial consequences. Despite the aggressive stance of the Trump Administration on trade, we argue that the overall impact on European economies could be relatively contained, with key channels of transmission operating primarily through demand-side effects rather than supply-side disruptions.

Under a benign scenario, US tariffs on EU exports exert mildly contractionary effects on European economies. These effects can be easily offset by an easing response from the European Central Bank (ECB) and by a depreciation of the euro. While the immediate impact on aggregate supply conditions appears limited, there can be reasonable concerns at the microeconomic level for sectors and geographic areas potentially more exposed to a second "China shock." This concern arises from our working hypothesis that US trade restrictions will overall be tougher on China than on Europe, thus redirecting surplus Chinese exports towards the European markets. Nonetheless, Europe's strong social safety net can mitigate labour market disruptions, and a narrowly targeted EU policy response on the trade front could help cushion the most adverse effects.

We see two major risks that could amplify the negative consequences of US protectionism for Europe. First, **an overly hawkish response by the ECB — stemming from concerns about imported inflation — could lead to unnecessarily tight monetary conditions, exacerbating an economic slowdown**. Second, **excessive policy reactions from other EU institutions, particularly those affecting supply-side dynamics, could lead to a contraction in potential output in the medium run**. Two specific policy missteps stand out: (i) imposing restrictions on US technology firms in an attempt to retaliate for US tariffs, which would slow technological adoption and productivity growth in Europe; and (ii) engaging in broad retaliatory protectionist measures, triggering a global trade war that would disrupt EU imports of intermediates and global supply chains.

While most of European attention on US macroeconomic policy is concentrated on protectionist measures, we think it is useful to expand the scope of the analysis, since in international macroeconomics financial factors often play an oversized role relative to standard trade forces. In particular, a source of concern that we want to signal here has to do with the large projected government deficits in the US and the spillover effects they could have on fiscal policy in Europe.

The rise in investor risk premia on long-term US bonds signals concerns over the sustainability of US fiscal policies, which could, in turn, lead to higher financing costs in Europe. This is particularly concerning in a scenario where European governments may need to expand public spending to enhance competitiveness and defence capabilities. Thus, the indirect effects of US policies on European financial conditions must be considered alongside trade-related impacts, reinforcing the necessity of coordinated fiscal and monetary strategies.

The remainder of this paper is structured as follows. Section 2 discusses alternative scenarios on the future trajectory of US protectionist trade measures, both in terms of escalation and retaliation.

Sections 3 to 5 look at the macroeconomic effects of the tariffs focusing on their effect on trade flows. In Section 3 we lay out a simple framework distinguishing effects on the demand side and on the supply side. In Section 4 we dig deeper on the demand side, looking at trade data disaggregated by sector and by country. In Section 5 we examine the effect on the supply side and on inflation, distinguishing effects on the Producer Price Index (PPI) and the Consumer Price Index (CPI). Section 6 puts together the observations from the previous three sections in the context of a standard model of monetary policy and draws our main conclusions on a desirable monetary policy response.

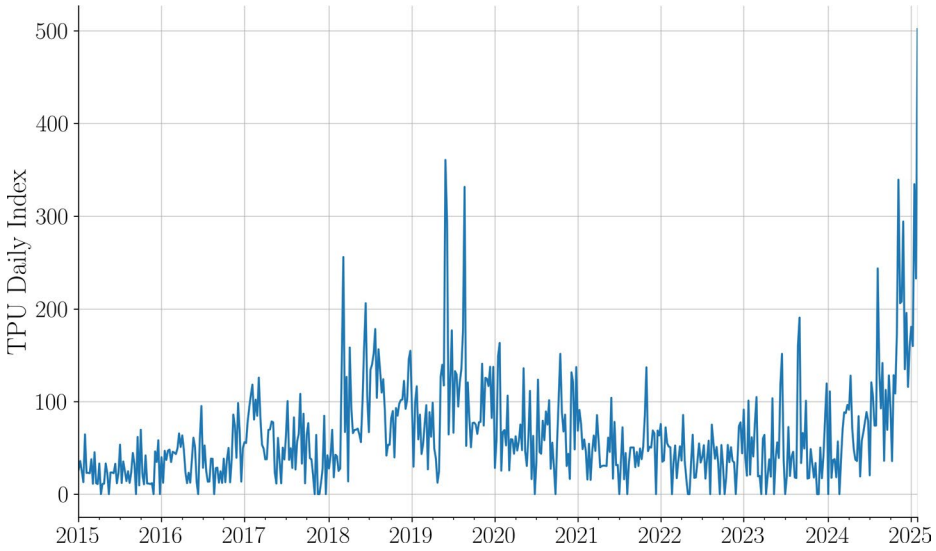
In Section 7, we turn to our concern with financial contagion. Section 7 uses survey-based forecasts to assess the impact of the US election outcome on expectations for key macroeconomic and financial variables in both the US and the euro area. In particular, we offer a deeper analyse of expected short-term interest rate trajectories and term premia leveraging the Federal Open Market Committee (FOMC)'s Summary of Economic Projections and the ECB Survey of Professional Forecasters.

Section 8 concludes.

2. PROTECTIONIST MEASURES

As we write, uncertainty on US protectionist trade measures is still very high. Figure 1 presents the index of trade policy uncertainty developed by Caldara et al. (2020) for the US, illustrating the sharp rise in uncertainty following the 2016 presidential election. This period marked a significant increase in US import tariffs, with the average rate on Chinese goods rising from 3% to 21% between 2018 and 2020. The second Trump election boosted again uncertainty that reached a new high, following the decision to impose, and later withdraw, tariffs on Colombia on 27 January.

Figure 1: Trade Policy Uncertainty Index (TPU)



Source: Economic Policy Uncertainty Index, https://www.policyuncertainty.com/index.html

While the Trump administration has, up to now, engaged in a game of cat and mouse on tariffs—leaving both the list of EU exports at risk and the tariff rates themselves uncertain—its actions on matters of national security have been far more decisive. By casting its votes in the UN General Assembly and Security Council, the United States has effectively signalled the end of the post-1945 world order.

In the recent General Assembly vote on Ukraine, the US aligned itself with a bloc that includes Russia, Belarus, North Korea, Hungary, and Israel—marking a stark departure from the rest of Europe. This geopolitical shift could have consequences for the EU economy that far exceed the impact of trade policy.

A possibility is that this increasingly confrontational approach in security matters means that the threat of tariffs will be mostly used to reach other goals, and that high tariffs may not eventually be enacted. Some of President Trump's advisers, including Treasury Secretary Scott Bessent, may be pushing in this direction, as they are aware of the potential economic costs of tariffs for the US economy. Recent survey data pointing to increases in inflation expectations, coupled with weaker consumer confidence, may give support to these views in Trump's circle.

On the other hand, Trump has repeatedly declared himself a "tariff man" and has touted the benefits of tariffs as a source of government revenue. The possibility of the US using broad tariffs as a budgetary tool is a significant risk.

Another area of considerable policy uncertainty is how US tariffs will hit different trading partners. In this paper, we adopt the working assumption that eventually there will be tighter conditions on trade with China than with the EU, given that the bilateral deficit with China is substantially larger and given the history of the first Trump term. However, the second Trump administration seems to have taken an

especially confrontational approach with US traditional allies, much more than with Russia and China. This means that we could see surprises on this front as well.

Given all these caveats, let's summarise the information we have now, to inform the hypothetical quantitative scenarios used in our analysis.

A central feature of Trump's announced trade policy is his proposal for a 10% tariff on all foreign-made goods, applicable universally, regardless of the country of origin or product type. This tariff is intended to protect American industries and workers from foreign competition. The second key element of Trump's trade proposals involves a targeted 60% tariff on Chinese imports, with even stricter measures for the automobile industry, including a proposed 100% tariff on all cars imported from China. Additionally, a presidential memorandum was signed on 13 February, to develop a plan for increasing US tariffs in response to other countries' tariffs, tax policies, and any other policies including exchange rates and unfair practices. The recommendations are due 1 April, and ae expected to begin taking effect on April 2. At the beginning of February, a 25% tariff on imports from Mexico and Canada was announced but suspended for a month and a 10% tariff on import from China became effective 3 February. At the end of February, plans to hit goods made in the European Union with tariffs of 25% were disclosed. Box 1 presents the timeline of tariff-related events, as of beginning of March 2025.

This strategy aligns with Trump's trade policy between 2018 and 2020, which saw significant shifts in US trade practices, including protectionist actions like withdrawing from the Trans-Pacific Partnership (TPP) and renegotiating the North American Free Trade Agreement (NAFTA), resulting in the United States-Mexico-Canada Agreement (USMCA). In 2018, his administration also imposed tariffs on steel and aluminium imports from various US trading partners, as well as tariffs on a range of Chinese goods. These measures included a 25% tariff on electric vehicles (EVs), 25% on solar panel cells, up to 10% on aluminium products, and 25% on Chinese steel. In response, the EU and other major trading partners filed disputes with the World Trade Organization (WTO) and imposed retaliatory tariffs on a variety of US goods, including agricultural products and American whiskey (European Commission, 2018).

Under the Biden administration (2021–2024), many of these tariffs remained in place. While the EU and other trading partners succeeded in having tariffs removed on their exports, Chinese goods continued to face substantial tariff hikes. In May 2024, Biden announced an increase in tariffs on key Chinese imports, including EVs (up to 100%), solar panel cells (up to 50%), and certain steel and aluminium products (up to 25%).

Box 1: Timeline of US tariff-related announcements and actions

27 January 2025	Trump announced new tariffs on computer chips, semiconductors, and pharmaceuticals.
1 February 2025	Signed executive orders imposing tariffs on Canada, Mexico, and China. 10% tariffs on China took effect on 4 February, while tariffs on Canada and Mexico were suspended for 30 days. Tariffs on Canada and Mexico set to take effect on 4 March.
10 February 2025	Signed proclamations expanding Section 232 tariffs on steel and aluminium. Increased aluminium tariff from 10% to 25%. Changes take effect on March 12. China retaliated with tariffs of 10% and 15% on USD 21.2 billion worth of US exports.
13 February 2025	Signed a presidential memorandum to develop a plan for increasing US tariffs in response to foreign trade policies. Recommendations due by 1 April.
14 February 2025	Announced tariffs on auto imports to begin 2 April.
18 February 2025	Specified auto tariffs would be around 25%, while semiconductors and pharmaceuticals would be 25% or higher.
3 March 2025	Announced that tariffs on "external" agricultural products would begin 2 April 2025.
4 March 2025	Tariffs on Canada, Mexico, and China go into effect.
5-6 March 2025	Announced that tariffs on "external" agricultural products would begin 2 April. Auto imports from Canada and Mexico and imports covered by the United States-Mexico-Canada-Agreement deal (approximately 38% of imports from Canada and 49% of imports from Mexico) are declared exempted from the tariffs until 2 April, Tariff on potash (a fertilizer used in farming) is lowered to 10%.
12 March 2025	Tariffs of up to 25% on imports of steel, aluminium, and certain products containing steel and aluminium from the European Union and other trading partners

Source: Authors' own elaborations.

3. DEMAND AND SUPPLY FORCES

3.1. A global scenario

Let us start from two preliminary observations.

First, when thinking about the effects of trade policy, it is useful to remember that changes in tariffs are typically accompanied by countervailing movements in the exchange rate. A fundamental fact of international economics is that the trade balance is equal to the difference between domestic saving and domestic investment. The euro area tends to run a trade surplus, which means that domestic savings exceed investment. The excess of private domestic savings on investment is driven by several macroeconomic forces: the saving rate of European households, the investment rate of European businesses, and the net savings of the public sector. Behind these forces there are fundamental trends, for example, demographic trends: Europe has a relatively larger share of older people who, empirically, tend to save more. Most economists believe the effect of tariffs on these macroeconomic forces to be quite limited, as shown most recently by the fact that the wave of tariffs imposed by the first Trump administration was not accompanied by a reduction in the US trade deficit. How does this play out in trade flows? A US tariffs on euro area imports directly reduces US imports from the euro area. However, a concomitant depreciation of the euro partly undoes this, by making European goods cheaper for US consumers, and, at the same time, it makes US goods more expensive for European consumers. The final outcome in standard economic models is a reduction in both imports *and* exports roughly of equal value between the US and Europe, that leave the balance roughly unchanged, even absent retaliatory moves by European countries.

Second, as argued in the previous section, US trade policy will hit all major blocs, not just Europe. It is especially important to understand the effects of US trade policy on China, given that China is a major European trading partner. China has been and will continue to be a core target of US protectionism. A plausible working assumption is that the impact of protectionist policies will be stronger on China than on Europe. Consequently, the depreciation of the yuan against the dollar will have to be stronger than the depreciation of the euro, making the euro stronger against the yuan.

Given these two observations, a macroeconomic scenario to consider is characterised by the following four forces.

1. US tariffs on European exports.
2. A depreciation of the euro vs. the US dollar.
3. US tariffs on China higher than on Europe.
4. An appreciation of the euro vs. the yuan.

Since foreign exchange markets are forward-looking, exchange rate movements have partly already occurred, but given the high degree of uncertainty, additional movements will occur as the contours of US trade policy become clearer.

3.2. The demand side

Now we are ready to discuss the effects on the European economy. Let us first look at the effects on the demand side, and then the effects on the supply side and inflation.

The first observation is that the potential effect on euro area exports is sizable. For simplicity, let us assume that trade in services will not be affected by tariffs (some services, like tourism are clearly outside the scope of tariffs). Purchases of euro area goods by US consumers and businesses are about 450 billion euros. Consider now a 10% tariff across the board on US goods imports. Using a trade

elasticity of 2, following the relatively high estimates of Fajgelbaum et al. (2024), we get a reduction of 17%, which is a reduction in demand of EUR 76.5 billion, or roughly half of a percent GDP.[1]

The second and third forces described above will dampen the contractionary force of the trade shock: the euro depreciation against the dollar is expansionary, the direct effect of tariffs on China is also expansionary as it redirects some US demand away from China and towards US trading partners with relatively lower tariffs (this is called the "trade diversion" effect of tariffs).

However, the fourth effect is contractionary, and is a concerning side effect of US trade policy. What this force reflects is the fact that if the US further increases its barriers to trade with China, the abundant supply of Chinese export production will have to be absorbed by EU consumers, shifting demand away from EU producers. Some economists are broadly concerned about the effects of a second "China shock." A protectionist US trade policy would help direct the force of this shock towards Europe (Setser, 2025).

In Table 1 we offer a rough quantification of these effects. In particular, to measure the exchange rate effects (the second and the fourth effects), we make the assumption that there is a 10% average tariff increase on European goods and a 20% tariff increase on Chinese goods. Assuming a countervailing appreciation of the real exchange rate equal to 50% of the tariff increase, this policy brings a dollar appreciation of 5% against the euro and of 10% against the Chinese yuan[2]. The euro will then appreciate by 5% against the yuan. Empirical evidence suggests that exchange rate movements tend to have a dampened effect on relative prices relative to tariffs, due to lower pass-through, but they apply more broadly as they apply to all goods and services, and to both imports and exports. Considering an elasticity of imports and exports to exchange rate movements equal to 1/2 and applying it to the exports and imports of the Euro area towards the US and China (see Section 4) we obtain the numbers in the table. For the trade diversion effect, we just posit a relatively small effect of + EUR 10 billion.

Table 1: Effects of US protectionist measures on EU aggregate demand, back-of-the envelope estimates

	1. Direct effect	2.Exchange rate vs. US	3. Trade diversion from China	4. Exchange rate vs. China	Total
EUR billion	-76.5	+19.1	+10	-18.4	-65.8
% GDP	-0.51%	+0.13%	+0.07%	-0.12%	-0.44%

Source: Authors' elaboration.

In Section 4 we dig deeper in this analysis of the demand side effects. Given that columns 2 and 4 tend to cancel each other and given considerable uncertainty about the effect in column 3, in Section 4 we focus on providing a more precise estimate of the number in column 1, by looking at disaggregated data by sector. Overall, the magnitude of the total effect is quite similar to what is reported here.

[1] We have a 17% reduction because $1 - 17\% = (1 + 10\%)^{-\eta}$, if the elasticity is $\eta = 2$.

[2] We choose a number roughly in line but a bit higher than the estimated responses in Furceri at al. (2018) which are in the range of 0.2, and the one coming the theoretical analysis of Jeanne and Son (2021), who report a calibrated value of 0.3. We are mostly motivated by the observation discussed in Section 4 of a significant real depreciation of the yuan following the first round of Trump tariffs and by the desire to think about a worst-case-scenario for the effects on trade with China. However, given that columns 2 and 4 roughly cancel each other the choice of this elasticity is not crucial to the exercise.

Our conclusion is that the effect of US protectionism will be contractionary for the EU, but only moderately so.[3] The indirect effect of the yuan/euro exchange rate is a potential cause for concern, but if the euro is allowed to depreciate somewhere in between the dollar and the yuan, the exchange-rate-driven indirect effects would roughly cancel. The effects on the demand side are contractionary but not massively contractionary. The ECB has the tools to counteract a shock of this size.

Clearly, the scenario is conducted under the assumption that the ECB response will not try to contrast the natural depreciation of the euro against the US dollar. In Section 6, we discuss this issue in more detail in the context of an explicit model of monetary policy. In particular, in that section we contrast different approaches to a monetary response and show that the least desirable response is one in which the ECB targets a stable euro/dollar exchange rate.

An additional important caveat: in the scenarios above we are only considering the effects of increased US tariffs, without a large European retaliation on the trade front and without considering the effects of other shifts in macroeconomic policy. An especially relevant issue is that the shortfall in US demand caused by US tariffs could be made up not by easy monetary policy and a weaker euro, but by more stimulative fiscal policy. The recent announcements of large increases in deficit-financed defence spending, both by Germany and at the European level, would considerably change the policy mix. A policy mix that relies much more on fiscal stimulus would require a tighter monetary policy stance and would be consistent with a stronger euro, as one can see from the reaction of currency markets to the announcements (with the Euro/USD exchange rate appreciating from 1.03 to 1.08). Analogous considerations would apply in the case China were to use fiscal policy to stimulate internal demand (with a view of reaching 5% of GDP growth), which could trigger changes in the yuan exchange rate with global implications.

3.3. The supply side

Are US-imposed tariffs likely to affect the supply side and inflation? Here, we can make three considerations.

First, if the shock is overall contractionary, there will be a direct effect reducing EU inflation, through the domestic Phillips curve (i.e., the broad relationship between inflation and economic activity).

Second, there are movements in exchange rates, which can be large and affect prices that tend to adjust quickly (first and foremost energy prices). A depreciation of the euro against the dollar will cause an increase in the price of imports and therefore cause some imported inflation. In general, the central bank should not respond to imported inflation coming from fluctuations in the exchange rate.

These two observations raise a potentially concerning scenario: the contractionary force of the shock is going to be deflationary, but the domestic forces cooling EU inflation move slowly (through an increase in unemployment and a cooling in nominal wage demands), while the forces coming from the exchange rate and import prices can move fast. Therefore, the ECB may face a situation with some upward pressure on headline inflation, even though underlying inflation is cooling. Here we see the main danger as the ECB overreacting in the direction of pausing the current easing cycle too soon.

[3] This assessment is consistent with the modest effect of tariffs estimated in the literature. Namely, Gunnella and Quaglietti (2019), Saussay (2024), Bellora et al. (2018), estimate that tariffs would reduce total EU exports to the US by 8% in the long run and potentially lead to a 0.1% loss in EU GDP due to declines in automobile exports, with an additional 0.01% loss in GDP from steel and aluminium tariffs (Felbermayr and Steininger, 2019).

The dynamics in the US may be very different, with inflation expectations possibly unstable due to budgetary pressures, and to the direct effect of tariffs on the US economy. It is important that the ECB keeps its eyes on the state of the EU economy even if the Federal Reserve was forced to move in the opposite direction. A weaker euro is a natural response to external tariffs.

In Section 6, we provide a more detailed discussion of this argument, based on a fully specified macroeconomic model.

Our third and last observation on the supply side has to do with the EU response and potential retaliation. In the scenario depicted so far, the main concern is on a mild reduction in EU demand, which does not affect the productive potential of the EU economy. However, in an attempt to retaliate against the US, the EU could end up hurting itself. We see two main dangers here.

The first is that, possibly driven by a political desire to harm the technology industry (given the strong ties of some technology entrepreneurs with the Trump Administration), the EU decides to impose punishing policies, tightening regulation, or raising taxes, which further discourage the adoption of imported innovative technologies in the EU. This may be driven by a well-meaning but incorrect view that this form of protectionism would favour the growth of the EU-based tech sector. However, these measures would slow down the diffusion of technologies that can be fruitfully adopted by EU firms in all sectors and slow down potential output growth in the EU.

The second danger is that the EU imitates Trump's protectionist policies towards other nations. So far the European Commission has launched, on 12th March 2025, a response limited to the US, designed to defend European interests through two countermeasures: the reimposition of the suspended rebalancing measures introduced in 2018 and 2020, and the imposition of a new package of additional measures targeting together approximately EUR 25 billion worth of goods with the objective "…to ensure that the total value of the EU measures corresponds to the increased value of trade impacted by the new US tariffs…".[4]

The EU is highly integrated in the world economy, much more than the US economy. The protectionist turn of the US offers the EU the possibility of being a beacon of free trade for other developed and emerging economies and to strengthen commercial relations. Given that a large part of world trade has to do not with final goods but with intermediate goods that go through lengthy supply chains, a break- up of world trade will have a direct negative effect on labour productivity. EU manufacturers overall seem aware of these issues and seem wary of blanket protectionist measures. In other words, there does not seem to be a strong pro-tariff lobby in the EU. Nonetheless, the risk of policy overreaction is real.

The two policy responses just outlined would make the life of the ECB harder, both by introducing inflationary pressures coming from higher costs of sourcing intermediate inputs and by lowering the growth rate consistent with stable inflation.

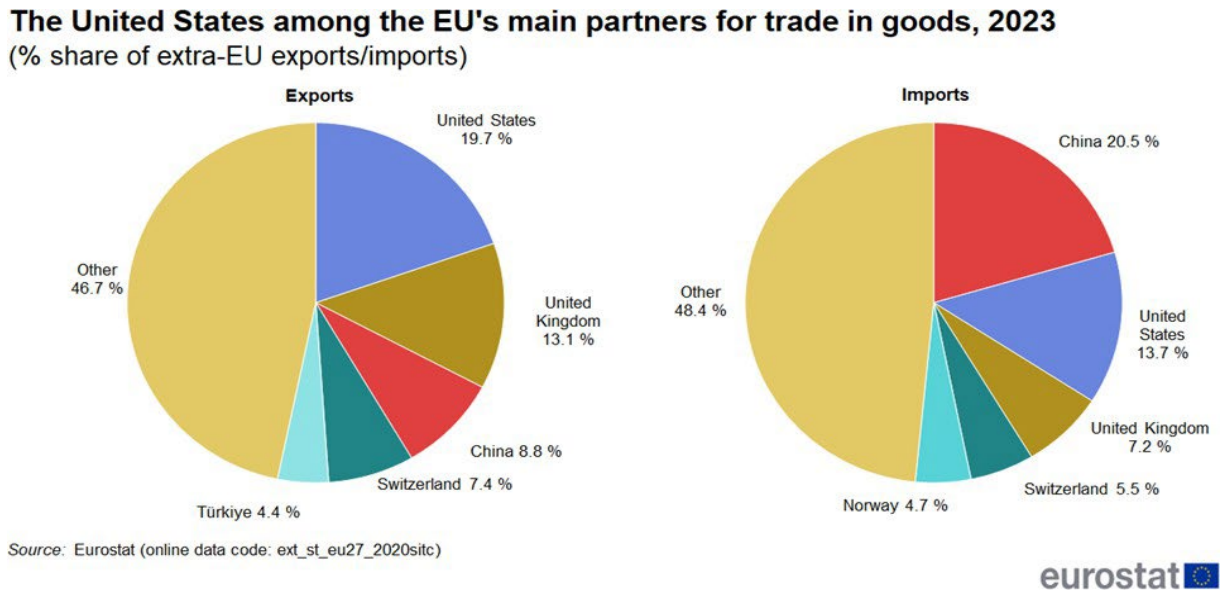
[4] https://ec.europa.eu/commission/presscorner/detail/en/qanda_25_750

4. EFFECTS ON TRADE AND ECONOMIC ACTIVITY IN THE EURO AREA

In this section we expand the approach of Section 3, by digging deeper in the effects of US tariff on European trade and aggregate demand. To do so, let us look more closely at available data on European trade with the US and China.

Figure 2 shows that the US is a major trading partner for the EU, accounting for 19.7% (EUR 503 billion) of exports outside the EU and 13.7% of imports (EUR 347 billion). Restricting attention to the euro area yields a similar picture, the US accounts for 15.9% (EUR 453 billion) of extra-euro-area exports and 11.4% of imports (EUR 318 billion).

Figure 2: Most relevant EU trade partners



The data also show the central role of China. Europe and China have grown increasingly reliant on each other for imports since 2018. Figure 3 illustrates the EU trade deficit with China, which stood at around EUR 291 billion in 2023, and around EUR 214.5 billion for the euro area. Interestingly, the imposition of tariffs has reduced the United States' dependence on imports from China, reversing the trend observed between 2013 and 2018, while the euro area, Canada, Mexico, and China each supply the United States with more than 10% of its total imports.

Figure 3: EU trade balance with China

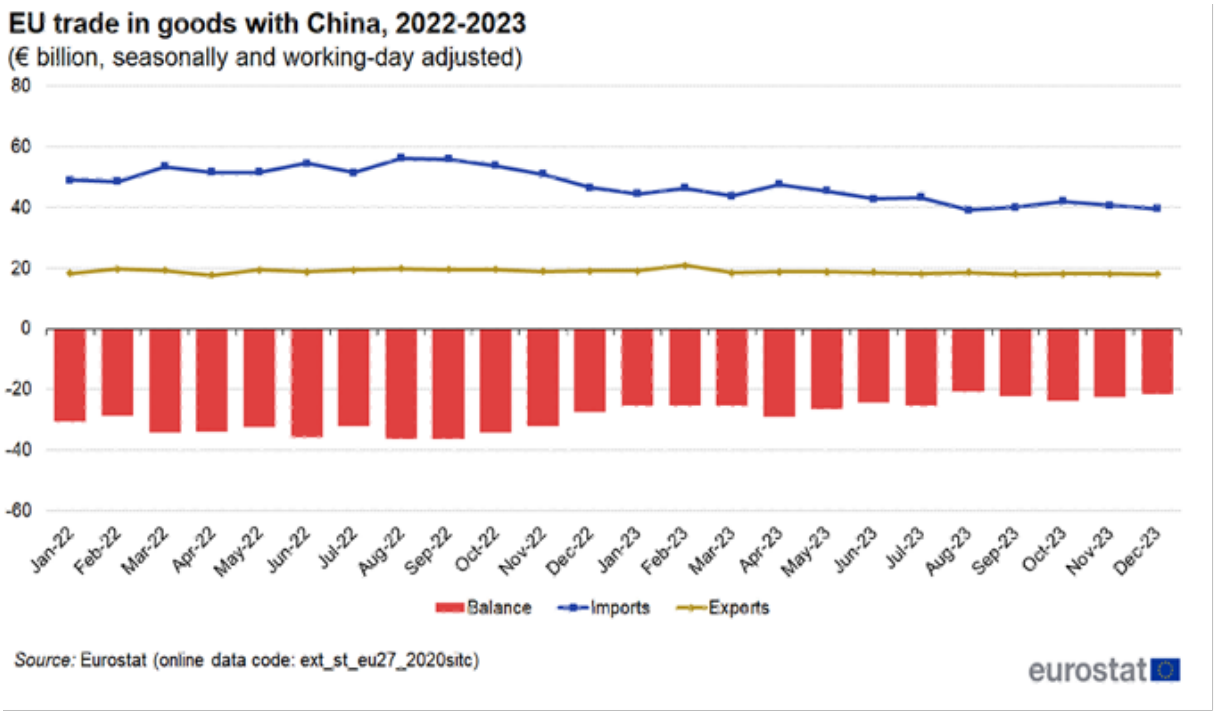


Figure 2 hides significant heterogeneity in trade exposure to the US, as shown in Table 2. Germany, Italy, Ireland, France, the Netherlands, Belgium, and Spain are the most relevant exporters to, and importers from the US, running substantial bilateral trade surpluses. We expect these countries to be the most affected by tariffs and more likely to push for a retaliation or for an agreement with the Trump Administration.

To assess the impact of tariffs on euro area imports and exports, the elasticity of trade values in response to tariff changes is the crucial variable to focus on. Current estimates of trade elasticities vary significantly, depending on method and data employed[5].

We base our analysis on the study by Ossa (2015) that provides trade elasticities at the standard international trade classification of goods used by Eurostat, which is the source of our data, and on a more recent paper by the European Commission (2018). These studies measure micro elasticities by examining how bilateral tariffs affect bilateral import flows. They consider the substitution among alternative foreign import sources, which can be 1.5 to 3 times higher than macro elasticities that focus on the substitution between domestic and foreign import sources.

The two types of elasticities are conceptually distinct, except in the case of the two-country models that dominate macroeconomic discussions. Feenstra et al. (2018) find that the median estimates of the micro elasticity across individual industries range from 3.24 to 4.12, whereas macro elasticities are 1.5 to 3 times significantly lower in more than one of the goods analysed. Additionally, the elasticity values can differ depending on the time horizon — whether measured in the short run or the long run — and whether a partial equilibrium model or a general equilibrium model is used.

Boer and Rieth (2024) estimate the elasticities using a general equilibrium model that accounts for

[5] Head and Mayer (2014) conducted a review of 435 elasticities from 32 papers and found a median value of -5.03 with a standard deviation of 9.3.

changes in tariff levels including trade policy uncertainty and evaluating the effects of these changes on price levels and exchange rates. Their findings include a general equilibrium import elasticity of 0.2 in the short run and 0.8 after six years, with a very similar export elasticity[6].

If we assume a micro general equilibrium trade elasticity within the range of 0.8 to 2.4, we estimate that the long-run effect of a 10% tariff on US imports from the euro area would result in a reduction of between 7.5% and 21% in goods exports, which corresponds to a loss of between EUR 33.1 billion and EUR 95.2 billion. The EUR 95.2 billion reduction represents approximately 3.42% of total euro area exports globally. Even considering the extreme reduction scenario, and assuming unchanged imported goods by euro area countries, the trade balance with the US would still be in surplus. As shown in Table 2, euro area countries currently run a positive trade balance of EUR 135.83 billion with the US.

[6] This discussion helps explain why the estimated effects of tariffs on imports and exports vary significantly across different studies.

Table 2: Euro area trade with United States, 2023

Panel A: EU Imports

Country	€ million	% of Extra-EU
Netherlands	75 240	16.5
Germany	71 932	15.2
France	43 656	17.0
Belgium	35 528	18.6
Italy	25 172	9.9
Spain	24 609	12.7
Ireland	20 523	24.7
Austria	5080	9.9
Lithuania	2877	21.5
Finland	2803	12.5
Portugal	2253	8.4
Greece	1503	3.7
Croatia	1068	11.0
Luxembourg	682	29.2
Slovakia	657	3.0
Slovenia	293	0.9
Estonia	283	9.0
Latvia Malta	233	4.9
Cyprus	22413	7.8
		2.3

Panel B: EU Exports

Country	€ million	% of Extra-EU
Germany	157 732	22.1
Italy	67 266	22.2
Ireland	51 621	45.8
France	43 892	16.4
Netherlands	40 547	15.5
Belgium	31 324	18.4
Spain	18 904	13.1
Austria	14 758	23.2
Finland	8429	25.5
Portugal	5235	22.7
Slovakia	4873	19.8
Greece	2117	9.7
Lithuania	1886	12.1
Slovenia	867	3.1
Croatia	587	7.8
Luxembourg	519	15.9
Latvia	502	6.7
Estonia	501	10.5
Cyprus	136	4.4
Malta	126	8.4

Source: Eurostat.

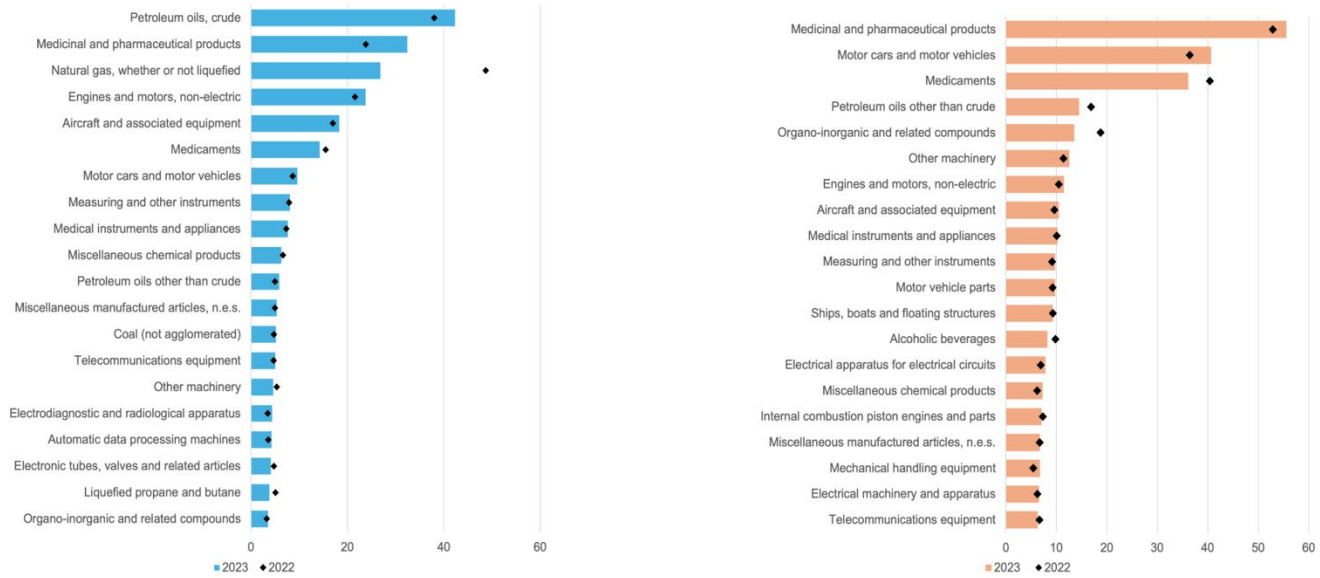
Table 3: Euro area most exported and imported goods to the United States, 2023 (€ billion)

Exported goods	€ billion
Total	453.37
Medicinal and pharmaceutical products	54.60
Motor cars and motor vehicles	36.46
Medicaments	34.57
Petroleum oils other than crude	13.68
Organo-inorganic and related compounds	13.46
Other machinery	11.67
Aircraft and associated equipment	10.16
Medical instruments and appliances	9.42
Engines and motors, non-electric	9.04
Imported goods	**€ billion**
Total	317.54
Petroleum oils, crude	38.66
Medicinal and pharmaceutical products	31.61
Natural gas, whether or not liquefied	27.10
Engines and motors, non-electric	20.77
Aircraft and associated equipment	17.45
Medicaments	13.83
Motor cars and motor vehicles	9.74
Measuring and other instruments	7.50
Medical instruments and appliances	7.46

Source: Eurostat

The most relevant sectors for exports to the US are pharmaceuticals and medicinal products and machinery and transport equipment. The same two sectors, along with energy products, account for US imports into the euro area. Using the results of Ossa (2015) and Fontagné et al. (2022), we observe considerable heterogeneity in trade elasticities across products, with product differentiation playing a significant role. For example, mechanical products and aircraft and associated equipment have average trade elasticities close to 8 and 9, respectively, while the elasticity for petroleum oils (other than crude) is only 1.55. This indicates that key sectors, such as automobiles, machinery, and pharmaceuticals, are particularly vulnerable. An elasticity of 8 would lead to a 53% decrease in export demand for a 10% increase in tariff.

Figure 4: EU most traded goods with US, 2022-2023



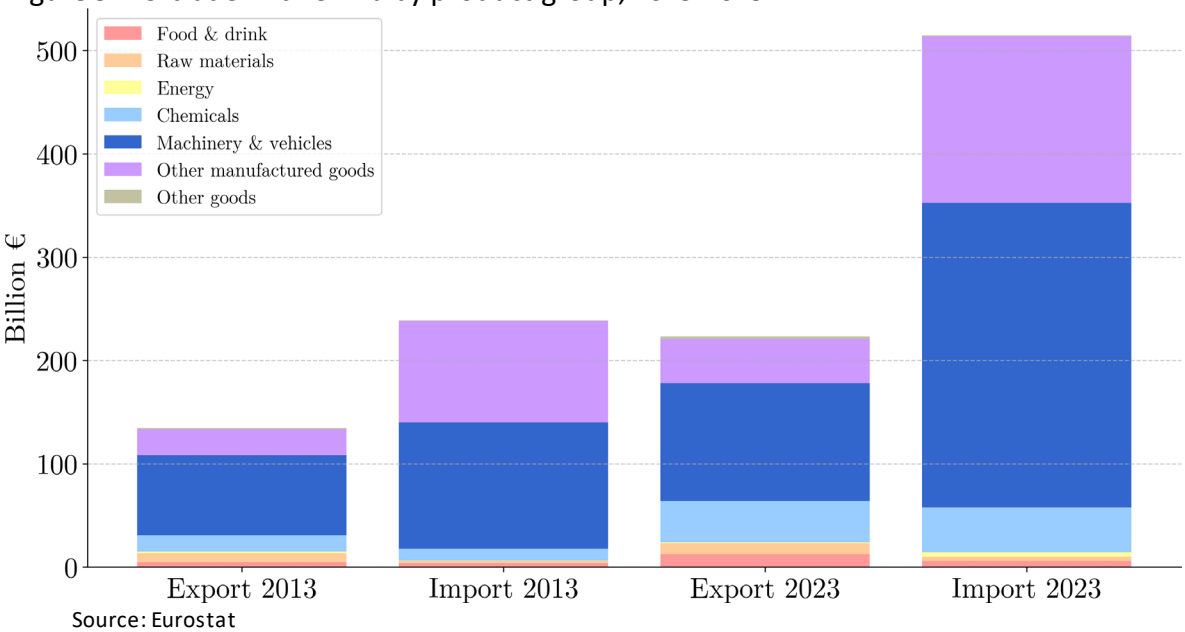
Interestingly, the sectors most affected by a 10% tariff are the same ones where euro area trade with China is concentrated. While Table 4 reports the euro area trade balance of goods with China, Figure 5 illustrates EU trade with China by product category, clearly showing that China has increased its exports of machinery and chemicals, especially compared to 2013. With Trump declaring his intention to impose a 60% tariff on imports from China, the impact on the euro area economy could be dual-faceted. On the one hand, euro area mechanical and machinery products may gain competitiveness relative to China, potentially increasing imports from the US even in the presence of tariffs. However, a more significant concern is that China could respond by lowering the prices of cars and vehicles and depreciating its currency against the US dollar. This would effectively neutralise the tariff impact and allow China to export more to Europe. For instance, since the beginning of Trump's first trade war with China in March 2018, the Chinese yuan (RMB) depreciated by 13% against the US dollar, from 6.4 to 7.2, over 18 months. This depreciation largely mitigated the effect of US tariffs on Chinese exports. However, despite the effectiveness of currency depreciation in counteracting tariffs, the RMB is already nearing its lowest value since 2008.

Table 4: Euro area trade balance of goods with China, 2023

Country	Trade balance (€ million)
Germany	2,778
Finland	414
Ireland	284
Luxembourg	14
Malta	-319
Latvia	-683
Estonia	-695
Cyprus	-733
Croatia	-1,219
Slovakia	-1,437
Lithuania	-1,564
Austria	-2,047
Portugal	-4,452
Greece	-6,516
Slovenia	-9,472
France	-17,006
Belgium	-22,567
Italy	-28,417
Spain	-29,098
Netherlands	-94,644

Source: Eurostat

Figure 5: EU trade with China by product group, 2013-2023



Source: Eurostat

Furthermore, China's unique disinflationary environment, driven by weak domestic demand, could provide its exports with an even greater competitive edge in international markets, potentially intensifying trade frictions with major trading partners like the euro area. China's growing technological sophistication, its political commitment to invest in and subsidise advanced manufacturing, coupled with its low domestic demand, pose a clear challenge to all advanced

economies – including both the US and Germany. This scenario could be particularly critical for the euro area economy, which already runs a trade deficit with China. A worsening deficit with China, combined with a potential decline in the trade surplus with the US, could lead the euro area into a global trade deficit.

4.1. Effects on employment, investment and GDP

The decline in euro area exports would ripple through supply chains, leading to employment losses, particularly in trade-dependent regions. By applying sector-specific output-to-employment multipliers from similar historical contexts[7], we estimate that a EUR 1 billion contraction in export-output could result in 8,000-10,000 job losses, depending on the labour intensity of the affected sectors.

Barattieri et al. (2021) model the broader economic impact of tariffs on investment, finding significant downstream effects on employment. Their findings suggest that a 10% increase in tariffs could reduce sectoral investment by 1.5-2.5% over the first year, with disproportionate impacts in export-oriented industries like machinery and automotive manufacturing. Furthermore, they indicate that a EUR 1 billion reduction in investment could result in 12,000-15,000 job losses.

Caldara et al. (2020) show that trade policy uncertainty (TPU) further compounds these effects. Firms anticipating future tariff increases or uncertain trade policies delay investment and hiring decisions. During the 2018 trade tensions, TPU alone reduced investment in capital goods by 1-2% in the United States and by similar amounts in other advanced economies. For example, US-based capital goods producers experienced declines of up to EUR 2 billion in investment during periods of heightened uncertainty. These effects were mirrored in other trade-reliant economies like Germany, where investment reductions in export-intensive sectors closely paralleled those in the US. In addition, the uncertainty-induced decline in investment can weaken productivity growth, creating possibly persistent output losses and inflate the cost of capital goods, as many rely on imported components. These higher costs deter investment, slowing technological progress and compounding the recessionary effects of reduced external demand.

Based on the calibration and modelling in Barattieri et al. (2021), we can provide an estimate of the likely reduction in euro area GDP caused by a EUR 95.2 billion reduction in exports resulting from a 10% US tariff on euro area exports. We can envision two possible scenarios, depending on the ensuing response of the exchange rate.

At an unchanged exchange rate, the euro area faces the full impact of the reduction in export demand. Using a trade-to-GDP elasticity of approximately 0.5, as indicated by Barattieri et al. (2021) for economies of this size, the GDP contraction is roughly proportional to the reduction in exports. The likely GDP reduction is EUR 45 billion[8]. This represents approximately 0.27% of euro area GDP. However, as suggested above, there could be amplifying effects. First, a decline in investment: as exports drop, sectors reliant on external demand reduce capital expenditures, propagating the contraction. In addition, employment and consumption may be affected: a job contraction in export-dependent sector leads to weaker domestic demand, further amplifying the output loss.

[7] See Caldara et al.(2020)

[8] Computed as the product of the trade elasticity (0.5) times the variation in exports (EUR 95.2 billion).

5. INFLATION AND MONETARY POLICY

5.1. Effects on inflation

Higher US tariffs reduce demand for euro area exports, forcing firms to lower dock prices in export markets to maintain competitiveness. The inflationary effects in the euro area are indirect and crucially depend on the ensuing slowdown in economic activity and demand.

5.1.1. Producer Price Index (PPI) inflation

The quantitative effect of higher US tariffs on Euro area PPI inflation depends, on two alternative scenarios: (1) no depreciation of the euro and (2) euro depreciation.

Studies such as Caldara et al. (2020) and Barattieri et al. (2021) analyse the sensitivity of trade volumes and producer prices to tariff shocks.

At an unchanged exchange rate, declining export volumes lead to a reduction in production, amplifying deflationary pressures. Estimates suggest that for a 10% reduction in export demand, PPI inflation decreases by approximately 0.1-0.2 percentage points in export-heavy industries.

Export-intensive sectors like machinery, automotive, and pharmaceuticals may experience stronger deflationary pressures of 0.2-0.4 percentage points. For the overall euro area, the reduction in PPI inflation is likely to range between 0.1-0.2 percentage points, given the weighting of exports in total production.

In an alternative scenario, a depreciation of the euro would offset some of the price increase in US markets caused by the tariff, restoring partial competitiveness for euro area exporters. Firms would face less pressure to reduce prices, mitigating the deflationary impact on PPI.

Bussiere et al. (2014) suggest that a 5% depreciation of the euro is sufficient to offset roughly 30- 50% of the tariff-induced export price increase, depending on sector-specific elasticities. Based on those studies, the effective reduction in export volumes might thus fall to 7-10%. General equilibrium models, like those in Caldara et al. (2020), simulate the interaction between trade shocks, inflation dynamics, and monetary policy. These models confirm that exchange rate adjustments play a critical role in buffering export price competitiveness.

5.1.2. Consumer Price Index (CPI) inflation

First, let us be clear: a US tariff does not directly affect prices for European consumers. The tariff affects the price that US consumers pay on goods imported from Europe. European firms will see reduced demand from US importers because of this, and plausibly will respond by trying to regain demand by lowering prices for both US and European consumers. This is the deflationary effect of a foreign tariff.

The reason why US tariffs may raise concerns with euro area CPI inflation are only because of two *indirect* effects of the tariff: a depreciation of the euro and retaliatory tariffs imposed by the EU on US imports. The quantitative effects of a euro depreciation against the dollar is probably minor. Even assuming a relatively large euro devaluation against the dollar of 5-10%, the effect on the CPI will not be large, due to imperfect pass-through from the exchange rate to consumer prices and due to the relatively small fraction of imported goods from the US in the CPI basket. The overall effect on euro area CPI inflation is likely to be in a range below 0.1 percentage points. Retaliatory measures by the EU could lead to bigger effects and hurt European consumers directly, as we discuss below.

5.2. Optimal monetary policy response in the euro area

The scenarios described above present potential challenges for ECB monetary policy, with the nature of these challenges varying depending on whether the same scenarios involve unilateral tariffs or a possibly escalating tariff war.

5.2.1. Unilateral US tariffs

Under unilateral US tariffs, the euro area's optimal monetary response must address both an output stabilisation motive and an inflation motive. The likely negligible effect on CPI inflation outlined above, coupled with the reliance of the ECB on CPI-inflation targeting, might prima facie induce the ECB to overlook the tariff shock. However, Bergin and Corsetti (2023) emphasise the demand-side implications of a tariff shock. In particular, a tariff shock generates a contraction in export demand and spills over to economic activity in general. Both export demand and PPI inflation are expected to fall. Optimal monetary policy should then be active and expansionary to address the demand shortfall. This response differs from the one typically prescribed in response to supply shocks such as markup or productivity shocks, which affect (exporting) firms' marginal costs. In that case, and in response to a negative (either markup or productivity) shock, economic theory prescribes that monetary policy should be contractionary, as those shocks directly impact inflation in a cost-push fashion.

By lowering interest rates in response to the tariff shock, the ECB can achieve two main objectives. First, it can stimulate domestic demand, offsetting the decline in export revenues. Furthermore, allowing the euro to depreciate improves the competitiveness of euro area exports, partially compensating for the tariff-induced demand shock. Although not an explicit target of ECB policy, exchange rate adjustments may play a critical role in rebalancing trade dynamics by making euro area goods more attractive in global markets.

5.2.2. Retaliatory tariffs: a tariff war

On March 12 both Canada and Europe swiftly retaliated to the sweeping 25% steel and aluminum tariffs imposed by the Trump administration.

In a symmetric tariff war, where the euro area imposes retaliatory tariffs on US imports, the economic costs can be significantly amplified.

Retaliatory tariffs imposed by the euro area on imports from the US would increase production costs for domestic firms, particularly in industries reliant on imported intermediates. This is because intermediate goods constitute a substantial share (between 40 and 60%) of euro area's imports from the United States. For example, higher tariffs on industrial machinery could disrupt manufacturing supply chains in the euro area, while higher costs of energy imports might inflate operational costs for energy-intensive industries. Similarly, tariffs on agricultural products could raise food prices and contribute to inflationary pressures across the region.

A supposedly symmetric tariff war would subject the euro area to a combination of demand and supply pressures. US tariffs on euro area exports, as argued above, would slowdown economic activity in the euro area, which is strongly dependent on global demand. At the same time, euro area tariffs on imports from the US would exacerbate supply-driven inflationary pressures. In this scenario CPI inflation and PPI inflation might be subject to opposite forces. The contraction in export demand induced by US tariffs would slowdown PPI inflation, whereas euro area tariffs on imports from the US would exert upward pressure on CPI inflation. In other words, a tariff-war scenario may morph the tariff shock from a demand-side disturbance (as in the case of asymmetric tariffs imposed by the US) into a stagflationary shock, with a simultaneous slowdown in euro area economic activity and CPI inflationary pressures.

Quantitatively, a 10% tariff imposed by both the US and the euro area could reduce euro area GDP by 0.8-1.2% over a year, doubling the impact of unilateral tariffs. Employment losses could exceed 500,000 jobs, concentrated in trade-dependent industries (Barattieri et al., 2021). Caldara et al. (2020) show that symmetric tariffs amplify inflationary pressures by increasing import costs and disrupting production chains. Ultimately, a 10% tariff in both directions could raise euro area CPI inflation by 0.3-0.5 percentage points.

In this scenario, the ECB would face a significant trade-off between stabilisation of economic activity and stabilisation of CPI inflation. A standard view in monetary policy analysis prescribes to resolve this trade-off via a monetary policy contraction, in order to stabilise current (CPI) inflation and inflation expectations. However, the nature of the shock induced by the tariff war, whereby PPI and CPI inflation are subject to opposite pressure (downward and upward respectively), suggests that the optimal monetary policy response might be relatively less contractionary or even expansionary. This is because domestic producer prices are typically more sticky than consumer prices, especially if the degree of exchange rate pass-through on import prices is sufficiently high (i.e., import prices are relatively flexible in units of the domestic currency). A key principle of optimal monetary policy in an open economy suggests to stabilise inflation in those prices that are nominally sticky. In this case, that principle suggests to stabilise PPI inflation via a relatively expansionary (or less contractionary) monetary policy response, in order to stabilise demand in the export sector. This argument is particularly salient considering that a slowdown in euro area export demand might have significant ripple effects on demand in the upstream sectors of the perturbed supply chains. Upstream suppliers in industries that rely heavily on exports, such as automotive, machinery, and chemicals, may experience particularly pronounced effects.

5.2.3. A fiscal externality

In a scenario of bilateral tariff war, there is a further argument for the ECB monetary policy response to be expansionary. This argument is centred on the idea that tariffs generate a fiscal externality (Bianchi and Coulibaly, 2025). Suppose that the euro area were to impose sweeping tariffs in retaliation to a rise in tariffs in the US. To the extent that fiscal revenues from the tariff tax are rebated lump sum to (euro area) households, the same households perceive a private cost of imported goods that exceeds the social cost. The idea is that the individual household only perceives the private effect of the tariff, namely the distortion in the relative price of the imported good, and does not internalise that tariffs raise taxes that might be redistributed lump sum, alleviating the negative demand effect. As a result, each household inefficiently reduces her consumption of imported goods in excess of what is socially optimal. This excess contraction in imports further strengthens the argument whereby, in response to US tariffs, the ECB monetary policy response should be expansionary.

5.2.4. Trade in dominant currency

A substantial share of euro area imports and exports from and to the US is invoiced in US dollars. This feature can affect some of the conclusions discussed above.

Consider first the case of unilateral sweeping tariffs imposed by the dominant currency country, i.e., the US. In this case, and due to a higher price of imports, the main effect on the US economy would be a higher rate of CPI inflation. Since export demand is not facing the headwind of retaliatory tariffs, monetary policy in the US would be able to focus squarely on the inflation objective. Given the dominant currency stance of the US economy, monetary policy in the US may turn particularly contractionary, for the ensuing appreciation of the dollar would not affect the competitiveness of US exports to the rest of the world. Following a strong interest rate hike in the US, the euro would substantially depreciate against the dollar. Hence monetary policy in the euro area would face a less stringent pressure to turn expansionary in order to redress activity in the export sector hit by the tariffs.

Next, consider the case of a bilateral tariff war. As argued above, this scenario would lead to a contraction in global demand. Since imports in dollars move very little with a dollar depreciation, monetary policy in the US could be relatively more expansionary, focusing on internal output stabilisation without a concern that an exchange rate depreciation might fuel inflation. On the other side, the euro area would simultaneously face a cheaper (euro-dominated) price for dollar-denominated imports from the US. This would sustain internal demand in the euro area, allowing the ECB monetary policy to be relatively more contractionary, with the goal of addressing the inflationary impact of tariffs.

5.2.5. Effects of monetary policy on trade policy

Monetary policy should not only be mindful of the macroeconomic effects of a trade war. Recent research emphasises that, conversely, the conduct of monetary policy in itself may shape the incentives of policymakers in setting tariffs. In a scenario of prolonged tariff war, strategic motives may characterise the interplay between tariff policy and monetary policy (Auray et al., 2024).

Consider an environment characterised by two main distortions: market power in the domestic economy, which leads to a suboptimal level of economic activity, and market power in trade, which allows the policymaker to set tariffs to affect the terms of trade. Noticeably, the first distortion leads to an inflationary bias, whereas the second distortion typically leads to a deflationary bias, i.e., an incentive to improve the terms of trade in the country's favour. In this context, the incentive to set tariffs depends on the underlying monetary policy regime. If monetary policy is conducted under a credible inflation targeting regime, i.e. under commitment, the incentive of the policymaker to exploit the market power in trade (to offset the distortion of a too-low average level of output) is limited. This is because monetary policy commitment neutralises the inflation bias and therefore reduces the marginal benefit of setting tariffs (to counteract the excess inflation via a deflationary effect). Therefore, in this scenario, the resulting policy equilibrium is such that both inflation and tariffs are low. Conversely, suppose that the monetary authority lacks the ability to commit to future actions, i.e., it conducts policy period by period under discretion. Noticeably, this is reminiscent of the "meeting by meeting" approach adopted by the ECB during the inflationary cycle of 2021-2024. In this scenario, the incentive of monetary policy is to overheat the economy in order to address the market power distortion. This in turn leads to an excess level of inflation. At the margin, this generates an incentive for policymakers to set tariffs in order to manipulate the terms of trade and offset the inflationary bias.

The resulting equilibrium is welfare inferior, as it features too high inflation and too high tariffs.

These considerations emphasise the importance for the ECB, in a potentially prolonged tariff war scenario, to move away from the recent meeting-by-meeting approach, turning back to a policy conduct that emphasises commitment and forward guidance.

6. TARIFFS AND MONETARY POLICY IN A NEW KEYNESIAN MODEL

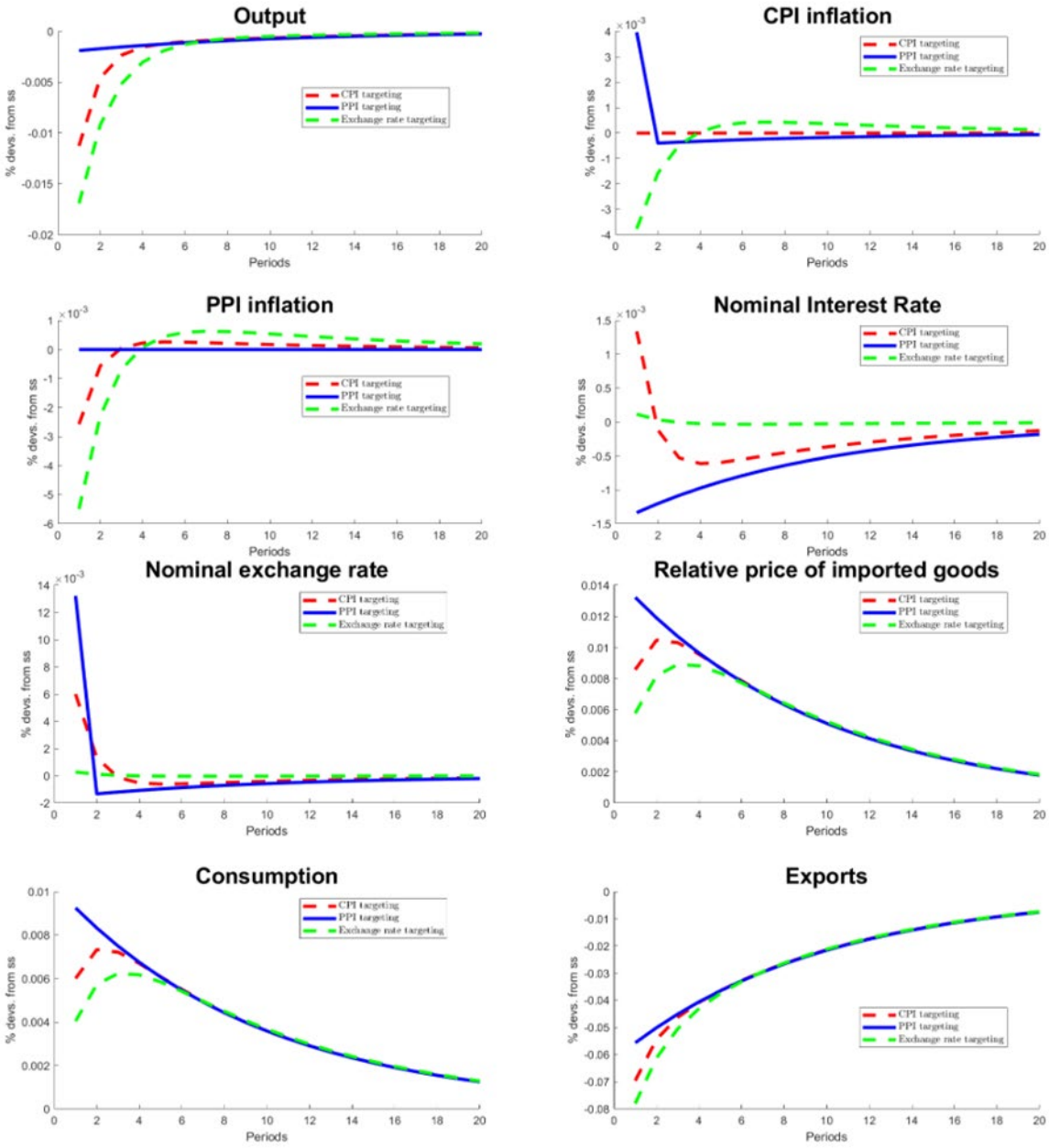
In this section we employ a baseline dynamic New Keynesian model to study the role of alternative targeting rules in shaping the response of monetary policy to an export tariff shock. We rely on the small open economy model of Galí and Monacelli (2016) - to which we refer for analytical details - modified with the introduction of import and export tariffs. The model is a baseline point of departure, in that it features nominal stickiness in domestic goods prices, full international risk-sharing, and the law of one price in traded goods (implying perfect exchange rate pass-through).

Figure 6 depicts the effect of a 10% persistent rise in export tariffs imposed by the foreign countries on the domestic economy under three alternative monetary policy rules: (i) CPI-inflation targeting (whereby the monetary authority aims at fully stabilising a broad measure of consumer price inflation, also including import price inflation); (ii) PPI-inflation targeting (whereby the monetary authority aims at fully stabilising the domestic goods index of price inflation); and (iii) exchange-rate targeting (whereby the monetary authority aims at keeping the nominal exchange rate fixed).

An export tariff shock generates both demand and supply effects. On impact we observe a direct fall in export demand. The fall in exports generates a contraction in domestic economic activity, leading to a downward pressure on domestic prices, that in turn prompts a monetary policy easing. Both elements (contraction in domestic output and monetary policy easing) contribute to a real depreciation - i.e., a rise in the relative price of imported goods. Notice that the latter depreciation effect is in general not sufficient to overturn the direct contractionary effect on export demand: on net, domestic economic activity generally declines. In addition, the tariff shock has supply effects, in that it raises the domestic real marginal cost of production. The latter however ultimately falls due to the ensuing contraction in employment and real wages.

The key result is that the underlying endogenous monetary policy response matters substantially for the effects of the export tariff shock on inflation and economic activity. A monetary policy rule that targets CPI inflation - rather than PPI inflation - leads to a significantly larger contraction in domestic output. Under CPI-inflation targeting, the expansionary response of monetary policy is more muted, or even contractionary initially, due to the goal of responding to the observed rise in CPI inflation. In other words, a CPI targeting rule entails leaning against the ensuing real depreciation of the relative price of imports, thereby inducing a larger contraction in export demand and domestic output. Furthermore, a CPI-targeting rule does not allow the real CPI interest rate to fall enough (relative to a PPI rule). Hence, the increase in consumption under PPI-targeting is larger than under CPI-targeting. In the same vein, a monetary policy rule that strictly stabilises the nominal exchange rate entails an even stronger lean against the real exchange rate depreciation. As a result, export demand and output ultimately contract relatively more. The general conclusion of this analysis is that the response of monetary policy matters substantially in shaping the economy's response to an export tariff shock. The key element that differentiates the three monetary policy rules considered here is the degree of leaning against the real exchange rate depreciation induced by the hike in tariffs. A desirable monetary policy response focuses on targeting a narrowly defined measure of inflation - PPI inflation, thereby allowing the depreciation of the exchange rate to fully exert its compensating effect on real exports, rather than focusing on the broad CPI measure. Noticeably, the latter measure corresponds to the official measure adopted by the monetary policy framework of the ECB.

Figure 6: Impulse responses to an export tariff shock



Note: Impulse responses to an AR(1) 10% export tariff shock with persistence 0.9 under alternative monetary policy rules. The calibration assumes a value of the trade elasticity of substitution equal to 1.5

7. EVIDENCE FROM SURVEY-BASED EXPECTATIONS

So far, we have examined the potential effects of foreseeable protectionist policies by the Trump administration through a global perspective, historical evidence, and economic modelling. To complement these insights, and in the absence of empirical data not yet available, survey-based expectations on future macroeconomic and financial variables can serve as an early indicator of their possible impact.

In this section, we use survey-based forecasts to assess the impact of the US election outcome on expectations for key macroeconomic and financial variables in both the US and the Euro area.

To this end, we first examine the evolution of Consensus Forecasts, a survey of international economic forecasters, focusing on "slow-moving" macroeconomic indicators — GDP growth, consumer price inflation, the current account, and the budget balance — as well as "fast-moving" financial variables, including short-term interest rates on three-month Treasury bills, long-term yields on 10-year government bonds, and the euro-USD exchange rate. We then conduct a deeper analysis of expected short-term interest rate trajectories and term premia for both the US and the euro area, leveraging the US Federal Open Market Committee (FOMC)'s Summary of Economic Projections and the ECB Survey of Professional Forecasters (SPF).

7.1. Consensus forecasts for macro and financial variables before and after Trump's election

Consensus Forecasts conducts a monthly survey of professional forecasters' expectations, with survey data collected on the second Monday of each month. The impact of the US election outcome can be assessed by comparing forecasts from 11 November and 9 December 2024 with those made prior to the election.

At each survey date, participants provide forecasts for annual GDP growth, consumer price inflation, the current account, and the budget balance for both the current year (2024 for forecasts up to December 2024, and 2025 afterwards) and the following year (2025 for forecasts up to December 2025, and 2026 afterwards). Additionally, they report three-month ahead and one-year-ahead forecasts for three-month interest rates and 10-year government bond yields. Similarly, exchange rate forecasts are provided for three-month, 12-month, and 24-month horizons.

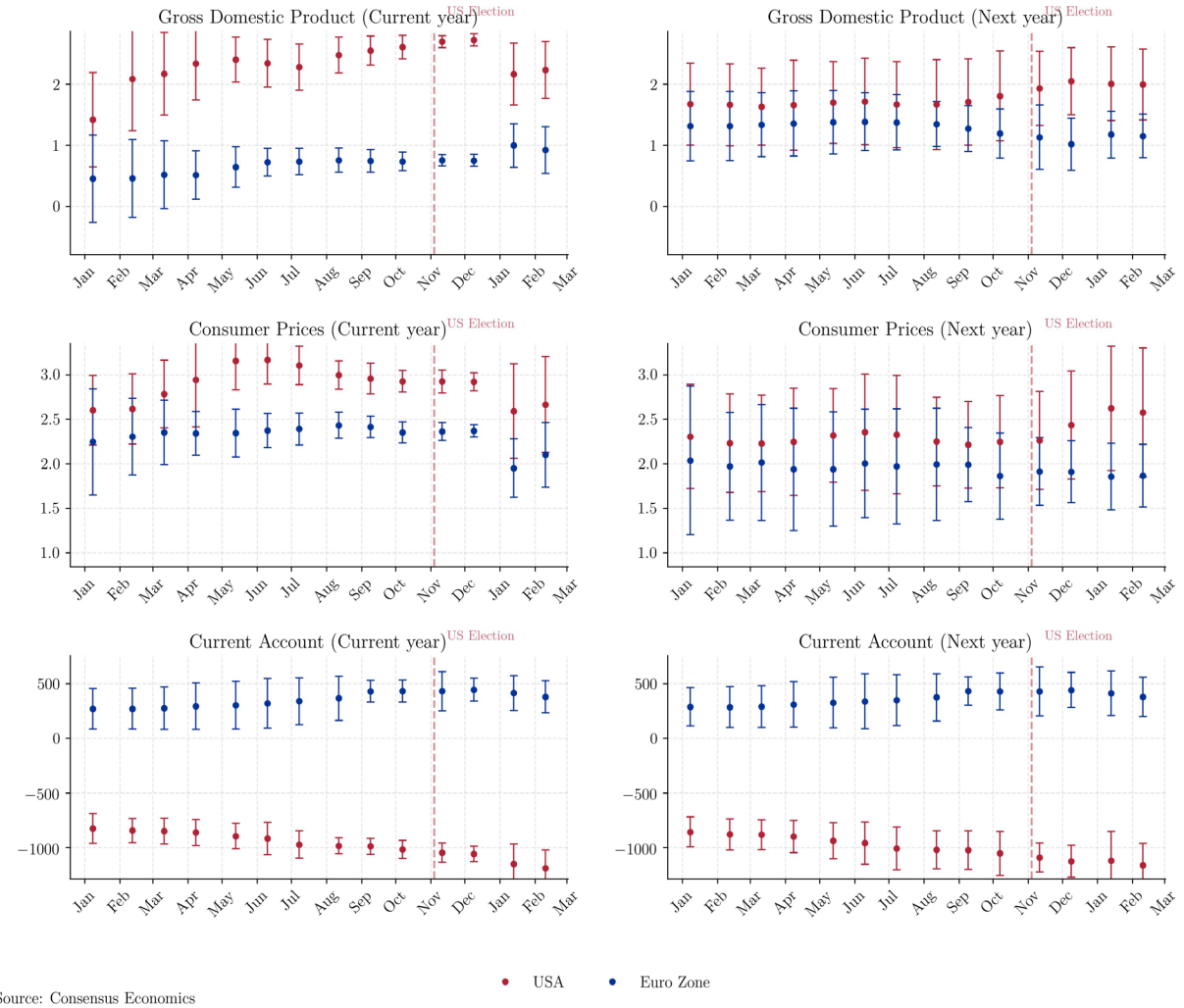
We present forecasts for two groups of variables —s low-moving macroeconomic indicators and fast-moving financial variables — in Figures 7 and 8. Each forecast is accompanied by a confidence interval[8], along with observed market values for all fast-moving variables (which are market prices observed daily) on the survey date.

[8] Computed as two standard deviations wide, reflecting cross-sectional uncertainty among survey participants.

Figure 7 suggests that Trump's victory had a very limited impact on forecasts for slow-moving macroeconomic variables. US GDP growth expectations for 2025 rose slightly from 1.8% in October to 2% in December, while euro area growth forecasts declined marginally from 1.2% to 1%. US consumer price inflation forecasts edged up from 2.2% to 2.4%, whereas inflation expectations for the euro area remained stable at 1.9%. Expectations for the US current account deficit increased slightly to USD -1,126 billion, while the euro area surplus remained nearly unchanged at EUR 443 billion. Similarly, the US federal budget deficit forecast remained stable at USD -1,850 billion, while expectations for the euro area worsened slightly, reaching EUR -471 billion — very close to the expected level for the end of 2024.

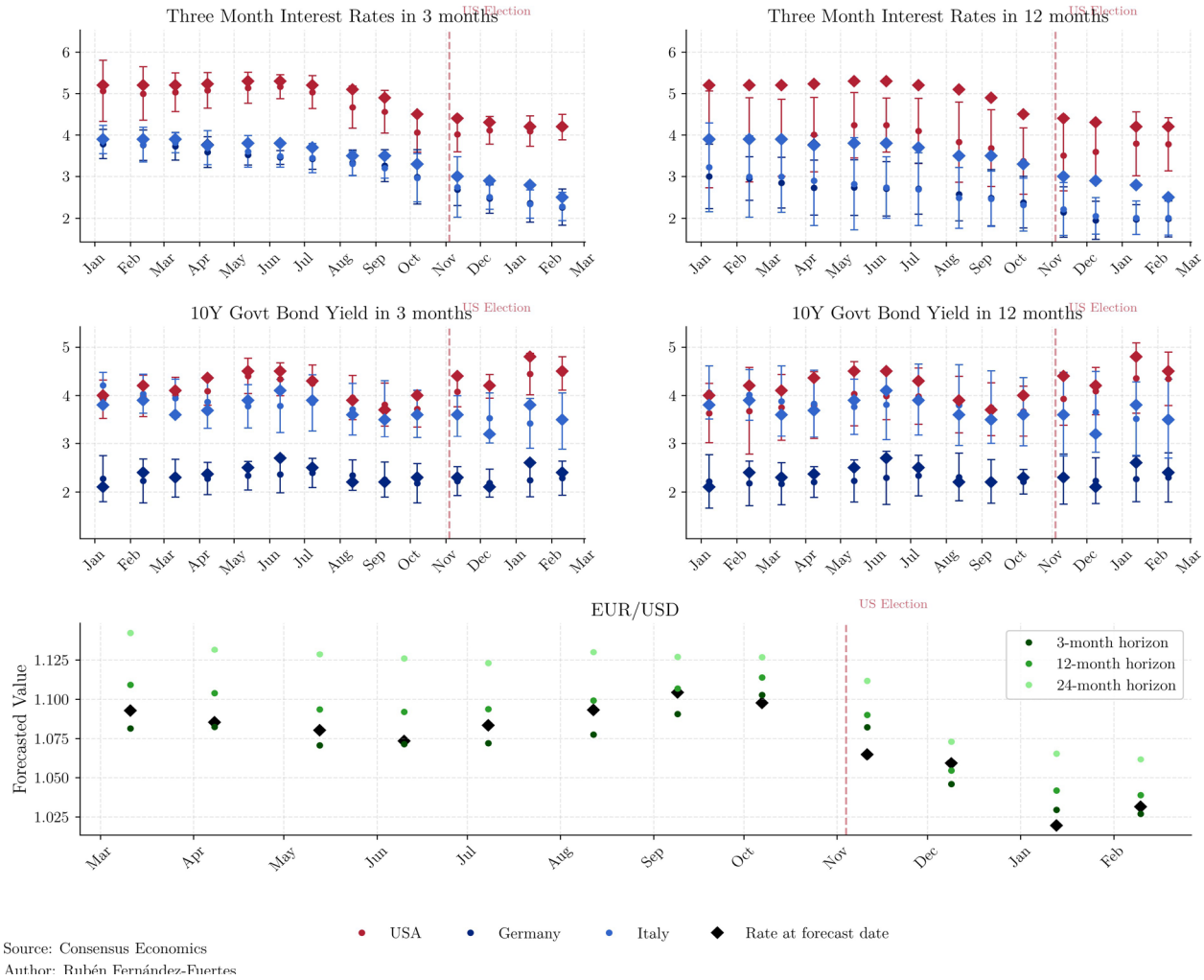
Figure 8 shows greater fluctuations in financial variables. Given the heterogeneity in borrowing costs across euro area member countries, we consider Germany, the lowest-yielding country, and Italy, the highest-yielding. The expected path for short-term interest rates maintains the divergence between the Federal Reserve and the ECB observed before the election, with only minor changes in expected short-term rates. However, expectations for 10-year bond yields exhibit a clear upward trend, which is more pronounced in the US than in the euro area. This shift is accompanied by expectations of a stronger US dollar across all horizons.

Figure 7: Slow-adjusting macroeconomic variables



Source: Consensus Economics
Author: Rubén Fernández-Fuertes

Figure 8: Fast-adjusting financial variables



Source: Consensus Economics
Author: Rubén Fernández-Fuertes

7.2. 10-year yields, term premia and expected paths for short term rates in US and Europe

The analysis of the impact of the Trump electoral victory on interest rates shows a significant shift in expectations for 10-year yields in the US not matched by the fluctuations in German and Italian long-term yields and a smaller impact on expected short-term rates on both sides of the Ocean. This evidence can be further investigated by considering that, under no-arbitrage, yields can be accurately decomposed into two components: the sequence of expected short-term monetary policy rates and the term-premia.

The first component reflects the future expected path of monetary policy rates, while the second reflects both macro fundamentals, including the prospects for growth, inflation and government debt dynamics, and the investors' attitude toward risk.

Term premia are derived as the difference from observed yields and measure of the future path of expected short-term rates risk. This measure can be based on a forecasting models or on available forecasts for monetary policy rates. We take the second approach and use FOMC forecast for the US and ECB survey of professional forecasters in the case of the euro area. The FOMC releases the Summary of Economic Projections, based on the assessment of meeting participants, in March, June, September and December of every year (see the 'Projection Materials' in FOMC Meeting Reports). Among other forecasts, it includes the forecasts for the federal funds rate for the next three years and also the projected long-run forecast of the federal funds rate. Using this information we interpolate the future

expected path for US monetary policy rates over the 10-year horizon. Consistently with this approach, information in the ECB SPF can be used to derive the expected path for euro area monetary policy rates. We report the decompositions in Figure 9. The data indicate that US 10-year government bond yields rose by approximately 40 basis points at the end of January, from an initial level of 4.3%. In contrast, German government bond yields remained largely stable, fluctuating around 2.40%. Meanwhile, sovereign spreads for Italy showed little variation.

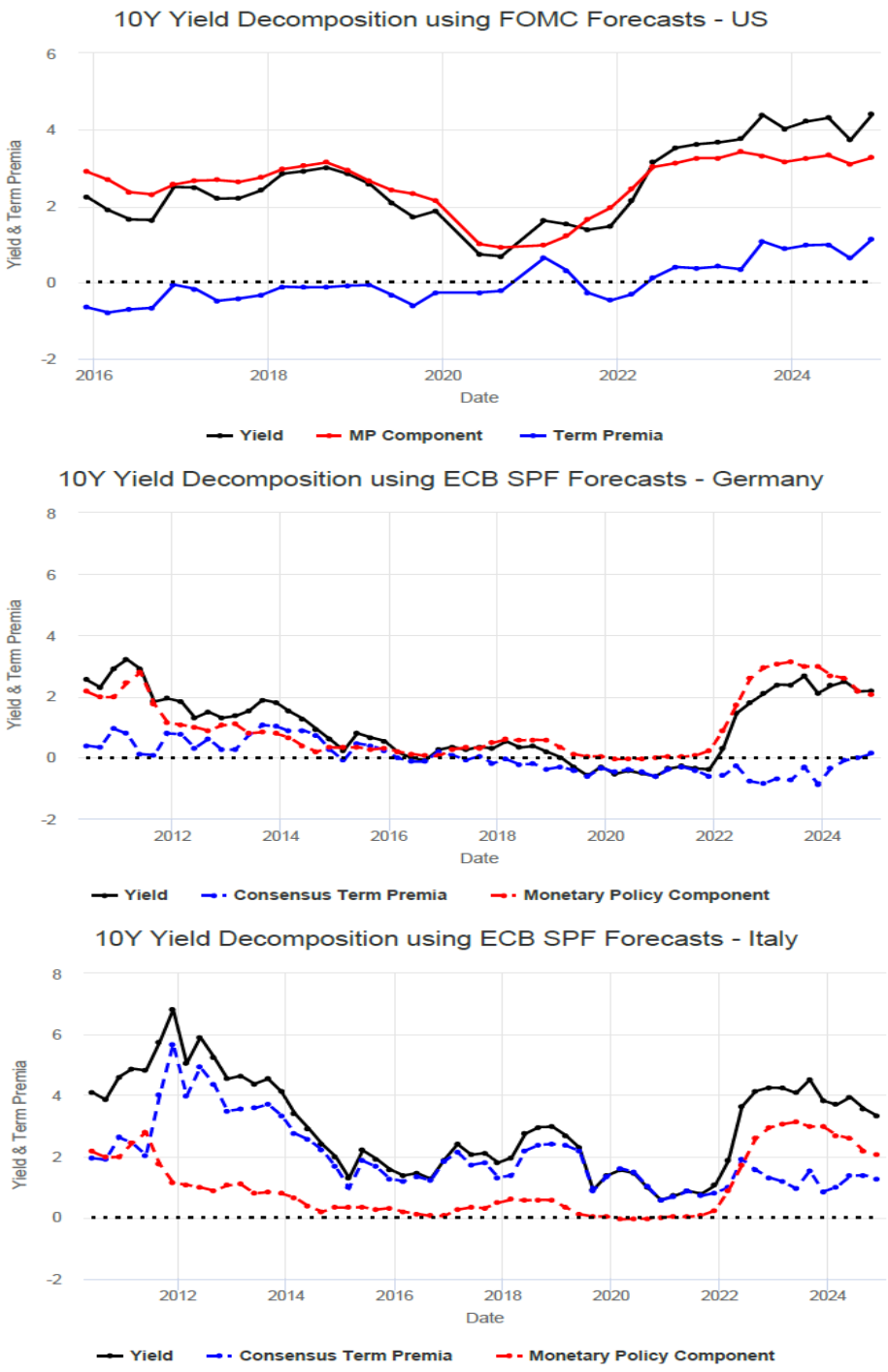
A decomposition of the movements in 10-year bond yields suggests that these fluctuations are primarily driven by changes in term premia, whereas expectations regarding future monetary policy have remained largely unchanged, both for the FED and the ECB, after the US election results.

The divergence in expected monetary policy paths persists, with US policy rates projected to average around 3.5% over the next decade, while euro area rates are expected to converge toward 2%.

The observed co-movements between the USD-EUR exchange rate and long-term bond yields are in line with recent academic literature on the relationship between exchange rates and term premia (Greenwood et al., 2023), while earlier literature hints at the possibility of some spill-over effects from fluctuations in US long-term interest rates to European long-term interest rates, (Favero and Giavazzi, 2008). The increase in the risk premium demanded by investors to hold long-term US bonds raises concerns about the potential impact of the Trump administration on public debt.

Overall, the evidence from surveys of expectations points to a very modest response of the expectations for future inflation, growth and the trade balance to the US election outcomes. The most significant movements are the expected depreciation of the euro against the US dollar and an increase in expected US long-term rates mostly driven by a jump in the term premia, without any significant change in future expected monetary policy. In the light of this evidence the primary perceived risk for the euro area is not the direct effect of tariffs — expected to be relatively modest — but rather the potential contagion effects stemming from higher government debt financing costs. This could have significant fiscal consequences for Europe, especially in a scenario where increased government spending is required to enhance competitiveness and bolster defence.

Figure 9: Decomposing yields into term premia and monetary policy components



Source: authors own computations

8. CONCLUSION

The analysis in this paper highlights the effects of US protectionist trade policies on the European economy. While direct tariff impositions may have relatively contained consequences due to expected exchange rate adjustments and ECB policy responses, the broader implications — particularly through global trade disruptions — pose significant challenges.

A key finding is that **while European exports to the US may face declines due to higher tariffs, the depreciation of the euro can partially offset these effects by improving competitiveness in global markets**. Additionally, **monetary policy flexibility remains a crucial tool** in mitigating the contractionary pressures of US tariffs. **However, a miscalibrated response, particularly an overly restrictive stance by the ECB, could amplify the economic slowdown** rather than counteract it.

Furthermore, **the risk of a "second China shock"** — whereby Chinese exports, redirected from the US due to tariffs, flood European markets — **presents a serious challenge**. While Europe's social safety nets and industrial policies provide some insulation, a well-coordinated policy response is necessary to prevent excessive sectoral disruptions.

The policy implications of our findings suggest that Europe should avoid reactionary protectionism, as broad retaliatory tariffs would exacerbate economic strain rather than alleviate it. Instead, a strategy focused on trade diversification, innovation incentives, and monetary flexibility would better position Europe to absorb the negative spillovers of US trade policies. In particular, fostering stronger trade ties with alternative partners and maintaining an open, rules-based trading system will be crucial to sustaining long-term growth.

Additionally, **survey-based forecasts highlight another crucial dimension of risk: the financial contagion effects stemming from increased investor risk premia**. The rise in long-term US bond yields reflects market concerns over fiscal sustainability under the Trump administration, which could, in turn, lead to higher financing costs in the euro area. If European governments are forced to increase public spending to maintain competitiveness and bolster defines, rising borrowing costs could pose significant fiscal challenges. Thus, the indirect effects of US policies on European financial conditions should not be underestimated, reinforcing the need for prudent fiscal and monetary coordination.

Overall, while the US shift towards protectionism introduces new economic risks, its impact on the European economy remains manageable if appropriate policy responses are adopted. The ability of European institutions to navigate these challenges — by avoiding unnecessary policy mistakes and leveraging macroeconomic tools effectively — will be the key determinant of economic resilience in the face of rising global trade tensions.

REFERENCES

- Auray, S., Devereux, M.B., Eyquem, A., 2024. Trade wars and the optimal design of monetary rules. Journal of Monetary Economics, 103726.
- Barattieri, A., Cacciatore, M., Ghironi, F., 2021. Protectionism and the business cycle. Journal of International Economics 129, 103417.
- Bellora, C., Jean, S., Santoni, G., 2018. Un chiffrage de l'impact des mesures de protection commerciale de Donald Trump. La Lettre du CEPII. https://www.cepii.fr/PDF_PUB/lettre/2018/let388.pdf
- Bergin, P.R., Corsetti, G., 2023. The macroeconomic stabilization of tariff shocks: What is the optimal monetary response? Journal of International Economics 143, 103758.
- Bianchi, J., Coulibaly, L., 2025. The Optimal Monetary Policy Response to Tariffs. Working Paper, https://www.minneapolisfed.org/research/working-papers/the-optimal-monetary-policy-response-to-tariffs.
- Boer, L., Rieth, M., 2024. The Macroeconomic Consequences of Import Tariffs and Trade Policy Uncertainty. IMF Working Papers, International Monetary Fund. URL: https://books.google.it/books?id=tw7wEAAAQBAJ.
- Bussiere, M., Delle Chiaie, S., Peltonen, T.A., 2014. Exchange rate pass-through in the global economy: the role of emerging market economies. IMF Economic Review 62, 146–178.
- Caldara, D., Iacoviello, M., Molligo, P., Prestipino, A., Raffo, A., 2020. The economic effects of trade policy uncertainty. Journal of Monetary Economics 109, 38–59.
- European Commission, 2018. Eu adopts rebalancing measures in reaction to us steel and aluminium tariffs. https://ec.europa.eu/commission/presscorner/detail/en/IP_18_4220. Press release.
- Fajgelbaum, P., Goldberg, P., Kennedy, P., Khandelwal, A., Taglioni, D., 2024. The us-china trade war and global reallocations. American Economic Review: Insights 6, 295–312.
- Favero, C., Giavazzi, F., 2008. Should the euro area be run as a closed economy? American Economic Review, Paper and Proceedings, 98, 138–145.
- Feenstra, R.C., Luck, P., Obstfeld, M., Russ, K.N., 2018. In search of the armington elasticity. The Review of Economics and Statistics 100, 135–150.
- Felbermayr, G., Steininger, M., 2019. Trump's trade attack on china- who will have the last laugh?, in: CESIfo forum, Munchen: ifo Institut–Leibniz-Institut fur Wirtschaftsforschung an der pp. 27–32.
- Fontagné, L., Guimbard, H., Orefice, G., 2022. A new dataset on product-level trade elasticities. Data in Brief 45, 108668. URL: https://www.sciencedirect.com/ science/article/pii/S2352340922008733, doi:https://doi.org/10.1016/j.dib. 2022.108668.
- Galí, J., Monacelli, T., 2016. Understanding the gains from wage flexibility: the exchange rate connection. American Economic Review 106, 3829–3868.
- Greenwood, R., Hanson, S., Stein, J.C., Sunderam, A., 2023. A quantity-driven theory of term premia and exchange rates. The Quarterly Journal of Economics 138, 2327–2389.
- Gunnella, V., Quaglietti, L., 2019. The economic implications of rising protectionism: a euro area and global perspective. Economic Bulletin Articles 3.

- Head, K., Mayer, T., 2014. Gravity equations: Workhorse, toolkit, and cookbook, in: Handbook of international economics. Elsevier. volume 4, pp. 131–195.
- Leigh, D., Lian, W., Poplawski-Ribeiro, M., Szymanski, R., Tsyrennikov, V., Yang, H., 2017, "Exchange Rates and Trade: A Disconnect?" IMF Working Paper 17/58 https://www.imf.org/en/Publications/WP/Issues/2017/03/15/Exchange-Rates-and-Trade-A-Disconnect-44746.
- Ossa, R., 2015. "Why trade matters after all". Journal of International Economics 97, 266–277.
- Saussay, A., 2024. "The economic impacts of Trump's tariff proposals on Europe". Policy insight]. London School of Economics., https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2024/10/Economic-impacts-of-the-Trump-Tariff-Proposals-on-Europe.pdf
- Setser, B., 2025. "A second China shock." URL:https://www.cfr.org/podcasts/second-china-shock-brad-setser

This paper examines the impact of US protectionist trade policies on the euro area economy, focusing on macroeconomic and financial repercussions. While direct tariff effects are mitigated by exchange rate adjustments and ECB policies, broader risks arise from global trade disruptions and financial contagion. Increased risk premia on US bonds elevate European financing costs, posing fiscal challenges. We highlight the importance of trade diversification, innovation incentives, and prudent monetary policy to mitigate economic vulnerabilities and sustain long-term growth.

This document was provided by the Economic Governance and EMU Scrutiny Unit at the request of the Committee on Economic and Monetary Affairs (ECON) ahead of the Monetary Dialogue with the ECB President on 20 March 2025.

PE 764.186
IP/A/ ECONMD/FWC/2024-002/C4/SC1

Print ISBN 978-92-848-2626-1 | doi:10.2861/4489638 | QA-01-25-051-EN-C
PDF ISBN 978-92-848-2625-4 | doi:10.2861/5971465 | QA-01-25-051-EN-N