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Inhoud

Economische, financiële en monetaire ontwikkelingen	2
Overzicht	2
1 Externe omgeving	7
2 Economische bedrijvigheid	14
3 Prijzen en kosten	23
4 Ontwikkelingen op de financiële markten	30
5 Financieringsvoorwaarden en ontwikkelingen in de kredietverlening	35
6 Begrotingsontwikkelingen	43
Kaders	47
1 Bulgaria adopts the euro	47
2 From text to trouble: understanding the limits of text-derived trade policy uncertainty measures	55
3 Tracking trade in real time: augmenting the nowcasting toolkit with satellite data	61
4 The household saving rate revisited: recent dynamics and underlying drivers	68
5 Has housing regained its allure? Insights from a new survey-based housing Sharpe ratio	73
6 Holding on: labour hoarding and firms' expectations	78
7 Inside the food basket: what is behind recent food inflation?	84
8 Liquidity conditions and monetary policy operations from 30 July to 4 November 2025	92
Artikelen	98
1 What is the untapped potential of the EU Single Market?	98
2 Short-term forecasting of euro area economic activity in an uncertain world	118
Box 1 The revised system of bridge equations: technical summary	122
Box 2 A case study: short-term GDP forecasts for the third quarter of 2025 in real time	128
Statistieken	

Economische, financiële en monetaire ontwikkelingen

Overzicht

Tijdens zijn vergadering van 18 december 2025 heeft de Raad van Bestuur besloten de basisrentetarieven van de ECB ongewijzigd te laten. De geactualiseerde beoordeling van de Raad herbevestigde dat de inflatie zich op de doelstelling van 2% op middellange termijn zou moeten stabiliseren.

Volgens de door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied van december 2025 komt de totale inflatie naar verwachting uit op gemiddeld 2,1% in 2025, 1,9% in 2026, 1,8% in 2027 en 2,0% in 2028. De inflatie exclusief energie en voedingsmiddelen zal volgens de medewerkers uitkomen op gemiddeld 2,4% in 2025, 2,2% in 2026, 1,9% in 2027 en 2,0% in 2028. De inflatie is voor 2026 opwaarts bijgesteld, vooral omdat nu verwacht wordt dat de diensteninflatie langzamer zal afnemen. De economische groei is naar verwachting sterker dan medewerkers van de ECB in de projecties van september 2025 hadden voorzien, vooral dankzij de binnenlandse vraag. De groei is opwaarts bijgesteld naar 1,4% in 2025, 1,2% in 2026 en 1,4% in 2027 en zal naar verwachting in 2028 1,4% blijven.

De Raad van Bestuur is vastbesloten ervoor te zorgen dat de inflatie zich stabiliseert op zijn doelstelling van 2% op middellange termijn. en volgt een op data gebaseerde benadering per vergadering om de passende monetairbeleidskoers te bepalen. De rentebesluiten van de Raad zullen in het bijzonder gebaseerd zijn op zijn beoordeling van de inflatievooruitzichten en de daarmee gepaard gaande risico's in het licht van de binnenkomende economische en financiële gegevens, naast de dynamiek van de onderliggende inflatie en de kracht van de monetairbeleidstransmissie. De Raad van Bestuur legt zich niet bij voorbaat vast op een bepaald rentetraject.

Economische bedrijvigheid

De economie is veerkrachtig en groeide in het derde kwartaal van 2025 met 0,3%, voornamelijk als gevolg van sterkere consumptie en investeringen. De uitvoer steeg ook, waarbij chemische producten een belangrijke bijdrage leverden. De uitsplitsing van de groei naar sector toont een dominante rol voor diensten, vooral in de sector informatie en communicatie, terwijl de bedrijvigheid in de industrie en de bouwnijverheid gelijk bleef. Dit patroon van door diensten geleide groei houdt op korte termijn waarschijnlijk aan.

De economie profiteert van een robuuste arbeidsmarkt. De werkloosheid, die in oktober 2025 op 6,4% stond, ligt dicht bij het historisch laagste peil en de

werkgelegenheid steeg in het derde kwartaal met 0,2%. Tegelijkertijd nam de vraag naar arbeid verder af en bevond de vacaturegraad zich op het laagste niveau sinds de pandemie.

De binnenlandse vraag blijft naar verwachting de belangrijkste stuwende kracht achter de groei in het eurogebied, ondersteund door de stijging van de reële lonen en de werkgelegenheid, tegen de achtergrond van veerkrachtige arbeidsmarkten met historisch lage werkloosheidscijfers. Ook de in 2025 aangekondigde extra overheidsuitgaven voor infrastructuur en defensie, met name in Duitsland, samen met de verbeterde financieringsvoorwaarden als gevolg van de verlagingen van de monetairbeleidsrente sinds juni 2024, zullen de binnenlandse economie naar verwachting ondersteunen. Wat betreft externe factoren wordt verwacht dat de uitvoer in 2026 zal aantrekken, hoewel de uitdagingen op het gebied van het concurrentievermogen blijven bestaan, waaronder sommige van structurele aard. Deze verbetering is toe te schrijven aan een opleving van de buitenlandse vraag door de afnemende onzekerheid over het handelsbeleid, ondanks het geleidelijk groter wordend effect van de hogere invoerheffingen. De gemiddelde reële bbp-groei op jaarbasis komt volgens de projecties uit op 1,4% in 2025, 1,2% in 2026 en 1,4% in zowel 2027 als 2028. Ten opzichte van de projecties van september 2025 is de bbp-groei voor de gehele projectieperiode opwaarts bijgesteld als gevolg van meevallende gegevens, verminderde handelonzekerheid, een sterkere buitenlandse vraag en lagere prijzen van energiegrondstoffen.

De Raad van Bestuur benadrukt dat het eurogebied en zijn economie in de huidige geopolitieke context dringend moeten worden versterkt. De Raad verwelkomt de oproep van de Europese Commissie aan overheden om voorrang te geven aan duurzame overheidsfinanciën, strategische investeringen en groeibevorderende structurele hervormingen. Het is cruciaal om het volledige potentieel van de gemeenschappelijke markt te benutten. Het is ook van vitaal belang om verdere integratie van de kapitaalmarkt te bevorderen door de spaar- en investeringsunie en de bankenunie te voltooien met een ambitieus tijdschema. Daarnaast is een spoedige goedkeuring van de verordening betreffende de invoering van de digitale euro essentieel.

Inflatie

De inflatie op jaarbasis in het eurogebied, zoals gemeten aan de hand van de geharmoniseerde consumptieprijsindex (HICP), beweegt zich sinds het voorjaar in een smalle bandbreedte en bleef in november 2,1%. De energieprijzen waren 0,5% lager dan in november van het voorgaande jaar, na een sterkere afname in oktober 2025. De voedselprijsinflatie bedroeg 2,4%, tegen 2,5% in oktober en 3,0% in september. De inflatie exclusief energie en voedingsmiddelen bleef stabiel op 2,4%, doordat de goederen- en de diensteninflatie zich in omgekeerde zin ontwikkelden. De goedereninflatie daalde in november naar 0,5%, van 0,6% in oktober en 0,8% in september. De diensteninflatie steeg van 3,2% in september tot 3,4% in oktober en 3,5% in november.

De indicatoren van de onderliggende inflatie zijn de afgelopen maanden weinig veranderd en blijven in overeenstemming met de doelstelling van de Raad van Bestuur van 2% op middellange termijn. Terwijl de groei van de winst per eenheid product in het derde kwartaal van 2025 onveranderd bleef, namen de arbeidskosten per eenheid product in een iets hoger tempo toe dan in het tweede kwartaal. De loonsom per werknemer steeg met 4,0% op jaarbasis. Dat was meer dan in de medewerkersprojecties van september 2025 was voorzien en had te maken met betalingen boven de contractlonen. Toekomstgerichte indicatoren, zoals de loontracker van de ECB en de uitkomsten van enquêtes over de loonverwachtingen, geven aan dat de loongroei de komende kwartalen zal afnemen alvorens zich iets onder 3% te stabiliseren tegen eind 2026.

De meeste maatstaven voor de inflatieverwachtingen op langere termijn blijven op ongeveer 2% staan en ondersteunen daarmee de stabilisatie van de inflatie rond de doelstelling van de Raad van Bestuur. De inflatie zal naar verwachting dalen van 2,1% in 2025 naar 1,9% in 2026 en vervolgens naar 1,8% in 2027, alvorens in 2028 te stijgen naar de doelstelling van de Raad van Bestuur van 2% op middellange termijn. De verwachte daling van de totale inflatie begin 2026 weerspiegelt een neerwaarts basiseffect van de energieprijzen, terwijl de inflatie in de niet-energiecomponenten gedurende 2026 zou moeten blijven afnemen. De bijdrage van de energie-inflatie aan de totale inflatie blijft tot eind 2027 gematigd, alvorens in 2028 aanzienlijk te stijgen als gevolg van de verwachte invoering van het EU-emissiehandelssysteem 2 (ETS2), met een opwaarts effect van 0,2 procentpunt op de totale inflatie. Volgens de projecties daalt de HICP-inflatie exclusief energie van 2,5% in 2025 naar 2,2% in 2026 en 2,0% in 2027 en 2028. De verwachting is dat de voedselinflatie aanmerkelijk zal dalen naarmate de effecten van de eerdere wereldwijde prijsstijgingen van voedingsgrondstoffen en de ongunstige weersomstandigheden gedurende de zomer afnemen. Vanaf eind 2026 stabiliseert de voedselinflatie zich dan iets boven de 2%. De HICP-inflatie exclusief energie en voedingsmiddelen matigt van 2,4% in 2025 tot 2,0% in 2028, doordat de diensteninflatie daalt tegen de achtergrond van afnemende arbeidskostendruk en naarmate de eerdere appreciatie van de euro doorwerkt in de prijsketen, waardoor de goedereninflatie wordt afgeremd. Verwacht wordt dat de loongroei geheel 2026 gematigd zal blijven, alvorens zich rond 3% te stabiliseren, ondersteund door een veerkrachtige arbeidsmarkt en een productiviteitsgroei net onder de 1%. De groei van de arbeidskosten per eenheid product zal naar verwachting afnemen, hoewel verwacht wordt dat het effect daarvan op de inflatie deels tenietgedaan wordt door een geleidelijk herstel van de winstmarges gedurende de projectieperiode.

Vergeleken met de projecties van september 2025 zijn de vooruitzichten voor de totale HICP-inflatie voor 2026 met 0,2 procentpunt naar boven toe bijgesteld vanwege de recente onverwacht hogere cijfers voor de HICP-inflatie en de loongroei. Deze laatste factor heeft geleid tot een aanzienlijke opwaartse herziening van de loonvooruitzichten. De projectie voor de HICP-inflatie is voor 2027 licht neerwaarts bijgesteld. Dit is het gevolg van een veronderstelde lagere bijdrage van de energie-inflatie, aangezien de invoering van ETS2 nu naar verwachting wordt uitgesteld van 2027 tot 2028. Deze bijdrage zal echter deels worden gecompenseerd door een sterkere diensteninflatie.

Risicobeoordeling

Hoewel de handelsspanningen zijn afgenomen, kan het nog steeds volatiele internationale klimaat de aanbodketen verstoren, de uitvoer afremmen en de consumptie en de investeringen drukken. Een verslechtering van het sentiment op de mondiale financiële markten zou kunnen leiden tot krappere financieringsvoorwaarden, een grotere risicoaversie en zwakkere groei. Geopolitieke spanningen, in het bijzonder de ongerechtvaardigde oorlog van Rusland tegen Oekraïne, blijven een belangrijke bron van onzekerheid. Aan de andere kant kunnen de geplande uitgaven voor defensie en infrastructuur, samen met productiviteitsverhogende hervormingen, de groei meer dan verwacht opdrijven. Een verbetering van het vertrouwen zou de private bestedingen kunnen bevorderen.

De vooruitzichten voor de inflatie blijven onzekerder dan gewoonlijk, als gevolg van het nog steeds volatiele internationale klimaat. De inflatie kan lager uitvallen als de stijging van de Amerikaanse invoerheffingen de vraag naar uitvoer vanuit het eurogebied doet afnemen en als landen met overcapaciteit hun uitvoer naar het eurogebied opvoeren. Daarnaast kan een sterkere euro de inflatie meer dan verwacht doen dalen. Een toename van de volatiliteit en risicoaversie op de financiële markten kan de vraag drukken en zo ook de inflatie doen afnemen. De inflatie zou dan weer hoger kunnen zijn als meer gefragmenteerde mondiale aanbodketens de invoerprijzen opdrijven, het aanbod van kritieke grondstoffen inperken en de capaciteitsbelemmeringen in de economie van het eurogebied vergroten. Een tragere afname van de loondruk kan de daling van de diensteninflatie afremmen. Een stijging van de uitgaven voor defensie en infrastructuur kan ook leiden tot een hogere inflatie op de middellange termijn. Extreme weersomstandigheden, en meer in het algemeen de zich ontvouwende klimaat- en natuurrises, kunnen de voedselprijzen meer dan verwacht opdrijven.

Financiële en monetaire omstandigheden

De marktrenten zijn gestegen sinds de laatste monetairbeleidsvergadering van de Raad van Bestuur op 30 oktober 2025. De rentetarieven voor bankleningen aan bedrijven zijn sinds de zomer vrijwel stabiel gebleven, na een daling als gevolg van de verlaging van de beleidsrente van de Raad tijdens het voorgaande jaar. In oktober stonden ze op 3,5%, onveranderd ten opzichte van september. De kosten voor de uitgifte van schuldfinanciering via de markt bedroegen 3,4%, ook ongeveer evenveel als in september. De gemiddelde rente op nieuwe hypotheek bleef in oktober weer ongewijzigd op 3,3%.

De groei van de bancaire kredietverlening aan bedrijven bedroeg in oktober 2,9% op jaarbasis, onveranderd ten opzichte van september. De stijging van de uitgifte van bedrijfsobligaties bleef met 3,2% ook vrijwel gelijk. De hypothecaire kredietverlening nam toe met 2,8%, tegen 2,6% in september.

Conform de strategie van de ECB voor het monetair beleid heeft de Raad van Bestuur de samenhang tussen monetair beleid en financiële stabiliteit grondig

beoordeeld. De banken in het eurogebied zijn veerkrachtig dankzij sterke kapitaal- en liquiditeitsratio's, een solide activakwaliteit en robuuste winstgevendheid. Maar de geopolitieke onzekerheid en de mogelijkheid van een plotse herbeprijzing op de mondiale financiële markten vormen risico's voor de financiële stabiliteit in het eurogebied. Het macroprudentieel beleid blijft de eerste verdedigingslinie tegen de opbouw van financiële kwetsbaarheden. Zo kan de weerbaarheid worden vergroot en blijft de macroprudentiële ruimte behouden.

Monetairbeleidsbeslissingen

De rente op de depositofaciliteit, de rente op de basisherfinancieringstransacties en de rente op de marginale beleningsfaciliteit bleven ongewijzigd op respectievelijk 2,00%, 2,15% en 2,40%.

De portefeuilles van het programma voor de aankoop van activa en het pandemie-noodaankoopprogramma nemen in een gelijkmatig en voorspelbaar tempo af, aangezien het Eurosysteem de aflossingen op effecten die de vervaldatum hebben bereikt niet langer herinvesteert.

Conclusie

Tijdens zijn vergadering van 18 december 2025 heeft de Raad van Bestuur besloten de basisrentetarieven van de ECB ongewijzigd te laten. De Raad is vastbesloten ervoor te zorgen dat de inflatie zich stabiliseert op zijn doelstelling van 2% op middellange termijn en volgt een op data gebaseerde benadering per vergadering om de passende monetairbeleidskoers te bepalen. De rentebesluiten van de Raad zullen gebaseerd zijn op zijn beoordeling van de inflatievooruitzichten en de daarmee gepaard gaande risico's in het licht van de binnenkomende economische en financiële gegevens, naast de dynamiek van de onderliggende inflatie en de kracht van de monetairbeleidstransmissie. De Raad van Bestuur legt zich niet bij voorbaat vast op een bepaald rentetraject.

De Raad van Bestuur staat in elk geval klaar om alle instrumenten binnen zijn mandaat aan te passen om ervoor te zorgen dat de inflatie zich duurzaam stabiliseert op zijn doelstelling op middellange termijn en om de soepele transmissie van het monetair beleid te handhaven.

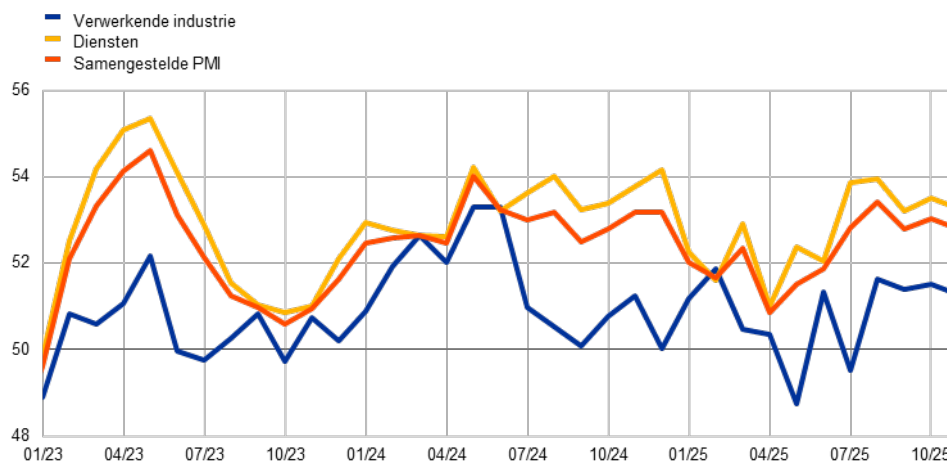
De wereldeconomie heeft zich tot dusver veerkrachtig getoond, ondanks tegenwind als gevolg van invoerheffingen en toegenomen onzekerheid. Deze veerkracht wordt met name ondersteund door investeringen op het gebied van kunstmatige intelligentie (AI), met name in de Verenigde Staten. Deze investeringen ondersteunen de wereldwijde handel in technologieproducten en drijven winsten op de aandelenmarkten op, maar geven daarnaast ook aanleiding tot bezorgdheid over waarderingen. Een ondersteunende beleidsmix in de belangrijkste economieën heeft daarnaast een deel van de negatieve gevolgen van handelsspanningen en onzekerheid verzacht. Verschillende positieve ontwikkelingen ondersteunen de wereldeconomie. Het gaat onder meer om lagere olieprijsen, ruimere financieringsvoorwaarden, lagere invoerheffingen en een licht verminderde beleidsonzekerheid. Als gevolg daarvan zijn de vooruitzichten voor de mondiale groei in de door de medewerkers van het Eurosysteem samengestelde macro-economische projecties van december 2025 licht opwaarts bijgesteld ten opzichte van de vorige projecties, hoewel deze gematigd blijven ten opzichte van het gemiddelde van vóór de pandemie. De totale consumptieprijsinflatie in de belangrijkste ontwikkelde en opkomende markteconomieën zal naar verwachting geleidelijk en ook iets sneller dalen in vergelijking met de vorige projecties.

De wereldeconomie heeft zich tot dusver veerkrachtig getoond, ondanks tegenwind als gevolg van invoerheffingen en toegenomen onzekerheid. De binnenkomende gegevens voor het derde kwartaal wijzen op een lichte matiging van de mondiale economische bedrijvigheid ten opzichte van het tweede kwartaal van 2025. De wereldwijde samengestelde inkoopmanagersindex (PMI) voor de productie (exclusief het eurogebied) daalde sinds de zomermaanden licht, tot 52,8 in november (Grafiek 1). Volgens deze enquête-indicator vertraagde de economische bedrijvigheid in de meeste belangrijke economieën in november. In de Verenigde Staten werd de daling van de bedrijvigheid in de dienstensector deels gecompenseerd door een verbetering in de verwerkende industrie, terwijl in China in beide sectoren een daling werd opgetekend. De publicatie van nationale gegevens voor het derde kwartaal bevestigt in grote lijnen de verwachte matiging van de groei, zoals blijkt uit de door medewerkers van het Eurosysteem samengestelde macro-economische projecties van december 2025.

Grafiek 1

Wereldwijde PMI voor de productie (met uitzondering van het eurogebied)

(spreidingsindices)



Bronnen: S&P Global Market Intelligence en berekeningen van ECB-medewerkers.

Toelichting: De 50-indexpuntlijn heeft betrekking op de neutrale drempel. De meest recente waarnemingen betreffen november 2025.

Naar verwachting zullen verschillende positieve ontwikkelingen de wereldeconomie ondersteunen. Daarbij gaat het onder meer om lagere olieprijsen, ruimere financieringsvoorwaarden, verlaagde invoerheffingen, met name tussen de Verenigde Staten en China, en een licht verminderde beleidsonzekerheid. Verrassende positieve economische gegevens uit de belangrijkste economieën hebben ook bijgedragen aan licht verbeterde vooruitzichten voor de mondiale groei, die echter gematigd blijft ten opzichte van het gemiddelde van vóór de pandemie. In 2025 zal de mondiale groei naar schatting uitkomen op 3,5% om in 2026 te dalen tot 3,3%.¹ Volgens de medewerkersprojecties zal deze gematigde groeidynamiek naar verwachting zowel in 2027 als 2028 aanhouden.

De iets sterkere groei van de wereldeconomie vergeleken met de vorige projecties is grotendeels toe te schrijven aan sterkere groeivoorzichten voor de Verenigde Staten en China. Naast lagere invoerheffingen zijn de groeivoorzichten voor de Verenigde Staten licht opwaarts bijgesteld als gevolg van een veerkrachtiger dan verwachte binnenlandse vraag, ondersteund door positieve vermogens effecten die voortvloeien uit de recente ontwikkelingen van de aandelenkoersen, en algemeen hogere aannames met betrekking tot begrotingsuitgaven. Voor China zijn de projecties voor de reële bbp-groei voor dit en volgend jaar eveneens licht opwaarts bijgesteld als gevolg van een sterker dan verwachte expordynamiek en verdergaande veronderstelde budgettaire stimuleringsmaatregelen. De groeivoorzichten voor het Verenigd Koninkrijk zijn licht neerwaarts bijgesteld als gevolg van de voorziene begrotingsconsolidatiemaatregelen.

De risico's voor de mondiale groeivoorzichten en de mondiale inflatievoorzichten worden evenwichtiger naarmate de belangrijkste macro-economische en financiële risicofactoren meer tweezijdig worden. Het gaat dan

¹ Zie voor meer informatie de [door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied](#) van december 2025.

onder meer om risico's in verband met handel en begrotingsbeleid, en risico's in verband met kunstmatige intelligentie (AI) en geopolitieke ontwikkelingen. Als de handelsspanningen bijvoorbeeld weer zouden oplopen, met name tussen de Verenigde Staten en China, zou dat enerzijds negatieve gevolgen zou kunnen hebben voor de wereldeconomie. Anderzijds zou de regering-Trump ook vooruitgang kunnen boeken in de handelsbesprekingen, wat dan weer positieve gevolgen zou kunnen hebben.

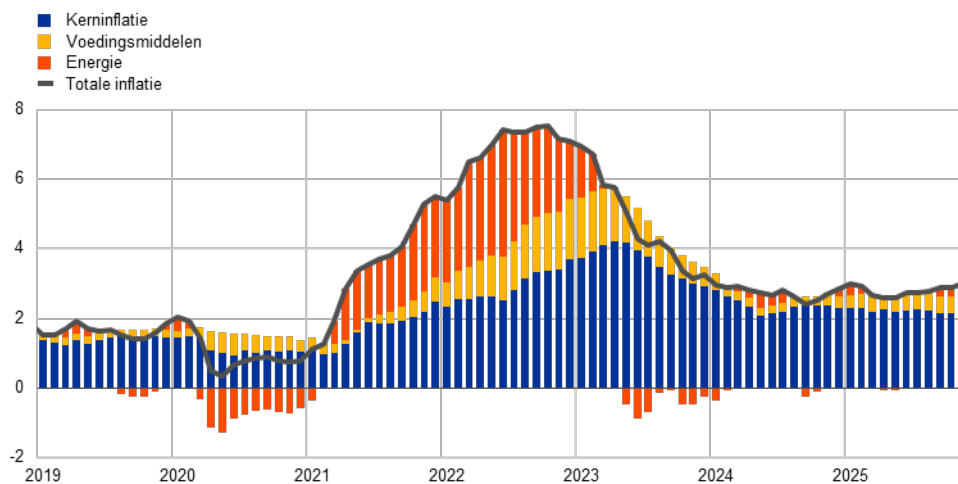
De mondiale invoergroei zal in 2025 naar verwachting stabiel blijven, hoewel voor volgend jaar een vertraging wordt verwacht. Recente gegevens bevestigen dat de uitvoer van halfgeleiders in verband met sterke AI-gerelateerde investeringen in het derde kwartaal robuust is gebleven, met name in verband met ontwikkelingen in de Verenigde Staten. Tegelijkertijd bleek de handel in andere goederen vrij zwak. Nieuwe gegevens bevestigen daarnaast dat de Chinese uitvoer sterk blijft groeien. Verwacht wordt dat de wereldwijde invoergroei in 2025 zal uitkomen op 4,4%, grotendeels als gevolg van de sterke groei wegens vervroegde vraag om de invoerheffingen vóór te zijn in de eerste helft van het jaar, alvorens te dalen tot 2,0% in 2026 als gevolg van de negatieve gevolgen van de heffingen. Daarna zal de mondiale invoergroei naar verwachting herstellen tot 3,1% in zowel 2027 als 2028. De vooruitzichten voor de mondiale invoer zijn voor dit jaar en volgend jaar aanzienlijk opwaarts bijgesteld ten opzichte van de vorige projecties, terwijl de projectie voor 2027 onveranderd blijft. De sterkere verwachte invoergroei wordt ondersteund door lagere invoerheffingen tussen de Verenigde Staten en China en door een relatief krachtige groeidynamiek in de opkomende markteconomieën. In de laatstgenoemde groep valt de sterke economische bedrijvigheid en de groei van de invoer in India op.

De totale inflatie in de landen van de Organisatie voor Economische Samenwerking en Ontwikkeling (OESO) is in november licht gestegen. De inflatie van de consumentenprijsindex (CPI) op jaarbasis is in alle lidstaten van de OESO (behalve Turkije) licht gestegen, van 2,9% in oktober tot 3,0% in november, als gevolg van een iets hogere bijdrage van de voedingsmiddelen en de kerncomponenten (Grafiek 2).

Grafiek 2

Consumentenprijsinflatie in de OESO-landen

(mutaties in procenten per jaar; bijdragen in procentpunten)



Bronnen: OESO en berekeningen van ECB-medewerkers.

Toelichting: Het OESO-aggregaat omvat eurolanden die lid zijn van de OESO en is exclusief Turkije. Het wordt berekend aan de hand van de jaarlijkse CPI-gewichten van de OESO. De meest recente waarnemingen betreffen november 2025.

De wereldwijde CPI-inflatie zal naar verwachting geleidelijk en in een iets hoger tempo afnemen in vergelijking met de projecties van september.² In

2025 zal deze naar verwachting uitkomen op 3,1%, in 2026 op 2,8%, in 2027 op 2,5% en in 2028 op 2,6%. De iets sneller dan verwachte daling van de CPI-inflatie in de periode 2025-2026 is het gevolg van tegenvallende inflatiecijfers in de meeste ontwikkelde economieën, lagere invoerheffingen tussen de VS en China en de herbeoordeling van het effect van de heffingen op de inflatie in de Verenigde Staten, die naar verwachting iets lager zullen zijn dan in de vorige projecties. Bovendien ligt de zwakkere binnenlandse vraag in China ten grondslag aan een zwakkere stijging van de consumptieprijsinflatie gedurende de projectieperiode dan eerder verwacht. Dit effect op het aggregaat van de opkomende markten wordt gecompenseerd door een iets hogere verwachte inflatie in andere belangrijke economieën, zoals India en Rusland.

De perceptie van betere vooruitzichten op een vredesakkoord in Oekraïne drukte de energiegrondstoffenprijzen.

In de aanloop naar de vergadering van de Raad van Bestuur van oktober werden de olieprijsen aanvankelijk ondersteund door de aankondiging van nieuwe Amerikaanse sancties tegen de twee belangrijkste olieproducerende ondernemingen van Rusland, Lukoil en Rosneft, die het grootste deel van de Russische uitvoer voor hun rekening nemen. Meer recentelijk hebben hernieuwde inspanningen van de VS om de vredesonderhandelingen in Oekraïne te bevorderen echter de vermeende waarschijnlijkheid van een strikte handhaving van deze sancties verminderd, waardoor de prijzen onder neerwaartse druk zijn komen te staan. Deze neerwaartse druk wordt versterkt door een aanbodoverschot dat al enkele maanden op de oliemarkt wordt opgebouwd. Hoewel een recente koudegolf

² De door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor de totale CPI-inflatie omvatten een bredere groep landen, met name grote opkomende markten (zoals China, India, Brazilië en Rusland), die niet zijn opgenomen in de CPI-inflatiecijfers van de OESO.

in West-Europa het gasverbruik tijdelijk heeft doen toenemen en op de voorraden drukte, zijn de gasprijzen uiteindelijk met 15% gedaald als gevolg van de verwachting dat er enige vooruitgang wordt geboekt naar een potentieel vredesakkoord in Oekraïne. Gezien de aanhoudende inspanningen van Europa om een einde te maken aan de afhankelijkheid van Russische fossiele brandstoffen, is het onwaarschijnlijk dat deze neerwaartse druk voortvloeit uit verwachtingen van hernieuwde afspraken over Russisch pijpleidinggas. Het is waarschijnlijker dat deze voortvloeit uit de mogelijkheid dat een vredesakkoord zou kunnen leiden tot opheffing van Amerikaanse sancties op delen van de Russische uitvoercapaciteit voor vloeibaar aardgas. De metaalprijzen stegen met 2%, gesteund door opnieuw oplevende verwachtingen van Amerikaanse invoerheffingen op koper, waardoor handelaren hun leveringen aan de Verenigde Staten versnelden. Daarentegen daalden de voedselprijzen met 3% tegen de achtergrond van tekenen van een robuust cacaoaanbod.

De economische bedrijvigheid in de Verenigde Staten werd negatief beïnvloed door de sluiting (shutdown) van de federale overheidsdiensten. De shutdown duurde 43 dagen en vertraagde de publicatie van belangrijke gegevens. Naar verwachting zal de shutdown ook in het vierde kwartaal van 2025 negatieve gevolgen hebben voor de groei, waarbij een groot deel van dit effect naar verwachting in het eerste kwartaal van 2026 zal worden gecompenseerd. De particuliere consumptie overtrof dit jaar de verwachtingen, ondersteund door vermogenswinsten bij huishoudens met hogere inkomens als gevolg van de hausse op de aandelenmarkten. De groei van de particuliere consumptie zal naar verwachting echter vertragen naarmate de arbeidsmarkt afkoelt en huishoudens hun lage spaarsaldo's weer gaan opbouwen. In het derde kwartaal was die groei krachtig, hoewel deze in september op maandbasis tot stilstand kwam. De benaderingen van de particuliere consumptie in de particuliere sector wijzen op een zwakke groei in oktober en november, in overeenstemming met het dalende consumentenvertrouwen en een zwakke arbeidsmarkt. De sterke stijging van de AI-gerelateerde kapitaaluitgaven ondersteunt sterkere vooruitzichten voor particuliere investeringen. Het uitvoersaldo zal naar verwachting positief bijdragen aan de reële bbp-groei tegen de jaarwisseling. De arbeidsmarkt blijft zwak ondanks het feit dat de werkgelegenheidsgroei in de private sector de verwachtingen in september overtrof, aangezien het effect van deze positieve verrassing werd getemperd door neerwaartse bijstellingen van de werkgelegenheid in de private sector in de voorgaande maanden. De gegevens van de private sector wijzen op een zeer gematigde werkgelegenheidsgroei in oktober en november, terwijl hoogfrequente indicatoren wijzen op toegenomen ontslagen en stagnerende werkgelegenheidsgroei. De groei van de uurlonen blijft matigen.

Ondertussen hebben de invoerheffingen een effect op de inflatie van de consumentenprijzen in de Verenigde Staten. De invoerheffingen op consumptiegoederen droegen bij aan de inflatiedruk: de goedereninflatie bereikte haar hoogste niveau sinds april 2023. De verwachting is dat heffinggerelateerde prijsstijgingen zullen bijdragen aan een hogere inflatie in het vierde kwartaal. De diensteninflatie blijft een geleidelijk neerwaartse trend volgen, voornamelijk als gevolg van de vertragende inflatie van de woonlasten. Tegelijkertijd nam de totale

inflatie van de persoonlijke consumptieve bestedingen (PCE) licht toe tot 2,8% in september (met 0,1 procentpunt), terwijl de kerninflatie van de PCE daalde tot 2,8 % (0,1 procentpunt). Het Federal Open Market Committee verlaagde de doelbandbreedte voor de federal funds rate tijdens de vergadering in december (met 25 basispunten) naar 3,50-3,75%.

De vooruitzichten voor China op de korte termijn wijzen op een afzwakking van het groeitempo, ondanks de sterker dan verwachte groei in het derde kwartaal.

De binnenlandse vraag is nog steeds zwak, hoewel het reële bbp in het derde kwartaal met 1,1% op kwartaalbasis groeide en daarmee de marktverwachtingen overtrof. Het uitvoersaldo leverde een positieve bijdrage, terwijl de indicatoren van de binnenlandse vraag, zoals detailhandelsverkoop en investeringen in vaste activa, verder afnamen in verband met het gematigde consumentenvertrouwen en de aanhoudende aanpassingen in de woningsector. Volgens de PMI-enquête liep de bedrijvigheid in de verwerkende industrie in november terug, terwijl de bedrijvigheid in de dienstensector afnam maar in expansief terrein bleef. De uitvoerprestaties van China zijn robuust geweest, met een groei van de nominale goederenuitvoer van 5,8% op jaarbasis in november, ondersteund door een sterke uitvoer naar de Association of Southeast Asian Nations (ASEAN), Afrika en Europa. Deze stijgingen compenseerden ruimschoots de daling van de Amerikaanse uitvoer. De recente handelsovereenkomst tussen de VS en China waarmee de heffingen op de Chinese invoer worden verlaagd, in combinatie met de toegenomen budgettaire stimuleringsmaatregelen in het kader van het nieuwe vijfjarenplan van China, zal de economische groei gedurende de projectieperiode naar verwachting ondersteunen. Structurele uitdagingen, zoals de aanhoudende correctie in de residentiële vastgoedsector, drukken echter het consumentenvertrouwen en vormen dus risico's voor de vooruitzichten voor de consumptie op de middellange termijn. De totale consumptieprijzen in China stegen in november verder, terwijl de deflatie van de producentenprijzen aanhield. De jaarlijkse totale CPI-inflatie steeg van 0,2% in oktober naar 0,7% in november, het hoogste cijfer sinds februari vorig jaar. De stijging was in lijn met de marktverwachtingen en werd voornamelijk veroorzaakt door de gestegen prijzen van voedingsmiddelen als gevolg van aanbodtekorten door het slechte weer. De producentenprijsinflatie daalde licht van -2,1% in oktober tot -2,2% in november, als gevolg van de lagere prijzen van grondstoffen en duurzame consumptiegoederen.

In het Verenigd Koninkrijk liet de economie in het derde kwartaal van 2025 een bescheiden groei zien.

De particuliere consumptie bleef zwak. Dit werd enigszins gecompenseerd door investeringen in woningen. De PMI-flashgegevens voor november wijzen op een aanhoudende verzwakking van de economische dynamiek in het vierde kwartaal, waarbij de bedrijvigheid in de dienstensector afzwakte en de productie in de verwerkende industrie licht verbeterde. De CPI-kerninflatie daalde naar 3,6% in oktober tegenover 3,8% in september. Ook de kerninflatie nam af naar 3,4% als gevolg van de diensteninflatie, die naar 4,5% afnam. De loongroei vertraagde, maar bleef hoog. In de op 26 november aangekondigde najaarsbegroting zijn hogere uitgaven voor de komende jaren opgenomen, waarbij beleidsmaatregelen zoals het verlengen van de bevrozing van

inkomstenbelastingdrempels naar verwachting extra belastingopbrengsten zullen genereren, met name vanaf 2028.

De economie van het eurogebied blijkt veerkrachtig te zijn ondanks het uitdagende mondiale klimaat. Het reële bbp steeg in het derde kwartaal van 2025 met 0,3%, wat hoger was dan in de door medewerkers van de ECB opgestelde macro-economische projecties voor het eurogebied van september 2025. Dit volgde op de volatiele ontwikkelingen in de eerste helft van het jaar, als gevolg van 'frontloading' als reactie op de hogere Amerikaanse handelstarieven en de daarmee samenhangende onzekerheid, alsook de impact van de sterke schommelingen in de Ierse gegevens. De groei in het derde kwartaal was te danken aan de binnenlandse vraag en de accumulatie van voorraden aan de uitgavenzijde, waarbij de marktdiensten – met name de informatie- en communicatiesector – bijdroegen aan de toegevoegde waarde, terwijl de industrie en de bouwnijverheid vlak bleven. Enquêtegegevens wijzen momenteel op een aanhoudend gematigd groeitempo in het vierde kwartaal van 2025, onder aanvoering van de dienstensector. De arbeidsmarkt blijft veerkrachtig, maar vertoont tekenen van vertraging, met opvallende verschillen tussen landen en sectoren. De werkloosheid bleef in september en oktober stabiel op 6,4%, dicht bij een recent historisch laag niveau.

De binnenlandse vraag zal naar verwachting de groei van het bbp op korte en middellange termijn ondersteunen. De stijging van de reële inkomens en een veerkrachtige arbeidsmarkt zullen de particuliere consumptie waarschijnlijk ondersteunen, en de woninginvesteringen zullen zich naar verwachting herstellen in het vierde kwartaal en daarna, zoals blijkt uit de voorlopende indicatoren. Ook de bedrijfsinvesteringen zullen toenemen, gedreven door immateriële activa, terwijl fysieke investeringen op korte termijn waarschijnlijk beperkter blijven. Factoren zoals de stijgende vraag, hogere winsten, verminderde onzekerheid, extra uitgaven aan defensie en infrastructuur, alsook een verbeterd financieringsklimaat, zullen naar verwachting de investeringen en de bedrijvigheidsgroei op middellange termijn verder ondersteunen.

Deze vooruitzichten worden grotendeels weerspiegeld in de door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied van december 2025, waarin de gemiddelde reële bbp-groei op jaarbasis naar verwachting zal toenemen met 1,4% in 2025, 1,2% in 2026, 1,4% in 2027 en 1,4% in 2028. Vergeleken met de projecties van september 2025 is de bbp-groei over de hele projectiehorizon opwaarts bijgesteld.³

Volgens de laatste raming van Eurostat groeide de economie van het eurogebied in het derde kwartaal van 2025 met 0,3%, na een volatiele eerste jaarthelft (Grafiek 3). De groei in het derde kwartaal was te danken aan de binnenlandse vraag en de accumulatie van voorraden, terwijl de netto-uitvoer negatief bijdroeg als gevolg van de sterke groei van de invoer, met name in Ierland. De stijging van de immateriële investeringen en gedetailleerde gegevens over de productie van diensten wijzen erop dat de AI-gerelateerde uitgaven toenemen. De groei van de bruto toegevoegde waarde in het derde kwartaal werd gedreven door

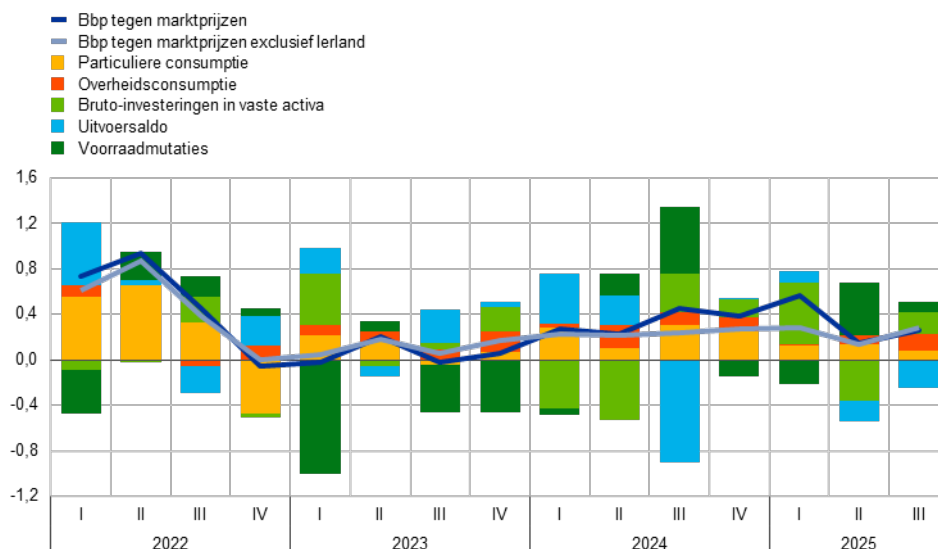
³ Zie de door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied van december 2025.

marktdiensten, onder aanvoering van de informatie- en communicatiesector, terwijl de bijdragen van de industrie en de bouwrijverheid vlak waren.

Grafiek 3

Reëel bbp van het eurogebied en samenstelling

(mutaties in procenten op kwartaalbasis; bijdragen in procentpunten)



Bronnen: Eurostat en berekeningen van de ECB.

Toelichting: De meest recente waarnemingen betreffen het derde kwartaal van 2025.

Enquêtegegevens wijzen op een gematigd groeitempo in het vierde kwartaal van 2025, onder impuls van de dienstensector.

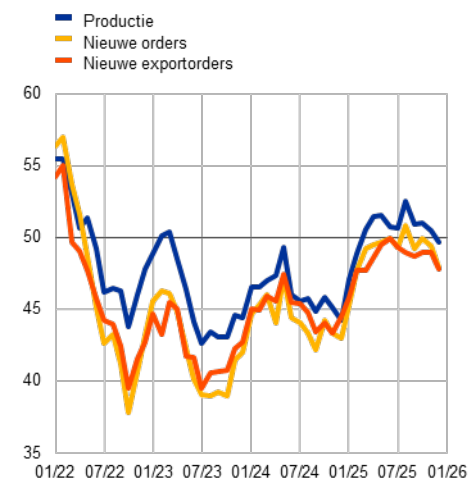
In de eerste maand van het vierde kwartaal lag de industriële productie exclusief bouwrijverheid 0,6% hoger dan in het derde kwartaal, toen ze met 0,1% daalde. Wat de enquêtegegevens betreft, bedroeg de samengestelde Purchasing Managers' Index (PMI) van het eurogebied in het vierde kwartaal gemiddeld 52,4, tegenover 51,0 in het derde kwartaal, terwijl het maandprofiel daalde van 52,8 in november tot 51,9 in december. Deze daling was toe te schrijven aan de bedrijvigheid in de dienstensector (52,6) (Grafiek 4, paneel b) en een daling van de productie tot onder de nulgroeidrempel van 50, die uitkwam op 49,7 (Grafiek 4, paneel a). Als we verder kijken dan het vierde kwartaal, blijven de toekomstgerichte PMI's voor nieuwe orders en de bedrijfsverwachtingen wijzen op een gematigde groei onder impuls van de dienstensector, terwijl de prestaties van de verwerkende industrie op korte termijn ondermaats lijken te blijven.

Grafiek 4

PMI-indicatoren voor alle sectoren van de economie

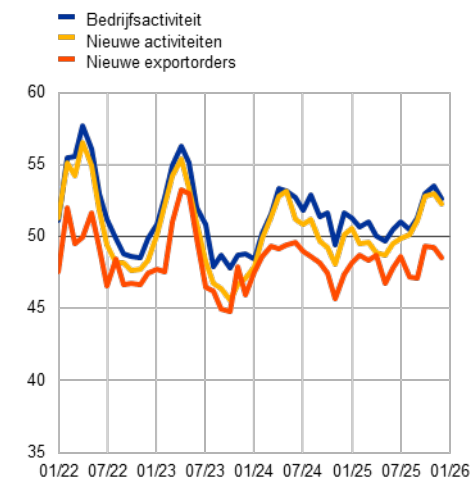
a) Verwerkende industrie

(spreidingsindices)



b) Diensten

(spreidingsindices)



Bron: S&P Global Market Intelligence.

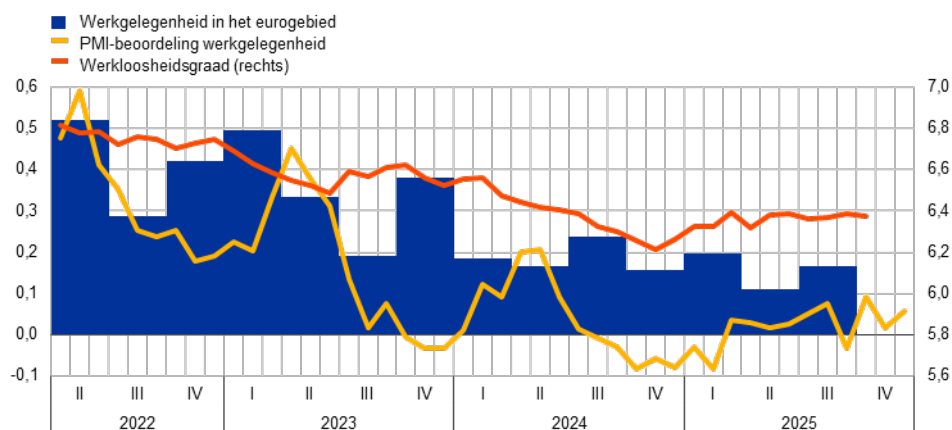
Toelichting: De meest recente waarnemingen betreffen december 2025.

De arbeidsmarkt bleef in het derde kwartaal van 2025 veerkrachtig, hoewel de vraag naar arbeid geleidelijk bleef afnemen. De werkgelegenheid en het totale aantal gewerkte uren namen in het derde kwartaal van 2025 toe met respectievelijk 0,2% en 0,4% (Grafiek 5). De aanhoudende matiging van de werkgelegenheidsgroei is deels het gevolg van een afnemende vraag naar arbeid, waarbij de vacaturegraad in het derde kwartaal is gedaald tot 2,2%, en daarmee onder het niveau van voor de pandemie is gezakt, zoals waargenomen in het vierde kwartaal van 2019. De beroepsbevolking bleef in het derde kwartaal stabiel. De cijfers voor oktober wijzen op een groei van 0,1% op maandbasis. Tegelijkertijd bedroeg het werkloosheidscijfer in oktober 6,4%, nadat dit sinds het begin van het jaar binnen een bandbreedte van 6,3% tot 6,4% was gebleven.

Grafiek 5

Werkgelegenheid in het eurogebied, op de PMI gebaseerde beoordeling van de werkgelegenheid en het werkloosheidspercentage

(links: mutaties in procenten op kwartaalbasis; spreidingsindex; rechts: in procenten van de beroepsbevolking)



Bronnen: Eurostat, S&P Global Market Intelligence en berekeningen van de ECB.

Toelichting: De twee lijnen geven de ontwikkelingen op maandbasis weer, de staven de kwartaalcijfers. De PMI wordt uitgedrukt als afwijking van 50, vervolgens gedeeld door 10 om de groei van de werkgelegenheid op kwartaalbasis te meten. De meest recente waarnemingen betreffen het derde kwartaal van 2025 voor de werkgelegenheid in het eurogebied, december 2025 voor de op de PMI gebaseerde beoordeling van de werkgelegenheid en oktober 2025 voor het werkloosheidspercentage.

De kortetermijnindicatoren voor de arbeidsmarkt wijzen op een licht positieve werkgelegenheidsgroei in het vierde kwartaal.

De maandelijks samengestelde PMI-werkgelegenheidsindex van december kwam uit op 50,6, met een kwartaalgemiddelde van 50,5, wat wijst op een grotendeels vlakke groei van de werkgelegenheid in het vierde kwartaal. De PMI-werkgelegenheid in de dienstensector schommelde sinds het begin van het jaar rond 51 en kwam in december uit op 51,3, terwijl de PMI-indicator voor banen in de verwerkende industrie negatief bleef en in de publicatie van december uitkwam op 48,5, met een kwartaalgemiddelde van 48,1.

De particuliere consumptie is in het derde kwartaal van 2025 verder toegenomen en zal naar verwachting in het vierde kwartaal zijn dynamiek behouden.

De particuliere consumptie steeg in het derde kwartaal van het jaar met 0,2% op kwartaalbasis, grotendeels in lijn met de dynamiek die in het tweede kwartaal werd waargenomen (Grafiek 6, paneel a). De uitgaven aan diensten bleven stijgen, terwijl de consumptie van goederen afnam. De detailhandel en de dienstenproductie namen in het derde kwartaal licht toe ten opzichte van het tweede kwartaal, met respectievelijk 0,2% en 0,3% op kwartaalbasis, terwijl de detailhandelsverkoop in oktober ongewijzigd bleef op maandbasis. Uit enquêtes blijkt dat de particuliere consumptie aan het eind van het jaar een krachtig momentum kende, waarbij de indicator voor het consumentenvertrouwen van de Europese Commissie in november stabiel is gebleven. De bedrijfsverwachtingen voor de vraag naar detailhandel en consumentendiensten in de komende drie maanden verbeterden in november, waarbij de vraag naar consumentendiensten het niveau van vóór de pandemie naderde. Bij de contactintensieve diensten zwakten de indicatoren van de Europese Commissie voor de verwachte vraag naar accommodatiediensten en, in mindere mate, naar diensten op het vlak van levensmiddelen en dranken af, terwijl ze voor reisdiensten juist toenamen. In die zin

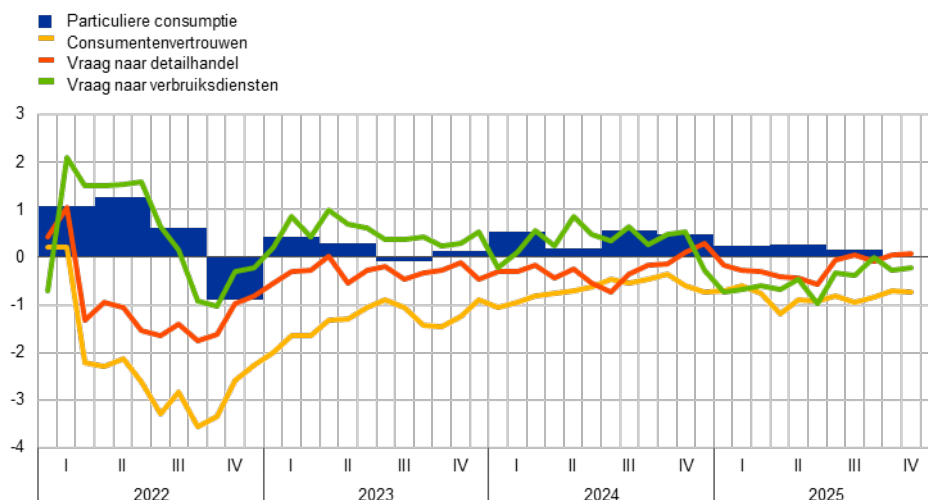
blijkt uit de Consumer Expectations Survey dat de verwachtingen voor vakantiegerelateerde aankopen sterk blijven. Vooruitblikkend zou de particuliere consumptie blijven groeien, ondersteund door de stijging van de reële inkomens ten opzichte van voorgaande jaren. Hoewel de particuliere consumptie tot nu toe achterblijft bij de inkomensgroei, wordt verwacht dat deze stijgingen van de reële inkomens zich geleidelijk zullen vertalen in een sterker consumptiemomentum op korte termijn, ondanks de hogere spaarquote (Grafiek 6, paneel b). Tegelijkertijd, volgens de Consumer Expectations Survey, beïnvloeden voorzorgsoverwegingen en Ricardiaanse effecten de neiging van huishoudens om te sparen (zie [Kader 4](#)).

Grafiek 6

Consumptie en vertrouwen van huishoudens, bedrijfsverwachtingen; spaarquote en werkloosheidsverwachtingen van huishoudens

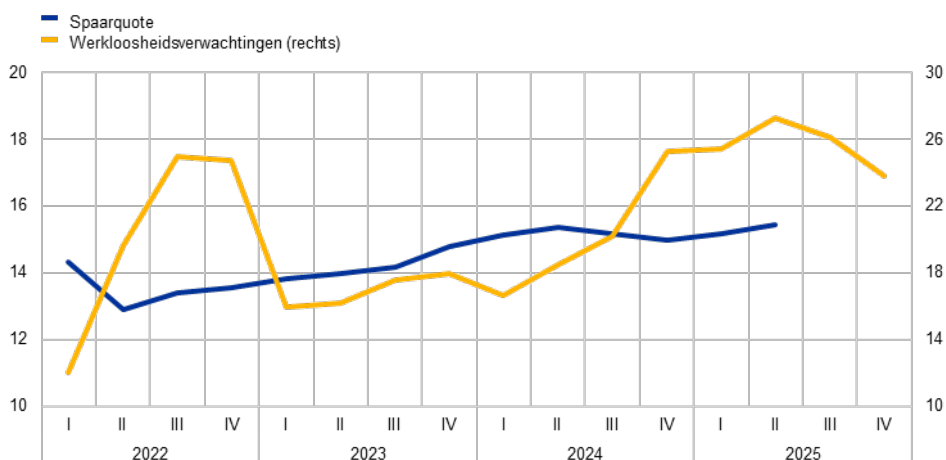
a) Consumentenbestedingen en -vertrouwen, bedrijfsverwachtingen

(mutaties in procenten op kwartaalbasis, bijdragen in procentpunten; percentages van het bruto besteedbaar inkomen)



b) Spaarquote en werkloosheidsverwachtingen van huishoudens

(procenten van het besteedbaar inkomen, procentuele nettosalarij)



Bronnen: Eurostat, Europese Commissie en berekeningen van de ECB.

Toelichting: De bedrijfsverwachtingen voor de vraag naar detailhandel (exclusief motorvoertuigen) en voor de vraag naar verbruiksgewogen diensten hebben betrekking op de komende drie maanden. De 'vraag naar verbruiksdiensten' is gebaseerd op de verwachte sectorale vraagindicatoren uit de bedrijfsenquête van de Europese Commissie voor diensten, gewogen op basis van de sectorale aandelen in de binnenlandse particuliere consumptie van de input-outputtabellen van FIGARO voor 2022. De reeks vragen naar verbruiksdiensten is gestandaardiseerd voor de periode 2005-2019, terwijl de vraag naar detailhandel en het consumentenvertrouwen gestandaardiseerd zijn voor de periode 1999-2019. De meest recente waarnemingen betreffen het tweede kwartaal van 2025 voor de spaarquote, het derde kwartaal van 2025 voor de particuliere consumptie en november 2025 voor alle andere variabelen.

De bedrijfsinvesteringen groeiden fors in het derde kwartaal en zullen verder toenemen. In het derde kwartaal van 2025 stegen de bedrijfsinvesteringen met 1,8% op kwartaalbasis en met 1,1% wanneer de volatiele Ierse immateriële activa buiten beschouwing worden gelaten. Exclusief Ierse immateriële activa groeiden zowel de materiële als de immateriële investeringen fors. Indicatoren voor de kapitaalgoederensector in het vierde kwartaal, zoals de PMI-outputindicator en de vertrouwensenquête van de Europese Commissie tot november, wijzen op enige

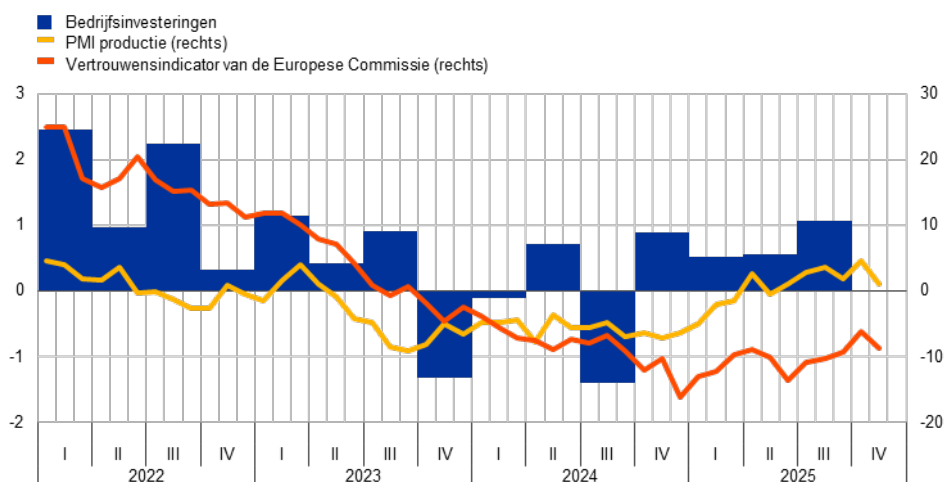
zwakte in de materiële investeringen (Grafiek 7, paneel a). Intussen wijzen enquêtes over immateriële diensten tot november, zoals de PMI-activiteit en de enquête van de Europese Commissie over de verwachte vraag in de komende drie maanden, op een aanhoudende stijging van de immateriële investeringen. In de [Non-Financial Business Sector Dialogue](#) (NFBD) van november meldden bedrijven toenemende investeringen in e-commerce, datacenters, softwareontwikkeling en automatisering. Toch bleek uit de NFBD dat de hoge energie-, arbeids- en regelgevingskosten, evenals de vrees voor overregulering van AI, aanzienlijke obstakels blijven. Vooruitblikkend zouden de investeringen moeten worden ondersteund door een stijgende algemene vraag, hogere winsten, afnemende onzekerheid en extra defensie- en infrastructuurinitiatieven, naast het meer ondersteunende financieringsklimaat gedurende het afgelopen jaar. De vereenvoudiging van de EU-regelgeving zou ook kunnen helpen om investeringen te versnellen. Toch blijven er aanzienlijke neerwaartse risico's bestaan, aangezien de nadelige gevolgen van hogere heffingen zich nog steeds kunnen voordoen. Bedrijven die aan de NFBD deelnamen, maakten zich vooral zorgen over de omleiding van goedkope Chinese hightech export – gezien de overcapaciteit en de verminderde exportmogelijkheden naar de Verenigde Staten – wat de marges kan aantasten en tot een verlies aan marktaandeel in Europa kan leiden.

Grafiek 7

Reële beleggingsdynamiek en enquêtegegevens

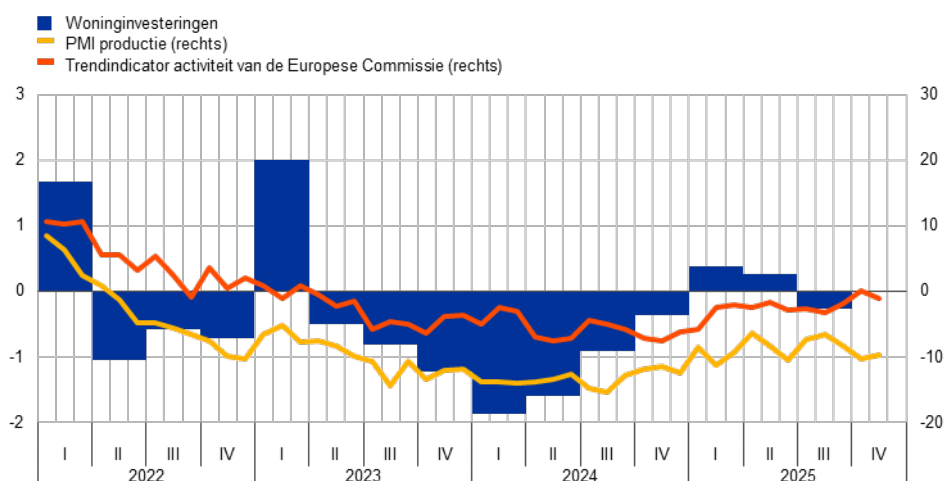
a) Bedrijfsinvesteringen (exclusief Ierse immateriële activa)

(mutaties in procenten op kwartaalbasis; saldi in procenten en spreidingsindex)



b) Woninginvesteringen

(mutaties in procenten op kwartaalbasis; saldi in procenten en spreidingsindex)



Bronnen: Eurostat, Europese Commissie, S&P Global Market Intelligence en berekeningen van de ECB.

Toelichting: De lijnen geven de ontwikkelingen op maandbasis weer, de staven hebben betrekking op de kwartaalcijfers. De PMI's worden uitgedrukt als afwijking van 50. In paneel a) worden de bedrijfsinvesteringen gemeten aan de hand van niet-bouwinvesteringen, met uitzondering van Ierse immateriële activa. Kortetermijnindicatoren hebben betrekking op de kapitaalgoederensector. De indicator voor het vertrouwen in kapitaalgoederen van de Europese Commissie wordt genormaliseerd voor het gemiddelde en de standaardafwijking van de reeks voor 1999-2019. In paneel b) verwijst de lijn voor de trendindicator van de Europese Commissie voor de bedrijvigheid naar het gewogen gemiddelde van de beoordeling door de bouw- en gespecialiseerde bouwsector van de bedrijvigheidstrend voor de voorgaande drie maanden, met dezelfde standaardafwijking als de PMI. De lijn in verband met de PMI voor productie heeft betrekking op de huisvestingsactiviteit. De meest recente waarnemingen betreffen het derde kwartaal van 2025 voor investeringen en november 2025 voor de PMI voor productie en de indicatoren van de Europese Commissie.

De woninginvesteringen zijn in het derde kwartaal van 2025 licht gedaald, maar zouden in het vierde kwartaal weer gematigd groeien. Na twee opeenvolgende kwartalen van expansie eerder in het jaar daalden de woninginvesteringen met 0,3% op kwartaalbasis in het derde kwartaal, wat erop wijst dat een aanhoudend herstel zich nog niet heeft doorgezet (Grafiek 7, paneel b). De productie in de bouwnijverheid en de gespecialiseerde bouwactiviteiten lag in het derde kwartaal gemiddeld 0,1% hoger dan in het voorgaande kwartaal. De toekomstgerichte indicatoren schetsen een gemengd beeld. De indicator van de Europese Commissie

voor recente trends in bouw- en gespecialiseerde bouwactiviteiten werd sterker in oktober en november in vergelijking met het derde kwartaal, terwijl de PMI-index voor woningproductie daalde. Over het geheel genomen zullen de woninginvesteringen zich waarschijnlijk weer geleidelijk herstellen. Deze beoordeling wordt ondersteund door een aanhoudende, zij het bescheiden stijging van de woningbouwvergunningen in het derde kwartaal, alsook door de voortdurende stijging van nieuwe woningleningen. Daarnaast signaleert de Consumer Expectations Survey een groeiende aantrekkelijkheid van woningen als investering, wat wijst op een aantrekkende vraag naar woningen (zie [Kader 5](#)).

De totale uitvoer van het eurogebied steeg in het derde kwartaal van 2025 met 0,7%, hoewel het onderliggende momentum zwak blijft. De uitvoer van goederen uit het eurogebied is in het derde kwartaal van 2025 aanzienlijk gestegen, met 1,5% op kwartaalbasis. Deze stijging is deels toe te schrijven aan de hogere verkoop van farmaceutische producten aan de Verenigde Staten, wat mogelijk wees op 'frontloading' van de export door bedrijven in afwachting van hogere invoerheffingen op die producten. Dit weerspiegelde ook de toegenomen export van ingrediënten voor afslankmiddelen. Afgezien van de farmaceutische sector verliest het eurogebied nog steeds marktaandeel op veel bestemmingen en in veel sectoren door sterkere concurrentie uit China. Dit patroon zal waarschijnlijk hardnekkig wegen op de uitvoer uit het eurogebied. In het derde kwartaal van 2025 nam de invoer van goederen gematigd toe met 0,7%, waarbij de import vanuit China bleef groeien te midden van toenemende concurrentie waarmee bedrijven in het eurogebied worden geconfronteerd. Tegelijkertijd daalden de invoerprijzen verder, met 2% in augustus op jaarbasis, als gevolg van de impact van de appreciatie van de euro in het verleden en de neerwaartse prijsdruk vanuit China. Vooruitblikkend blijven de enquête-indicatoren zwakte signaleren bij zowel de export van goederen als bij de export van diensten.

Ten opzichte van de projecties van september 2025 is de groei van het reële bbp voor 2025 en 2026 met 0,2 procentpunt naar boven bijgesteld, en voor 2027 met 0,1 procentpunt. De opwaartse aanpassing voor 2025 weerspiegelt herzieningen van gegevens uit het verleden, waaronder het beter dan verwachte resultaat voor het derde kwartaal van 2025. De iets geringere onzekerheid over het handelsbeleid, de sterkere buitenlandse vraag en de lagere prijzen van energiegrondstoffen hebben geleid tot een opwaartse herziening van de groeivoorzichten voor 2026. De iets sterkere dynamiek op kwartaalbasis en het grotere overloopeffect van het sterkere groeimomentum in 2026 zorgen samen voor een kleine opwaartse herziening van de vooruitzichten voor 2027. Wat de uitgavencomponenten betreft, hebben de grootste opwaartse herzieningen voor 2025-27 betrekking op investeringen en, in het bijzonder, sterkere bedrijfsinvesteringen over de hele horizon en meer dynamische overheidsinvesteringen in 2027, naast een sterkere overheidsconsumptie in 2025-2026. Ook is de nettohandel voor 2025 naar boven bijgesteld vanwege de beter dan verwachte exportprestaties in de eerste drie kwartalen van het jaar.

De inflatie in het eurogebied op jaarbasis, gemeten aan de hand van de geharmoniseerde consumptieprijsindex (HICP), blijft dicht bij de doelstelling van 2% op middellange termijn van de Raad van Bestuur. Ze bleef op 2,1% in november 2025⁴, doordat een stijging van de energie-inflatie werd gecompenseerd door een daling van de voedselinflatie. De HICP-inflatie exclusief energie en voedingsmiddelen (HICPX) bleef stabiel op 2,4%, aangezien de goedereninflatie en de diensteninflatie zich in tegengestelde richtingen bewogen. De indicatoren van de onderliggende inflatie zijn de afgelopen maanden weinig veranderd en blijven in overeenstemming met de doelstelling van 2%. Terwijl de groei van de winst per eenheid product in het derde kwartaal van 2025 ongewijzigd bleef, stegen de arbeidskosten per eenheid product in een iets hoger tempo dan in het tweede kwartaal. De groei op jaarbasis van de loonsom per werknemer bleef in het derde kwartaal ongewijzigd op 4,0%. De meeste maatstaven voor de inflatieverwachtingen op langere termijn blijven op ongeveer 2% staan en ondersteunen daarmee de stabilisatie van de inflatie rond de doelstelling.

Volgens de in december 2025 door medewerkers van het Eurosysteem opgestelde macro-economische projecties voor het eurogebied zal de totale inflatie dalen van 2,1% in 2025 tot 1,9% in 2026 en 1,8% in 2027, waarna ze zou stijgen tot de middellangetermijndoelstelling van de Raad van Bestuur van 2% in 2028. Vergeleken met de projecties van september 2025 werd de totale inflatie voor 2026 naar boven bijgesteld en voor 2027 licht naar beneden bijgesteld.⁵

De HICP-inflatie in het eurogebied bleef in november 2025 steken op 2,1% (Grafiek 8). Dit resultaat volgt op een bescheiden stijging van de diensteninflatie en een toename van de energiecomponent, die werden gecompenseerd door een lagere inflatie van de niet-energetische industriële goederen (NEIG) en een lagere voedselinflatie. De jaarlijkse verandering van de energieprijzen steeg naar -0,5% in november, tegen -0,9% in oktober, als gevolg van een stijging van de brandstofprijzen voor vervoer, die de daling van de elektriciteits- en gasprijzen overtrof. De totale voedselinflatie daalde van 2,5% in oktober tot 2,4% in november. Wat de individuele deelcomponenten van voedingsmiddelen betreft, daalde de jaarlijkse verandering van de prijzen voor bewerkte voedingsmiddelen licht van 2,3% in oktober tot 2,2% in november, terwijl die van de prijzen voor onbewerkte voedingsmiddelen ongewijzigd bleef op 3,2%. De HICPX-inflatie bleef in november voor de derde maand op rij stabiel op 2,4%. Dit weerspiegelt een bescheiden daling van de NEIG-inflatie, van 0,6% in oktober tot 0,5% in november, wat een overeenkomstige stijging van de diensteninflatie van 3,4% tot 3,5% in dezelfde periode compenseerde. De diensteninflatie steeg de afgelopen maanden als gevolg van de hogere jaarlijkse verandering van de deelcomponent recreatie – met name voor accommodaties en pakketreizen – en ook voor de deelcomponenten vervoer en communicatie. Vooruitblikkend zou de verwachte geleidelijke versoepeling van de

⁴ De afsluitdatum voor gegevens in dit nummer van het Economisch Bulletin was 17 december 2025. Volgens de voorlopige raming die Eurostat op 7 januari 2026 heeft gepubliceerd, daalde de jaarlijkse inflatie in het eurogebied in december 2025 tot 2,0%.

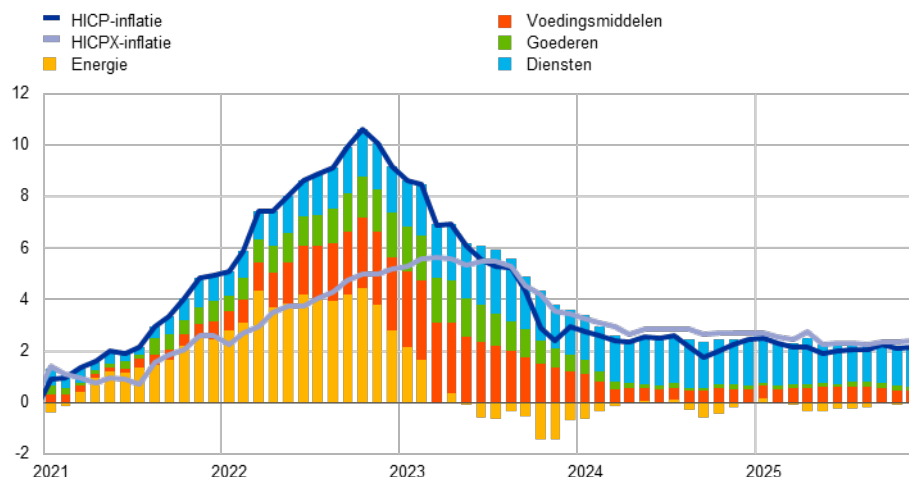
⁵ Zie de [door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied van december 2025](#).

loongroei kunnen bijdragen aan de afname van de diensteninflatie, al blijft de druk op de dienstenprijzen hoog.

Grafiek 8

Totale inflatie en de belangrijkste componenten ervan

(mutaties in procenten per jaar; bijdragen in procentpunten)



Bronnen: Eurostat en berekeningen van de ECB.

Toelichting: 'Goederen' verwijst naar industriële goederen m.u.v. energie. HICPX staat voor HICP exclusief energie en voedingsmiddelen. De meest recente waarnemingen betreffen november 2025.

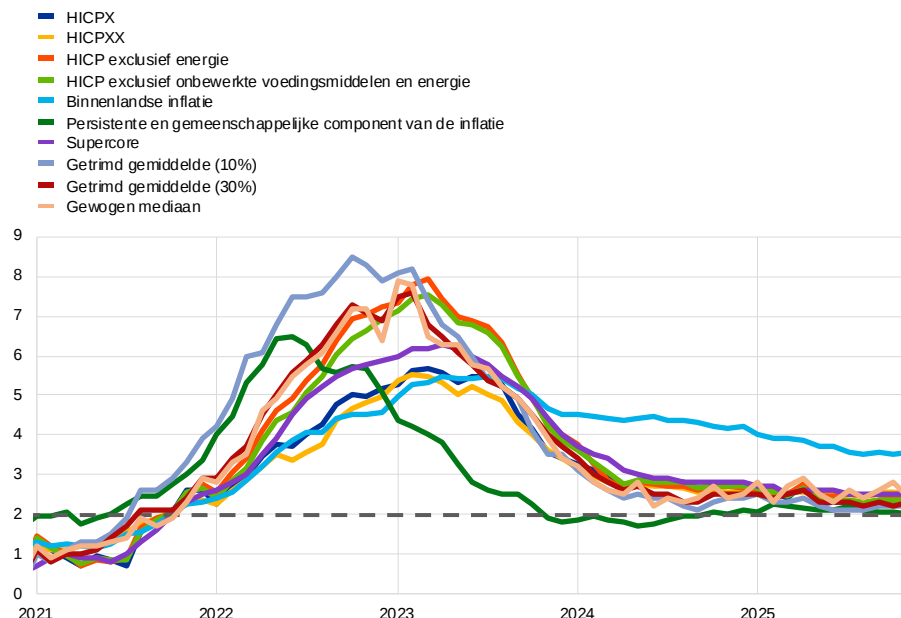
De indicatoren voor de onderliggende inflatie wijzigden de afgelopen maanden nauwelijks en blijven in overeenstemming met de doelstelling van 2% op middellange termijn. De meeste maatstaven van de onderliggende inflatie hadden in november 2025 een zijwaarts verloop (Grafiek 9). Die maand varieerden de indicatorwaarden tussen 2,0% en 2,5%.⁶ Alle permanente inflatiemaatstaven op basis van eliminatie bleven ten opzichte van oktober ongewijzigd en lagen tussen 2,4% en 2,5%. De bewegingen bij de meeste tijdelijke maatstaven op grond van eliminatie wezen ook op een stabilisering van de onderliggende inflatiedruk in november. De binnenlandse inflatie, die vooral diensten omvat, steeg licht van 3,5% in oktober tot 3,6% in november. Wat de modelgebaseerde maatstaven betreft, daalde de persistente en gemeenschappelijke component van de inflatie in november tot 2,0%, terwijl de Supercore-indicator, die conjunctuurgevoelige HICP-posten omvat, voor de vijfde maand op rij stabiel bleef op 2,5%.

⁶ Dit is exclusief binnenlandse inflatie.

Grafiek 9

Indicatoren van de onderliggende inflatie

(mutaties in procenten per jaar)



Bronnen: Eurostat en berekeningen van de ECB.

Toelichting: De grijze stippellijn vertegenwoordigt de inflatiedoelstelling van de Raad van Bestuur van 2% op middellange termijn. HICPX staat voor HICP exclusief energie en voedingsmiddelen; HICPXX staat voor HICPX exclusief reisgerelateerde artikelen, kleding en schoeisel. De meest recente waarnemingen betreffen november 2025.

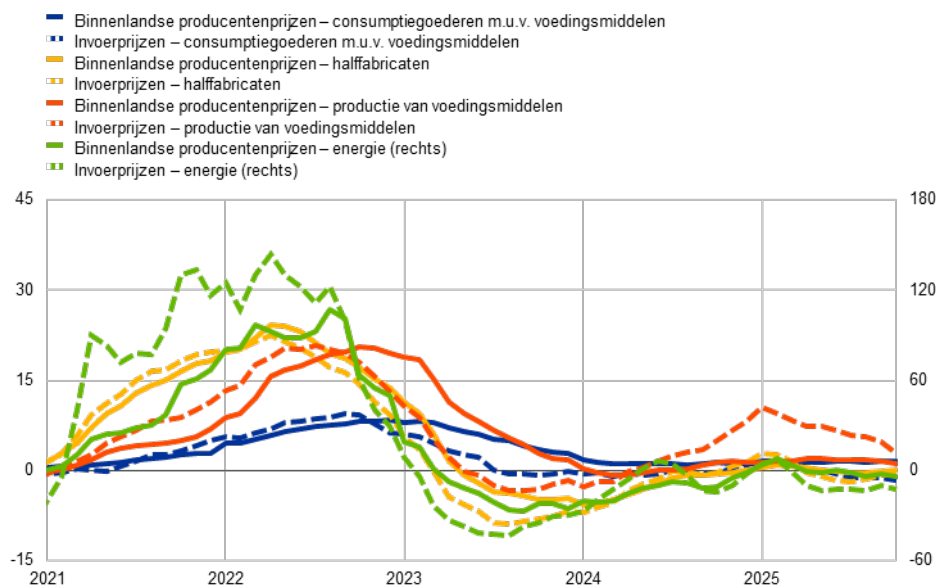
De maatstaven voor de druk op het productieproces wijzen op een geleidelijke afname van de inflatiedruk (Grafiek 10).

In het beginstadium van de prijsketen daalde de producentenprijsinflatie voor energie sterk, van -2,4% in september tot -3,9% in oktober 2025, ruim onder de piek van 7,8% in februari. In dezelfde periode steeg de jaarlijkse groei van de binnenlandse producentenprijzen voor halffabricaten van -0,1% tot 0,1%, terwijl die van de invoerprijzen ongewijzigd bleef op -0,8%. In de latere stadia van de prijsketen bleef de inflatie van de binnenlandse producentenprijzen voor consumptiegoederen, exclusief voedingsmiddelen, in oktober onveranderd op 1,5%, terwijl de inflatie van de invoerprijzen daalde van -1,2% in september tot -1,6%. Tegelijkertijd is de jaarlijkse groei van de producentenprijzen voor verwerkte levensmiddelen gedaald van 1,7% tot 1,1%, terwijl de jaarlijkse groei van de invoerprijzen bleef afnemen, van een piek van 10,6% in januari tot 4,9% in september en 2,8% in oktober. Over het geheel genomen wijzen de gegevens erop dat de druk op het productieproces voor zowel consumptiegoederen als voedingsmiddelen is afgenomen, als gevolg van de appreciatie van de euro en, mogelijk, de toegenomen focus van China op het eurogebied als uitvoermarkt, waardoor de invoerprijzen onder neerwaartse druk kwamen.

Grafiek 10

Indicatoren van de druk op het productieproces

(mutaties in procenten per jaar)



Bronnen: Eurostat en berekeningen van de ECB.
Toelichting: De meest recente waarnemingen betreffen oktober 2025.

De binnenlandse kostendruk, afgemeten aan de groei van de bbp-deflator, bleef in het derde kwartaal van 2025 min of meer stabiel op 2,4% (Grafiek 11).

Dit weerspiegelde een stijging van de bijdrage van de arbeidskosten per eenheid product, wat gecompenseerd werd door een stabiele bijdrage van de winst per eenheid product en een daling van die van de nettobelastingen per eenheid product. De lichte stijging van het jaarlijkse groeipercentage van de arbeidskosten per eenheid product was toe te schrijven aan een gematigde daling van de groei van de arbeidsproductiviteit, tot 0,7% in het derde kwartaal tegenover 0,8% in het tweede kwartaal, en een stabiele groei van de loonsom per werknemer, die 4,0% bedroeg in het derde kwartaal. Dat laatste weerspiegelde een daling van de onderhandelde loongroei, tot 1,9% in het derde kwartaal tegenover 4,0% in het voorgaande kwartaal, wat werd gecompenseerd door een aanzienlijke stijging van de loondriftcomponent in dezelfde periode. De sterke daling van de onderhandelde loongroei weerspiegelt de mechanische werking van grote eenmalige betalingen in 2024, wat tegelijkertijd ook de volatiliteit van de loondrift veroorzaakte. Vooruitblikkend blijft de loontracker van de ECB, die gegevens bevat over de loonakkoorden die tot eind november 2025 zijn gesloten, erop wijzen dat de druk op de loongroei zowel in het vierde kwartaal van 2025 als in de eerste helft van 2026 gematigd zal blijven, alvorens zich in de tweede helft van 2026 geleidelijk te stabiliseren.⁷ De door medewerkers van het Eurosysteem samengestelde macro-economische projecties van december 2025 verwachten dat de groei van de

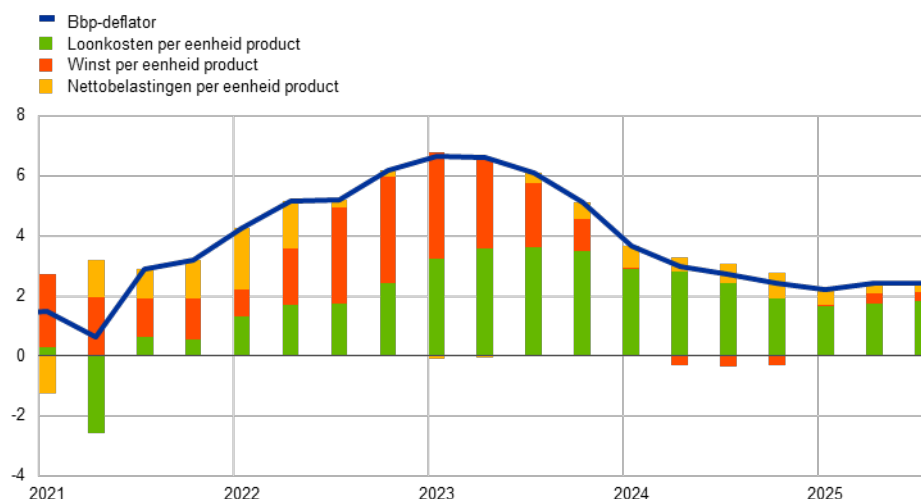
⁷ Voor meer informatie, zie 'Publicatie van nieuwe gegevens: ECB-loontracker wijst op lagere loongroei en geleidelijke normalisering van de onderhandelde loondruk in 2026', persbericht, ECB, 19 december 2025.

loonsom per werknemer in 2025 gemiddeld 4,0% zal bedragen en in 2026 zal matigen tot 3,2%, in 2027 tot 2,9% en in 2028 tot 3,0%.

Grafiek 11

Uitsplitsing van de bbp-deflator

(mutaties in procenten per jaar; bijdragen in procentpunten)



Bronnen: Eurostat en berekeningen van de ECB.

Toelichting: De loonsom per werknemer draagt positief bij aan veranderingen in de arbeidskosten per eenheid product. De arbeidsproductiviteit draagt negatief bij. De meest recente waarnemingen betreffen het derde kwartaal van 2025.

Tijdens de verslagperiode van 11 september tot 17 december 2025 bleven de marktgebaseerde maatstaven voor inflatiecompensatie (Grafiek 12, paneel a) grotendeels ongewijzigd, net als de inflatieverwachtingen op langere termijn bij professionele voorspellers en monetaire analisten. De eenjaars toekomstige inflatieswaprente één jaar vooruit, een op de markt gebaseerde maatstaf voor compensatie van de kortetermijninflatie, bleef in grote lijnen stabiel op ongeveer 1,8%. De inflatiegerelateerde markten leken niet sterk te reageren op het besluit van de Europese Raad van 5 november 2025 om de implementatie van het EU-emissiehandelssysteem 2 (ETS2) met een jaar uit te stellen, van 2027 tot 2028. Op middellange en langere looptijden bleef de compensatie van de inflatie vergelijkbaar stabiel. De vijfjaars toekomstige inflatieswaprente vijf jaar vooruit, gecorrigeerd voor inflatierisicopremies, bleef in de buurt van 2%. Dat wijst erop dat de marktgebaseerde verwachtingen op langere termijn goed verankerd blijven in de inflatiedoelstelling van de Raad van Bestuur. Zowel in de ECB Survey of Professional Forecasters voor het vierde kwartaal van 2025 als in de ECB Survey of Monetary Analysts voor december 2025 bleven de gemiddelde en mediane inflatieverwachtingen op langere termijn op 2%.

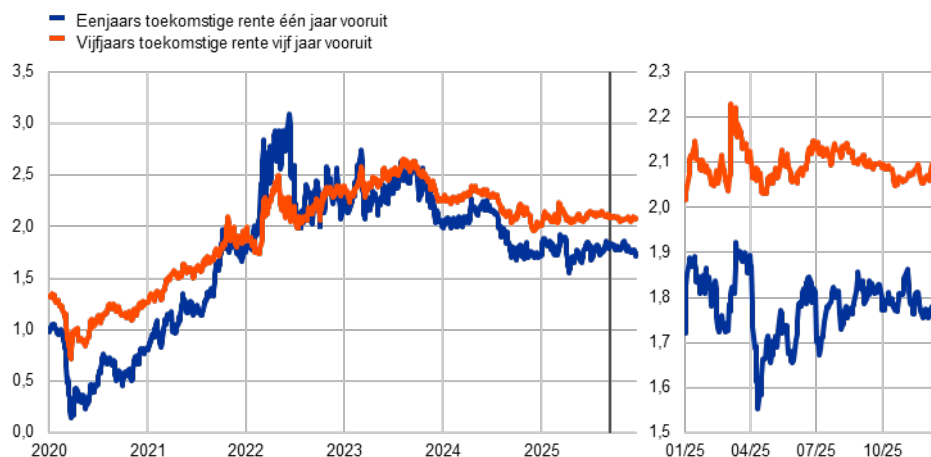
De perceptie bij de consumenten van de eerdere inflatie en hun inflatieverwachtingen op korte en middellange termijn bleven in november 2025 stabiel (Grafiek 12, paneel b). Volgens de ECB Consumer Expectations Survey voor november 2025 bleef het mediane inflatiepercentage in de voorgaande 12 maanden stabiel op 3,1%, onveranderd sinds februari 2025. De mediane verwachtingen voor de totale inflatie over de komende 12 maanden (2,8%) en over drie jaar (2,5%) bleven eveneens onveranderd sinds respectievelijk oktober en juli.

Grafiek 12

Marktgebaseerde maatstaven voor inflatiecorrectie en inflatieverwachtingen van consumenten

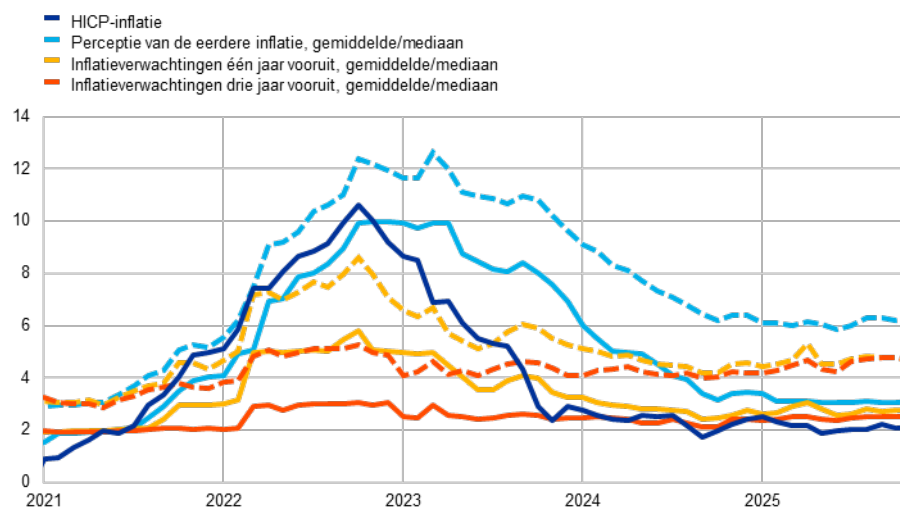
a) Marktgebaseerde maatstaven voor inflatiecorrectie

(mutaties in procenten per jaar)



b) Totale HICP-inflatie en ECB Consumer Expectations Survey

(mutaties in procenten per jaar)



Bronnen: LSEG, Eurostat, ECB Consumer Expectations Survey en berekeningen van de ECB.

Toelichting: Luik a) geeft de toekomstige inflatiegelinkte swaprentes over verschillende looptijden voor het eurogebied weer. De verticale grijze lijn geeft het begin van de verslagperiode aan op 11 september 2025. In luik b) tonen de stippellijnen het gemiddelde percentage en de ononderbroken lijnen het mediane percentage. De meest recente waarnemingen betreffen 17 december 2025 voor luik a) en november 2025 voor de maatstaven in luik b).

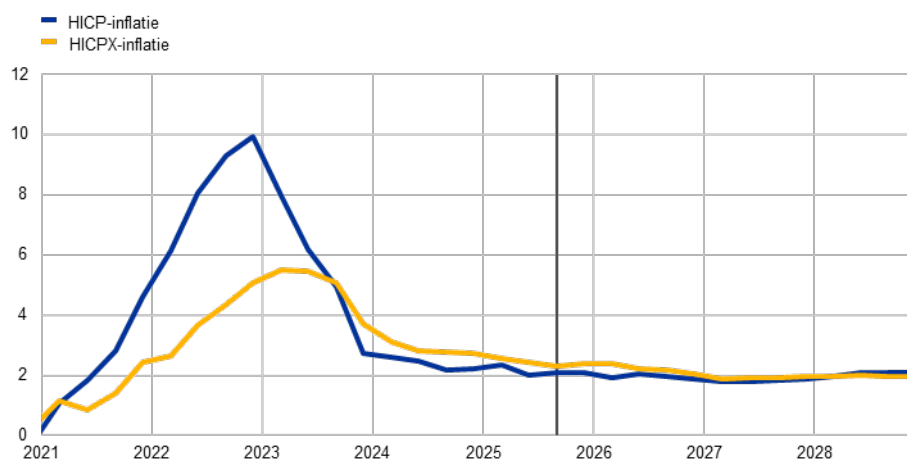
De projecties van december 2025 gaan ervan uit dat de totale inflatie in 2025 gemiddeld 2,1% zal bedragen, in 2026 1,9% en in 2027 1,8%, alvorens terug te keren naar de middellangetermijndoelstelling van de Raad van Bestuur van 2% in 2028 (Grafiek 13). De totale inflatie zal naar verwachting in het laatste kwartaal van 2025 op 2,1% blijven, in 2026 iets onder de 2,0% zakken en in 2027 op die lagere niveaus blijven. Het verwachte lagere percentage in 2026 houdt verband met energiebasiseffecten in het eerste kwartaal, een gemiddeld zwakkere voedselinflatie en een daling van de HICPX-inflatie als gevolg van een matiging van de diensteninflatie. De verdere daling van de totale inflatie in 2027 weerspiegelt een

voortgezette daling van de HICPX-inflatie, die deels wordt gecompenseerd door een terugkeer van de energie-inflatie naar nulpercentages, terwijl de voedselinflatie onveranderd zou blijven. In 2028 zal de totale inflatie dan naar verwachting stijgen, voornamelijk door een aanzienlijke stijging van de energie-inflatie als gevolg van fiscale maatregelen in verband met de klimaattransitie en met name de invoering van het ETS2-schema. Ten opzichte van de projecties van september 2025 blijven de vooruitzichten voor de totale inflatie ongewijzigd voor 2025, terwijl ze voor 2026 opwaarts werden bijgesteld met 0,2 procentpunt en voor 2027 neerwaarts bijgesteld met 0,1 procentpunt. De opwaartse bijstelling voor 2026 is voornamelijk het gevolg van sterkere inflatievooruitzichten voor diensten, terwijl de neerwaartse bijstelling voor 2027 voornamelijk te wijten is aan het verwachte uitstel van ETS2, deels tenietgedaan door een hogere diensteninflatie. De HICPX-inflatie zal naar verwachting dalen van 2,4% in 2025 tot 2,2% in 2026 en vervolgens stabiliseren op of dicht bij 2% tegen het einde van de projectieperiode, als gevolg van de afnemende loonkostendruk op de diensteninflatie. Ten opzichte van de projecties van september 2025 is de HICPX-inflatie onveranderd voor 2025, terwijl die voor 2026 naar boven is bijgesteld met 0,3 procentpunt en voor 2027 met 0,1 procentpunt.

Grafiek 13

HICP- en HICPX-inflatie in het eurogebied

(mutaties in procenten per jaar)



Bronnen: Eurostat en door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied, december 2025.

Toelichting: De grijze verticale lijn geeft het laatste kwartaal voor het begin van de projectieperiode aan. De meest recente waarnemingen betreffen het derde kwartaal van 2025 voor de gegevens en het vierde kwartaal van 2028 voor de projecties. De projecties van december 2025 werden op 3 december 2025 afgerond en de afsluitdatum voor de technische aannames was 26 november 2025. Zowel historische als geprojecteerde gegevens voor de HICP- en de HICPX-inflatie worden op kwartaalbasis gerapporteerd.

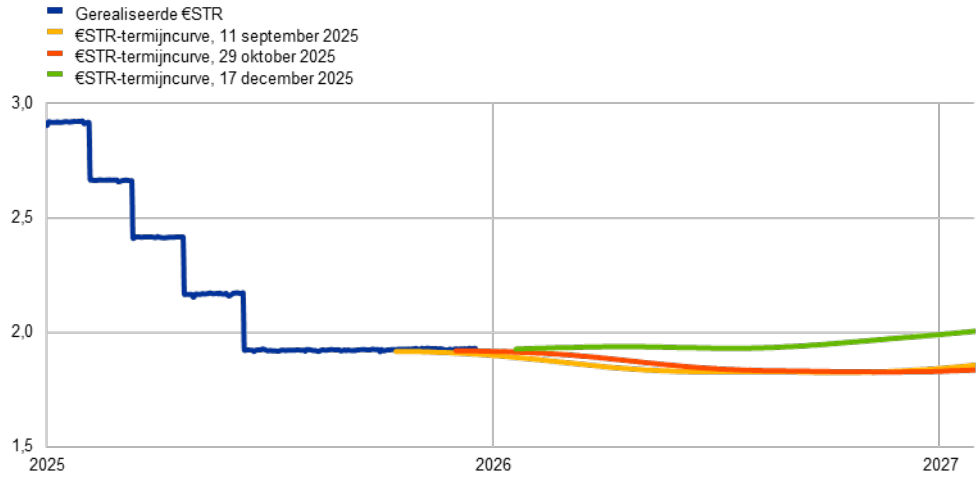
De risicovrije rentes voor de korte en lange termijn in het eurogebied stegen tijdens de verslagperiode van 11 september tot en met 17 december 2025, waarbij de markten verdere renteverlagingen alvast inprijsden. Het rendement op langlopende staatsobligaties lag aan het eind van de verslagperiode hoger, maar de spreads ten opzichte van de risicovrije rente werden kleiner. De stijging van de risicovrije rente en het rendement op overheidsobligaties paste in een bredere trend waarin de rendementscurve wereldwijd steiler werd, grotendeels als gevolg van een stijging van de reële rente. De aandelenmarkten in het eurogebied boekten winst tijdens de verslagperiode, ondanks tijdelijke tegenvallers door bezorgdheid over de waardering van AI-bedrijven in de Verenigde Staten. De spreads op de markten voor bedrijfsobligaties zijn verder afgenomen en bevinden zich momenteel op een historisch laag niveau, ondersteund door een verhoogde risicobereidheid. Op de valutamarkten bleef de euro stabiel, zowel ten opzichte van de Amerikaanse dollar (+0,3%) als op handelsbasis (+0,4%). De stabiliteit ten opzichte van de Amerikaanse dollar was het gevolg van meevallende macro-economische ontwikkelingen in zowel het eurogebied als de Verenigde Staten, terwijl de op handelsbasis gewogen stabiliteit het gevolg was van compenserende wisselkoersbewegingen ten opzichte van de handelspartners.

De korte en lange risicovrije rentes in het eurogebied zijn tijdens de verslagperiode gestegen (Grafiek 14). De kortetermijnbenchmarkrente van de euro (€STR) kwam aan het einde van de verslagperiode uit op 1,93%, nadat de Raad van Bestuur tijdens de vergaderingen in september en oktober had besloten de drie belangrijkste rentetarieven van de ECB ongewijzigd te laten. De overliquiditeit daalde met ongeveer € 164 miljard naar € 2.486 miljard, voornamelijk als gevolg van de aanhoudende daling in de portefeuilles van voor monetairbeleidsdoeleinden aangehouden effecten. De zeer korte termijnrentes stegen in de verslagperiode, doordat markten de verwachte verdere renteverlagingen inprijsden. De opleving van de mondiale handelonzekerheid, die vooral te wijten was aan de toegenomen spanningen tussen de Verenigde Staten en China, leidde tot een kortdurende daling van de risicovrije rente in oktober. Deze daling werd vervolgens omgebogen tegen de achtergrond van een aantrekkelijk handelssentiment, doordat de Verenigde Staten handelsovereenkomsten met een aantal Aziatische landen sloten en de geopolitieke spanningen in het Midden-Oosten afnamen. Na de vergadering van de Raad van Bestuur van 30 oktober 2025 namen de verwachtingen ten aanzien van de beleidsrente voor de korte termijn toe als gevolg van publicaties van nieuwe gegevens die erop wezen dat de economie van het eurogebied veerkrachtig bleef. Aan het einde van de verslagperiode werd in de €STR-termijncurve rekening gehouden met cumulatieve renteverhogingen van 6 basispunten aan het eind van 2026, een omkering ten opzichte van de verlagingen met 8 basispunten die aan het begin van de verslagperiode waren ingeprijsd. Voor de periode na 2027 verschoof de €STR-termijncurve naar boven voor alle looptijden, in overeenstemming met een wereldwijd steiler wordende rendementscurve, voornamelijk als gevolg van hogere reële rentes. Over het geheel genomen steeg de tienjaars nominale rente op daggeldrenteswaps (OIS) in de verslagperiode naar 2,7%.

Grafiek 14

€STR-termijnrente

(procenten op jaarbasis)



Bronnen: Bloomberg Finance L.P. en berekeningen van de ECB.

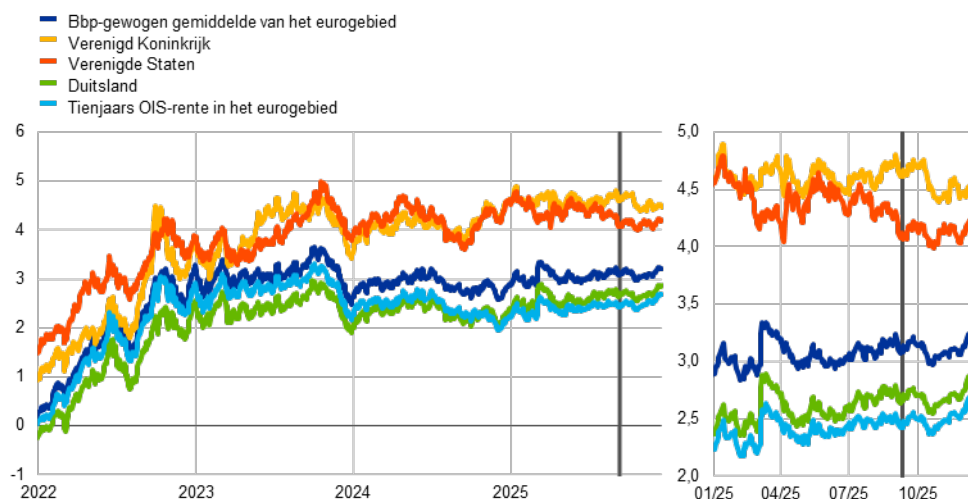
Toelichting: De termijncurve wordt geraamd aan de hand van de spotkoersen van de OIS (€STR).

Het rendement op langlopende staatsobligaties lag aan het eind van de verslagperiode hoger, terwijl de spreads ten opzichte van de risicovrije rente kleiner werden (Grafiek 15 en 16). Het bbp-gewogen rendement op tienjaars overheidsobligaties in het eurogebied nam toe met 14 basispunten en kwam uit op circa 3,2%. De spreads op overheidsobligaties ten opzichte van de risicovrije OIS-rente werden kleiner als gevolg van een sterke risicobereidheid in alle activacategorieën en een gunstige herbeoordeling door de markt van de begrotingsvooruitzichten voor sommige landen zoals Spanje en Italië. Het rendement op Franse overheidsobligaties presteerde vergelijkbaar met dat van andere landen in het eurogebied, terwijl de politieke onzekerheid in Frankrijk afnam. Daarnaast leidde een verlaging van de kredietrating van de Franse overheid slechts tot een kortstondige reactie op de financiële markten. De spreiding tussen de landen in de spreads op overheidsobligaties ten opzichte van de risicovrije rentes zijn gedurende de verslagperiode gedaald naar een historisch laag niveau.

Grafiek 15

Rendementen op tienjaars overheidsobligaties en de tienjaars OIS-rente op basis van de €STR

(procenten op jaarbasis)



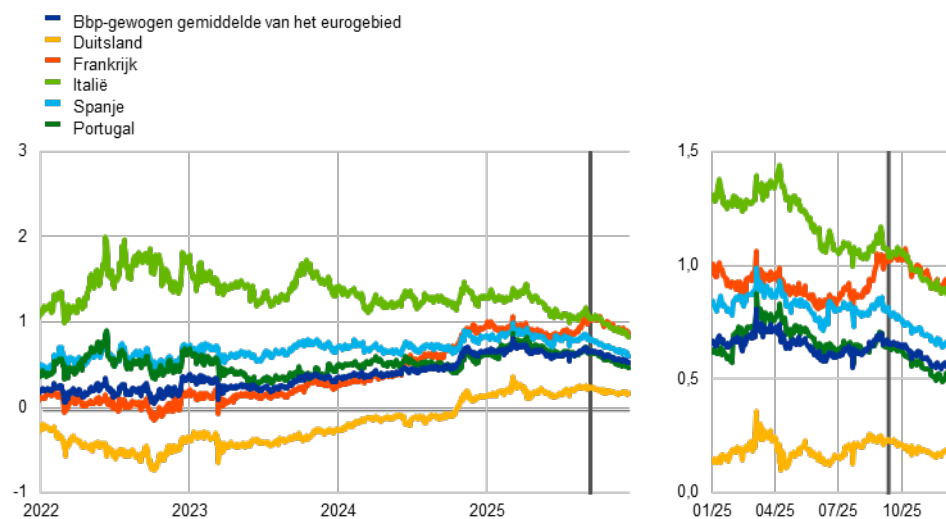
Bronnen: LSEG en berekeningen van de ECB.

Toelichting: De verticale grijze lijn geeft het begin van de verslagperiode op 11 september 2025 aan. De meest recente waarnemingen betreffen 17 december 2025.

Grafiek 16

Rendementsspreads op tienjaars overheidsobligaties in het eurogebied ten opzichte van de tienjaars €STR-OIS-rente

(in procentpunten)



Bronnen: LSEG en berekeningen van de ECB.

Toelichting: De verticale grijze lijn geeft het begin van de verslagperiode op 11 september 2025 aan. De meest recente waarnemingen betreffen 17 december 2025.

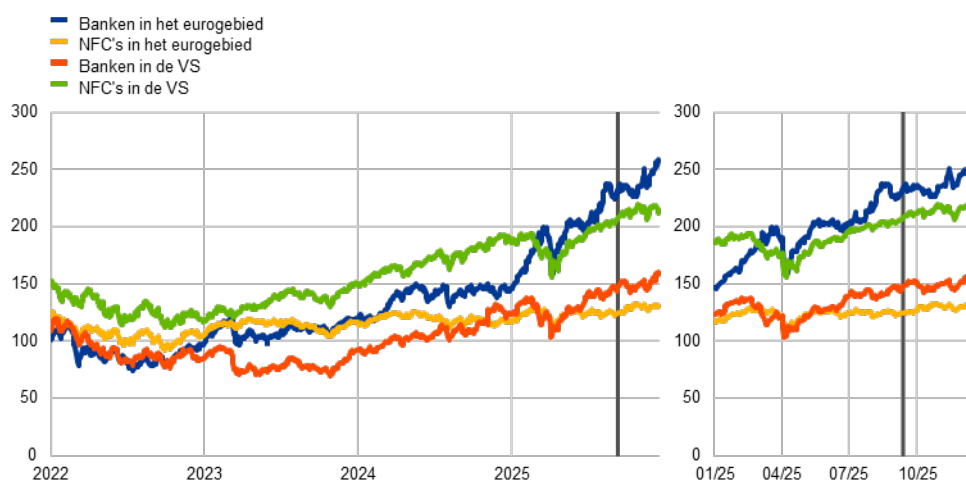
De aandelenmarktindices in het eurogebied stegen in de verslagperiode, ondanks tijdelijke tegenvallers door zorgen over AI-gerelateerde waarderingen (Grafiek 17). De aandelenmarktindices in het eurogebied stegen in de verslagperiode met 4,9%, waarbij de subindex voor niet-financiële ondernemingen (NFC's) met 4% steeg en de aandelenkoersen van banken met 10,6% toenamen.

De financiële aandelen in het eurogebied stegen in waarde tegen de achtergrond van een gestage stijging van de waarderingen op de aandelenmarkten, geschraagd door robuuste balansen en verhoogde winstgevendheid. De Amerikaanse aandelenmarktindices daarentegen stegen met ongeveer 1,3%, met een stijging van 1,5% voor banken en 6,8% voor NFC's. De bredere index voor Amerikaanse financiële ondernemingen steeg met 1,1%. Ondanks deze stijgingen in het eurogebied en de Verenigde Staten leidde de bezorgdheid over de waardering van Amerikaanse AI-aandelen tot een verkoopgolf in november. De daaropvolgende sterke winstcijfers van enkele van de belangrijkste AI-gerelateerde ondernemingen hielpen deze zorgen echter weg te nemen. Over het geheel genomen presteerden de Europese aandelen beter dan de Amerikaanse, deels als gevolg van zorgen van de markt over doorgeschoten waarderingen, dalende liquiditeitsniveaus en toenemende financiële verwevenheden tussen AI-bedrijven in de Verenigde Staten.

Grafiek 17

Aandelenkoersindices eurogebied en VS

(index: 1 januari 2020 = 100)



Bronnen: LSEG en berekeningen van de ECB.

Toelichting: De verticale grijze lijn geeft het begin van de verslagperiode op 11 september 2025 aan. De meest recente waarnemingen betreffen 17 december 2025.

Op de markten voor bedrijfsobligaties daalden de spreads op kredietwaardige en hoogrentende obligaties verder, naar een momenteel historisch laag niveau.

De risicobereidheid bleef hoog gedurende de verslagperiode en ondersteunde de gunstige financieringsvoorwaarden op de bedrijfsobligatiemarkten, waarbij de spreads in de kredietwaardige en hoogrentende segmenten met respectievelijk ongeveer 2 en 15 basispunten verkrapten. De spreads op kredietwaardige beleggingen verkrapten met 4 basispunten voor NFC's en bleven grotendeels ongewijzigd voor financiële ondernemingen. In het hoogrentende segment verkrapten de spreads met 19 basispunten voor NFC's, terwijl ze voor financiële ondernemingen toenamen met ongeveer 35 basispunten.

Op de valutamarkten bleef de euro stabiel, zowel ten opzichte van de

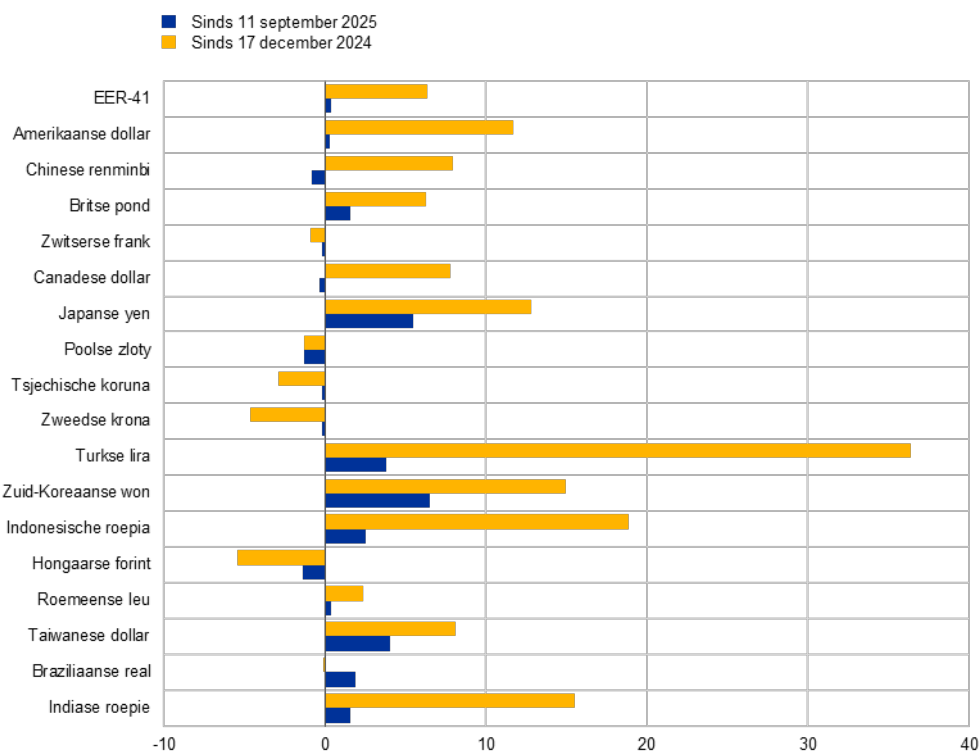
Amerikaanse dollar als op handelsbasis (Grafiek 18). De nominaal-effectieve wisselkoers van de euro is tijdens de verslagperiode ten opzichte van de valuta's van 41 van de belangrijkste handelspartners van het eurogebied stabiel gebleven

(+0,4%). Deze stabiliteit was het gevolg van compenserende veranderingen ten opzichte van verschillende handelspartners. De euro steeg met name ten opzichte van de Japanse yen (+5,5%) en het Britse pond (+1,6%), als gevolg van onzekerheden omtrent de budgettaire en monetaire beleidsvooruitzichten in Japan en het Verenigd Koninkrijk. De opwaartse druk op de euro werd gecompenseerd door een depreciatie ten opzichte van de Chinese renminbi (-0,8%) en de Poolse zloty (-1,3%). De euro bleef stabiel ten opzichte van de Amerikaanse dollar (+0,3%) en schommelde tijdens de verslagperiode rond het historisch gemiddelde van 1,18, nu de aanzienlijke stijging van eerder dit jaar afvlakte. Deze stabiliteit weerspiegelde de beter dan verwachte macro-economische ontwikkelingen in zowel het eurogebied als de Verenigde Staten, en de grotendeels ongewijzigde relatieve monetaire beleidsverwachtingen.

Grafiek 18

Veranderingen in de wisselkoers van de euro ten opzichte van enkele valuta's

(mutaties in procenten)



Bron: Berekeningen van de ECB.

Toelichting: EER-41 is de nominaal-effectieve wisselkoers van de euro ten opzichte van de valuta's van 41 van de belangrijkste handelspartners van het eurogebied. Een positieve (negatieve) verandering komt overeen met een stijging (daling) van de waarde van de euro. Alle veranderingen zijn berekend op basis van de wisselkoersen van 17 december 2025.

5 Financieringsvoorwaarden en ontwikkelingen in de kredietverlening

De rentetarieven voor bankleningen aan bedrijven zijn sinds de zomer vrijwel stabiel gebleven, na een daling als gevolg van de eerdere verlagingen van de beleidsrente door de ECB. De gemiddelde rentetarieven op nieuwe bedrijfskredieten en nieuwe hypotheekleningen bleven in oktober onveranderd op respectievelijk 3,5% en 3,3%. De groei van de kredietverlening aan bedrijven en huishoudens nam verder toe, maar bleef over het geheel genomen gematigd. Tijdens de verslagperiode van 11 september tot en met 17 december 2025 zijn de kosten van zowel schuldfinanciering via de markt als aandelenfinanciering gestegen, onder invloed van een hogere risicovrije rente. Het groeitempo op jaarbasis van het ruime monetaire aggregaat (M3) bleef in oktober onveranderd op 2,8%.

De financieringskosten van banken bleven in oktober 2025 grotendeels stabiel.

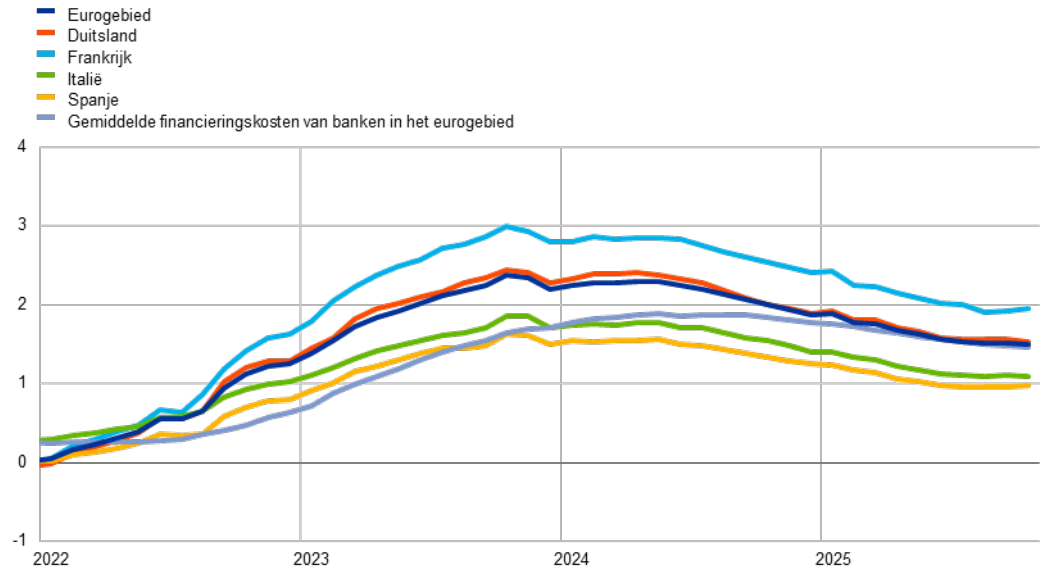
De samengestelde kosten van schuldfinanciering voor de banken van het eurogebied bedroegen in oktober 1,5% (Grafiek 19, paneel a). De rendementen op bankobligaties bleven dicht bij 3%, zoals blijkt uit de medio december beschikbare gegevens (Grafiek 19, paneel b). De rente op girale deposito's en deposito's met een opzegtermijn en de interbancaire rentetarieven zijn in oktober nauwelijks veranderd, terwijl de rente op termijndeposito's voor huishoudens licht toenam. Het ecart tussen de rente op termijndeposito's en girale deposito's, zowel voor bedrijven als voor huishoudens, bleef in oktober grotendeels ongewijzigd. De samengestelde depositorente bleef in oktober stabiel op 0,9%, ongeveer 60 basispunten onder de piek van mei 2024.

Grafiek 19

Samengestelde bankfinancieringskosten in specifieke eurolanden

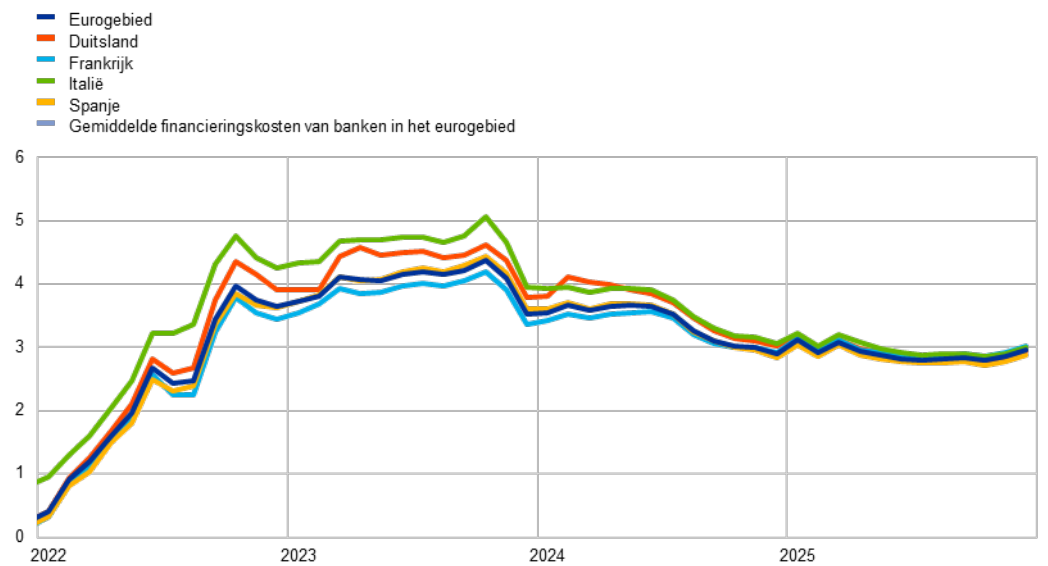
a) Samengestelde kosten schuldfinanciering banken

(in procenten op jaarbasis)



b) Rendementen op bankobligaties

(in procenten op jaarbasis)



Bronnen: ECB, S&P Dow Jones Indices LLC en/of daaraan gelieerde ondernemingen, en berekeningen van de ECB.

Toelichting: De samengestelde bankfinancieringskosten zijn het gemiddelde van de kosten voor nieuw afgesloten contracten van girale deposito's, deposito's met een opzegtermijn, termijndeposito's, obligaties en interbancaire leningen, gewogen naar de respectieve uitstaande bedragen. De gemiddelde bankfinancieringskosten gebruiken dezelfde wegingsfactoren, maar zijn gebaseerd op de tarieven voor uitstaande deposito's en interbancaire financiering, en op het effectieve rendement bij uitgifte van obligaties. De rendementen op bankobligaties zijn maandelijkse gemiddelden voor obligaties in senior tranches. De meest recente waarnemingen betreffen oktober 2025 voor de samengestelde kosten van schuldfinanciering voor banken (paneel a) en 17 december 2025 voor de rente op bankobligaties (paneel b).

De rentetarieven voor bankkredieten aan bedrijven en huishoudens zijn sinds september stabiel gebleven, tegen de achtergrond van ongewijzigde beleidsrentes en beperkte schommelingen van de langere rente. De kosten van bankkrediet voor niet-financiële ondernemingen (non-financial corporations –NFC's)

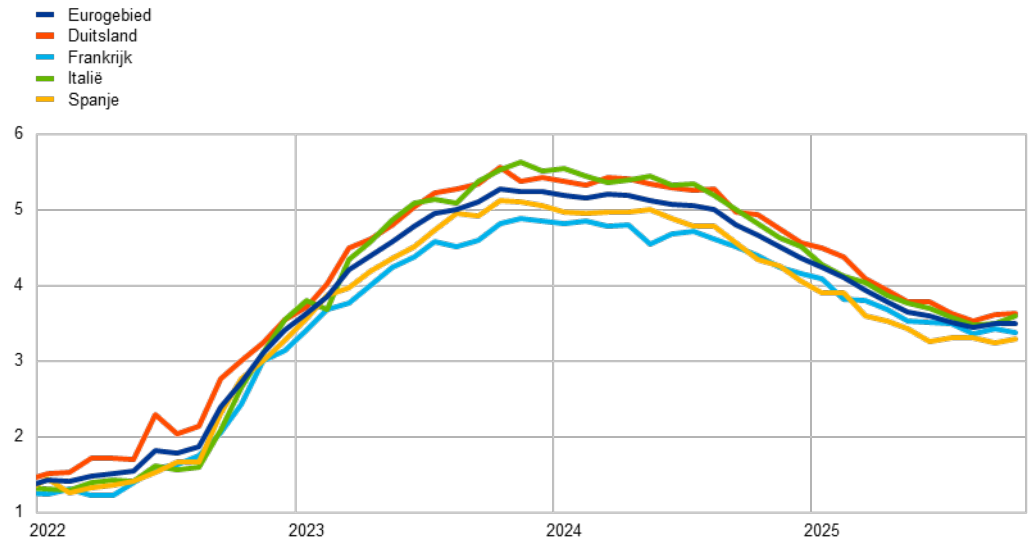
bleven in oktober 2025 onveranderd op 3,5%, ongeveer 1,8 procentpunt lager dan het piekniveau van oktober 2023, met geringe variaties tussen de grotere landen van het eurogebied (Grafiek 20, paneel a). De spread tussen de rente op kleine en grote leningen aan bedrijven bleef in oktober overwegend stabiel, met ongelijke ontwikkelingen in de grootste economieën van het eurogebied. De kredietkosten voor huishoudens voor woningaankopen zijn in oktober stabiel gebleven op 3,3%, circa 70 basispunten onder de piek van november 2023, met een aantal verschillen tussen de grotere landen van het eurogebied (Grafiek 20, paneel b). Het ecart tussen de rente op leningen aan huishoudens en op bedrijfskredieten, dat in maart 2024 een piek van 140 basispunten had bereikt, bleef stabiel op 20 basispunten. Dit ecart vloeit voornamelijk voort uit het feit dat leningen aan huishoudens in veel landen van het eurogebied doorgaans langere rentevaste perioden kennen, waardoor ze minder gevoelig zijn voor schommelingen in de korte marktrente.

Grafiek 20

Samengestelde bancaire debetrente voor bedrijven en huishoudens in geselecteerde landen van het eurogebied

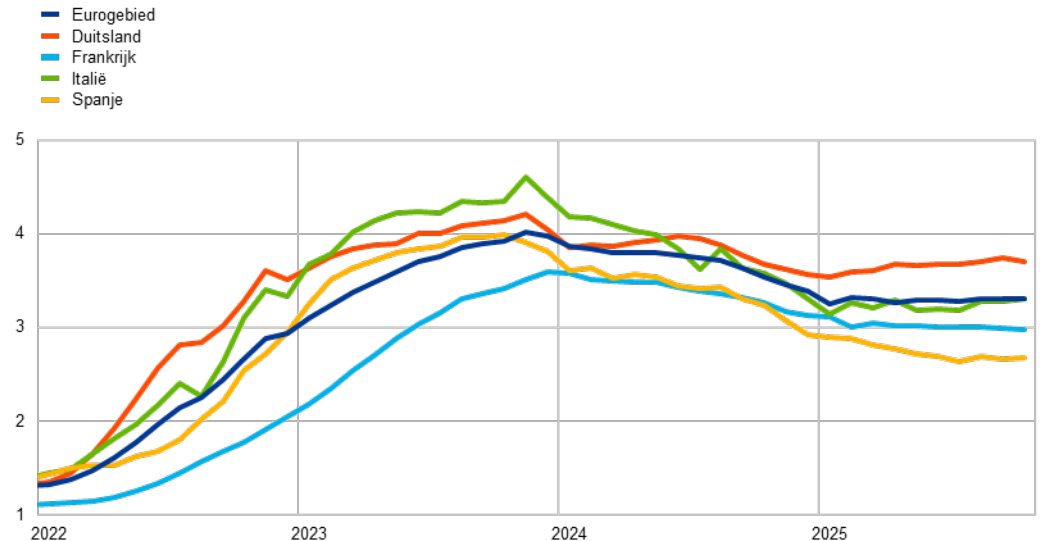
a) Rentes op leningen aan NFC's

(in procenten op jaarbasis)



b) Rentes op leningen aan huishoudens voor woningaankopen

(in procenten op jaarbasis)



Bronnen: ECB en berekeningen van de ECB.

Toelichting: De samengestelde rentetarieven voor bankkredieten worden berekend door de korte- en langetermijnrentes te aggregeren aan de hand van een 24-maands voortschrijdend gemiddelde van het totale aantal nieuwe contracten. De meest recente waarnemingen betreffen oktober 2025. In paneel a staat NFC's voor 'non-financial corporations' (niet-financiële ondernemingen).

In de verslagperiode van 11 september tot en met 17 december 2025 namen de kosten van zowel schuldfinanciering via de markt als aandelenfinanciering toe.

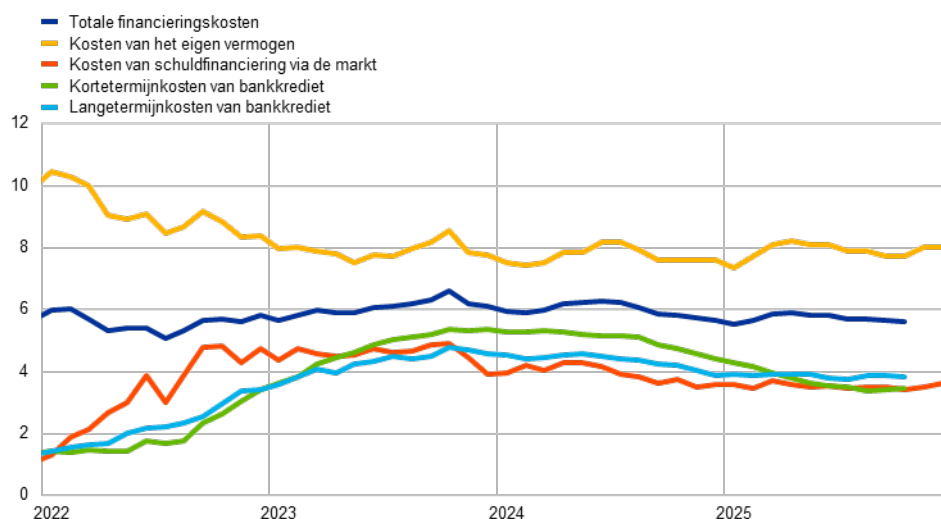
De totale financieringskosten voor NFC's – de samengestelde kosten van bankkrediet, schuldfinanciering via de markt en aandelen – bleven in oktober stabiel

op 5,7%, onveranderd ten opzichte van de voorgaande maand (Grafiek 21).⁸ Dat was het resultaat van hogere kosten van aandelenfinanciering, die grotendeels teniet werden gedaan door een daling van de kosten van schuldfinanciering via de markt in oktober ten opzichte van de voorgaande maand. De kosten van bankkrediet bleven ondertussen vrijwel onveranderd. De dagelijkse gegevens laten voor de gehele verslagperiode van 11 september tot en met 17 december 2025 een opwaarts verloop zien van de kosten van zowel schuldfinanciering via de markt als, in mindere mate, aandelenfinanciering. De stijging van de kosten van financiering via de markt was toe te schrijven aan de hogere risicovrije rente, terwijl de spreads op bedrijfsobligaties zeer licht zijn gedaald. Daarnaast leidde de hogere risicovrije rente, zoals benaderd door de tienjaars daggeldrenteswap, tot een stijging van de kosten van het eigen vermogen, ondanks een lichte daling van de risicopremie op aandelen.

Grafiek 21

Nominale kosten van externe financiering voor bedrijven uit het eurogebied, per component

(in procenten op jaarbasis)



Bronnen: ECB, Eurostat, Dealogic, Merrill Lynch, Bloomberg Finance L.P., LSEG en berekeningen van de ECB.

Toelichting: De totale financieringskosten voor niet-financiële ondernemingen (non-financial corporations – NFC's) worden gebaseerd op maandgegevens en berekend als het gewogen gemiddelde van de kosten van lang- en kortlopend bankkrediet (gemiddelde maandgegevens), schuldfinanciering via de markt en eigen vermogen (maandultimogegevens), op grond van de gerelateerde uitstaande bedragen. De meest recente waarnemingen betreffen 17 december 2025 voor de kosten van schuldfinanciering via de markt en van het eigen vermogen (daggegevens) en oktober 2025 voor de totale financieringskosten en de kosten van bankkrediet (maandgegevens).

De groei van de kredietverlening aan bedrijven en huishoudens bleef gematigd en onder het historisch gemiddelde. De groei op jaarbasis van de kredietverlening van banken aan bedrijven bedroeg 2,9% in oktober 2025 en bleef daarmee ongewijzigd ten opzichte van september. Dit percentage was sinds het begin 2025 geleidelijk gestegen, maar ligt nog steeds onder het historisch gemiddelde van 4,3% (Grafiek 22, paneel a). De groei op jaarbasis van de schuldfinanciering van bedrijven steeg licht tot 3,2% in oktober, maar blijft ruim onder het historisch gemiddelde van 4,8%. De enquête van de ECB naar de bancaire kredietverlening in het eurogebied van oktober 2025 liet een grotere risicoaversie bij banken zien en wees op een

⁸ Door het vertraagd beschikbaar komen van gegevens over de kosten van leningen bij banken zijn cijfers over de totale financieringskosten voor NFC's slechts beschikbaar tot en met oktober 2025.

kleine, onverwachte aanscherping van de criteria voor kredietverlening aan bedrijven en een lichte toename van de vraag naar nieuwe leningen, die over het algemeen echter zwak bleef. De kredietverlening aan huishoudens bleef zich geleidelijk herstellen, waarbij de groei op jaarbasis is gestegen van 2,6% in september naar 2,8% in oktober, wat nog steeds aanzienlijk lager is dan het historisch gemiddelde van 4,1% (Grafiek 22, paneel b). Deze opwaartse trend werd ondersteund door de leningen aan huishoudens voor woningaankopen en de groei van het consumptief krediet. De overige kredietverlening aan huishoudens, waaronder leningen aan eenmanszaken, bleef zwak. Volgens de meest recente [Consumer Expectations Survey](#) van de ECB vonden huishoudens de toegang tot krediet in oktober iets moeilijker, hoewel ze verwachten dat die de komende twaalf maanden stabiel zal blijven. De nog steeds relatief trage groei van de kredietverlening is deels toe te schrijven aan de grotere onzekerheid over het mondiale economische beleid. Dit was vooral het geval in de eerste helft van 2025, onder meer als gevolg van de ontwikkelingen in het handelsbeleid in de Verenigde Staten.⁹

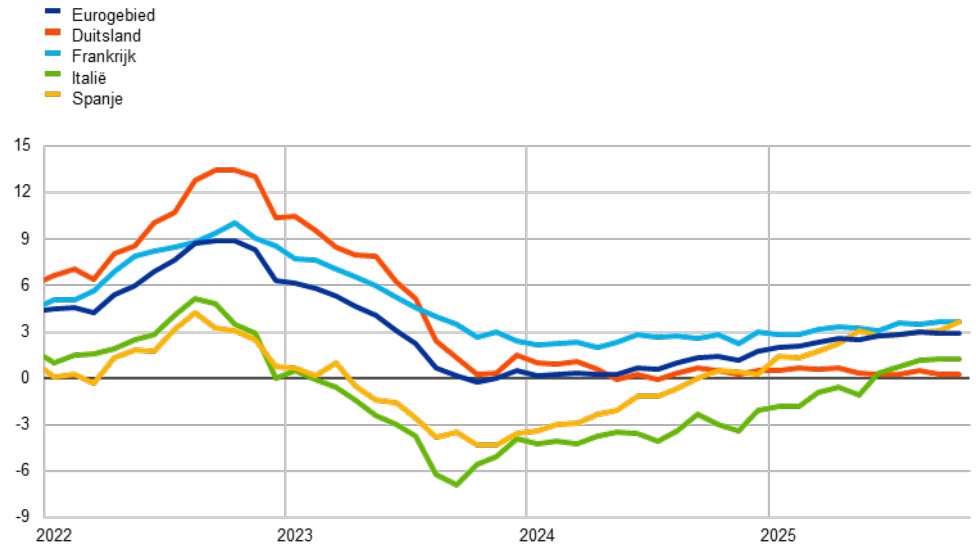
⁹ Zie [More uncertainty, less lending: how US policy affects firm financing in Europe](#), *The ECB Blog*, 2 oktober 2025.

Grafiek 22

MFI-leningen in specifieke eurolanden

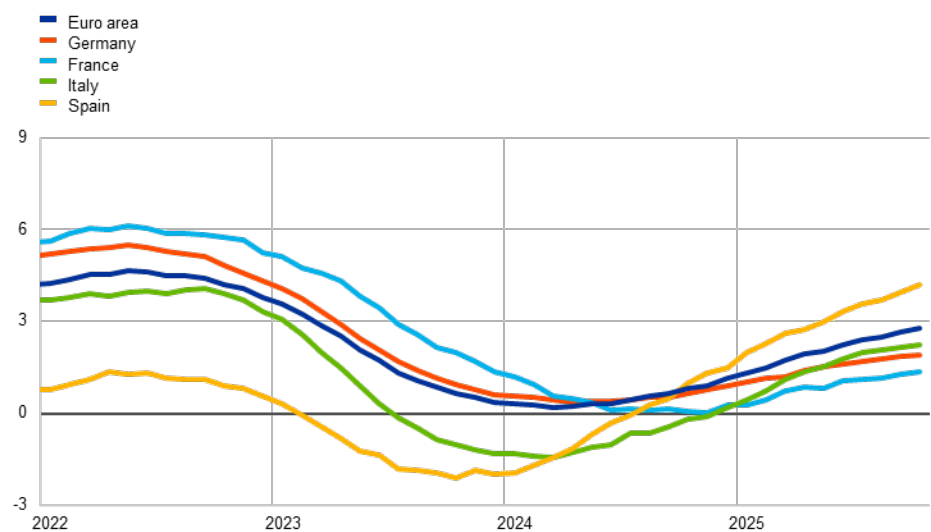
a) MFI-leningen aan NFC's

(mutaties in procenten per jaar)



b) MFI-leningen aan huishoudens

(mutaties in procenten per jaar)



Bronnen: ECB en berekeningen van de ECB.

Toelichting: De leningen van monetaire financiële instellingen (MFI's) zijn gecorrigeerd voor verkopen en securitisaties van leningen en in het geval van NFC's ook voor saldocompensatie (notional cash pooling). De meest recente waarnemingen betreffen oktober 2025.

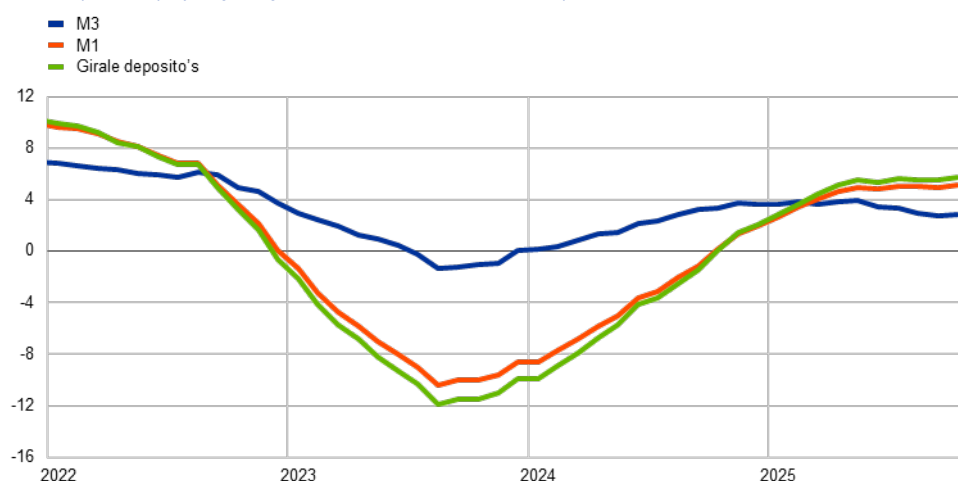
De groei op jaarbasis van het ruime monetaire aggregaat (M3) stabiliseerde zich in oktober, wat ondersteund werd door een stabiele dynamiek in leningen en deposito's van huishoudens en bedrijven (Grafiek 23). De geleidelijke afname van de groei van M3 sinds februari 2025 kwam in oktober tot stilstand en de groei van M3 op jaarbasis bleef onveranderd op 2,8%. Dit is ruim onder het cijfer van 4% dat in het eerste deel van 2025 werd bereikt en het langetermijngemiddelde van 6,1%. De groei op jaarbasis van het eng gedefinieerde monetaire aggregaat (M1), dat bestaat uit de meest liquide componenten van M3, steeg relatief stabiel, met

cijfers van 5,0% in september en 5,2% in oktober. De groei van M1 werd nog steeds gedragen door girale deposito's als gevolg van een sterke voorkeur onder bedrijven en huishoudens voor liquide activa. Vanuit het perspectief van de tegenposten bleef de kredietverlening aan huishoudens en bedrijven een gematigde bijdrage aan de geldschepping leveren. De netto buitenlandse monetaire instroom lijkt minder sterk en in vergelijking met 2024 volatieler te zijn geworden. Aankopen van overheidsobligaties door banken ondersteunden de geldgroei tegen de achtergrond van een robuust obligatieaanbod. Dit was het gevolg van de aanhoudende verkorting van de balans van het Eurosysteem door een passieve afbouw van de portefeuille van het programma voor de aankoop van activa en het pandemie-noodaankoopprogramma, wat de groei van M3 bleef drukken.

Grafiek 23

M3, M1 en girale deposito's

(mutaties in procenten per jaar; gecorrigeerd voor seizoens- en kalendereffecten)



Bron: ECB.

Toelichting: De meest recente waarnemingen betreffen oktober 2025.

Volgens de door medewerkers van het Eurosysteem samengestelde macro-economische projecties van december 2025 zou het begrotingstekort van de totale overheid in het eurogebied, dat in 2024 3,1% van het bbp bedroeg, in 2025 dalen tot 3,0% van het bbp en vervolgens stijgen tot 3,5% in 2027, om daarna weer te dalen tot 3,4% in 2028. Grofweg in overeenstemming met dit pad zal het begrotingsbeleid van het eurogebied naar verwachting in 2025 licht verkrappen, in 2026 verruimen en vervolgens in 2027 en 2028 weer verkrappen. De aannames en prognoses voor het begrotingsbeleid blijven echter omgeven door een hoge mate van onzekerheid.¹⁰ De Europese Commissie heeft het Najaarspakket voor 2026 goedgekeurd en verwacht dat de meeste lidstaten aan hun verplichtingen kunnen voldoen of weinig risico lopen hieraan niet te kunnen voldoen, rekening houdend met de activering van de nationale ontsnappingsclausule. Tegelijkertijd is het toe te juichen dat nationaal gefinancierde investeringen in het eurogebied als geheel toenemen. Overheden moeten prioriteit geven aan houdbare overheidsfinanciën, strategische investeringen en groeibevorderende structurele hervormingen.

Volgens de door medewerkers van het Eurosysteem samengestelde macro-economische projecties van december 2025 zal het begrotingssaldo van de totale overheid in het eurogebied gedurende de projectieperiode geleidelijk verbeteren (Grafiek 24).¹¹ Na een verwachte lichte daling in 2025 zal het begrotingstekort van het eurogebied naar verwachting vrij sterk toenemen tot 3,5% van het bbp in 2027 om vervolgens licht af te nemen tot 3,4% van het bbp in 2028. Deze stijging is het gevolg van stijgende rentebetalingen (van 1,9% van het bbp in 2024 tot 2,3% in 2028), die slechts marginaal worden gecompenseerd door de invloed van de conjunctuurcyclus. De conjuncturele component blijft dus over het algemeen neutraal gedurende de projectieperiode en wordt licht positief in 2028, en het conjunctuurgezuiverde primaire saldo blijft grotendeels ongewijzigd (als rekening wordt gehouden met de Next Generation Eu-subsidies (NGEU)). In vergelijking met de projecties van medewerkers van de ECB van september 2025 is het verloop van het begrotingssaldo in de periode 2025-2027 licht naar beneden bijgesteld, voornamelijk vanwege het conjunctuurgezuiverde primaire saldo, dat de lichte verbetering van de conjuncturele component meer dan compenseert.

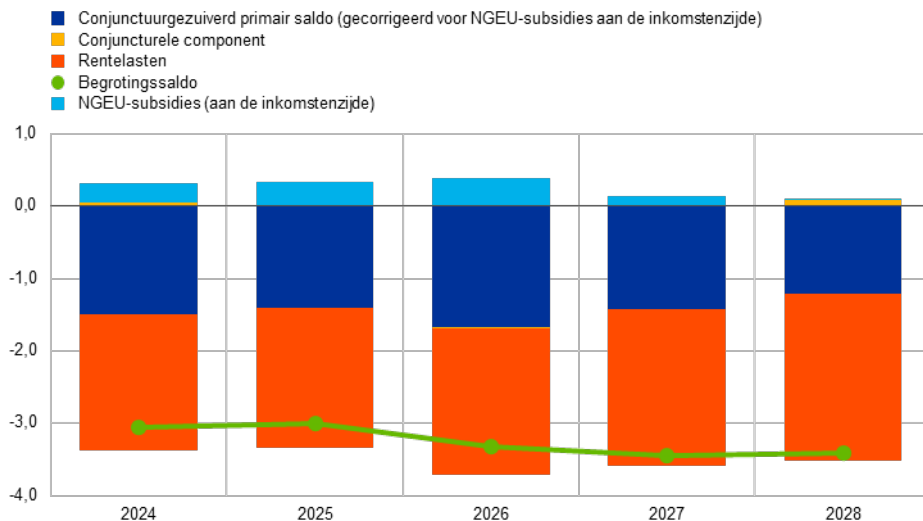
¹⁰ De begrotingsplannen van sommige grote landen van het eurogebied zijn ofwel nog niet afgerond, ofwel alweer achterhaald gezien de huidige politieke situatie.

¹¹ Zie de [door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied](#) van december 2025.

Grafiek 24

Begrotingssaldo en componenten

(in procenten bbp)



Bronnen: Berekeningen van de ECB en de door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied van december 2025.

Toelichting: De gegevens betreffen het aggregaat van de totale overheid van alle 21 landen in het eurogebied.

Na een lichte verkrapping in 2025 zal het begrotingsbeleid in het eurogebied naar verwachting in 2026 verruimen en in 2027 en 2028 weer verkrappen.¹² De

mutatie op jaarbasis van het conjunctuurgezuiverde primaire saldo, gecorrigeerd voor subsidies aan landen in het kader van het NGEU-programma, wijst op een gematigde verkrapping van het begrotingsbeleid in de komende jaren, behalve in 2026. De verkrapping in 2025 is grotendeels het gevolg van discretionaire maatregelen aan de ontvangstenzijde, zoals verhogingen van de socialezekerheidsbijdragen en, in mindere mate, verhogingen van directe en indirecte belastingen. Deze belastingverhogingen worden deels gecompenseerd door een aanhoudende groei van de overheidsuitgaven. In 2026 zal de begrotingskoers naar verwachting verruimen, voornamelijk als gevolg van hogere overheidsinvesteringen. In 2027 wordt consolidatie in veel landen (onder meer na het aflopen van NGEU-financiering) gecompenseerd door stimuleringsmaatregelen, met name in Duitsland. Daarnaast beperken uitgestelde NGEU-gefinancierde uitgaven, voornamelijk in Spanje en Italië, de verkrapping van het begrotingsbeleid in 2027. In 2028 zal het begrotingsbeleid van het eurogebied naar verwachting verder verkrappen, zij het in een iets lager tempo dan in 2027. Deze bescheiden verkrapping verhult echter heterogeniteit tussen landen: zo compenseert een sterk soepeler begrotingsbeleid in Duitsland een aanzienlijke verkrapping in Frankrijk, Spanje en Italië. De verkrapping in Spanje en Italië is grotendeels het gevolg van lagere bestedingen. Daarbij gaat het vooral om kapitaaloverdrachten en

¹² De begrotingskoers weerspiegelt de richting en omvang van de stimulans die uitgaat van het begrotingsbeleid op de economie, naast de automatische reactie van de overheidsfinanciën op de conjunctuur. Deze koers wordt hier gemeten als de mutatie van het voor de conjunctuur gecorrigeerde primaire saldo verminderd met de overheidssteun aan de financiële sector. Aangezien de hogere overheidsinkomsten in verband met NGEU-subsidies vanuit de EU-begroting geen verkleinend effect op de vraag hebben, wordt het conjunctuurgezuiverde primaire saldo gecorrigeerd om die inkomsten buiten beschouwing te laten. Zie voor meer informatie over het begrip "begrotingskoers van het eurogebied" het artikel "The euro area fiscal stance", *Economisch Bulletin*, nummer 4, ECB, 2016.

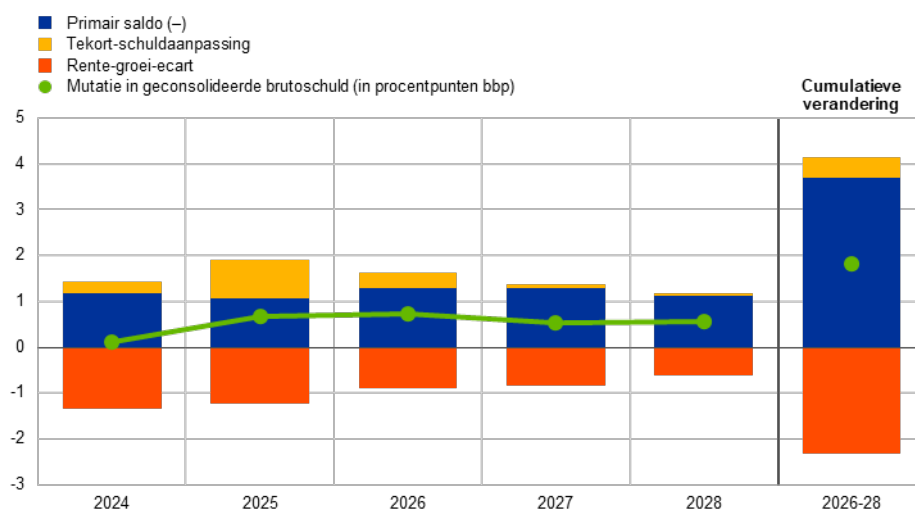
investeringen die voorheen met gelden uit het NGEU-programma werden gefinancierd.

De schuldquote van het eurogebied vertoont een stijgende lijn (Grafiek 25). De schuldquote van het eurogebied zal naar verwachting toenemen van 86,6% in 2024 tot 89,2% in 2028, omdat primaire tekorten en positieve tekort-schuldaanpassingen de gunstige, zij het afnemende, effecten van rente-groeiverschillen tenietdoen. Ten opzichte van de projecties van september 2025 is het beloop van de overheidsschuld naar beneden bijgesteld. De neerwaartse bijstelling is het gevolg van basiseffecten van statistische herzieningen in 2024 en gunstiger rente-groeiverschillen.

Grafiek 25

Bepalende factoren voor mutaties in overheidsschulden in het eurogebied

(procenten bbp tenzij anders aangegeven)



Bronnen: Berekeningen van de ECB en de door medewerkers van het Eurosysteem samengestelde macro-economische projecties voor het eurogebied van december 2025.

Toelichting: De gegevens betreffen het aggregaat van de totale overheid van alle 21 landen in het eurogebied.

Op 25 november heeft de Europese Commissie het Najaarspakket voor 2026 goedgekeurd, met daarin de prioriteiten voor het economisch en werkgelegenheidsbeleid.

Dit pakket omvat de beoordeling door de Commissie van de naleving van het begrotingskader van de EU door de EU-lidstaten en biedt richtsnoeren voor hun begrotingsbeleid in 2026. Het bevat daarnaast ook de beoordeling door de Commissie van de ontwerp-begrotingsplannen (draft budgetary plans – DBP's) van de eurolanden voor 2026. Niet alle landen in het eurogebied hadden hun begrotingsplannen echter bij de Commissie ingediend, voornamelijk vanwege hun verkiezingscycli.¹³ Op basis van de analyse van de Commissie zal een meerderheid van de lidstaten naar verwachting aan hun verplichtingen kunnen voldoen of weinig risico lopen hieraan niet te kunnen voldoen, rekening houdend met de activering van de nationale ontsnappingsclausule. Daarnaast is het positief dat nationaal gefinancierde investeringen in het eurogebied als geheel toenemen.

¹³ België en Spanje moeten hun DBP's nog indienen. Oostenrijk heeft in mei een DBP voor 2025 en 2026 ingediend, en de Commissie heeft geoordeeld dat dit in overeenstemming is met de bepalingen van het stabiliteits- en groeipact.

Overheden moeten prioriteit geven aan houdbare overheidsfinanciën, strategische investeringen en groeibevorderende structurele hervormingen.

Kaders

1 Bulgaria adopts the euro

Prepared by Matteo Falagiarda, Christine Gartner and Steffen Osterloh

On 1 January 2026 Bulgaria adopted the euro and became the 21st member of the euro area. The assessments set out in the latest convergence reports of the European Commission (2025) and the European Central Bank (ECB, 2025) paved the way for Bulgaria to adopt the euro and thereby further enlargement of the euro area following Croatia joining in 2023.¹ On 8 July 2025 the Council of the European Union formally approved the accession of Bulgaria to the euro area and determined a Bulgarian lev conversion rate of 1.95583 levs per euro. This rate had been the central rate of the lev during the country's participation in the exchange rate mechanism (ERM II).² Bulgaria's adoption of the euro demonstrates that euro area membership remains an attractive prospect in times of high uncertainty and geopolitical tensions.

Bulgaria is well integrated with the euro area through trade and financial linkages. The country has a population of about 6.5 million and its GDP accounts for around 0.7% of euro area GDP. Its economic structure is broadly similar to that of the euro area as a whole, with industry (including construction) and services contributing around 29% and 68% respectively to gross value added, compared with around 26% and 72% in the euro area. The euro area is Bulgaria's main trading and financial partner (Chart A, panel a). Prior to adopting the euro, its economy showed a relatively high degree of euroisation. Around 70% of government debt, along with a significant share of the debt of non-financial corporations, was already denominated in euro, mirroring the currency composition of both household savings and firms' liquid assets, which are largely held in the form of deposits (Chart A, panel b). For over 25 years Bulgaria's monetary policy was aligned with that of the ECB through its currency board, which maintained a fixed BGN/EUR exchange rate. Bulgaria's deep integration with the euro area is reflected in the strong alignment of its business cycle with that of the euro area in the 15 years before euro adoption. Furthermore, banks owned by financial institutions domiciled in other euro area countries play a dominant role in the Bulgarian banking system.

¹ See Falagiarda and Gartner (2022).

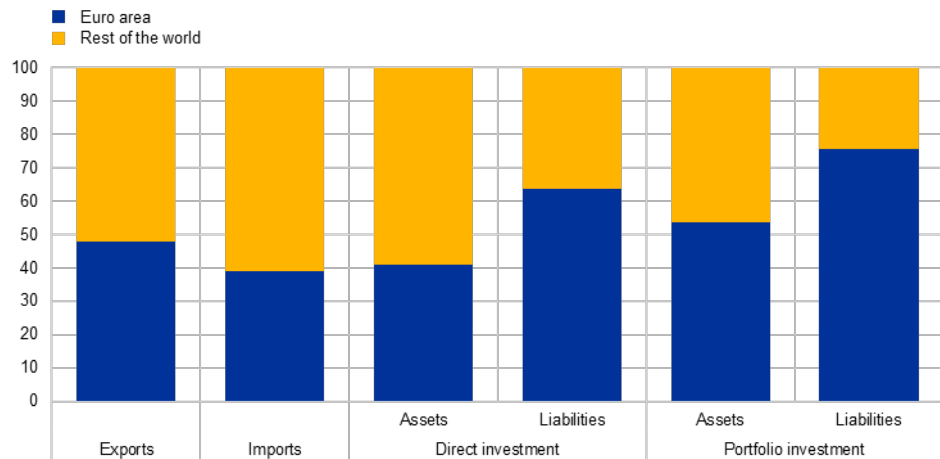
² See Dorrucci et al. (2020).

Chart A

Bulgaria's linkages with the euro area

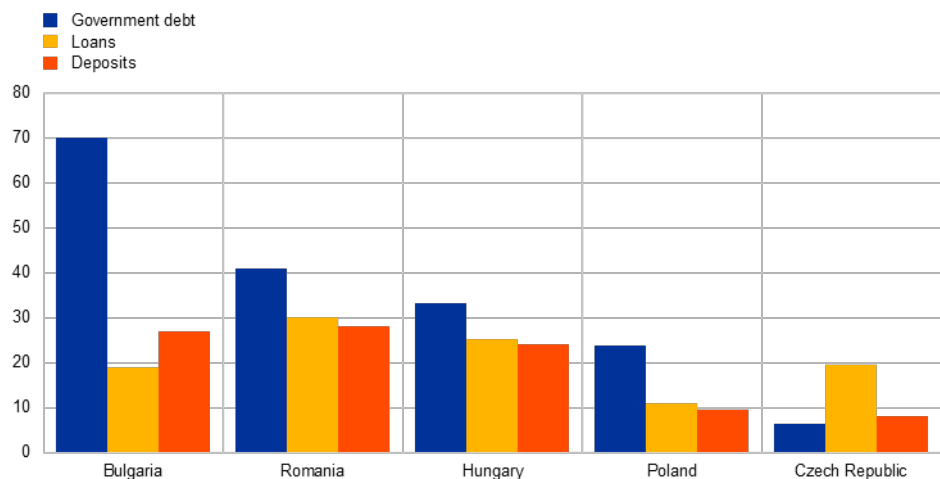
a) Trade and financial linkages

(as a percentage of the total)



b) Share of euro-denominated government debt, loans and deposits

(as a percentage of the total)



Sources: ECB and ECB staff calculations.

Notes: Panel a): the data are for 2024. Exports and imports refer to trade in goods only. Panel b): the data refer to outstanding amounts of loans to and deposits of domestic private sectors (other than monetary financial institutions) at the end of October 2025, and to the stock of general government debt at the end of 2024.

As with other countries that have adopted the euro, Bulgaria is expected to benefit from lower transaction and borrowing costs. Given Bulgaria's deep integration with the euro area and its commitment to maintaining sound fiscal, structural and financial policies, adopting the euro is expected to bring with it a number of economic advantages. These include: (i) increased foreign trade and investment driven by lower transaction costs; (ii) enhanced price transparency and comparability; and (iii) greater investor confidence.³ The economy is also expected to gain from lower borrowing costs due to well-anchored inflation expectations and reduced regulatory costs for banks, such as lower reserve requirements.

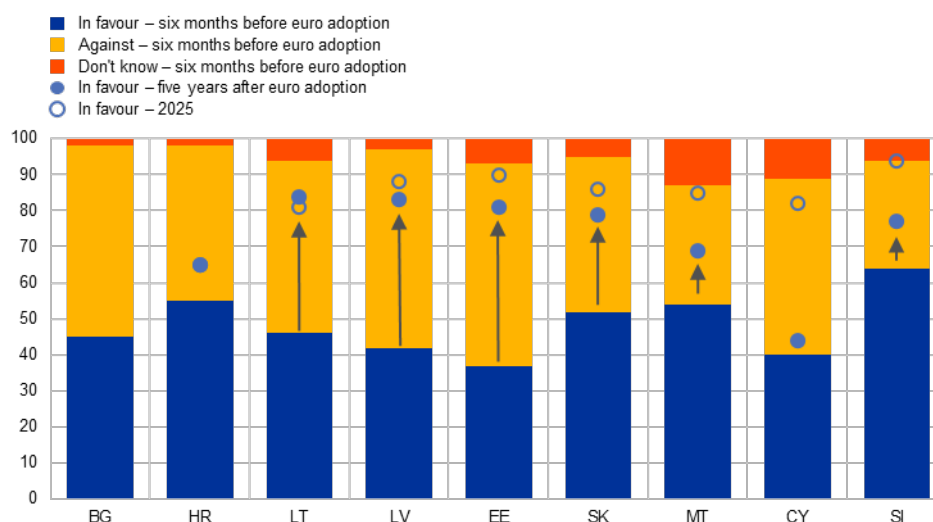
³ Some of these advantages are already evident from Bulgaria's recent credit rating upgrades.

Furthermore, Bulgaria's euro adoption allows it to participate in the euro area's decision-making and shape relevant economic policies.

The costs and risks of adopting the euro are expected to be minor and largely one-off. When it comes to a country joining the euro area, the main sources of concern are the costs of the changeover and the potential for unjustified price increases when prices are converted to euro.⁴ To allay these concerns, the Bulgarian authorities have implemented several measures, including enhanced price monitoring and inspections to address abusive practices, as well as a long mandatory period for the dual display of prices, which began on 8 August 2025 and will end on 8 August 2026. Nevertheless, public support for the euro in Bulgaria remains relatively low amid fears of price hikes. This was also the case for previous euro changeovers, with support then typically rising thereafter (Chart B).⁵ Considering Bulgaria's high level of economic and financial integration with the euro area and its long-standing fixed BGN/EUR exchange rate, the loss of exchange rate flexibility as a stabilisation tool is practically inconsequential.

Chart B
Attitudes towards the euro

(as a percentage of the total)



Source: European Commission (Eurobarometer).

Notes: The bars show responses to the question "Generally speaking, are you personally more in favour or against the idea of introducing the euro in your country?" in the Eurobarometer survey entitled "Introduction of the euro in the Member States that have not yet adopted the common currency". Full dots show responses to the question "Are you more in favour or against a European economic and monetary union with one single currency, the euro?" in the Standard Autumn Eurobarometer (Spring 2025 for Croatia). Empty dots show responses to the same question in the Standard Spring Eurobarometer 2025.

Since joining the EU in 2007, Bulgaria has made significant progress in converging towards the euro area. The excessive macroeconomic imbalances in existence before the COVID-19 pandemic – such as a negative external position, fragilities in the financial sector and high corporate indebtedness – have gradually been corrected with credible policy actions and prudent fiscal policies. Bulgaria has also made notable progress in terms of convergence in real terms: GDP per capita

⁴ For more details on the estimated impact on prices of the changeover in Croatia and during earlier euro changeovers, see Falagiarda et al. (2023).

⁵ See also Dreher and Hernborg (2025).

rose from around 35% of the euro area average in 2006 to just above 60% in 2025 (Chart C, panel a). Furthermore, it has achieved greater financial integration, with the close cooperation framework (established in 2020) helping to both align supervisory standards with those of the euro area and strengthen financial stability.

While Bulgaria's economy has weathered recent shocks relatively well, risks to inflation convergence remain. The Bulgarian economy proved resilient throughout the pandemic and in the face of recent energy price spikes and geopolitical tensions. Nevertheless, its small and open nature means that it remains exposed to external shocks.⁶ Inflation remains vulnerable to external price fluctuations owing to the high energy intensity of production and the large share of energy and food in household consumption.⁷ Strong wage and credit dynamics – though moderating – pose additional upside risks. Over the long term, Bulgaria's relatively low income and price levels, when compared with other countries that have adopted the euro (Chart C, panel b), suggest that real and nominal convergence will likely continue.

⁶ See, for example, Bijsterbosch et al. (2025).

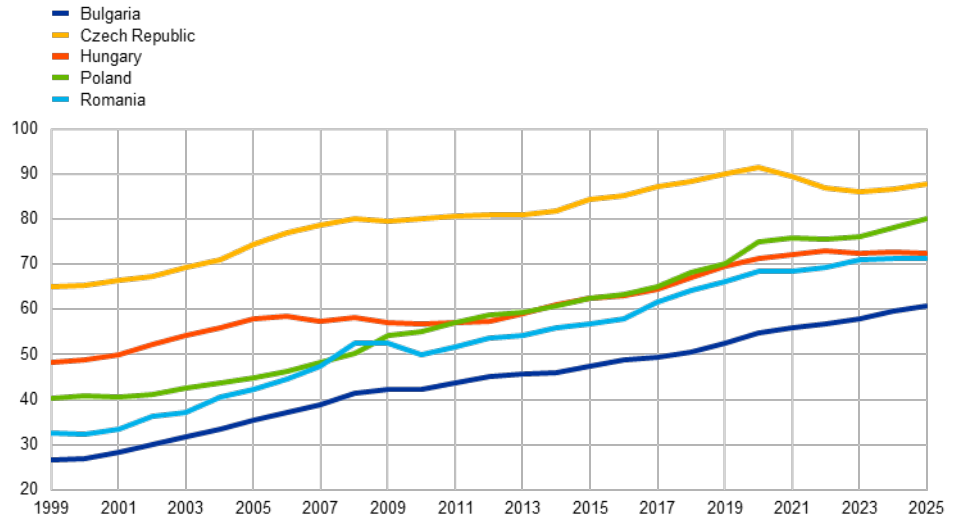
⁷ See Falagiarda (2024) for more details on the reasons for and implications of high inflation in recent years in euro area central and eastern European (CEE) countries, whose economies have similar structural features to those of non-euro area CEE economies, such as Bulgaria.

Chart C

Real GDP per capita relative to the euro area average

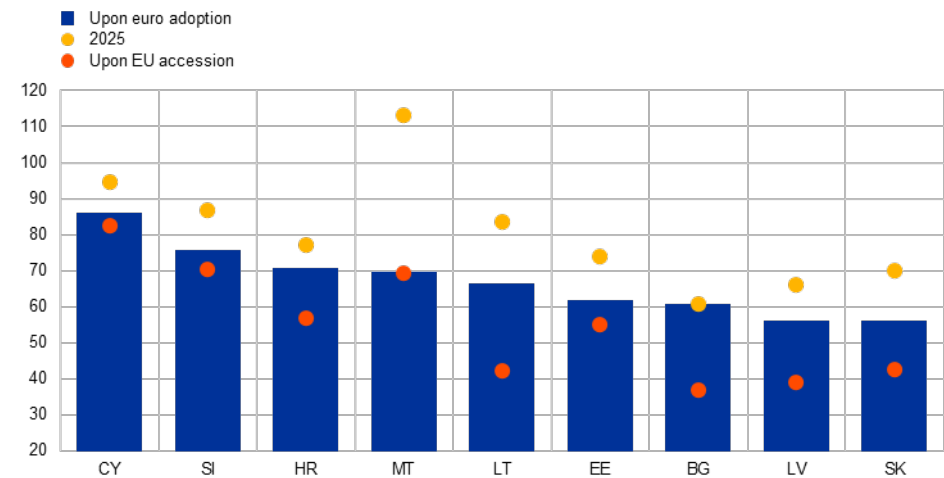
a) Evolution over time and compared with regional peers

(index: euro area = 100)



b) Compared with other countries that have adopted the euro

(index: euro area = 100)



Sources: European Commission (AMECO database) and ECB staff calculations.

Notes: Real GDP per capita is expressed in purchasing power units. The data for 2025 are taken from the European Commission's Autumn 2025 Economic Forecast. Panel b): the blue bars show real GDP per capita in the year preceding euro adoption (e.g. 2007 for Cyprus; 2025 for Bulgaria) relative to the euro area (EA20) average. The red dots show real GDP per capita in the year preceding EU accession (e.g. 2003 for Cyprus; 2006 for Bulgaria) relative to the EA20 average, while the yellow dots show the estimated level for 2025 relative to the EA20 average.

Bulgaria has maintained a sound fiscal record, but may face pressure to raise its relatively low levels of public expenditure. Under the currency board, the country recorded fiscal surpluses in 13 of the past 27 years, kept its debt ratio well below 60% of GDP (23.8% in 2024, the second lowest in the EU) and, from 2012, avoided being subject to an excessive deficit procedure. This strong fiscal performance was supported by prudent fiscal policy, which was required to sustain the credibility of the currency board. As Bulgaria adopts the euro and the constraints of the currency board fade, fiscal policy incentives may change. Should the perception emerge that fiscal discipline could become less strict, this could, over

time, generate spending pressure, particularly for those economic functions for which the share of spending is currently relatively low. Notably, this is the case with public investment, which has remained persistently low compared with other CEE countries (Chart D, panel a), partly owing to the slower than initially planned deployment of Next Generation EU funds. Spending on social protection, health and education is also subdued compared with that in the euro area (Chart D, panel b). Should pressure to raise such government outlays transpose into increased expenditure, keeping the debt ratio stable would require higher tax revenues. Going forward, maintaining sound and growth-friendly public finances in line with the EU economic governance rules and supported by a strong national fiscal framework, together with continued structural reforms to bolster productivity, would be the best approach to achieving sustainable long-term economic convergence and avoiding undue inflationary pressures and losses of competitiveness that could hamper Bulgaria's long-term economic growth potential.

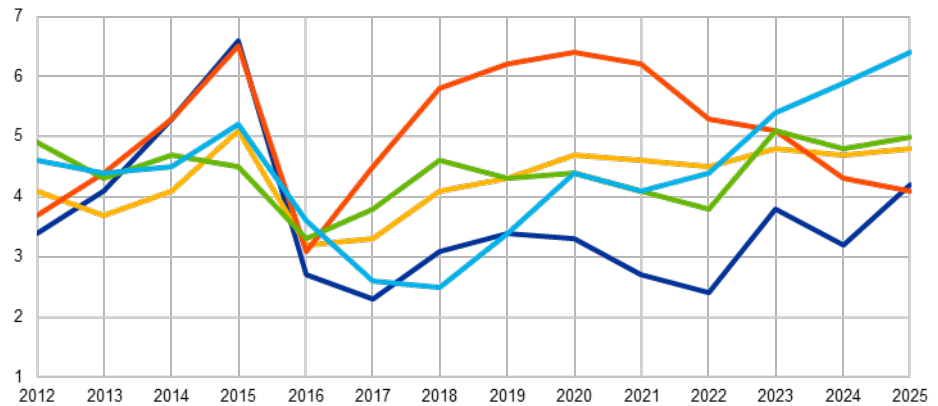
Chart D

Public investment and expenditure

a) Public investment

(as a percentage of GDP)

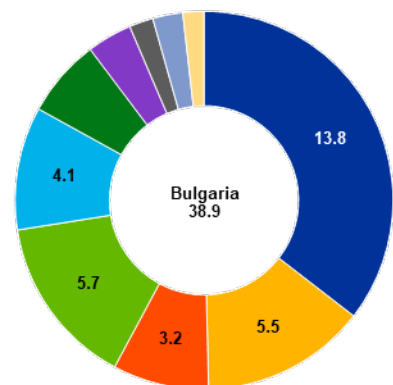
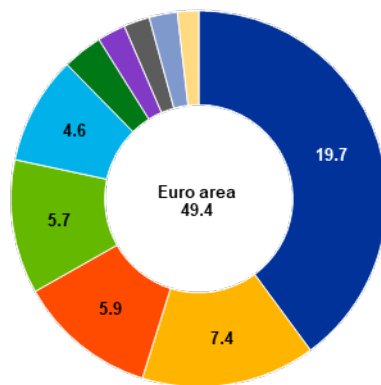
- Bulgaria
- Czech Republic
- Hungary
- Poland
- Romania



b) General government expenditure, by economic function

(as a percentage of GDP)

- Social protection
- Health
- General public services
- Economic affairs
- Education
- Public order and safety
- Defence
- Recreation, culture and religion
- Housing and community amenities
- Environmental protection



Sources: European Commission (AMECO database), Eurostat (COFOG) and ECB staff calculations.

Notes: Panel a): the data for 2025 are taken from the European Commission's Autumn 2025 Economic Forecast. Panel b): the data are for 2023. The numbers shown in the white circles indicate the total.

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From text to trouble: understanding the limits of text-derived trade policy uncertainty measures

Prepared by Maximilian Schröder

Trade policy uncertainty has risen significantly in the face of higher tariffs and tariff threats, adding a new layer of complexity to assessing the global economic outlook. Shifts in tariff and trade policy, unpredictable communication and the move away from rules-based multilateralism towards bilateral leverage have heightened uncertainty for firms and investors. This has influenced sourcing, production and investment decisions, and may weigh on trade dynamics, investment and overall macroeconomic performance. Moreover, uncertainty can affect expectations and dampen activity even in the absence of concrete policy changes. Monitoring it has therefore become crucial to assessing the economic outlook. Trade policy uncertainty has been an important part of the technical assumptions underlying recent rounds of the Eurosystem/ECB staff macroeconomic projections for the euro area.¹

However, trade policy uncertainty is unobservable and difficult to model. To capture it, indicators such as the trade policy uncertainty (TPU) index set out in Caldara et al. (2020) count press articles in which trade-related and uncertainty-related keywords appear in close proximity. This index, shown in Chart A for 1990-2025, remained subdued during 1990-2016 before rising during the first Trump election campaign and presidency as well as the first US-China trade conflict, in 2018-20. In April 2025 it reached a historical high when the second Trump Administration imposed a 10% baseline tariff on most imports and additional country-specific tariffs of up to 50%. Although the TPU index has since eased, it remains elevated by historical standards.

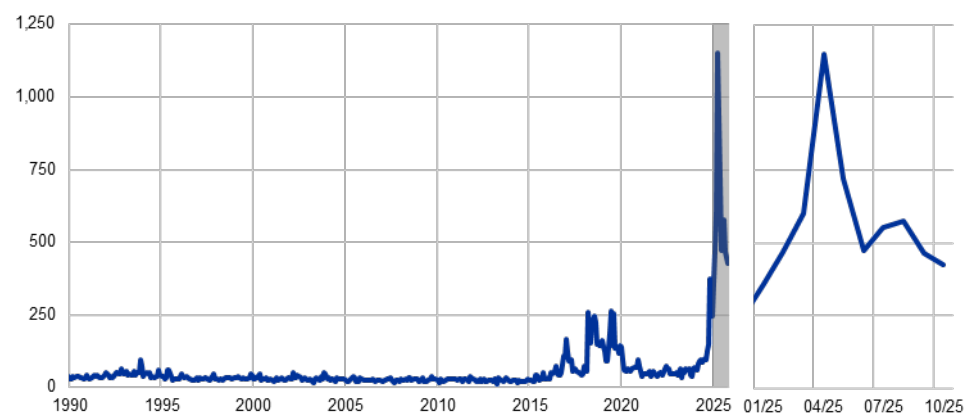
As regards gauging the macroeconomic effects of trade policy uncertainty, for the last couple of quarters standard linear models often imply implausibly large effects. One reason for this is that these models extrapolate from historical relations that may no longer hold. Another reason relates to the construction of the TPU index itself: the April spike implies that a very large proportion (around 10%) of all press articles in the underlying text data corpus mention trade policy uncertainty-related keywords, which suggests the index may have been inflated by heightened media attention or trade policy keywords being mentioned in the context of other topics.

¹ See Box 2 of “Eurosystem staff macroeconomic projections for the euro area, June 2025” and Box 1 of “ECB staff macroeconomic projections for the euro area, September 2025”.

Chart A

Trade policy uncertainty index

(percentages of press articles mentioning TPU keywords, multiplied by 100)



Sources: Caldara et al. (2020) and ECB staff calculations.

Note: The chart shows the raw TPU index as reported by Caldara et al. (2020).

The contamination of text-based TPU indicators is likely related to media coverage of trade policy coinciding with broader economic or political reporting.

One concern is that policy actions have heightened uncertainty not only in trade but also in other policy areas. As a result, measured trade policy uncertainty may overlap with other forms of uncertainty. For instance, an article published by Reuters in June (Saphir, 2025) mentions trade policy, but primarily in the context of geopolitical risk: “with the U.S. economy already expected to slow under pressure from the Trump administration’s high import tariffs, a rise in oil prices resulting from the conflict [the strike on Iran] ‘could provide powerful downward pressure on households’ ability to spend...”. Such reporting also highlights another borderline case: articles discussing the economic uncertainty regarding the effects of tariffs rather than uncertainty about trade policy itself, as in “and while it is also expected to show inflation running near the Fed’s 2% goal last month, many Fed officials expect tariffs to feed into higher prices...” in the same article. Consequently, media reports may inflate counts of TPU-related keywords when the index is interpreted in a strictly economic sense. Against this background, this box cautions against mechanically interpreting TPU indicator readings as pure uncertainty shocks and proposes an alternative measure for use in standard macroeconomic models.

The standard TPU measure can be refined by eliminating contaminating influences.

These influences become problematic when econometric analysis is seeking to disentangle distinct uncertainty channels, for instance in scenario analysis, and may lead to double-counting if readings from the raw TPU measure are treated as a primitive trade policy uncertainty shock. This box therefore proposes an alternative TPU measure, which uses the raw index cleaned for cases of keyword-driven co-mentions, such as those cited in the previous paragraph. Rather than being constructed from the ground up, the unadjusted series is cleaned indirectly by regressing it on a set of proxies, a constant and a COVID-19 pandemic dummy. This removes variation explained by historical co-movements of uncertainty-related keywords while preserving changes that extend beyond them. The first set of proxies controls for instances where broad uncertainty coverage inflates TPU counts, and

includes: the categorical economic policy uncertainty indices of Baker et al. (2016), excluding trade policy; the geopolitical risk index of Caldara and Iacoviello (2022); the CBOE Volatility Index (VIX); and oil price volatility. The second set addresses episodes when financial or supply chain stress drives reporting on trade-related risks: the US National Financial Conditions Index (NFCI) and the Global Supply Chain Pressure Index (GSCPI). Finally, the effective tariff rate, defined as customs revenues relative to imports, controls for cases where media coverage reflects realised changes in trade policy rather than uncertainty about future measures.²

The cleaned indicator shows significantly smaller spikes throughout 2025.

Chart B, panel a) presents the cleaned TPU indicator alongside the untreated indicator.³ While it maintains the primary characteristics of the original indicator, the spikes observed in 2025 are only 20% as high and exceed the levels observed during the first US-China trade conflict by a smaller margin.⁴ Recent developments are generally comparable to those observed in measures of economic policy uncertainty (EPU), such as the news-based US EPU, the three-component US EPU and the global EPU illustrated in Chart B, panel b). The coincidence of spikes across different uncertainty measures in part explains the disproportionate spike in the raw TPU indicator if not controlled for. At the same time, the cleaned TPU indicator still spikes during the first US-China trade conflict, aligning well with the raw TPU. Taken together, this supports the view that the unadjusted TPU indicator may be misinterpreted in the present high-uncertainty environment unless a narrow interpretation of trade policy uncertainty shocks is adopted.

² The effective tariff rate is outlier-adjusted.

³ The cleaned index is centred on its long-term historical average. Negative values hence indicate cleaned TPU levels below that average while positive values indicate above-average uncertainty.

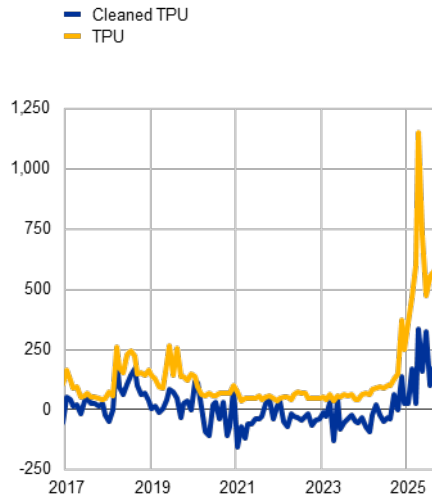
⁴ The adjusted indicator is slightly more volatile, potentially adding noise to the analysis.

Chart B

The TPU index and other uncertainty measures

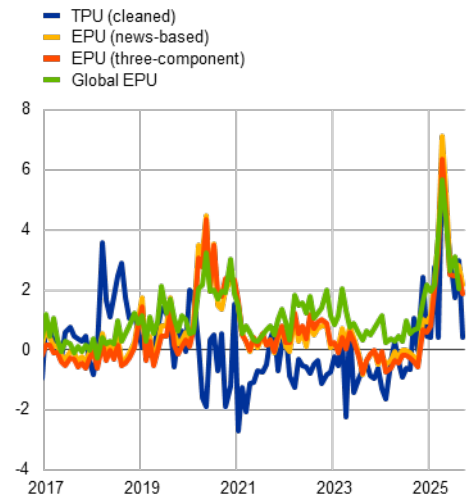
a) TPU and cleaned TPU

(diffusion indices)



b) Cleaned TPU and economic policy uncertainty measures

(diffusion indices, standardised)



Sources: Panel a): Caldara et al. (2022) and ECB staff calculations; Panel b): Baker et al. (2016), Davis (2016) and ECB staff calculations.

Note: Latest observations: September 2025.

The adjusted TPU index allows counterfactual scenarios to be constructed that yield more plausible estimates of macroeconomic impacts. On the basis of the

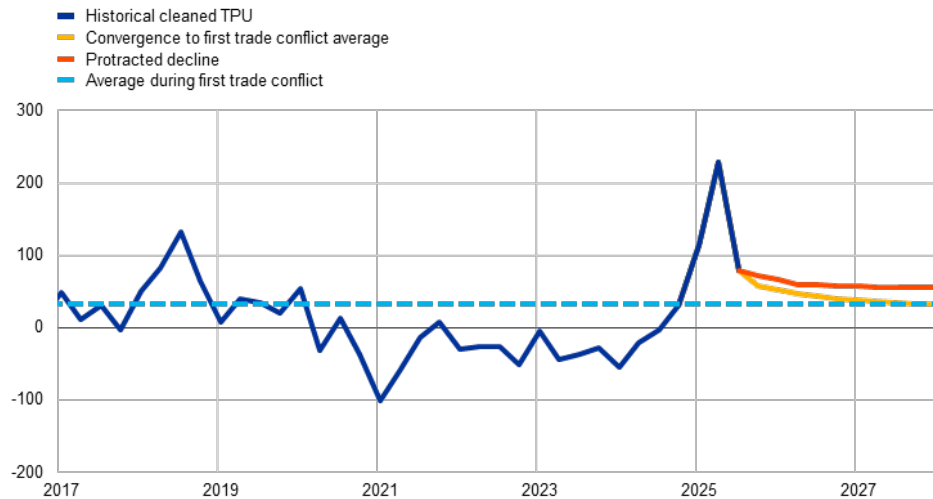
adjusted index, alternative paths for the degree of trade policy uncertainty can be defined and updated as new data become available, providing a flexible input for conditional forecasting and projection exercises. Chart C, panel a) illustrates two scenarios: one in which TPU declines from current levels to the average observed during the first trade conflict, and another that assumes a more protracted decline. Chart C, panel b) shows the corresponding effects on US GDP and on global GDP (excluding the US), taking into account TPU-implied shocks since the beginning of the year. Under these assumptions, GDP in the United States and the rest of the world would contract by about 0.1 percentage points by the end of 2027 if uncertainty fell back to first trade conflict levels, but by roughly 0.2 percentage points if uncertainty remained elevated for longer.

Chart C

The impact of trade policy uncertainty on growth

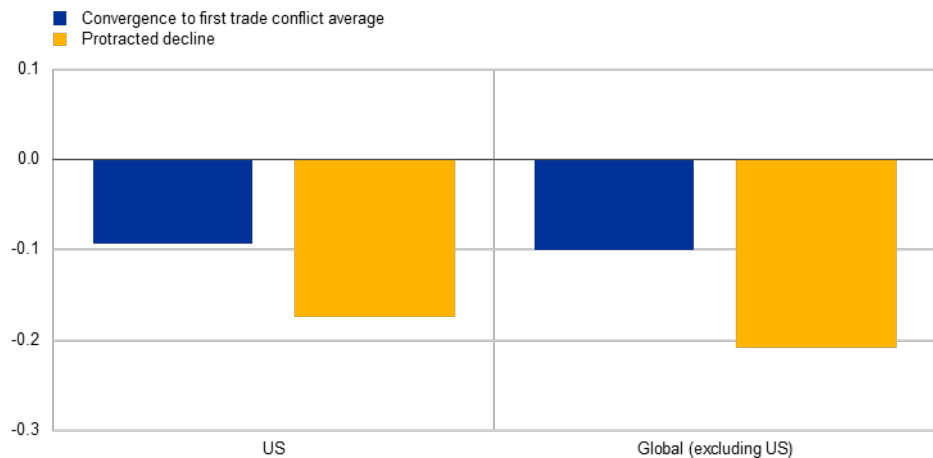
a) Evolution of trade policy uncertainty

(index, three-month moving averages)



b) Cumulative impact of uncertainty on GDP growth, 2025-27

(percentage points)



Source: ECB staff calculations.

Notes: Panel a): Latest observation: July 2025, extrapolations thereafter. Panel b): The impacts are computed from forecasts based on Bayesian vector autoregression models, conditional on the assumed path of cleaned TPU. The models include, for one region at a time, the cleaned TPU; the logs of GDP, investment and CPI; as well as a COVID-19 pandemic dummy. The TPU shock is identified with Cholesky identification.

In conclusion, adjusting TPU measures can improve their indicator properties and make them easier to interpret.

This box argues that text-based measures of trade policy uncertainty might capture a broader concept of uncertainty than uncertainty surrounding trade policy announcements and implementation alone. Once confounding influences and media cycle effects are removed, adjusted measures of trade policy uncertainty yield less sizeable macroeconomic impacts than commonly reported in the literature. In addition, if a more restrictive definition of trade policy uncertainty is adopted, these alternative indicators can readily be used to define scenarios for conditional forecasting and projection exercises. In this context, the adjusted TPU index was used as a starting point for analysing the

impact of trade policy uncertainty in the Eurosystem/ECB staff macroeconomic projections for the euro area, and was employed both for baseline projections and scenario analysis.

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3 Tracking trade in real time: augmenting the nowcasting toolkit with satellite data

Prepared by Rinalds Gerinovics and Baptiste Meunier

Recent shocks have underscored the importance of and challenges associated with monitoring global trade in a timely manner. The large effects of post-COVID-19 pandemic supply bottlenecks (2021-22), disruptions in the Panama Canal (2023) and the Red Sea (2024-25), and recent tariff escalations have highlighted the need for timely trade monitoring. This box outlines how the inclusion of real-time indicators derived from satellite data on vessel movements in an otherwise standard tracker can provide timely insights into global trade dynamics. The augmented tracker currently indicates subdued but improving trade dynamics.

ECB staff first developed a global trade tracker in 2020 to track world import growth (outside the euro area) using trade-related financial indicators; however, its accuracy was limited.¹ That initial version relied primarily on financial market data such as stock prices for global logistics companies. Following the methodology of Lewis et al. (2022), a principal components analysis was used to extract the underlying trend in an input dataset combining high-frequency (daily and weekly) data with monthly indicators.² Despite its timeliness compared with national accounts data, which are not released until 30-45 days after the end of the reference quarter, this version of the tracker exhibited limited out-of-sample accuracy.

New indicators based on vessel movements tracked by satellite offer real-time information on trade by country and commodity. The automatic identification system (AIS) is a tracking system through which ships transmit key information such as identity, position, speed, direction and navigational status (e.g. underway, at anchor) to satellites. Originally developed to prevent collisions, AIS data have become widely used in economics as these are daily data released with just a one-day publication lag. For the purpose of tracking trade, four indices are used: (1) country-level aggregate trade (imports and exports) constructed by counting the volume of cargo arriving at a country's ports; (2) maritime activity at key chokepoints based on the same method; (3) trade flows for key commodities – oil, liquified natural gas (LNG), iron, coal, bauxite – obtained by tracking tankers and bulk carriers; and (4) automotive exports obtained by tracking roll-on/roll-off ships (vessels dedicated to transporting vehicles).

The satellite-based indicators match key events in global trade well. For example, the surge in goods trade following the pandemic was mirrored by a large uptick in maritime traffic (Chart A, panel a). In the second quarter of 2025, the same data indicated a marked slowdown in US trade amid rising trade barriers and the contrasting resilience of China's trade. Likewise, the widespread post-pandemic supply bottlenecks were visible in the above-average congestion at major US ports

¹ Delle Chiaie and Perez-Quirós (2020).

² Monthly series help smooth out the volatility inherent in high-frequency data. Empirical tests show that monthly data improve in-sample correlation and out-of-sample predictive accuracy.

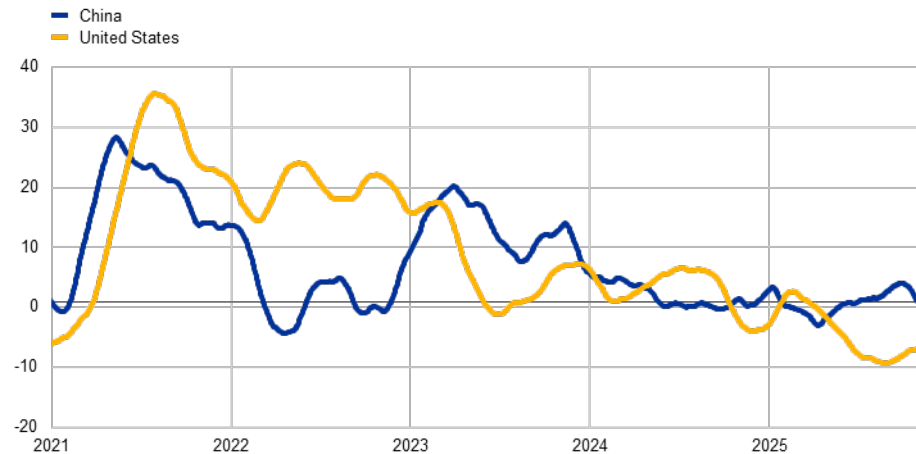
(Chart A, panel b). Another example was the attacks by Houthi rebels on Red Sea shipping in 2024, which prompted shipping companies to reroute vessels via the Cape of Good Hope (Chart A, panel c).

Chart A

Satellite-based trade indicators

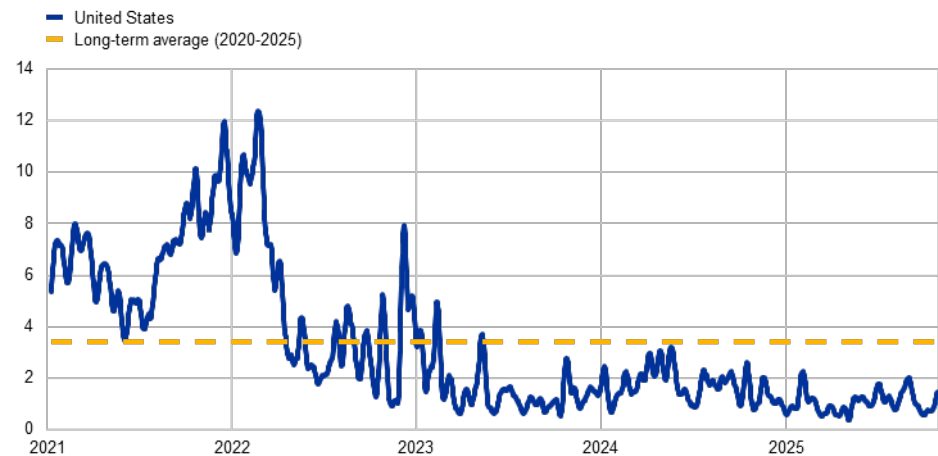
a) Seaborne trade

(annual percentage changes, three-month moving averages)



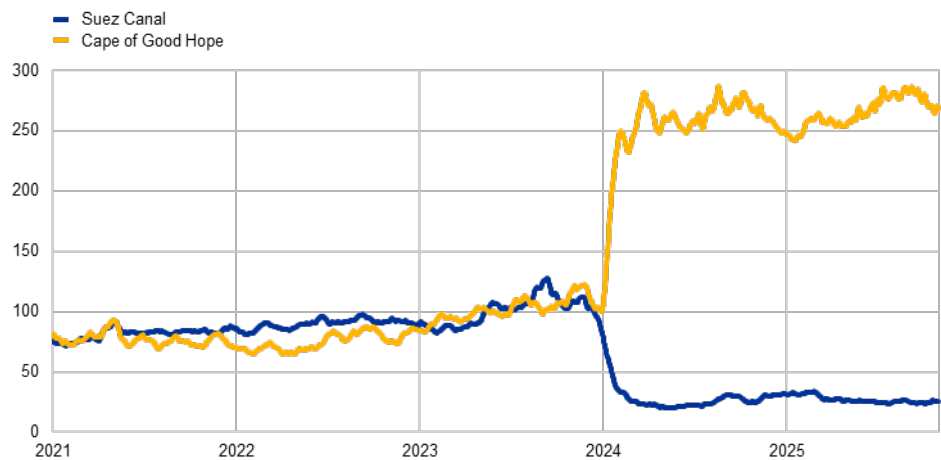
b) Congestion at major ports

(number of days spent in anchorage area)



c) Maritime activity at key chokepoints

(30-day moving averages; index: January to October 2023 = 100)



Sources: QuantCube and ECB staff calculations.

Notes: In panel b), the index is based on container ships at the ports of Los Angeles and Long Beach. The latest observations are for 30 October 2025.

Satellite-based indicators exhibit a stronger correlation with global trade than financial indicators, making them well-suited to augment the trade tracker.

Statistical tests (Efron et al., 2004; Fan and Lv, 2008) assessing the predictive power of various daily and weekly indicators relative to global imports show that satellite-based series outperform market-based indicators (e.g. equity prices, shipping prices, commodity prices) and indicators from alternative data sources (e.g. Google Trends, flights data). For instance, some satellite-based indices (e.g. EU auto exports) have a Pearson correlation with global imports higher than 0.7 over the period 2016-24, while financial indicators have an average correlation of 0.4.

The revised global trade tracker incorporates the satellite data with the highest predictive power.³

The selection follows the literature, which shows that factor models are significantly more accurate when selecting fewer but more informative predictors (Bai and Ng, 2008). The augmented tracker incorporates 47 series, of which 25 are weekly (four equity prices of shipping companies and 21 satellite-based indicators) and 22 are monthly (e.g. the new export orders Purchasing Managers' Index and customs data). Among country-specific indicators – for 12 countries accounting for 64% of global trade – the selection of data-driven variables reflects the central role of China, with several of the selected indicators being related to Chinese trade (auto exports, overall trade, and imports of LNG, iron and oil).

Satellite data substantially improve the forecast performance of the tracker, both in terms of directional accuracy (increased from 50% to 80%) and in terms of point accuracy (out-of-sample error cut by half).

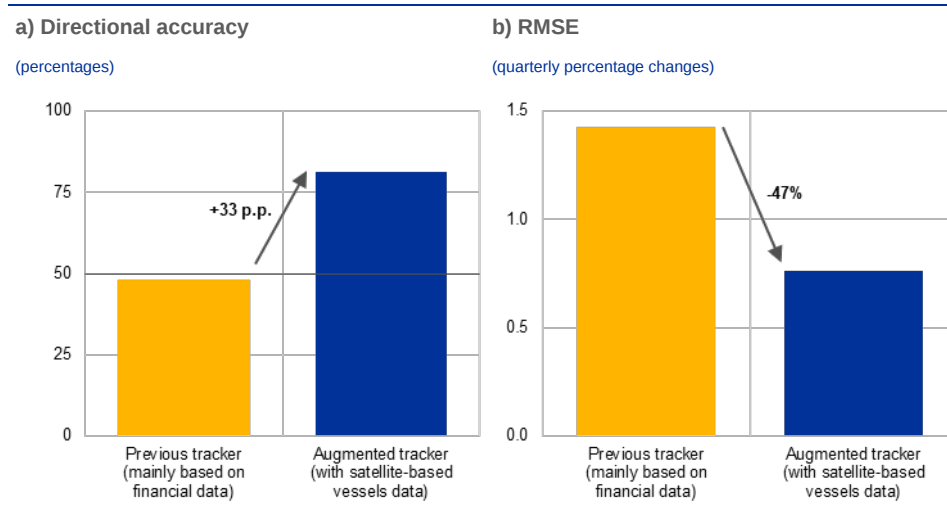
The out-of-sample directional forecast accuracy of the previous tracker was below 50%, meaning that it correctly predicted the direction of global trade growth less than half the time. By comparison, the revised tracker would have correctly predicted the direction in

³ Methodological refinements were applied to ensure consistency in transformations, starting points and principal component analysis sequencing. The regressor set was expanded with high-frequency adjustments following Wegmüller and Glocker (2023). Technical changes had limited impact on out-of-sample performance.

around 80% of cases over the period 2021-24 (Chart B, panel a).⁴ Similar results are observed for point forecast accuracy, where the out-of-sample root mean squared error (RMSE) is reduced by around 50% (Chart B, panel b).

Chart B

Out-of-sample forecast accuracy



Sources: Bloomberg, S&P Global, Haver, QuantCube and ECB staff calculations.

Notes: Accuracy over the period 2021-24. In panel a), directional accuracy is the proportion of periods where the direction of change in actual global import growth (positive or negative) coincided with the direction predicted by the tracker.

The augmented tracker particularly outperforms the previous tracker in periods when financial market variables diverge from global trade dynamics.

Global trade is generally well-correlated with financial market movements (Barhoumi and Ferrara, 2015), but this relationship can lead to erroneous signals when financial markets widely decouple from trade dynamics. This occurred in 2022, when stock markets fell amid surging inflation and geopolitical shocks while global trade was resilient due to the gradual easing of supply bottlenecks (Chart C, panel a). A similar situation arose in the first quarter of 2025, when financial markets retreated due to policy uncertainty whereas global trade was boosted by a frontloading of imports ahead of tariffs (Chart C, panel b). In both episodes, the previous tracker pointed to global trade growth well below its actual pace, which the augmented tracker captured more accurately.

⁴ Predictions are in pseudo real time, meaning they account for publication delays but not revisions.

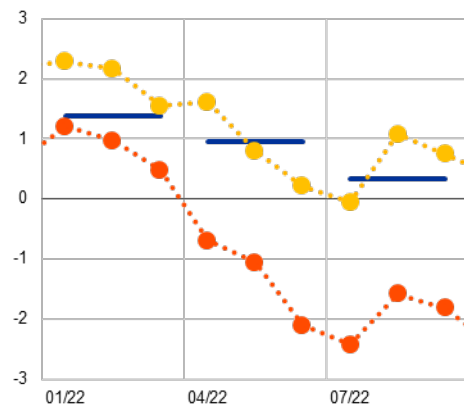
Chart C

Out-of-sample predictions

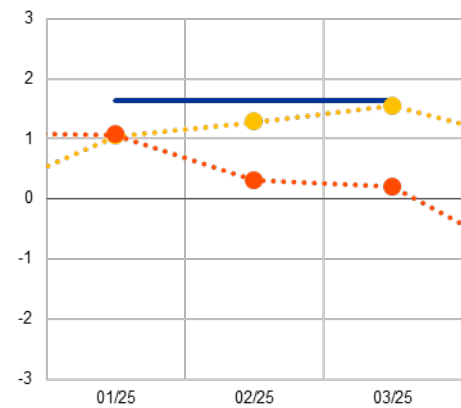
(three-month-on-three-month percentage changes)

a) Supply bottlenecks

— World import growth (excluding euro area)
● Augmented tracker
● Previous tracker



b) Q1 2025



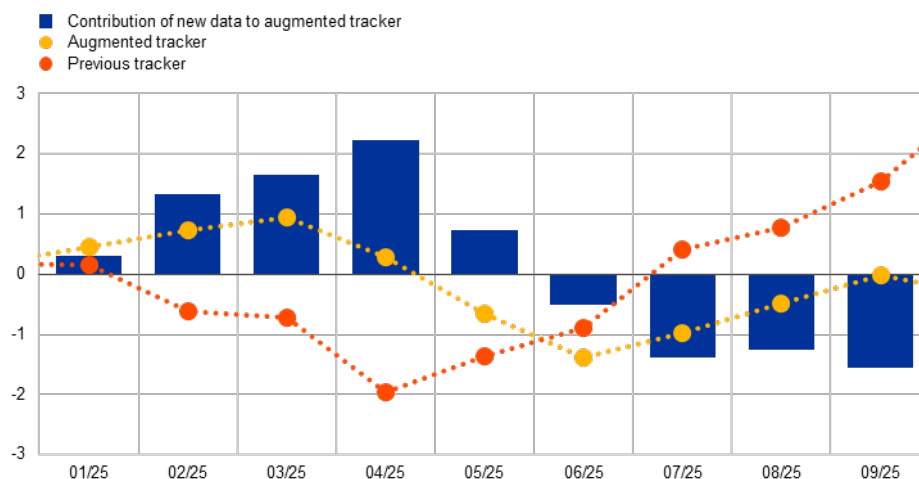
Sources: Bloomberg, S&P Global, Haver, QuantCube and ECB staff calculations.

The augmented tracker currently suggests that global trade remains subdued, albeit improving (Chart D). The augmented tracker indicates that global trade bottomed out in the second quarter of 2025, consistent with the sharp decline in US imports (-8% quarter-on-quarter), and improved in the third quarter. This rebound is in line with recent national accounts releases from China and South Korea showing strong export performance – bolstered in the case of South Korea by surging artificial intelligence (AI)-related shipments which partially offset the drag from tariffs. While the augmented tracker points to below-average trade growth, the previous tracker would have shown a significantly more optimistic picture driven by buoyant financial markets. In the augmented tracker, the new satellite data act to moderate such signals.

Chart D

Global trade tracker

(three-month-on-three-month percentage changes, deviation from 2016-24 average)



Sources: Bloomberg, S&P Global, Haver, QuantCube and ECB staff calculations.

Notes: The chart shows the deviation from the average growth over the period 2016-24 of 0.8%. "Contribution of new data to augmented tracker" is computed as the difference between the previous tracker and the augmented tracker.

The global trade tracker complements other trade forecasting tools, helping to form a top-down assessment of the short-term outlook.

The tracker complements dynamic factor models and error-correction-based trade equations to serve as a starting point for trade analysis. It offers a timely pulse check by drawing on high-frequency data, making it more responsive to rapid shifts in trade dynamics than models based on monthly or quarterly data. Nevertheless, the tracker is a complement to rather than a substitute for other tools, as in normal times high-frequency data, which are inherently noisy, might be of second-order importance.

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The household saving rate revisited: recent dynamics and underlying drivers

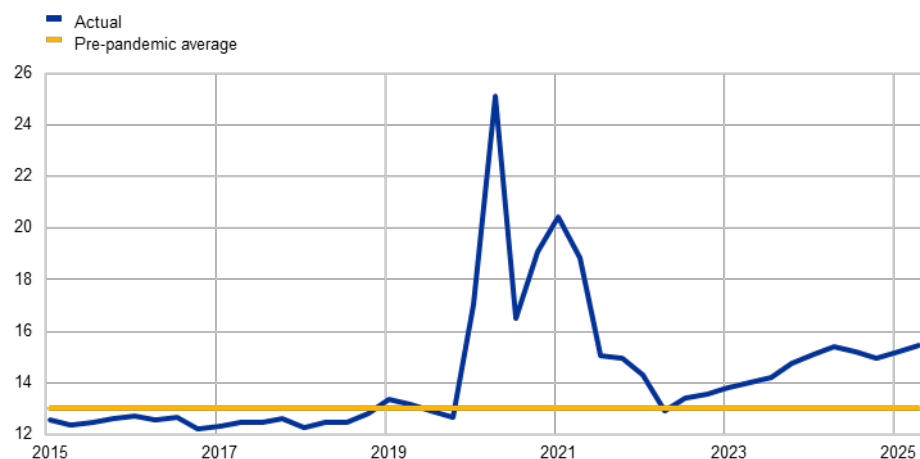
Prepared by Maria Dimou, Marco Flaccadoro and Johannes Gareis

After falling back from its pandemic-related peak, the household saving rate rose again from mid-2022 to mid-2024 and has since remained broadly stable at an elevated level (Chart A). The seasonally adjusted household saving rate, as reported in Eurostat's quarterly sector accounts (QSA), averaged around 13% between 1999 and 2019. After surging during the pandemic, in the second quarter of 2022 it returned to levels close to the historical average, before subsequently starting to rise again, reaching 15.4% by mid-2024. Since then, it has remained broadly stable at that elevated level. This box provides updated evidence on developments in the household saving rate and its recent drivers.¹

Chart A

Household saving rate

(percentages of gross disposable income)



Sources: Eurostat, ECB, ECB and Eurostat (QSA) and ECB calculations.

Notes: Seasonally adjusted data. The pre-pandemic average is computed from the first quarter of 1999 to the fourth quarter of 2019. The latest observation is for the second quarter of 2025.

Since mid-2024, households' real disposable income and consumption have been growing at broadly similar rates, thereby stabilising the saving rate at a higher level than before the pandemic. According to a statistical decomposition, rising real income – particularly labour income – supported the saving rate prior to the pandemic, while higher real consumption exerted an offsetting effect (Chart B). Compared with the pre-pandemic period, income growth accelerated markedly from mid-2022 to mid-2024, driven mainly by stronger contributions from non-labour income – including self-employment income, net interest income, dividends and rents – and by net fiscal income related to fiscal measures introduced in response to the energy price shock, including untargeted support. These factors likely boosted

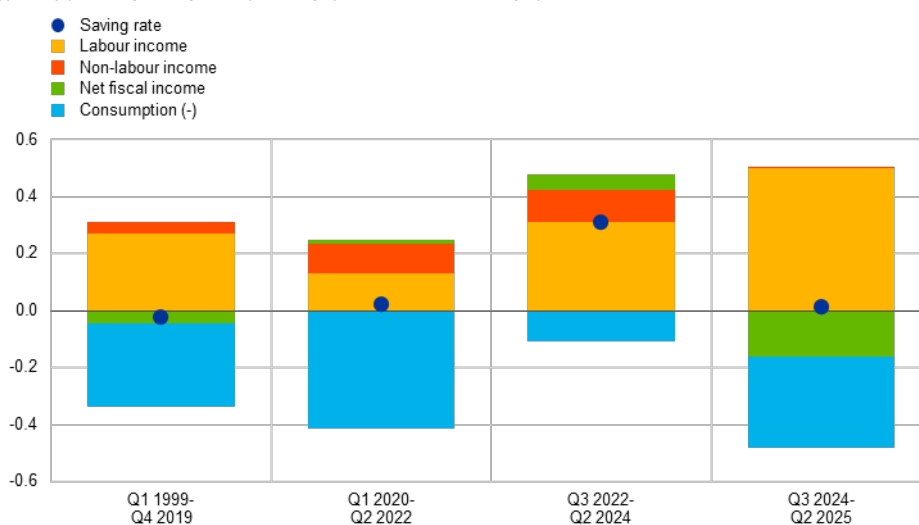
¹ For a discussion of the factors behind the rise in the household saving rate in the euro area from mid-2022 to mid-2024, see Bobasu et al. (2024).

the saving rate, as non-labour income accrues disproportionately to higher-income households who have a greater propensity to save.² Since mid-2024 the saving rate has remained broadly stable as real income and consumption dynamics have normalised, with stronger growth in labour income – reflecting real wage catch-up and sustained employment – offsetting declining non-labour income and the gradual withdrawal of fiscal support.

Chart B

Contribution of income and consumption growth to changes in the household saving rate

(quarterly percentage changes and percentage point contributions; averages)



Sources: Eurostat, ECB, ECB and Eurostat (QSA) and ECB calculations.

Notes: The quarterly change in the saving rate is approximately equal to the difference between quarterly growth in real disposable income and real consumption. Income is decomposed into labour income (compensation of employees), non-labour income (self-employment income, net interest income, dividends and rents) and net fiscal income (transfers and taxes on income and wealth). Income components and consumption are expressed in real terms using the private consumption deflator from the national accounts.

Empirical estimates indicate that the saving rate has remained elevated over the last year, as the negative contributions of declining real interest rates and improving real net wealth positions have not fully counterbalanced the support from strongly rising real labour income. An empirical model for real household consumption shows that, prior to the pandemic, higher real income – particularly labour income – raised the saving rate, as consumption did not adjust one-to-one with income, whereas increases in real net wealth lowered it by reducing households' incentives to save and, thus, encouraging higher consumption (Chart C). The rise in the saving rate between mid-2022 and mid-2024 reflected the rapidly increasing labour income, while stronger-than-usual growth in other income (i.e. the sum of non-labour and fiscal income) also made a significant positive contribution.³ Lower real net wealth following the surge in inflation and higher real interest rates brought about by the monetary policy tightening provided additional upward contributions, while the legacy of the pandemic weighed on the saving rate as

² For an overview of fiscal policy measures implemented in the euro area during the high-inflation period, see Bankowski et al. (2023).

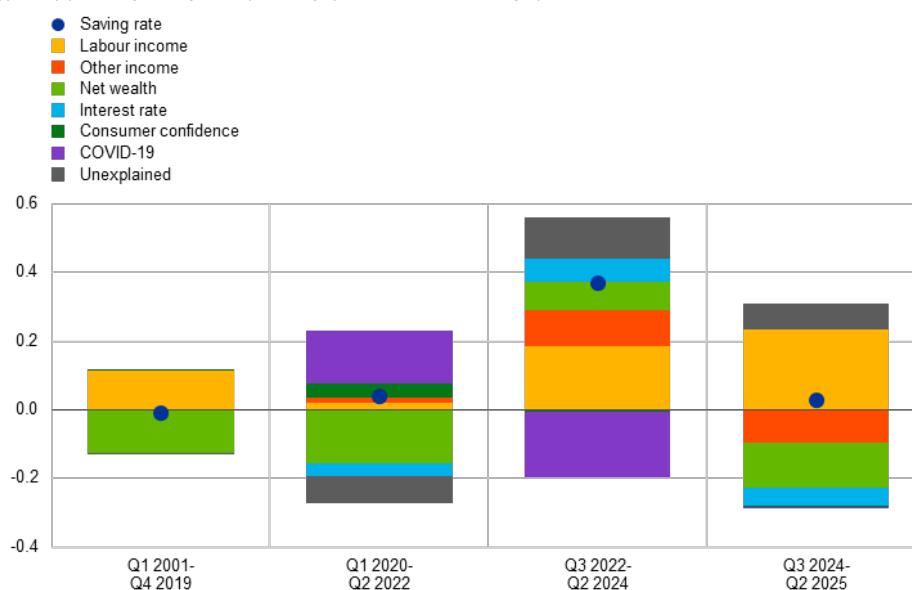
³ For an analysis of the recent developments of labour and other household income in the euro area and their role in the sluggish consumption growth in the post-pandemic period, see Ceci and Flaccadoro (2026).

consumption normalised. Since mid-2024, real labour income growth has increased once more, providing a strong upward push to the saving rate. This has been offset, however, by rising real net wealth – whose contribution to the saving rate returned to its historical average – declining real interest rates and a reversal of earlier increases in other income.

Chart C

Contributions to the change in the household saving rate: a model-based decomposition

(quarterly percentage changes and percentage point contributions; averages)



Sources: Eurostat, ECB, ECB and Eurostat (QSA) and ECB calculations.

Notes: The chart shows the contributions of real labour and other income (i.e. the sum of non-labour and fiscal income), real net wealth, real interest rates, consumer confidence, the COVID-19 pandemic and a residual component to the average changes in the household saving rate across distinct periods. The decomposition is based on an estimated error correction model for household consumption growth, taking real household income growth as given. Income components and net wealth are deflated using the private consumption deflator from the national accounts. The real interest rate is measured by the three-month EURIBOR adjusted for expected annual consumer price inflation from the European Commission's consumer survey. The model is estimated over the period from the first quarter of 1999 to the second quarter of 2025. For details of a similar model without COVID-19 dummies and without income being split into labour and other income, see Bobasu et al. (2024).

Households' uncertainty about their own financial situation also appears to play an important role in saving decisions. Household-level information from the [Consumer Expectations Survey \(CES\)](#) is used to shed light on factors not captured by standard macroeconomic determinants, as indicated by the positive unexplained component in the model-based decomposition since mid-2022 (Chart C). In particular, the analysis focuses on policy-related and individual uncertainty, as reflected in *Ricardian* and *precautionary* saving motives.⁴ A new question fielded in the November 2025 CES questionnaire reveals that precautionary and Ricardian motives are each relevant for around 50% of respondents in their saving decisions, with 25-30% also indicating one or the other as the most important reason to save

⁴ *Ricardian* motives refer to saving in anticipation of changes in taxation or government benefits as a result of the government's current borrowing (Barro, 1974). *Precautionary* motives refer to saving in order to shield consumption against unpredictable fluctuations in income (prudence vs. impatience) (Carroll, 1997).

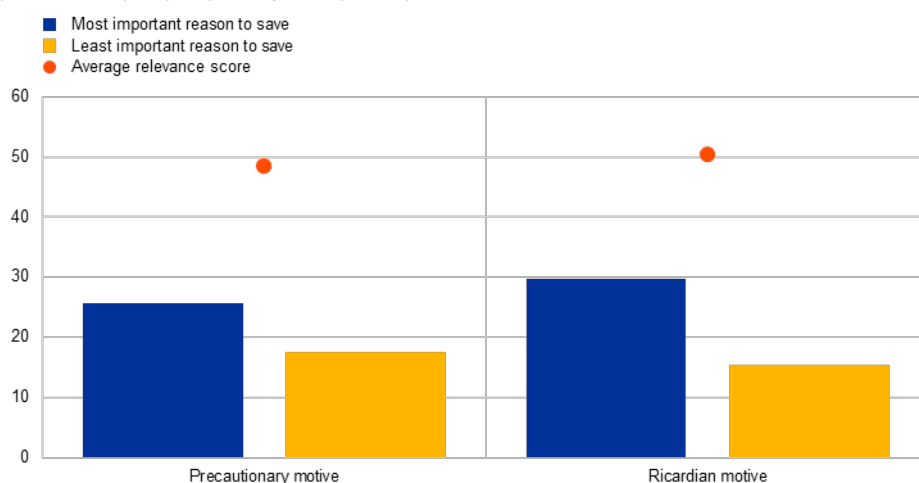
(Chart D, panel a).⁵ A closer look at cross-sectional differences across participants shows that the importance of these two motives depends mainly on the economic constraints faced by respondents and the degree of uncertainty about their financial situation, while differences across income and age seem to play a more muted role (Chart D, panel b). Households with no self-reported liquidity constraints are more likely to attach significantly higher importance to both motives, consistent with their stronger capacity to plan and save (“unconstrained”). At the same time, respondents reporting a high degree of certainty about their future financial situation (“certain”) attach significantly less importance to the two motives than households facing greater uncertainty. The similarities in the determinants of the two motives would suggest that they are close conceptually, with respondents tending to perceive the actions of the government as an additional source of income uncertainty. This is consistent with previous analysis that has highlighted the importance of geopolitical and policy uncertainty for consumer spending.⁶

Chart D

Prevalence of the precautionary and Ricardian motives among respondents and its determinants

a) Prevalence of precautionary and Ricardian motives across survey respondents

(relevance score (0-100) and percentages of respondents)

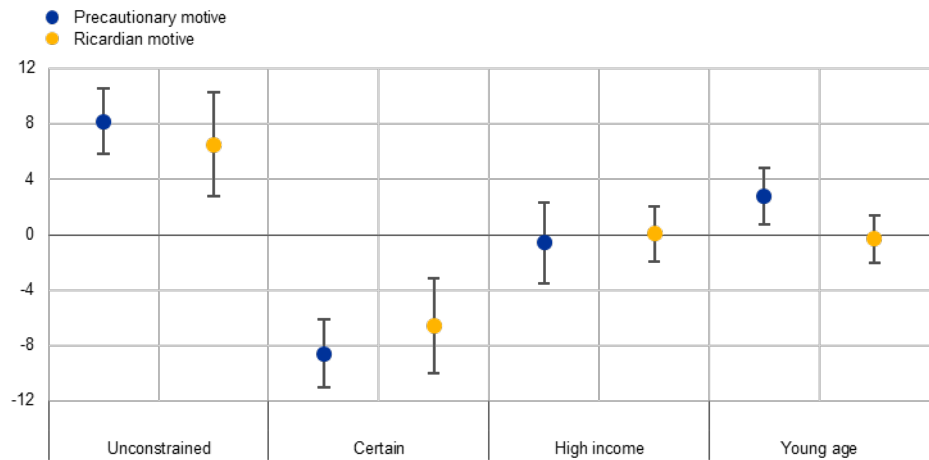


⁵ Respondents were asked to evaluate on a scale from 0% (no role at all) to 100% (very important role) how selected motivations influenced their decisions to save. These motivations included the relative attractiveness of saving today (intertemporal substitution), a precautionary motive, concerns about changes in government taxation/benefits (Ricardian motive) and saving by habit.

⁶ See, for instance, Andersson et al. (2024).

b) Determinants of prevalence of precautionary and Ricardian motives

(change in mean relevance score, percentage points)



Sources: CES weighted data and ECB calculations.

Notes: Panel b): The *unconstrained* dummy equals 1 for respondents indicating that they would have sufficient financial resources to cover an unexpected payment equal to their household's monthly income. The (self-reported) *certain* dummy equals 1 for respondents finding it easy or moderately easy to predict their future financial situation and 0 otherwise. The *high-income* dummy equals 1 for respondents with incomes above the median. *Young age* is equal to 1 for respondents up to 49 years old. Regressions include country fixed effects and are weighted using compound weights, defined as individual nominal savings as of October 2025 multiplied by survey weights. Standard errors are clustered at the country level.

Overall, model and survey-based evidence suggests that both conjunctural and behavioural factors have contributed to the saving rate remaining elevated but broadly stable. While income and wealth dynamics have largely returned to pre-pandemic patterns, heightened uncertainty and precautionary motives have likely continued to exert upward pressure on savings.

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Has housing regained its allure? Insights from a new survey-based housing Sharpe ratio

Prepared by Niccolò Battistini, Adam Baumann, Johannes Gareis and Desislava Rusinova

Housing investment is a bellwether of the economy and the ECB Consumer Expectations Survey (CES) offers timely insights into how households perceive its attractiveness. Housing investment matters at both the individual and the aggregate level.¹ For many people it represents the most important financial decision in their lifetime, while at the macroeconomic level it primarily serves as a leading indicator of overall economic activity.² Taken together, these two perspectives suggest that household perceptions contain valuable information for tracking fluctuations in housing investment and also, potentially, for anticipating broader economic developments. The CES provides a direct, qualitative measure of household sentiment towards housing as an investment – namely the share of respondents who today consider buying a property in their neighbourhood as a good investment. To complement this measure, this box introduces an indirect, quantitative indicator of the attractiveness of housing investment for households: the Sharpe ratio, a widely used financial metric that relates the return on an investment to its risk.³

The housing Sharpe ratio is derived from household house price expectations, combined with a measure of the risk-free interest rate. Specifically, the indicator takes the population average of the mean household's one-year-ahead house price growth expectations and subtracts a risk-free return – proxied by the observed interest rate on one-year deposits. This difference is then divided by a measure of households' uncertainty regarding house price growth – calculated as the average of the standard deviations of household one-year-ahead house price growth expectations.⁴ The ratio increases either when households expect stronger house

¹ See Piazzesi and Schneider (2016) for a literature review on the characteristics of housing and housing markets and their link to monetary policy.

² While residential investment is itself an expenditure component, it also has significant implications for other components. For instance, consumption of home goods increases when new or refurbished housing is equipped. Housing-related decisions tend to be strongly correlated across households, since they are affected by aggregate variables such as demographic transitions and credit and financing conditions. They therefore act as an important propagating mechanism for underlying shocks. Consequently, residential investment developments can have a wider impact on the economy. Residential investment developments in particular have been found to lead developments in GDP, especially before recessions. See, among others, Leamer (2007) and Leamer (2015) for the role of housing investment in the business cycle in the United States as well as Battistini et al. (2018) for its role as predictor of recessions in the euro area.

³ The Sharpe ratio measures how much excess return an investor receives for the additional volatility involved in holding a riskier asset. A higher ratio implies a higher return relative to the associated risk. The Sharpe ratio is used here as a cyclical indicator of the attractiveness of housing investment based on households' expectations, rather than as a tool for comparing its risk-return profile with that of other asset classes. Standard caveats apply, as housing returns differ from other assets in terms of liquidity, leverage and distributional features.

⁴ Individual distributions of household expectations are derived from a CES question in which respondents allocate probabilities (summing up to 100%) across ten bins for expected house price growth one year ahead, ranging from -12% to +12% year-on-year. These data allow an empirical probability density function to be fitted for each household in the panel, from which the individual mean and standard deviation can be computed.

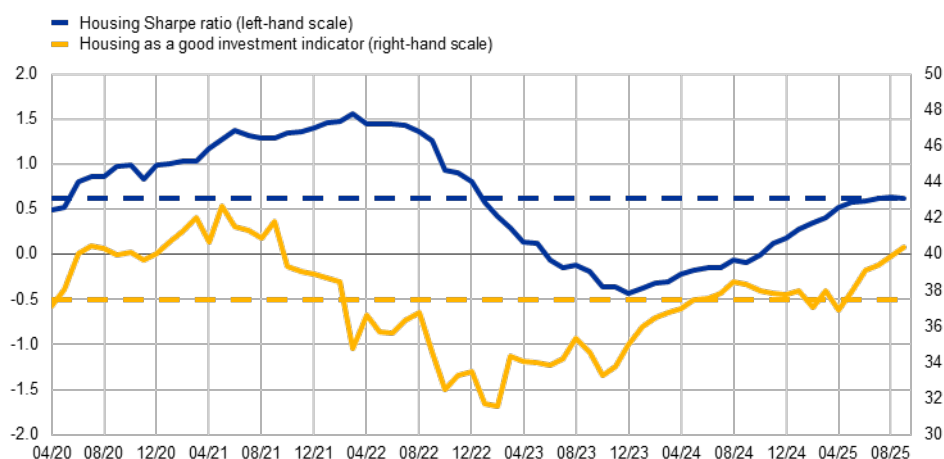
price growth relative to prevailing risk-free rates (i.e. a higher excess return on housing investment), or when they are more certain about their expectations. And when the opposite is the case, it falls. In this way, it captures shifts in the perceived financial attractiveness of housing investment.

The housing Sharpe ratio has improved markedly over the past year but has remained below its peak of early 2022 (Chart A). Following the COVID-19 pandemic, it rose to a high in early 2022 before falling sharply. A turning point occurred in late 2023, when the ratio began to recover steadily. By September 2025, it had risen slightly above its sample average but remained well below its previous peak. A broadly similar pattern is observed for the “housing as a good investment” indicator (the share of respondents who consider buying a property in their neighbourhood today as a good investment). This started both to decline and to recover somewhat earlier than the housing Sharpe ratio and stood slightly above its sample average in September 2025, though still below its 2021 peak.

Chart A

Housing Sharpe ratio and housing as a good investment indicator

(left-hand scale: mean indicator; right-hand scale: percentage of respondents)



Sources: CES and ECB staff calculations.

Notes: The housing as a good investment indicator measures the share of respondents who consider buying a property in their neighbourhood today to be a “good” or “very good” investment. The blue and yellow dashed lines represent the sample average of the housing Sharpe ratio (0.62) and the housing as a good investment indicator (37.5%) respectively. The latest observations are for September 2025.

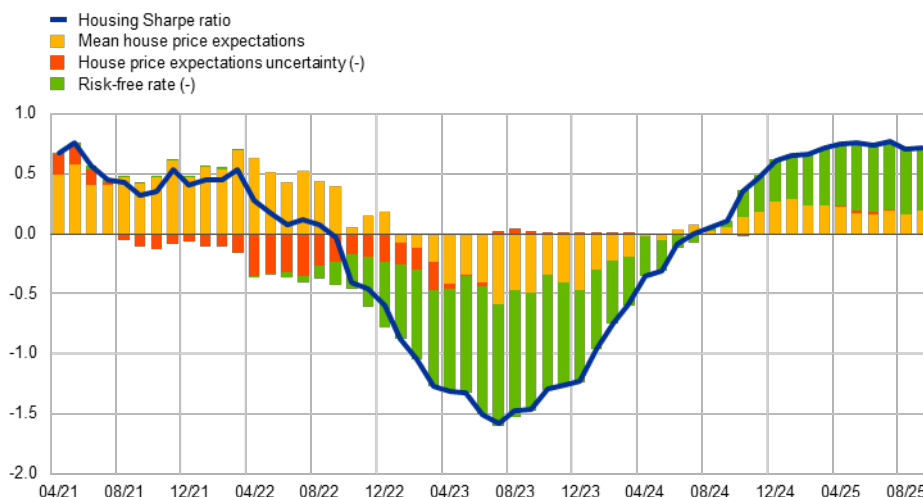
Looking at its components, in recent years the housing Sharpe ratio has mainly reflected fluctuations in house price growth expectations and in the risk-free interest rate (Chart B). Between the end of 2021 and mid-2023, the (year-on-year growth rate of the) housing Sharpe ratio fell strongly. First house price growth uncertainty and later mean house price growth expectations weighed on households’ perceptions of the attractiveness of housing. In addition, the rise in the risk-free rate during the ECB’s monetary policy tightening phase also exerted downward pressure on the housing Sharpe ratio from mid-2022 to late 2023. The increase in the housing Sharpe ratio since July 2023 has been supported by a rise in households’ house price growth expectations, with only a minor contribution from

uncertainty.⁵ Moreover, it has reflected the drop in the risk-free rate, as monetary policy has normalised again in response to easing inflationary pressures.

Chart B

Decomposition of the housing Sharpe ratio

(year-on-year changes in the mean indicator and contributions of its components)



Sources: CES and ECB staff calculations.

Note: The latest observations are for September 2025.

The average housing Sharpe ratio over the period from April 2020 to September 2025 varies markedly across households according to their demographic and economic characteristics, as views on both future house prices and the uncertainty around them differ (Chart C). On average, older, male, wealthier, employed and more financially literate households display higher Sharpe ratios than the respective reference group of households. This is largely owing to lower uncertainty around house price expectations, although differences in mean house price expectations also play a role for some categories. In terms of housing choices, households living in cities or suburban areas report higher ratios than those in rural areas, mainly reflecting higher mean house price growth expectations. Moreover, the housing Sharpe ratio is typically lower for homeowners than for renters, driven by lower mean expectations. Among homeowners however it does not differ significantly between outright owners and those with mortgages.⁶

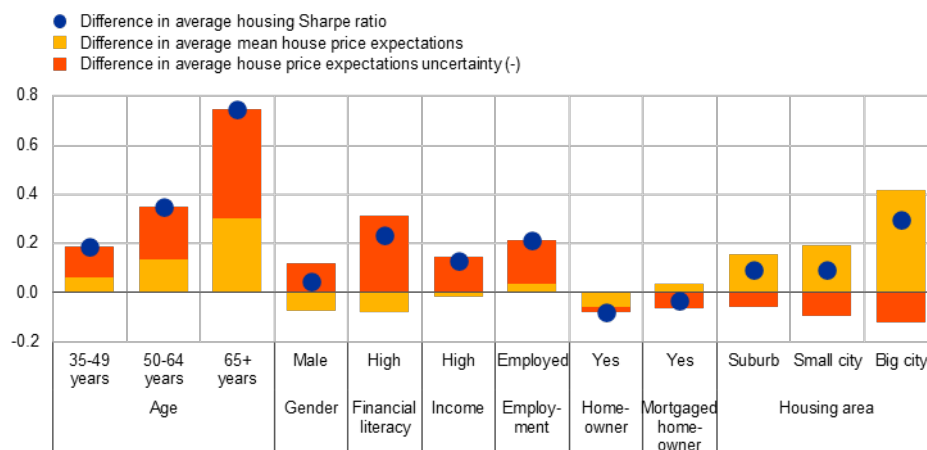
⁵ House price uncertainty has been on a slight downward trend since early 2022, despite significant volatility in households' expectations for house price growth, which initially lost steam then recovered momentum. This suggests that, while households revised their mean expectations notably, uncertainty about the magnitude of house price growth diminished, limiting the role of uncertainty in the housing Sharpe ratio.

⁶ These patterns in the housing Sharpe ratio across housing choices differ considerably from those in the qualitative indicator of housing as a good investment. According to the latter, homeowners perceive housing as a good investment significantly more often than renters do – and this holds especially for those with mortgages. See Battistini et al. (2023).

Chart C

Housing Sharpe ratio by economic and demographic characteristics of households

(difference from base category in average mean indicator and contributions of components)



Sources: CES and ECB staff calculations.

Notes: The reference groups (in order) are defined as follows: 18-34 years old; female; low financial literacy; low income; unemployed; not a homeowner; no mortgage; living in a village. Low income refers to the bottom 50% and high income to the top 20%. Financial literacy is split into two groups: individuals scoring 3 or 4 out of 4 on the CES financial literacy quiz (high literacy) and those scoring lower (low literacy). Homeowner = "no" if respondents are renters or inhabit the dwelling free of charge and "yes" if they reported owning (with or without a mortgage). Mortgaged homeowner = "no" if respondents reported owning their home outright and "yes" if they reported owning with a mortgage. The housing area categories are: (1) a big city with more than 500,000 inhabitants; (2) a suburb or the outskirts of a big city; (3) a city with up to 500,000 inhabitants; (4) a village or rural area. Average Sharpe ratios and contributions of components are calculated over the period from April 2020 to September 2025. The risk-free rate is excluded from these calculations, as it is constant across households.

The housing Sharpe ratio points to a further moderate recovery in housing investment.

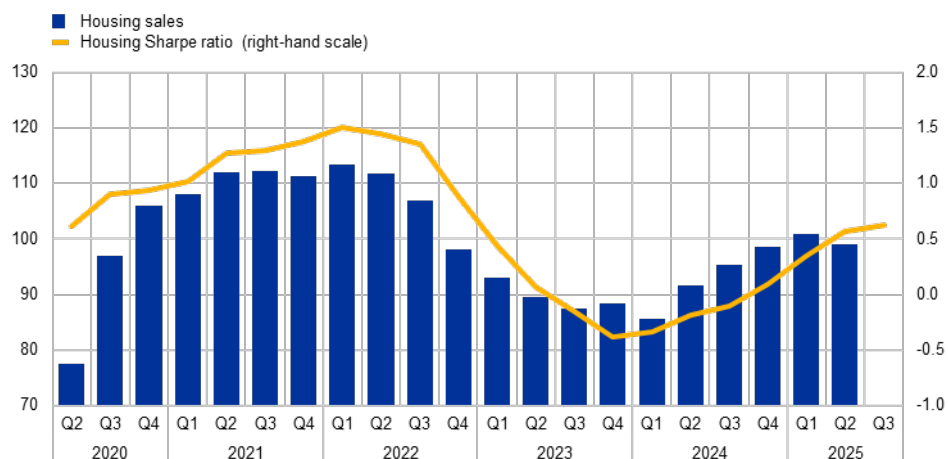
A comparison of developments in the housing Sharpe ratio and actual housing sales shows a close correlation between the two series, suggesting that the housing Sharpe ratio is a relevant indicator for monitoring broader housing market developments (Chart D). Specifically, the increase in the ratio up to September 2025 indicates that housing sales are likely to continue rising, following their slight decline in the second quarter. This, in turn, should support a positive near-term outlook for housing investment and for home goods consumption, which both tend to follow developments in housing sales.⁷

⁷ See Battistini and Gareis (2025).

Chart D

Housing sales and housing Sharpe ratio

(left-hand scale: index, 2019 = 100; right-hand scale: quarterly averages of mean indicator)



Sources: Eurostat, CES and ECB staff calculations.

Notes: Housing sales are based on an aggregate of Eurostat data and national data sources for euro area countries. The latest observations for housing sales and the housing Sharpe ratio are for the second quarter of 2025 and September 2025 respectively.

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Prepared by Katalin Bodnár, Vasco Botelho, Laura Lebastard and Marco Weissler

Firms that have faced adverse shocks to their business activity can decide to either shed labour or hold on to their workforce, i.e. “hoard labour”. Labour hoarding occurs when firms are willing to retain their workforce even when facing a weakening of current and/or expected business conditions, for example related to lower demand or reduced profitability. The ECB's labour hoarding indicator measures the share of firms that have not reduced their workforce (employment margin) despite a recent worsening in their business conditions (activity margin), using data from the Survey on the Access to Finance of Enterprises (SAFE) in the euro area (Chart A).¹ Labour hoarding was a significant phenomenon during 2022 following the energy crisis.² While the labour hoarding indicator has gradually eased since the period of high inflation (peaking at almost 30% in the third quarter of 2022), it is still higher than its average value of 13% before the pandemic. In the third quarter of 2025, 17% of firms undertook labour hoarding. The recent decline in labour hoarding is mostly related to the normalisation of the economic situation of firms, as a lower share have reported a deterioration in their specific business conditions in the last three to six months. Yet more firms are facing adverse shocks than before the pandemic, i.e. the activity margin is still above the level seen in the fourth quarter of 2019.

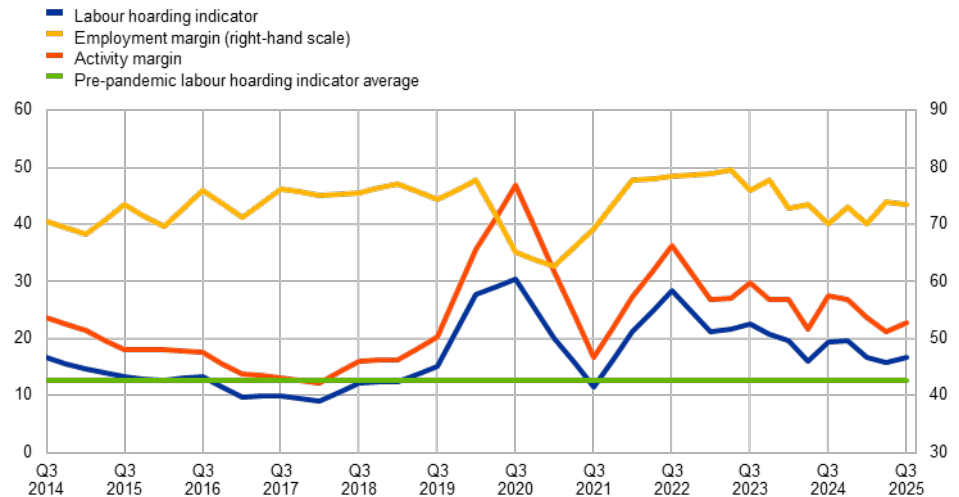
¹ The ECB's labour hoarding indicator and its connection to the recent cyclical recovery in labour productivity are discussed in [Botelho \(2024\)](#) and [Arce and Sondermann \(2024\)](#).

² The exceptional period of labour hoarding that occurred during the pandemic and the contribution of unique factors such as the widespread use of job retention schemes at that time are not covered in this box.

Chart A

Labour hoarding and firms' margins of adjustment

(shares of firms, in percentages)



Sources: ECB and European Commission Survey on the Access to Finance of Enterprises (SAFE), and ECB staff calculations.

Notes: The activity margin reflects the share of firms that have reported facing a deterioration in their specific business conditions over the previous or current quarter, while the employment margin refers to the share of firms that have not reduced their workforce of all those that reported a deterioration in their business conditions. The ECB's labour hoarding indicator is the product of both margins. The pre-pandemic average of the labour hoarding indicator is calculated for the period from 2014 to 2019. The latest observations are for the third quarter of 2025.

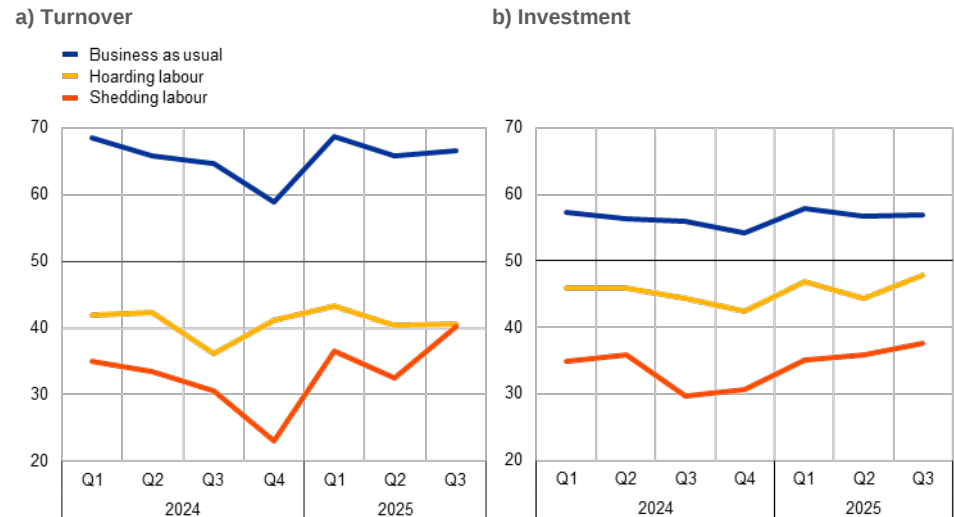
Firms' decisions to hoard labour reflect their expectations about future business conditions (Chart B).

We categorise firms into three groups: (1) those not reporting a deterioration in their past business conditions ("business as usual"); (2) those that have faced adverse shocks but have not reduced their workforce ("hoarding labour"); and (3) those that have faced adverse shocks and have reduced their number of employees ("shedding labour") during the last quarter. Firms in the "business as usual" category do not expect their sales or their investment to deteriorate in the next three months. Firms in the other two groups expect lower sales and investment, but firms hoarding labour tend to be less pessimistic about the near future than firms shedding employees. This suggests that labour hoarding decisions depend on firms' expectations about their future business conditions, at least in the short term.

Chart B

Firms' short-term expectations about turnover and investment

(diffusion index; 50 = neutral territory)



Sources: ECB and European Commission Survey on the Access to Finance of Enterprises (SAFE), and ECB staff calculations.
Notes: The "business as usual" category includes firms that have not reported a past deterioration in their specific business conditions; firms in the "hoarding labour" group have faced adverse shocks but have not reduced their workforce during the last quarter and firms in the "shedding labour" group have faced adverse shocks and have reduced their workforce. Firms' expectations are for the next quarter. Levels above 50 signal an increase and levels below 50 indicate a decrease. The latest observations are for the third quarter of 2025.

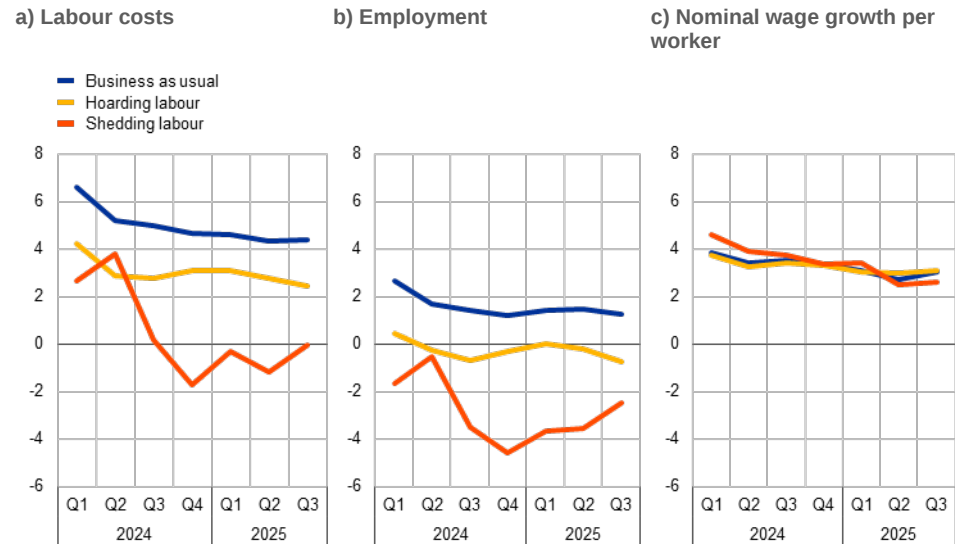
Firms hoarding labour expect higher labour cost growth than other firms that have faced a deterioration in activity, mainly owing to expectations of higher employment growth (Chart C). The labour cost growth expectations of firms in the labour hoarding group are slightly lower than those of firms in the "business as usual" category but generally above the expectations of firms that have shed labour. Decomposing this expected labour cost growth into employment and wage growth expectations shows that firms in the "business as usual" category expect employment to increase over the next year. Firms in the labour hoarding group expect employment to be broadly unchanged, while firms that have already shed labour expect employment growth to remain negative. However, firms in all groups tend to expect a similar moderation in nominal wage growth per worker. This pattern suggests that collective bargaining and centralised wage-setting mechanisms could play an important role.³ Thus, differences in expected labour cost growth owe mainly to differing employment growth expectations across the groups of firms.

³ Similarity in wage growth is also consistent with a fully decentralised competitive labour market as wages equalised in a competitive labour market. See [Bates et al. \(2025\)](#) for an overview of recent wage growth developments. Additionally, [Bates et al. \(2024\)](#) provide an analysis of collective bargaining agreements.

Chart C

Firms' expectations about growth in their total labour costs, employment and wages

(annual percentage changes)



Sources: ECB and European Commission Survey on the Access to Finance of Enterprises (SAFE), and ECB staff calculations.

Notes: The charts show firms' expectations for the next 12 months. Total labour cost growth is calculated as employment growth times nominal wage growth. The latest observations are for the third quarter of 2025.

Firms reporting a deterioration in business activity tend to have lower expectations about future increases in their selling prices one year ahead (Chart D).

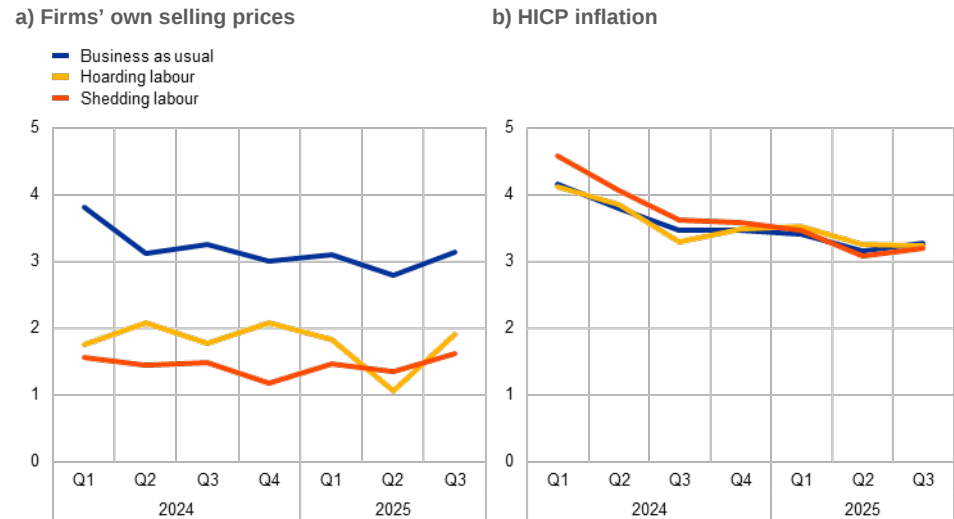
Firms in the “business as usual” category expect their selling prices to continue to increase at a faster pace (by 3.1% year on year in the third quarter of 2025) than firms that have been negatively affected by shocks to their business activity in the past (1.9% for firms hoarding labour and 1.6% for firms not hoarding labour in the third quarter of 2025). These differences are not driven by firms' expectations about the Harmonised Index of Consumer Prices (HICP), as all groups have similar HICP inflation expectations on average. This suggests that independently of the decision to hoard labour, firms affected by a deterioration in their business activity do not expect to be able to increase their prices by as much as their peers, hinting at weaker demand for their products or stronger competitive pressures. This weaker pricing power while facing similar wage growth could erode profit margins, forcing these firms to explore other channels to lower their labour costs.⁴

⁴ Ferrando et al. (2025) link HICP inflation expectations with employment growth expectations, although this channel contributes little to developments in inflation expectations over time.

Chart D

Firms' expectations about selling prices and inflation

(annual percentage changes)



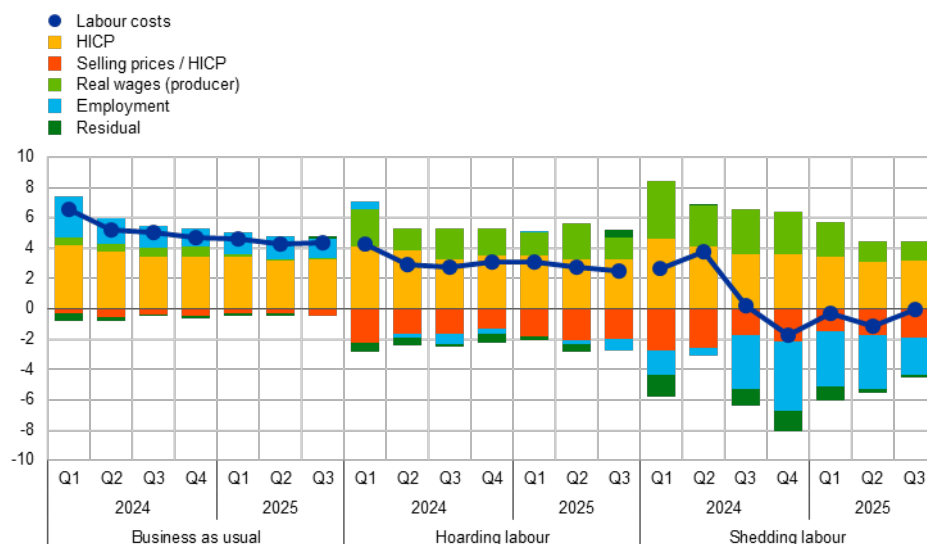
Sources: ECB and European Commission Survey on the Access to Finance of Enterprises (SAFE), and ECB staff calculations.
Notes: The charts show firms' expectations for the next 12 months. The latest observations are for the third quarter of 2025.

Overall, there is evidence of a link between firms' labour hoarding decisions and their future labour cost growth expectations. Chart E illustrates the factors driving firms' total labour cost growth expectations across the groups. The higher labour cost growth expectations of firms in the "business as usual" category can be explained by their higher employment expectations (blue bars). By contrast, firms in the labour hoarding and labour shedding groups expect lower employment growth, but higher wage costs once deflated by their own selling prices (light green bars). This indicator of real wages is the relevant price of labour for the firms as it reflects their capacity to finance labour costs by raising their selling prices. Given that firms in the labour hoarding and labour shedding groups expect to be less able to increase their selling prices in the future, they expect their current workforce to become relatively more expensive in the coming year. Accordingly, firms' labour cost growth expectations offer valuable insights for assessing labour hoarding decisions. They also help to better understand the cyclical recovery in labour productivity that usually follows periods characterised by strong labour hoarding.

Chart E

Decomposition of labour cost growth expectations by firm group

(annual percentage changes and percentage point contributions)



Sources: ECB and European Commission Survey on the Access to Finance of Enterprises (SAFE), and ECB staff calculations.

Notes: The chart decomposes the evolution of firms' expected labour costs in terms of their components: employment, real wages and selling price inflation. The indicator for real wages reflects the firm's ability to finance labour costs by increasing its selling prices. For the same wage increase, a worker becomes more expensive if the firm is less able to increase its prices in comparison with its peers. The price inflation component has been rewritten in terms of firms' HICP expectations. Thus, the "Selling prices / HICP" component is the ratio between selling price inflation expectations and HICP inflation expectations, and provides an indication of how firms expect their selling prices to evolve in comparison with HICP inflation. The decomposition is additive, with the components summing up to the expected total labour cost. The residual caters for possible aggregation biases, as all responses are firms' reported expectations over the next year and are retrieved from the SAFE. The latest observations are for the third quarter of 2025.

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Inside the food basket: what is behind recent food inflation?

Prepared by Colm Bates, Friderike Kuik, Elisabeth Wieland and Zivile Zekaite

Understanding the persistent food inflation in 2025 is important, not least because food price dynamics play a significant role in consumers' inflation perceptions and short-term inflation expectations. People pay special attention to food price developments because they purchase food frequently, it accounts for a sizeable share of their budgets and there is limited scope for substitution. This means food purchases may disproportionately influence their beliefs about overall inflation.¹ In its Consumer Expectations Survey (CES), the European Central Bank (ECB) has collected detailed information about inflation perceptions and expectations regarding major consumer basket items on a semi-regular basis since 2022. The analysis shows that perceived and expected food inflation have a relatively strong influence on overall inflation perceptions and one-year expectations (Chart A, panel a). At longer horizons, food does not play such an outsized role. Furthermore, almost two-thirds of respondents stated that food prices influence their inflation expectations, a higher share than for any other basket item (Chart A, panel b). These respondents were more likely to expect inflation above the ECB's 2% target for the next 12 months than the remaining third. Understanding recent food price dynamics is therefore important both for monitoring overall inflation and for assessing consumers' expectations.

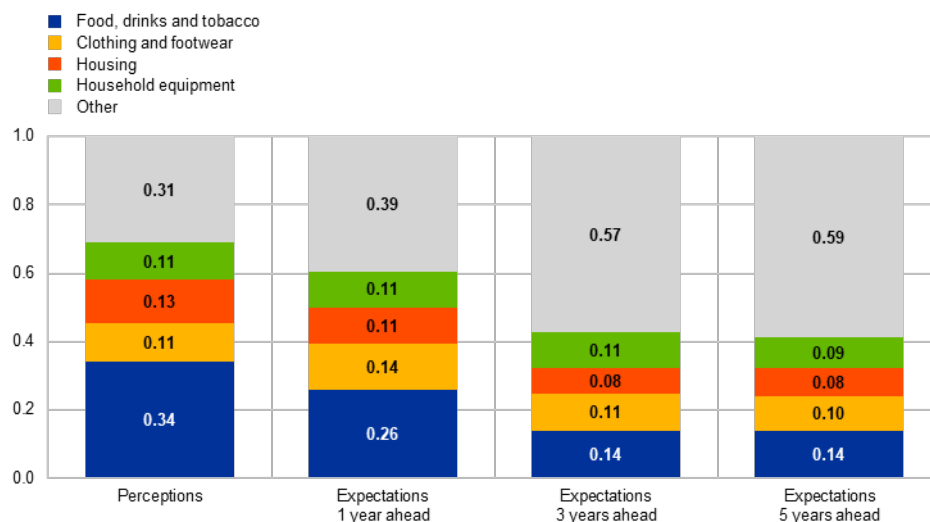
¹ See D'Acunto et al. (2025) and the references therein.

Chart A

Relevance of food prices for inflation expectations

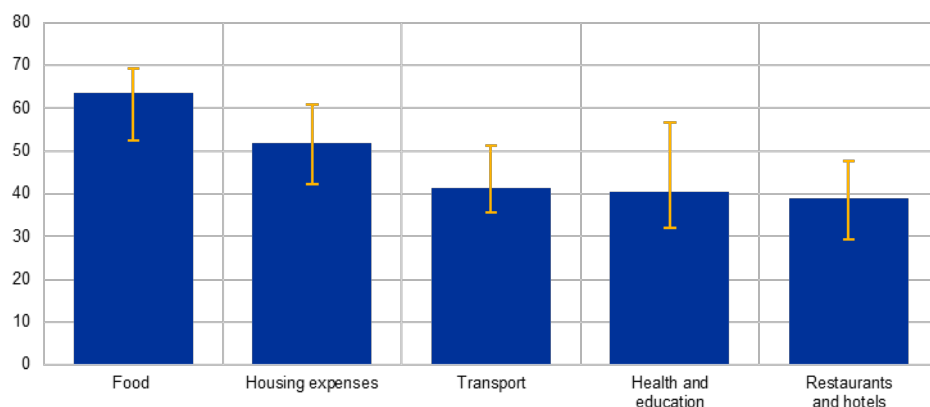
a) Relative importance of food inflation for inflation perceptions and expectations

(relative weights)



b) Top five drivers of consumer inflation expectations

(percentages, percentage share of respondents)



Sources: ECB CES, ECB calculations.

Notes: The chart in panel a) shows the relative weights of consumer basket items based on the additional explanatory power of the items in the regressions for inflation perceptions (first bar) and expectations (controlling for perceptions, remaining bars) over a regression using only fixed effects. The "Other" category includes the contributions of the items "Health", "Transport", "Communication", "Recreation and culture", "Education", and "Restaurants and hotels". CES data are for December 2022, January, July and December 2023, January 2024, and May and June 2025. Panel b) indicates responses to the following question in the CES: *When you think about how prices in general in the country you currently live in will change over the next 12 months, which of the items listed below influence your expectations?* Yellow ranges indicate the minimum and maximum shares reported across countries. "Food" refers to food and drinks, including tobacco.

Food inflation has remained elevated this year, but this is mainly due to only a few items.² The annual rate of euro area HICP food inflation had declined to stand at 2.4% in November 2025, having peaked at 15.5% in March 2023. It averaged 2.9% in 2025 (January-November) and has remained above its pre-pandemic long-term average of 2.2% since December 2021. Among the different HICP food components, the main drivers of the above-average inflation rate in 2025 are "coffee, tea and cocoa", "sugar, jam, honey, chocolate and confectionary" (sweets) and

² See also Bobeica, Koester and Nickel (2025).

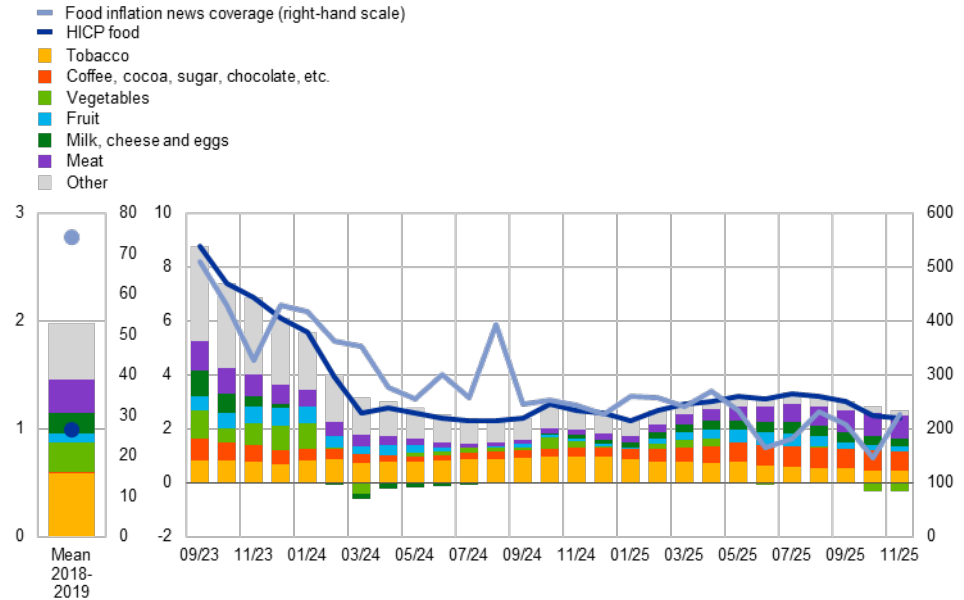
“meat”. In recent months, coffee, tea, cocoa, sweets and meat accounted for over 50% of the annual food inflation rate, despite having a weight of less than 25% in HICP food. By contrast, the contributions of the remaining food items have largely normalised since the 2022-23 inflation surge. Attention to food inflation in the media has also eased, but it remains higher than in 2019 (Chart B, panel a). More recently, month-on-month growth rates suggest easing price pressures for some items, for instance, coffee, tea, cocoa and sweets (Chart B, panel b), and annual rates have started to come back closer to their long-term average.

Chart B

HICP food inflation

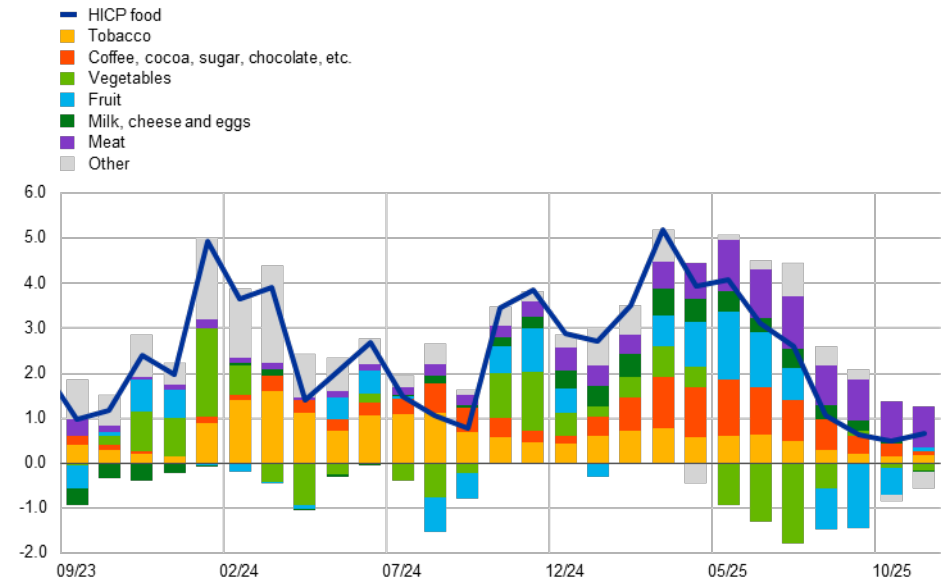
a) HICP food inflation and media attention

(left-hand scale: annual percentage changes, percentage point contributions; right-hand scale: index)



b) Short-term price dynamics of HICP food

(3-month moving average of annualised month-on-month percentage changes, percentage point contributions)



Sources: Eurostat, Factiva and ECB calculations.

Notes: Based on 15 COICOP categories (mostly four-digit level). "Other" includes "Bread and cereals", "Fish", "Oils and fats", "Food products n.e.c.", "Mineral waters, soft drinks, fruit and vegetable juices", "Spirits", "Wine" and "Beer". "Food inflation news coverage" is the monthly average of an updated underlying daily index as described by Aarab et al. (2025). The latest observations are for November 2025.

Food commodity prices have been important drivers of recent consumer food price increases, reflecting extreme weather events as well as other structural factors. Cocoa and coffee commodity prices reached new peaks in early 2025, having more than doubled since January 2024 (Chart C, panel a). While cocoa and

coffee commodity prices have eased somewhat from their respective peaks, past increases have been passed through to consumer food prices with a delay. These increases can be partly attributed to extreme weather (Kotz et al., 2025). Similarly, findings from the ECB's recent contacts with non-financial companies suggest that food price developments are also affected by climate change (Kuik et al., 2025). For example, we estimate that the 2025 summer heat wave could increase unprocessed food prices in the euro area by 0.4 to 0.7 percentage points after one year.³ On the other hand, European meat (especially beef) prices have been driven by a continuing structural decline in supply, amid robust demand.⁴ As such, European farm-gate prices for meat peaked in June 2025 – 17% higher than in January 2024 – before easing slightly thereafter.

³ Based on an update of the analysis published in Kotz et al. (2024).

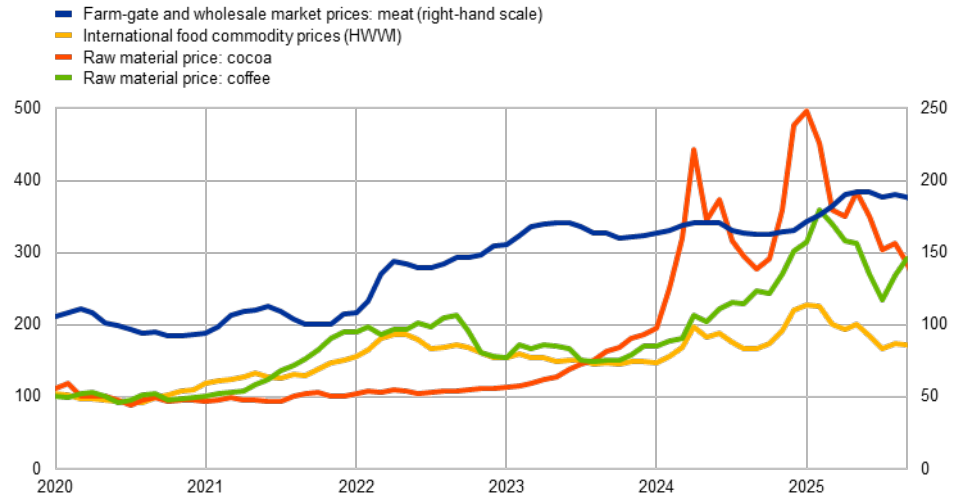
⁴ See the European Commission's [factsheet on the meat market](#) for details.

Chart C

Drivers of HICP food inflation

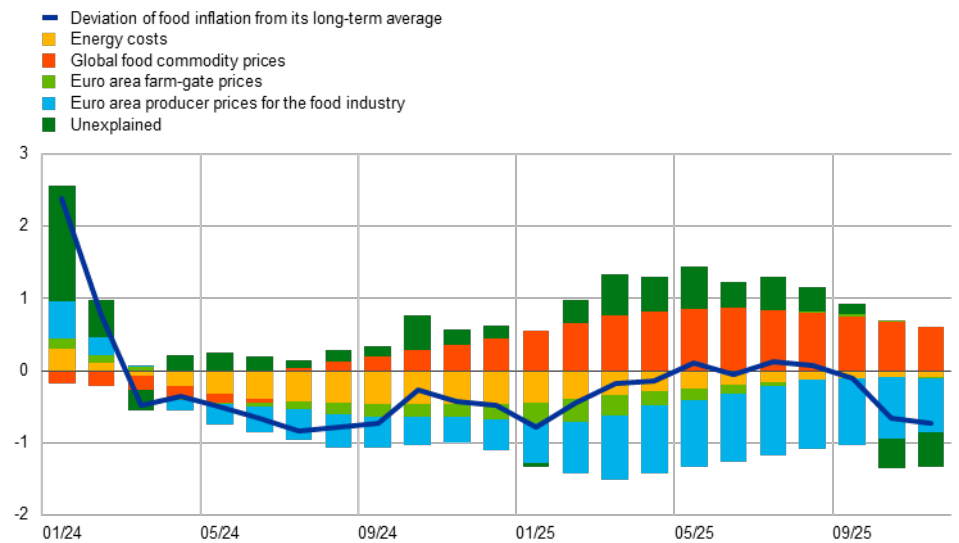
a) Developments in food commodity prices

(indices, 2020 = 100)



b) Model-based decomposition of HICP food inflation

(percentage point contributions to deviations from long-term averages)



Sources: Eurostat, European Commission, HWWI and ECB calculations.

Notes: In panel a), the latest observations are November 2025. In panel b), the chart shows a Bayesian Vector Autoregression-based decomposition of the drivers behind the deviation in euro area food inflation from its long-term average (and initial condition) using the ECB's [BEAR toolbox](#). Identification of the drivers follows the Cholesky decomposition outlined in Ferrucci et al. (2012), which imposes the following order of innovations: global food commodity prices (in euro, from HWWI), euro area producer prices for energy, euro area farm-gate prices, producer prices in the food sector, consumer prices. This ordering is consistent with the pricing chain assumption. The estimation sample is from December 1996 to November 2025.

A model-based decomposition of food inflation into its drivers also suggests that commodity prices have played a more important role recently (Chart C, panel b).⁵ The decomposition shows a moderation of cost pressures in recent months on the back of slightly lower contributions from international commodity prices and a smaller (now negative) contribution from an “unexplained” component

⁵ For details on the model-based decomposition see Kuik et al. (2024).

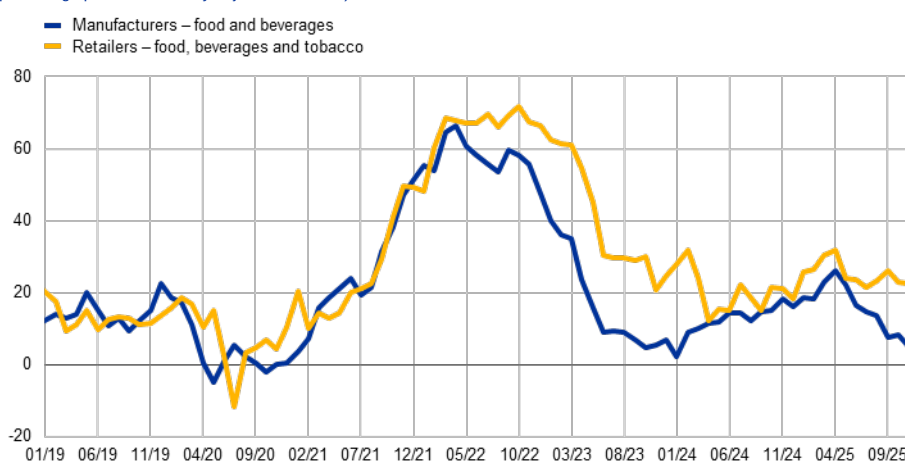
which may be linked to pass-through from past wage growth in the retail sector.⁶ For example, the latest data on sectoral compensation per employee show that wage growth in the trade, transport, and accommodation sector – encompassing the food retail sector – remained elevated in the first half of 2025, above its pre-pandemic average.

Looking ahead, food inflation is expected to ease further, supported in the near term by easing selling price expectations. The December 2025 Eurosystem staff macroeconomic projections for the euro area expect food inflation to decline in the short term, reaching 2.1% in the third quarter of 2026, and to remain at moderate levels throughout the rest of the projection horizon. In the very near term, this view is supported by manufacturers of food and beverages in the European Commission’s business survey, whose selling price expectations for the next three months have declined since April, falling below the long-term average observed between 1999 and 2019 (Chart D). In contrast, selling price expectations among retailers of food, beverages and tobacco moderated less markedly and have also remained above their long-term average, which could partly reflect the still elevated wage growth in this sector.

Chart D

Selling price expectations of food manufacturers and retailers – next three months

(percentage points, seasonally adjusted balances)



Source: European Commission.

Notes: Balances are constructed as the difference between the percentages of respondents giving positive and negative replies. The latest observation is for November 2025.

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⁶ Note that the model implicitly considers wages in the producing sector via producer prices.

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Liquidity conditions and monetary policy operations from 30 July to 4 November 2025

Prepared by Kristian Tötterman and Samuel Bieber

This box describes the Eurosystem liquidity conditions and monetary policy operations in the fifth and sixth reserve maintenance periods of 2025. Together, these two maintenance periods ran from 30 July to 4 November 2025 (the “review period”).

Excess liquidity in the euro area banking system continued to decline gradually. Liquidity provision decreased over the review period, owing primarily to lower Eurosystem holdings under the asset purchase programme (APP) and pandemic emergency purchasing programme (PEPP) following the discontinuation of APP reinvestments at the beginning of July 2023 and PEPP reinvestments at the end of December 2024. This decrease was partly offset by the continuing reduction in liquidity absorption through net autonomous factors.

Liquidity analysis of autonomous factors

Starting with this issue of the Economic Bulletin, there is a slight change to how Eurosystem balance sheet items are categorised in this box. This is to enhance understanding of the factors that drive changes in autonomous factors and their liquidity implications. For the analysis of Eurosystem liquidity conditions, autonomous factors are categorised as follows: (i) net assets denominated in euro, (ii) net foreign assets, (iii) government deposits, (iv) banknotes, and (v) other autonomous factors (net). The first two factors are liquidity-providing in net terms, while the remaining three factors are liquidity-absorbing in net terms. The allocation of balance sheet items to these groups has now changed slightly. First, the revaluation accounts of non-euro holdings, which were previously categorised as other autonomous factors (net), have been integrated into the net foreign assets category, making the typically minimal liquidity impact of changes in that category more transparent. Second, net assets denominated in euro now encompass all major euro-denominated, non-monetary policy-related deposit-taking and investment activities. Previously, only some of these activities were assigned to this category, while the remaining items were allocated to other autonomous factors (net). Third, the residual other autonomous factors (net) category now includes significantly fewer balance sheet items, such as the Eurosystem’s capital, reserves and provisions. The historical time series, which reflect this revised breakdown, are available on the ECB Data Portal under [the Liquidity table publication](#).

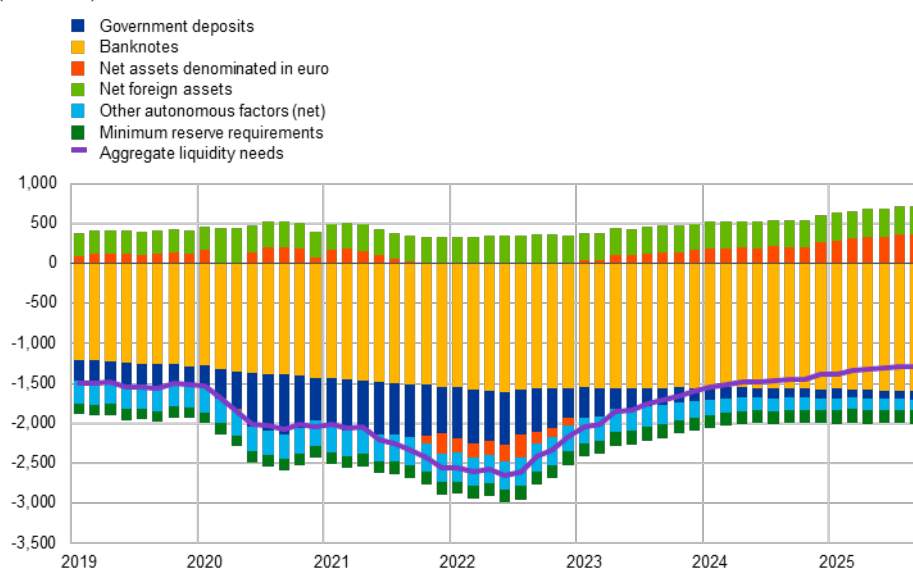
Liquidity needs

The average daily liquidity needs of the banking system, defined as the sum of net autonomous factors and reserve requirements, decreased by €30 billion to €1,288 billion over the review period (Chart A). This decline was driven by an increase in liquidity-providing autonomous factors and a slight reduction in liquidity-absorbing autonomous factors. Minimum reserve requirements remained stable at €168 billion, with no effect on overall liquidity needs (Table A).

Chart A

Changes in aggregate liquidity needs

(EUR trillions)



Source: ECB.

Note: The latest observations are for the sixth maintenance period of 2025.

Liquidity-providing autonomous factors rose by €28 billion over the review period, mainly reflecting an increase of €25 billion in net assets denominated in euro. This overall increase was primarily attributable to the continued decline in euro-denominated non-monetary policy deposits. Euro-denominated non-monetary policy investments went up slightly, which also contributed to the increase in net assets denominated in euro. Meanwhile, net foreign asset holdings rose marginally by €3 billion, with only a minimal impact on overall liquidity conditions.

Liquidity-absorbing autonomous factors decreased by €3 billion over the review period, owing primarily to a decline in other autonomous factors. On average, net other autonomous factors fell by €18 billion, which mainly reflected a reduction on the liability side. Government deposits increased slightly by €6 billion to €110 billion, driven by higher government issuance in the autumn and, consequently, larger cash buffers held by national treasuries. The average value of banknotes in circulation increased slightly by €8 billion over the review period, reaching €1,591 billion.

Liquidity provided through monetary policy instruments

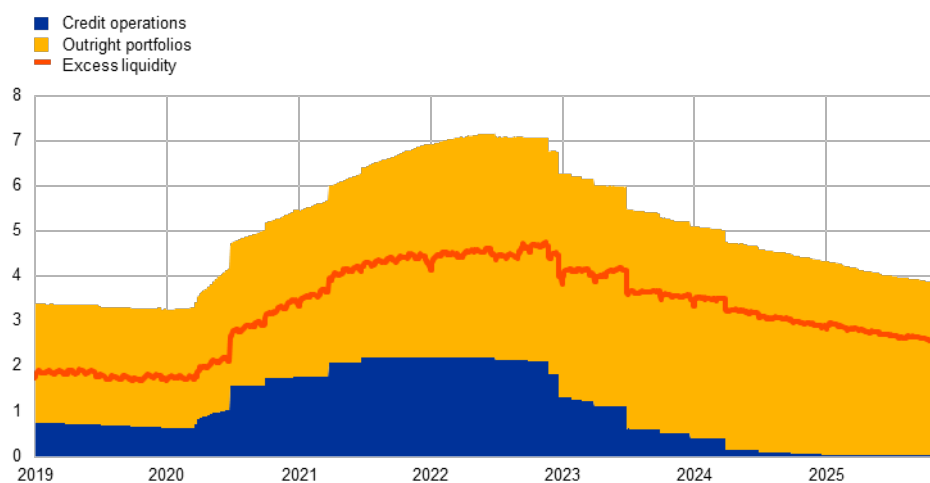
The average amount of liquidity provided through monetary policy instruments decreased by €127 billion to €3,901 billion over the review period (Chart B).

The decline in the liquidity supply was largely driven by a reduction in Eurosystem outright portfolios.

Chart B

Changes in daily liquidity provided through open market operations and excess liquidity

(EUR trillions)



Source: ECB.

Note: The latest observations are for the sixth maintenance period of 2025.

The average amount of liquidity provided through outright monetary policy portfolio holdings went down by €125 billion to €3,881 billion over the review period. This decline was due to maturing APP and PEPP holdings not being reinvested.

The average amount of liquidity provided through credit operations fell by €3 billion to €21 billion over the review period. The average outstanding amount of main refinancing operations (MROs) and three-month longer-term refinancing operations (LTROs) decreased by around €1 billion and €2 billion respectively. Banks' muted participation in these regular operations reflects their comfortable liquidity position and the availability of alternative funding sources at attractive market rates and maturities.

Excess liquidity

Excess liquidity decreased by €97 billion to €2,614 billion over the review period (Chart B). Excess liquidity is the sum of bank reserves held in excess of minimum reserve requirements and banks' recourse to the deposit facility net of their recourse to the marginal lending facility. It reflects the difference between the total liquidity provided to the banking system via monetary policy instruments and the

liquidity needed by banks to cover their minimum reserves. Having peaked at €4,748 billion in November 2022, excess liquidity has since declined steadily.

Interest rate developments

During the review period, the Governing Council kept the three key ECB interest rates unchanged – including the deposit facility rate, through which it steers the monetary policy stance. The rates on the deposit facility, MROs and marginal lending facility remained at 2.00%, 2.15% and 2.40% respectively (Table B).

The average euro short-term rate (€STR) marginally increased over the review period, while maintaining a negative spread relative to the deposit facility rate. On average, the €STR was 7.5 basis points below the deposit facility rate over the review period, with this spread narrowing slightly from 7.9 basis points during the third and fourth maintenance periods of 2025.

The average euro area repo rate, as measured by the RepoFunds Rate Euro index, remained closer to the deposit facility rate than to the €STR. On average, the repo rate was equal to the deposit facility rate over the review period, which was also the case in the third and fourth maintenance periods of 2025.

Table A
Eurosystem liquidity conditions

(averages; EUR billions)

	Current review period: 30 July-4 November 2025						Previous review period: 23 April- 29 July 2025	
	Fifth and sixth maintenance periods		Fifth maintenance period: 30 July- 16 September 2025		Sixth maintenance period: 17 September- 4 November 2025		Third and fourth maintenance periods	
Liquidity-providing factors								
Autonomous factors	713	(+28)	711	(+24)	715	(+4)	685	(+43)
- Net foreign assets	356	(+3)	354	(+0)	358	(+5)	353	(+6)
- Net assets denominated in euro	357	(+25)	358	(+24)	357	(-1)	332	(+37)
Monetary policy operations	3,901	(-127)	3,931	(-57)	3,871	(-60)	4,028	(-156)
- MROs	9	(-1)	8	(-0)	10	(+2)	10	(+0)
- LTROs	12	(-2)	12	(-1)	11	(-1)	13	(-3)
- Outright portfolios	3,881	(-125)	3,911	(-56)	3,850	(-61)	4,005	(-154)
- Other liquidity provision	0	(+0)	0	(+0)	0	(+0)	0	(+0)
Liquidity-absorbing factors								
Autonomous factors	1,844	(-3)	1,838	(-7)	1,850	(+12)	1,847	(+6)
- Banknotes in circulation	1,591	(+8)	1,593	(+5)	1,590	(-2)	1,583	(+14)
- Government deposits	110	(+6)	104	(+1)	116	(+11)	104	(-5)
- Other autonomous factors (net)	143	(-18)	141	(-13)	144	(+3)	161	(-2)
Monetary policy operations								
- Other liquidity absorption	0	(+0)	0	(+0)	0	(+0)	0	(+0)
Liquidity and standing facilities								
- Credit institutions' current accounts	174	(+1)	173	(+1)	175	(+1)	172	(+0)
- Minimum reserve requirements ¹⁾	168	(+1)	168	(+1)	168	(-0)	167	(+0)
- Marginal lending facility	0	(+0)	0	(+0)	0	(+0)	0	(-0)
- Deposit facility	2,608	(-98)	2,643	(-28)	2,573	(-70)	2,705	(-120)
- Excess liquidity ²⁾	2,614	(-97)	2,648	(-28)	2,579	(-69)	2,711	(-120)
Other liquidity-based information								
- Aggregate liquidity needs ³⁾	1,288	(-30)	1,283	(-30)	1,292	(+8)	1,318	(-36)
- Net autonomous factors ⁴⁾	1,120	(-31)	1,116	(-31)	1,124	(+8)	1,151	(-37)

Source: ECB.

Notes: All figures in the table are rounded to the nearest €1 billion. Figures in brackets denote the change from the previous review or maintenance period. MROs stands for main refinancing operations and LTROs for longer-term refinancing operations.

1) Memo item that does not appear on the Eurosystem balance sheet and should therefore not be included in the calculation of total liabilities.

2) Computed as the sum of current accounts above minimum reserve requirements and the recourse to the deposit facility minus the recourse to the marginal lending facility.

3) Computed as the sum of net autonomous factors and minimum reserve requirements.

4) Computed as the difference between autonomous liquidity factors on the liabilities side and autonomous liquidity factors on the assets side.

Table B
Interest rate developments

(averages; percentages and percentage points)

	Current review period: 30 July-4 November 2025				Previous review period: 23 April-29 July 2025			
	Fifth maintenance period: 30 July- 16 September 2025		Sixth maintenance period: 17 September- 4 November 2025		Third maintenance period: 23 April- 10 June 2025		Fourth maintenance period: 11 June- 29 July 2025	
MROs	2.15	(+0.00)	2.15	(+0.00)	2.40	(-0.25)	2.15	(-0.25)
Marginal lending facility	2.40	(+0.00)	2.40	(+0.00)	2.65	(-0.25)	2.40	(-0.25)
Deposit facility	2.00	(+0.00)	2.00	(+0.00)	2.25	(-0.25)	2.00	(-0.25)
€STR	1.92	(+0.00)	1.93	(+0.00)	2.17	(-0.25)	1.92	(-0.25)
RepoFunds Rate Euro	1.99	(-0.01)	2.00	(+0.00)	2.25	(-0.24)	2.00	(-0.24)

Sources: ECB, CME Group and Bloomberg Finance L.P.

Notes: Figures in brackets denote the change in percentage points from the previous review or maintenance period. MROs stands for main refinancing operations and €STR for euro short-term rate.

Artikelen

1 What is the untapped potential of the EU Single Market?

Prepared by Roberto Bernasconi, Naïm Cordemans, Vanessa Gunnella, Giacomo Pongetti and Lucia Quaglietti

1 Introduction

The EU Single Market brings together 450 million people and 26 million businesses. It is one of the cornerstones of European integration, serving as a dynamic engine for welfare gains, competitiveness and resilience. By facilitating the free movement of goods, services, capital and labour, it has enhanced economic efficiency through economies of scale, stronger competition and increased innovation. ECB research indicates that between 1993 and 2014 the Single Market increased real GDP per capita by 12-22% across founding Member States (Lehtimäki and Sondermann, 2020), while studies by Mion and Ponattu (2019) estimate average annual welfare gains of around €840 per person, expressed in 2016 prices.

The Single Market delivers broad economic and strategic benefits for the EU and its Member States. A well-functioning Single Market improves productivity and resilience because it provides the scale for companies to innovate and grow. It also promotes price convergence and strengthens the transmission of monetary policy, which are of particular relevance to the ECB. Moreover, as underlined by Letta (2024) and Draghi (2024), it stands as Europe's first line of defence in the face of a rapidly evolving geopolitical landscape.

However, the Single Market continues to face structural obstacles that prevent the realisation of its full potential. Remaining barriers – particularly to the cross-border provision of services, but also to the circulation of goods and the free movement of labour and capital – limit the depth of integration and the scope of potential welfare gains.¹ Overcoming these limitations is essential for further strengthening the EU's resilience, fostering competitiveness, enhancing defence capabilities and safeguarding economic stability.

This article assesses part of the untapped potential of the Single Market, specifically addressing the circulation of goods and services. The first section briefly traces the historical development of the Single Market and examines the current degree of trade integration. The second section describes the barriers that impede the free movement of goods and services within the EU. The third section quantifies the scale of the barriers through the lens of a gravity model. And finally,

¹ See European Commission (2025a).

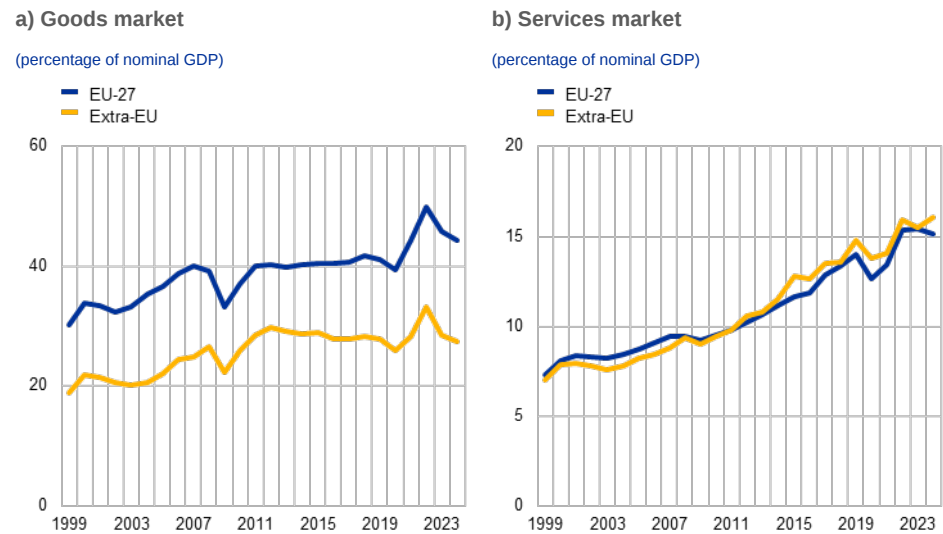
the fourth section assesses the potential welfare gains achievable through further integration.

2 Current level of integration of goods and services in the Single Market

The Treaty of Rome, which created the European Economic Community (EEC), laid the foundation for a common market and customs union. The 1957 Treaty introduced the “four freedoms”: the free movement of goods, services, capital and people. The initial emphasis was on reducing customs duties and quotas on goods, which were fully eliminated by 1968 with the creation of the EEC customs union. The Single European Act of 1986 set the goal of a fully integrated internal market by tackling non-tariff barriers, paving the way for the Single Market’s official launch in January 1993. For goods, it removed customs formalities, reduced technical barriers through mutual recognition and replaced VAT border checks with harmonised rules. For services, the Services Directive adopted in December 2006 addressed obstacles to cross-border provision, with the aim of removing discriminatory practices based on nationality or residence and fostering administrative cooperation.²

Removing barriers to the movement of goods has resulted in rapid EU goods trade integration, while services markets remain less integrated. Chart 1 compares intra-EU and extra-EU trade, used as an indicator of the degree of integration within and outside the Single Market respectively. Trade in goods has clearly benefited from deeper integration within the EU, which is not the case for services. In 2024 cross-border trade in goods within the EU accounted for over 40% of EU GDP, up from 30% in 1999 and around 16 percentage points higher than trade between the EU and the rest of the world. Over the same period, intra-EU trade in services rose from 8% of GDP in 1999 to 16% in 2024, a level very similar to extra-EU trade in services. This contrast between goods and services integration is all the more striking given that services account for nearly three-quarters of economic activity in the EU.

² However, the scope of the Directive was limited to selected sectors, excluding areas such as energy, financial services, transport, telecommunication and healthcare.

Chart 1**Intra-EU and extra-EU trade**

Sources: Eurostat and ECB calculations.

Comparatively low services trade integration can be attributed, in part, to the localised nature of services. Many services, such as healthcare, education, legal consultancy or real estate, may require proximity to the consumer or adaptation to local cultural, legal or linguistic contexts, making cross-border provision more challenging. To some extent, it also reflects the fact that a significant share of service provision occurs via the establishment of subsidiaries or branches.³

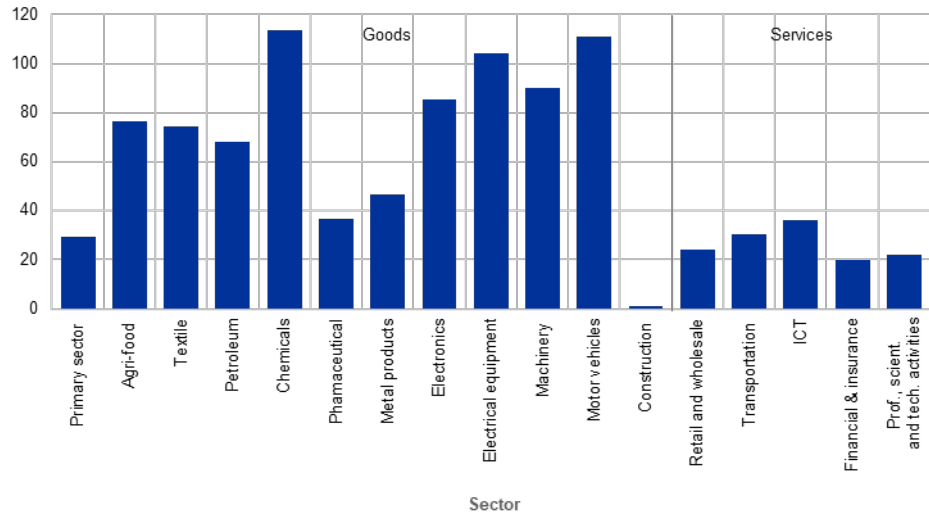
The depth of Single Market integration varies significantly across subsectors. Highly harmonised manufacturing industries such as motor vehicles, chemicals and electronics benefit from EU-wide standards, mutual recognition agreements and extensive cross-border supply chains. For example, the automotive sector relies on cross-border supply chains for parts and assembly, while chemicals and electronics benefit from harmonised EU standards that ease trade across Member States. In contrast, primary goods, such as food products and pharmaceutical products, remain far less integrated because of a combination of national regulations, differences in standards and logistical barriers, as well as non-policy determinants such as cultural factors, consumer preferences and limited tradability of certain products (Chart 2).⁴ Service sectors display an equally uneven landscape. Business and support services achieve relatively high integration under the Services Directive, whereas retail, construction, professional activities and real estate face persistent national and local barriers.

³ Many services require the establishment of local subsidiaries or branches, which are classified as foreign direct investment (FDI) rather than cross-border service exports. The value of services provided through these local establishments does not appear in cross-border trade statistics. This means that official data on intra-EU trade in services might understate the actual level of integration, as they do not capture the substantial volume of services delivered via FDI channels.

⁴ Chart 2 reports intra-EU trade data based on gross exports, which include both final and intermediate products. While this leads to some degree of double counting due to intermediate goods crossing borders multiple times before final production, it also highlights the depth of economic integration and the significance of intra-EU value chain linkages.

Chart 2
Intra-EU trade by sector

(percentage of each sector value added)



Sources: OECD TIVA 2025 and ECB calculations.

Notes: Data refer to 2022. Sector trade from input-output tables includes gross final and intermediate trade.

3 What are the barriers that impede integration of the EU Single Market?

Barriers persist within the EU Single Market.⁵ They originate from a multitude of sources, including: (a) differences in national rules or regulations; (b) cumbersome administrative procedures; (c) inconsistent application of EU rules and gold-plating; and (d) national anticompetition practices that put non-domestic firms at a disadvantage. In addition, barriers can also differ across sectors. Goods markets often face divergent technical standards, non-tariff barriers and high compliance costs. Services face challenges from labour mobility restrictions and regulatory differences, which complicate cross-border business. Regulatory fragmentation can hinder trade and investment in both goods and services. This section presents a short overview of the principal barriers affecting intra-EU trade, categorised according to the source of the barriers.

A. Regulatory barriers

Regulatory barriers refer to fragmented rules or requirements that restrict the free movement of goods and services across borders. Different rules and standards across Member States may limit cross-border market access or raise compliance costs for firms. Significant disparities in product standards and technical requirements persist across the EU. A fragmented value added tax regime – with 27 distinct national frameworks – is also an obstacle to cross-border trade. For services, the recognition of professional qualifications impedes worker mobility.

⁵ See Draghi (2024) and Letta (2024).

B. Administrative barriers

Administrative barriers typically encompass lengthy, cumbersome or unclear procedures that complicate compliance and delivery. Administrative barriers arise typically from the procedures surrounding the implementation and enforcement of regulations. These include complex authorisation procedures, excessive documentation requirements, delays in obtaining permits or a lack of coordination between national authorities. Exporters may need import licences, conformity assessments and tailored documentation for national regulations, while lengthy product registration and a lack of digital reporting systems complicate compliance. In the field of services, residency and nationality requirements – while mostly curbed by EU law – can still arise through national rules like residency obligations for legal accountability.

C. Enforcement barriers

Enforcement barriers relate to the inconsistent application of EU rules or lack of oversight mechanisms. Differences in the interpretation and application of EU directives across Member States undermine the Single Market, as national authorities often prioritise domestic standards over EU law, creating legal uncertainty or failing to meet minimum standards. Gold-plating – the practice of adding national requirements beyond the minimum required to implement EU law – further increases costs and burdens, forcing companies to adapt to varying obligations.

D. Competition-related barriers

Competition-related barriers relate to discriminatory practices or unequal treatment that put non-domestic firms at a disadvantage. For both goods and services, legal constraints such as local language requirements, price controls and nationally restricted tax incentives or targeted subsidies raise operational costs or restrict access for foreign competitors. In the services sector, fragmentation stems from local content requirements, which are officially prohibited but are often introduced in disguised form. In sectors like energy, defence and telecommunications, public procurement processes tend to favour domestic firms. Studies indicate that only about 5% of public procurement contracts are awarded to non-domestic firms.⁶

E. Other barriers

Obstacles to the effective functioning of the Single Market are compounded by multiple layers of structural and practical barriers. Accessing clear and comprehensive information remains a major challenge within the Single Market, as businesses frequently face difficulties finding up-to-date guidance on national rules and requirements. Lengthy enforcement processes and inefficient judicial systems further fracture the regulatory landscape and undermine legal certainty. In the financial sector, the lack of a fully realised Capital Markets Union – with a single supervisor and harmonised resolution mechanisms – undermines cross-border investment and financial integration. These issues are further compounded by

⁶ European Centre for International Political Economy (2021).

patchy transport and digital communication infrastructure, which restricts efficient connectivity.

Data on barriers that hinder the functioning of the Single Market are limited.

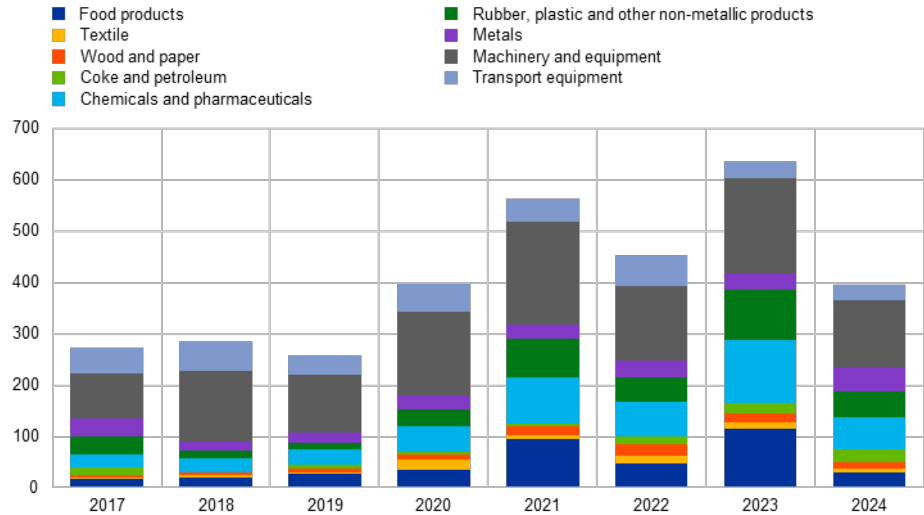
Regulatory restrictions, administrative requirements and other barriers can be difficult to capture and complex to quantify. Existing indicators often rely on subjective evaluations, expert assessments or partial coverage, with limited consistency across sectors and time. Some indicators rely on expert assessments of regulatory frameworks to quantify restrictions in the services sector, while others systematically record and classify policy measures deemed harmful to trade. EU-level data focus on the implementation of and compliance with EU rules. By contrast, a few business surveys capture firms' perceptions of administrative burdens, market access obstacles and regulatory uncertainty. The European Commission (2025a) indicates that, while over the years the EU has removed many barriers to trade in the Single Market, new sources of fragmentation continue to appear. This results in a pattern of increased barriers. Specifically, the Commission has identified a set of the "Terrible 10" barriers which persistently fragment cross-border activity despite harmonised EU rules (European Commission, 2025a). These include discriminatory authorisation procedures, disproportionate professional qualification requirements, unjustified territorial supply constraints, limits on cross-border establishment, barriers to digital and data mobility, and restrictions on the provision of services across borders.

The data that are available suggest there are still hurdles to overcome for the Single Market to function more efficiently.

The Global Trade Alert (GTA) database reveals that Member States still enact trade-distortive interventions, demonstrating that internal barriers still characterise the Single Market. By impeding or disincentivising trade, these measures could translate into material costs. A substantial proportion of these measures involve subsidies and export-supporting policies, which often create competitive imbalances within the Single Market. Machinery and food products are consistently among the most affected sectors in the manufacturing industry (Chart 3).

Chart 3**Interventions hindering intra-EU trade by sector**

(number of interventions)



Sources: GTA and ECB calculations.

Note: Interventions classified as harmful are reported.

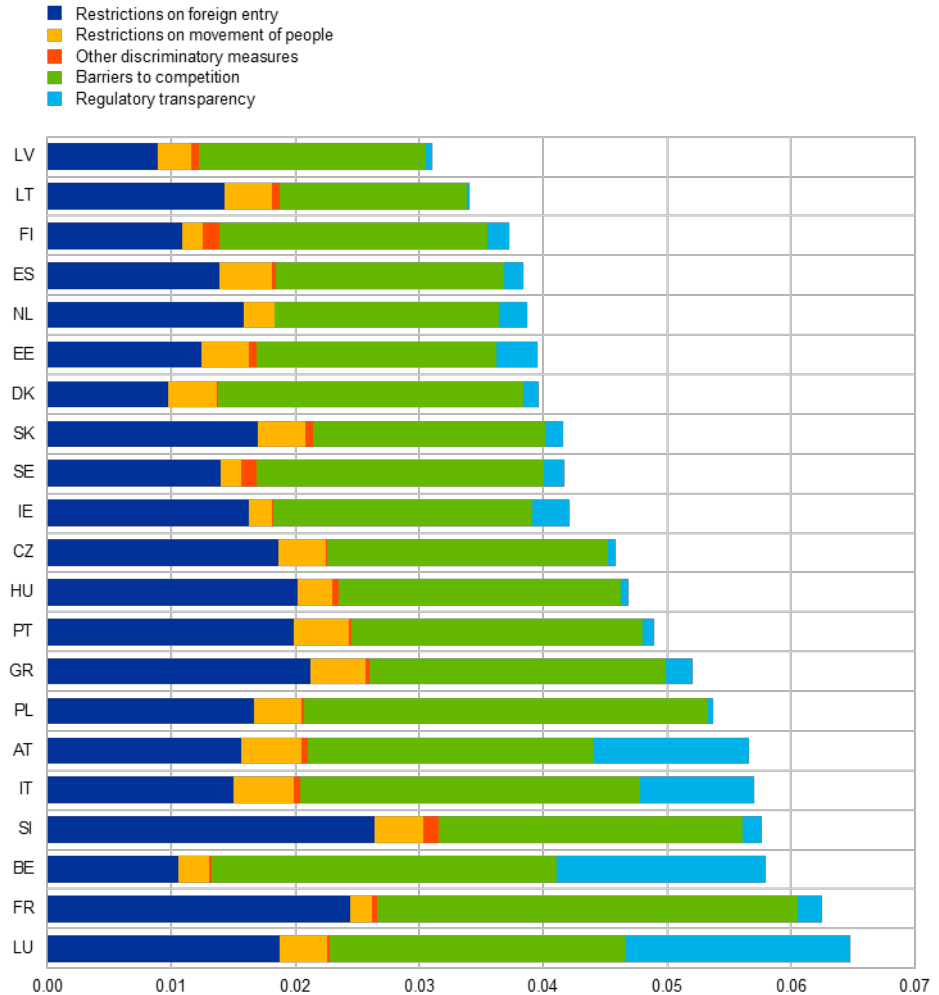
The data also indicate that restrictions on competition and foreign entry of firms form the bulk of the barriers within the Single Market for services. Data on barriers that hinder the functioning of the Single Market are limited also in the case of services. Still, the OECD STRI indicator can offer a useful proxy. Specifically, Chart 4 illustrates the distribution of barriers by policy area for EU countries, highlighting the relative importance of different types of barriers. Data point to a marked variation in the degree of services restrictions across EU Member States and categories. Some countries like Luxembourg and Belgium exhibit higher overall restrictiveness levels, largely driven by foreign entry and competition barriers, while others, such as Latvia and Lithuania, maintain comparatively open regulatory environments.⁷

⁷ The STRI indicator follows the principle of the most-favoured nation (MFN), documenting regimes applied to countries that do not benefit from preferential treatment. The EEA STRI indices reveal that remaining trade restrictions on services within the EEA are considerably lower than barriers for third countries, meaning that the introduction of the EU Single Market has significantly reduced services trade barriers in comparison with MFN applied policies.

Chart 4

2023 service trade restrictiveness

(index points)



Sources: OECD and ECB calculations.

Notes: Data refer to 2023. A higher value indicates a more restricted market. The index offers a structured cross-country comparison of regulatory barriers affecting trade in services, from the perspective of the importer. It is a composite index, with scores ranging from 0, indicating a fully open economy, to 1, indicating a completely closed economy. The index summarises regulatory barriers across five specific policy areas: foreign entry, movement of people, discriminatory measures, competition and regulatory transparency.

4 Quantifying the untapped economic potential of the Single Market

Quantifying the magnitude of trade barriers is key to assessing their economic impact and identifying policies to address them. However, measuring the scale of trade barriers is challenging. As section two discussed, obstacles to trade vary across Member States and sectors and evolve as legislation and national practices change. Comprehensive and comparable indicators are limited, since many barriers – such as gold-plating, licensing complexity or differences in enforcement – are difficult to observe directly or quantify systematically.

To address the lack of data on trade barriers, the literature has adopted an indirect, model-based approach to infer their magnitude. The few existing analyses rely on the estimation of gravity models – the workhorse framework of international trade analysis.⁸ These models consider the determinants of trade flows between two countries, such as economic size, distance, shared language and borders. By incorporating these determinants, the gravity model allows for the quantification of other, additional costs associated with cross-border trade between EU Member States, relative to domestic trade, including possible observable and unobservable frictions that have an impact on trade. These reflect a wide range of influences, including trade-related costs and barriers that can be amended through policy actions, such as regulatory differences and restrictions to competition, but also factors such as cultural mismatches and national preferences.

Estimates of trade costs are typically expressed relative to domestic trade and as ad valorem tariff equivalents, as if they were a percentage tariff on the value of traded products. Estimating the costs influencing cross-border trade in relation to domestic trade means in practice that the estimate captures how much more – or less – economic exchange occurs across an international border compared with trade within the same country. Estimates are often expressed as tariff equivalents to provide an intuitive metric for comparison. However, this should not be interpreted to mean that they are directly comparable to tariffs applied at customs borders. Instead, the tariff equivalent gives a simple numerical indication of the extent of the frictions that limit trade across national borders – the higher the tariff equivalent, the larger the implied trade frictions relative to domestic trade.

Studies based on these methods suggest that substantial costs to integration persist, although the range of estimates is very large. Using a gravity framework, recent studies reveal that, while intra-EU trade costs have declined over time, considerable obstacles remain, especially for services. They also vary widely. The estimated tariff equivalent costs for goods trade were 13% for EU15 and 8% for EU28 in 2017 (Head and Mayer, 2021), 44% for EU27 in 2020 (IMF, 2025), and 60% for the euro area in 2020 (Airaudo et al., 2025). Head and Mayer (2025) indicate that this dispersion reflects differences in estimation strategies, data sources, variables used as controls, estimation choices and the time periods considered. For services, trade costs remain significantly higher. Adilbish et. al (2025) estimate a tariff equivalent of 110% for services, underscoring the scale of impediments to full integration.⁹ Fontagné and Yotov (2025) find that only half of the potential benefits from EU membership have been realised to date.¹⁰

⁸ The gravity model is a widely used framework in international economics to explain trade flows between two regions or countries. It is based on the analogy with Newton's law of gravity: trade between two economies increases with their economic "mass" (typically measured by GDP) and decreases with the "distance" between them, which captures trade costs such as transport expenses, cultural differences or regulatory barriers.

⁹ Head and Mayer (2021) provide estimates that are significantly lower than those reported in other studies. This difference is attributed to their use of a cross-sectional estimation approach, which relies on intra-EU trade flows and inferred domestic trade flows. By applying a consistent methodology to both EU and US data, their approach ensures comparability across US and EU regions.

¹⁰ To quantify the potential gains from further integration within the Single Market, Fontagné and Yotov (2025) benchmark, for each country-industry pair, the gains achieved to date against the largest historical reduction in bilateral trade costs observed within the Single Market.

The analysis we present in this section deploys a similar gravity specification.

It uses the methodology proposed by Head and Mayer (2021) to address two major questions: (i) How has the integration of the Single Market evolved over the past 20 years?; and (ii) to what extent does the Single Market remain incomplete? The evolution of trade costs within the Single Market is estimated over time – separately for goods and services – using a gravity model, and barriers are expressed in tariff-equivalent terms.¹¹ In addition, the analysis provides an estimate of barriers across sectors.¹²

The estimates provide an upper bound for the level of trade costs within the Single Market.

The wide range of estimates highlights the significant complexity involved in measuring trade costs. A key challenge is disentangling frictions that are amendable through policy actions (for example through regulatory change) from other structural or behavioural costs that also influence trade flows. Within the gravity framework, trade costs are estimated as a “catch-all” measure for the costs of trading, once the standard determinants have been accounted for. However, these estimates also capture non-policy-related factors that reduce trade, such as taste differences, domestic bias, limited substitutability between products, or the intrinsic limited tradability of some goods and services. As a result, gravity-based estimates overstate the true magnitude of policy-induced trade barriers, and consequently the extent to which barriers within the Single Market can be reduced through policy reforms.¹³ Therefore, these estimates are best viewed as an upper bound on the costs associated specifically with trade barriers.

Given concerns about correctly judging the degree to which trade barriers can be lowered through policy actions, this article also adopts a comparative approach by evaluating intra-EU trade costs against a “friction-light” benchmark country.

Several existing studies in the literature analyse the estimated scale of trade costs in isolation, which, as stated above, carries the risk of overstating the extent to which policy interventions can reduce them. In contrast, this analysis aims to compare estimated trade barriers to those of a benchmark country – defined as an EU Member State exhibiting low estimated trade costs and a high degree of trade integration. This provides a more realistic counterfactual that can demonstrate the potential for deepening EU integration if all Member States were to

¹¹ This article provides estimates of both changes in trade costs and the overall level of trade costs. All models are estimated using the Poisson pseudo-maximum likelihood (PPML) estimator. Goods data come from the OECD TiVA 2025 release (1995-2022), and services data from OECD BATIS (2005-2023). Changes in trade costs are estimated using a yearly country-pair panel that includes domestic flows, following Head and Mayer (2021). The specification includes exporter-time, importer-time, and pair-sector fixed effects. Borders vary over time and are grouped into three categories: EU-EU, EU-ROW, and ROW-ROW. As a result, estimated changes in trade costs are interpreted relative to the initial-year trade costs for ROW-ROW flows. To estimate the levels of trade costs, a yearly country-pair-sector panel is used, again including domestic flows. This specification retains exporter-time and importer-time fixed effects but replaces pair-sector fixed effects with standard gravity controls such as distance, common language, contiguity, common religion and colonial ties.

¹² All estimates are reported using the EU in changing composition. Estimates are broadly similar if the model is instead estimated with a constant EU membership.

¹³ Head and Mayer (2025) use social network data derived from Facebook to analyse the impact of social connections on trade within the EU. Their findings demonstrate that controlling for social connectivity significantly reduces estimated border effects.

reduce barriers to the levels of the benchmark country.¹⁴ The use of a benchmark in the estimation helps to mitigate some limitations related to estimating the levels of barriers as described above.¹⁵ Indeed, for policy purposes, it may be more appropriate to focus on the integration already achieved in the chosen benchmark country rather than on the absolute level of intra-EU barriers – which partly reflect structural factors beyond the reach of policymakers.

5 Measuring trade barriers in goods markets

The integration of EU goods markets has progressed steadily over recent decades. Chart 5, panel a), illustrates the evolution of estimated trade costs – expressed as ad valorem tariff equivalents – within EU Member States, between EU and non-EU partners, and across countries in the rest of the world over time. In 1995, intra-EU trade costs were already almost 19% lower than those for trade between non-EU countries, reflecting the early benefits of Single Market integration (Chart 5, panel a). By 2022, this gap between intra-EU trade costs and non-EU trade costs had narrowed somewhat, while intra-EU trade costs had decreased, in absolute terms, by an additional 7 percentage points. The most substantial decreases in trade costs occurred in energy and agriculture and food products – industries that have benefited from continued policy reforms and harmonisation efforts within the Single Market. For instance, the liberalisation of the energy market, including electricity and gas, and the common agricultural policy reforms have helped to reduce trade costs for these sectors.

¹⁴ The level of trade costs for the chosen benchmark is estimated using a specification similar to that described in footnote 9, with additional border dummy variables included to identify the border between the benchmark and the rest of the EU. The empirical approach follows Larch et al. (2023).

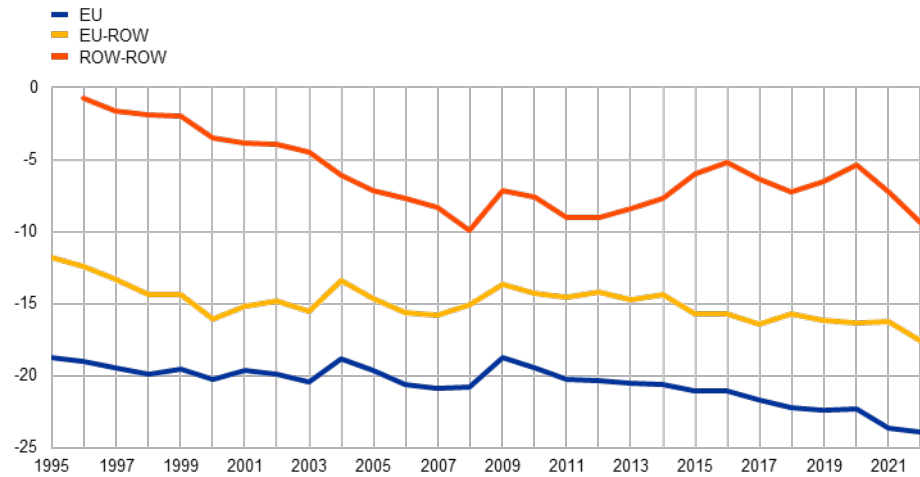
¹⁵ The use of a benchmark helps mitigate these concerns since it reflects a country operating under similar regulatory requirements, market structures and product characteristics as other EU Member States. To the extent that these underlying factors are comparable, differences in estimated trade costs between the benchmark and other countries are more likely to reflect policy-amenable frictions rather than structural or non-policy-related determinants. This therefore tempers the risk of overstating the scope for policy-driven reductions in trade barriers.

Chart 5

Estimated trade costs for the Single Market in goods

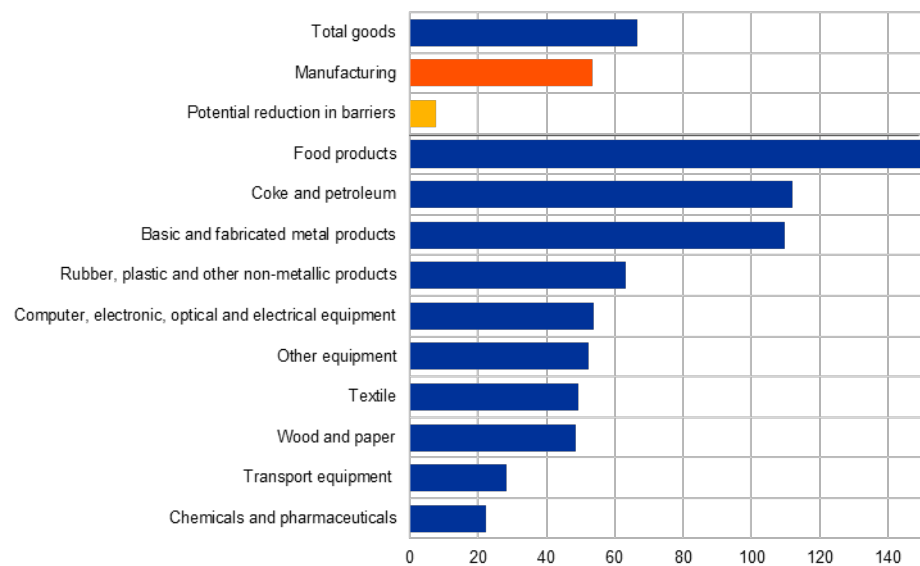
a) Changes in trade costs

(percentage points)



b) Estimated level of EU trade costs by sector in 2022

(percentages, percentage points)



Sources: OECD TIVA 2025 and ECB calculations.

Notes: Panel a): the chart is based on a gravity estimation (see footnote 10) and shows the change in trade barriers for intra-EU trade (blue line), in trade barriers between EU countries and the rest of the world (ROW, yellow line) and for countries in the rest of the world (red line). Each point represents a difference in trade barriers with respect to the 1995 ROW-ROW barriers. Panel b): the chart is based on a gravity estimation (see footnote 10) and shows the ad valorem tariff equivalent level of barriers to trade within the EU across subsectors, for goods as a whole, and for a regression including only the manufacturing sectors. Regression coefficients are converted into ad valorem tariff equivalents using sector-specific elasticities from Fontagné et al. (2022). The potential reduction in barriers (yellow bar) reports the difference in estimated trade costs in the Single Market between the rest of the EU and the Netherlands (the country displaying the highest integration within the EU). The difference is computed as in Yotov and Larch (2021).

Nonetheless, the empirical estimates suggest that trade costs of intra-EU trade in goods remain high. Regression results (Chart 5, panel b) indicate that in 2022 intra-EU trade frictions for goods – i.e. the costs of trading with other EU countries relative to trading domestically – remain significant, at 67% on aggregate for goods

and 54% when considering only the manufacturing sector.¹⁶ Within manufacturing, intra-EU costs for food products are the highest, with an ad valorem tariff equivalent of 150%, which may reflect the complexity of food trade within the EU and the limited scope of the common agricultural policy. In contrast, intra-EU trade costs in the chemical and pharmaceutical sectors are lower, which may reflect the significant efforts towards harmonisation and mutual recognition tools in these sectors.

Comparisons to the friction-light benchmark country – in this case the Netherlands – suggest there is scope to bolster goods trade integration. As stated above, taken in isolation estimates of the level of trade costs can overstate the extent of barriers within the Single Market that can be reduced through policy reforms. Instead, comparison to a benchmark country that has already achieved high integration may be more insightful. Looking across countries, the Netherlands is the Member State with the lowest estimated costs for trade in goods with other EU countries. To quantify the potential for reducing barriers, the gravity regression analysis compares the level of trade costs between the Netherlands and other EU Member States with that of other Member States. This approach calculates the gap between the benchmark and the average trade integration levels across the EU. The regression analysis suggests that, if other countries were to achieve similar levels of integration as this benchmark, intra-EU frictions for trade in goods could be lowered by an average of around 8 percentage points (Chart 5, panel b). That suggests there is scope for relatively substantial gains in integration from countries reaching this benchmark – an aggregate reduction of barriers to trade of 8 percentage points would be broadly similar to the progress made in deepening integration over the past two decades (Chart 5, panel a).

6 Measuring trade barriers in services markets

The integration of EU services markets has also advanced gradually over the past decades. In 2005 intra-EU service trade costs were slightly higher than those affecting countries in the rest of the world. By 2023, intra-EU service trade costs were estimated to have fallen by approximately 7 percentage points (Chart 6a). The most rapid integration has taken place in financial services and in information and communication, where frictions fell by 10 and 9 percentage points respectively between 2005 and 2023. In contrast, progress has been slower in the wholesale and retail sectors, professional services and transport and construction-related services.

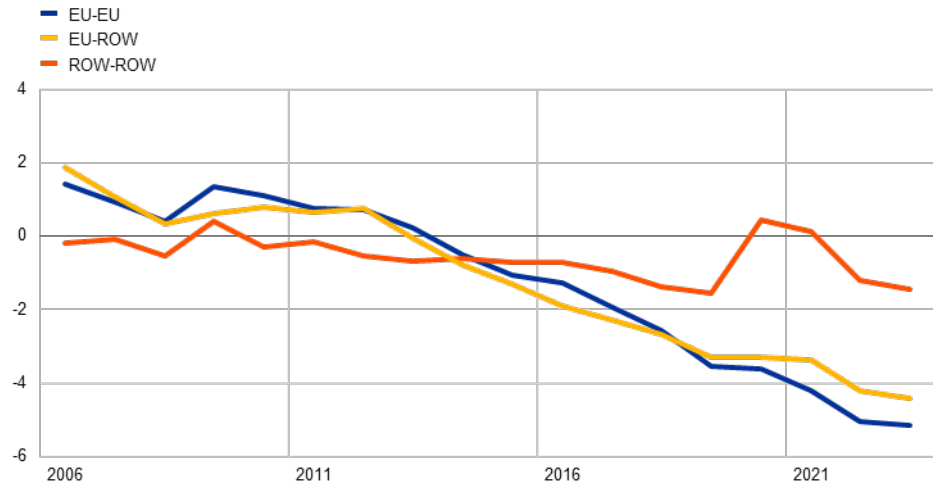
¹⁶ The choice of the trade elasticity of substitution plays an important role in the estimation of ad valorem tariff equivalents. We use elasticities as in Fontagné et al. (2022) and then aggregate them using value added shares. Head and Mayer (2021) used an elasticity of 5. Using this elasticity instead would raise our estimate of tariff-equivalent trade costs to 78%. Previous findings by the IMF (2024) estimated intra-EU trade barriers at 44% for the manufacturing sector. While also relying on elasticities drawn from Fontagné et al. (2022), IMF analysis uses customs data for trade flows and input-output tables for intra-country flows for 1995-2020. The aggregate result is the output-weighted average of the estimated level of barriers at industry level.

Chart 6

Estimated trade costs for the Single Market in services

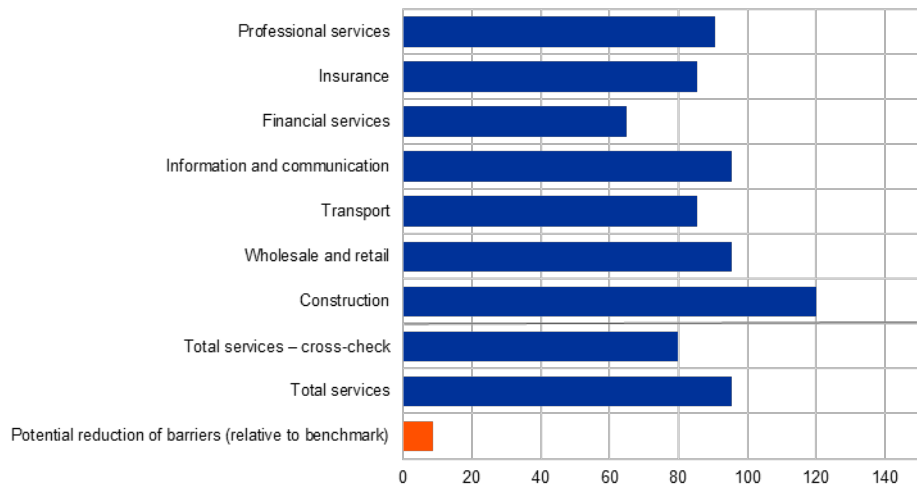
a) Changes in barriers – tariff equivalent

(percentage points)



b) Estimated level of EU trade costs by sector – tariff equivalent in 2023

(percentages, percentage points)



Sources: OECD and ECB calculations.

Notes: Panel a): the chart is based on a gravity estimation (see footnote 10) and shows changes in trade costs for intra-EU trade (blue line), trade between EU countries and the rest of the world (ROW, red line) and trade between countries in the rest of the world (yellow line). Coefficients are converted into ad valorem tariff equivalents using an elasticity of 7.8 (in line with Freeman et al., 2023).¹⁷ Each point is obtained by differencing with respect to the 2004 ROW-border coefficient. Panel b): this is also based on a gravity estimation (see footnote 10) and shows the level coefficient of an intra-EU dummy across subsectors and for the sector services as a whole. Coefficients are also converted into ad valorem tariff equivalents. The red bar shows the estimated difference between the estimated intra-EU barriers and the benchmark. The difference is computed as in Yotov and Larch (2021).

Despite this progress, substantial frictions continue to impede cross-border trade in services. Chart 6, panel b) presents estimates of the level of trade costs in 2023, expressed as ad valorem tariff equivalents. Although gradual liberalisation has taken place over recent decades, significant obstacles remain – particularly in the

¹⁷ Previous studies, including IMF (2024), use a similar elasticity of substitution for goods and services. Due to the large difference in tradability of services compared with goods, in this article we deploy a services-specific elasticity as estimated by Freeman et al. (2025). Using an elasticity of substitution similar to the one used in the IMF study would result in a tariff-equivalent level of barriers of around 115%.

construction sector, where trade costs are estimated to amount to a tariff exceeding 120%. On average, intra-EU trade costs approximate an ad valorem tariff of around 95% when compared to domestic trade. This implies that trading services across EU borders is almost twice as costly as trading within national borders.¹⁸

The analysis also highlights untapped potential for further integration (Chart 6, panel b). Just as for goods, if taken in isolation, the estimates presented in the previous paragraph overstate the extent of barriers within the Single Market that can be reduced through policy reforms. A more realistic assessment of the untapped potential of the Single Market is provided by the benchmarking exercise. The empirical estimates again suggest that the Netherlands is the benchmark to assess the scope for deeper EU integration in services markets. This is broadly consistent with the indications provided by the OECD Service Trade Restrictiveness Index, which suggests that the Netherlands has a relatively low level of regulatory restrictiveness (Chart 4). The trade costs estimated for the benchmark remain well below the EU average. If other countries were to achieve similar levels of integration, the estimates suggest a reduction in trade costs of around 9 percentage points. As with the goods market, these estimates suggest there is scope for relatively substantial gains in integration if countries can reach this benchmark: a 9 percentage point reduction is similar to the decrease in barriers achieved in the past two decades.

7 Removing barriers to the Single Market: what is the economic impact?

To assess the potential economic gains from reducing barriers within the Single Market, we carry out model-based counterfactual simulations. The simulations are based on a computable general-equilibrium model of trade (Antràs and Chor, 2018), which captures how changes in trade costs affect the economy. The model considers several economic channels through which lower barriers influence trade and welfare. The substitution effect captures that, as cross-border trade becomes easier and cheaper across Europe, firms and consumers substitute more expensive domestically produced goods and services with cheaper imports from other EU countries. In addition, lower barriers lead to lower prices for intermediate and final goods, reducing production costs for firms and increasing real purchasing power for consumers. Together, these mechanisms raise overall efficiency, stimulate competition and expand market opportunities across Member States.

Reducing trade barriers within the Single Market, as identified in the benchmark exercises of the previous sections, could result in substantial long-term welfare gains, particularly in services. The analysis in Chart 7 evaluates the potential gains from closing the gap with the benchmark country in the goods and services markets. In practice, a counterfactual exercise evaluates the gains in terms of increased trade and welfare resulting from the reduction of trade

¹⁸ IMF (2024) estimates a tariff equivalent of around 110% for services. The difference can be traced mainly to the use of a higher trade elasticity of substitution in this article.

barriers quantified in the benchmark exercise – 8 percentage points in goods and 9 percentage points in services within the EU. A reduction of barriers for goods would lead to an increase in intra-EU trade of 4.4% and estimated welfare gains of 1.3%. However, lower trade barriers for services would achieve a larger increase in trade (14.5%) and a larger welfare increase (1.8%). The higher gains from services reflect their significant potential for further integration (as services sectors face higher initial trade barriers). It also reflects the importance of services in the overall economy, as they represent a larger share of domestic expenditure and have downstream linkages. Therefore, a comparable cost reduction generates greater effective integration and broader general-equilibrium gains.

A modest reduction in Single Market barriers could compensate the likely trade losses from higher US tariffs. In the current geopolitical context, enhancing EU integration is especially important to mitigate the adverse effects of external trade tensions, such as those caused by recent US tariffs.¹⁹ The ECB staff projections estimated that higher tariffs and uncertainty would cumulatively lower GDP by around 0.7 percentage points over the period 2025 to 2027.²⁰ Our simulation shows that achieving a reduction of just 2% in goods and services barriers within the Single Market could, in the long run, fully compensate for the projected impact on GDP of higher US tariffs. That would lead to an increase in intra-EU trade of around 3%. Of course, this would be unlikely to substitute for lost US trade immediately, as any structural adjustments within the Single Market would take time to materialise. Sustained regulatory, administrative and enforcement efforts would be required. Nonetheless, the estimates highlight the potential to take advantage of the vast size of the EU internal market. Trade within the EU accounts for more than half of total intra- and extra-euro area exports. Even a small increase in intra-EU trade could significantly offset external trade disruptions, demonstrating the economic potential of the Single Market.

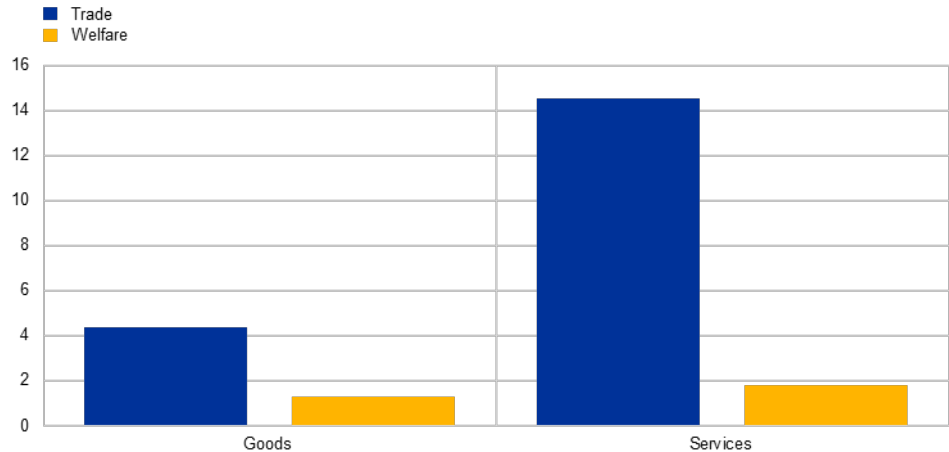
¹⁹ See Lagarde (2025).

²⁰ See the September 2025 ECB staff macroeconomic projections for the euro area for details of the estimated losses arising from the US tariffs for the euro area.

Chart 7

Welfare effects of decreasing Single Market trade barriers

(percentage change effect of decreasing trade costs)



Sources: OECD TIVA 2025, Antràs and Chor (2018) and ECB calculations.

Notes: The EU aggregate welfare effect is calculated as a value added weighted average of effects obtained for Member States.

8 Conclusion

The Single Market is a vital asset for the European Union and its Member States, underpinning prosperity both within the EU and in its relations with the wider world. In the current context of elevated global uncertainty, the completion of the Single Market is more crucial than ever for advancing the EU's principal agendas: improving living standards, enhancing resilience and competitiveness, building defence capabilities and achieving economic security.

This article helps to show the untapped potential of the Single Market. In line with earlier analyses, it estimates the evolution of trade costs within the Single Market using a gravity model framework, with frictions expressed in terms of their tariff-equivalent value. Those empirical estimates suggest that frictions to intra-EU trade remain elevated, with estimates suggesting a tariff equivalent (i.e. the higher costs of trading with other EU countries compared with trading domestically) of 67% for goods and 95% for services. However, as discussed, these figures capture a broad set of factors. Those include costs that could be addressed by policies (e.g. regulatory or administrative changes) but also factors for which it may not be feasible – or even desirable – to eliminate them by policy actions – for example, preferences, home bias and limited tradability. As a result, these estimates likely overstate the true magnitude of policy-induced barriers. As with similar studies in the literature, they are best interpreted as upper bounds for the trade frictions that can be reduced through policy action.

These findings underscore the considerable benefits for Member States in achieving greater integration. Benchmarking against an EU country that has already achieved relatively high integration – in these estimates the Netherlands – can provide a more realistic counterfactual that can demonstrate the potential for

deepening EU integration. The analysis indicates that frictions could be further reduced by some 8 percentage points for goods and 9 percentage points for services if other countries were to achieve a similar degree of integration. That would represent substantial gains in integration, broadly similar to the progress made in deepening integration in goods and services markets over the past two decades. Model estimates suggest this could unlock significant economic potential, with estimated welfare gains of up to 1.3% for convergence in the goods sector and up to 1.6% in the service sector.

Moreover, the EU could derive even greater benefits from completing the Single Market and complementing it with growth-enhancing policies. The estimates of the untapped potential presented in this article are conservative, as they capture only the gains from all Member States reaching the degree of intra-EU trade achieved by the most integrated country. This falls short of the deeper integration that could be unlocked from the full potential of the Single Market and the implementation of Europe's broader competitiveness agenda. As highlighted by Draghi (2024) and Letta (2024), achieving a truly unified market for services requires a very ambitious reduction of remaining regulatory and administrative barriers across Member States. The European Commission's Single Market Strategy (2025b), which focuses on eliminating the ten most significant obstacles to the Single Market while revitalising the services sector and enhancing support for small and medium-sized enterprises, is a step in the right direction and deserves strong support.

Finally, further data collection on the precise nature and intensity of remaining barriers would be valuable. Based on more granular data, a deeper analysis of the existing barriers and their relative magnitude could be pursued. This would help to further inform the debate on specific measures.

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2 Short-term forecasting of euro area economic activity in an uncertain world

Prepared by Sercan Eraslan, Andrea Fabbri and Lorena Saiz

1 Introduction

Assessing the short-term growth outlook and the associated risks based on incoming data is key to making monetary policy decisions. Central banks therefore develop and continuously refine their short-term GDP forecasting models that are specifically designed to give timely, reliable and data-driven insight into the current state of the economy and the near-term growth outlook. For example, since 2015 the ECB has employed a set of “workhorse” models to forecast near-term real GDP growth in the euro area (see Bańbura and Saiz, 2020).

A series of major shocks in recent years has significantly disrupted the performance of traditional forecasting methods, making it harder to produce accurate forecasts. Events such as the COVID-19 pandemic and Russia’s unjustified war against Ukraine have triggered sizeable fluctuations in economic variables and heightened the levels of uncertainty surrounding such forecasts. These events have compounded the well-known challenges inherent in real-time economic forecasting, including combining information from data collected at different frequencies (e.g. monthly versus quarterly) and accounting for differences in data release calendars, publication delays and data revisions.

Against this background, this article examines the recent enhancements made to the short-term forecasting models employed at the ECB. Our 2025 monetary policy strategy assessment underlined the importance of continuously refining forecasting tools and maintaining a broad and versatile analytical toolbox in an uncertain and rapidly changing world. To address this need, a two-fold strategy was devised to update and finetune the short-term forecasting framework. First, the existing ECB workhorse models were finely tested and improved. The purpose of these revisions was to increase the accuracy and reliability of both point and density forecasts of real GDP growth in the euro area. Density forecasts are particularly important for quantifying forecast uncertainty and can be used to evaluate short-term risks surrounding Eurosystem/ECB staff macroeconomic projections. Second, alternative approaches using advanced machine learning methods were explored to complement the traditional workhorse models. While still in an experimental phase, these innovative tools can help to address instabilities and capture possible non-linearities in economic relations.

The remainder of this article is structured as follows. Section 2 assesses the key challenges for forecasting euro area economic activity since the onset of the pandemic. Section 3 introduces the revised short-term forecasting toolbox, including the workhorse models, and provides a real-time evaluation of their forecast

performance. Section 4 explores a complementary machine learning approach. Section 5 concludes.

2 Forecasting challenges since the pandemic

The extreme economic developments during the pandemic were almost impossible to forecast in real time. As standard models were challenged, the ECB used several innovative approaches to forecast euro area real GDP growth, taking into account the unique characteristics and implications of the pandemic (see, for example, Battistini et al., 2020).

Since the pandemic, further major shocks have put additional strain on forecasting models, which have struggled to adapt to an environment where historical patterns may no longer serve as reliable benchmarks for the future. Similar to the pandemic, shocks such as Russia's war against Ukraine, with the associated energy crisis and inflation surge, and the more recent geopolitical and trade tensions have strongly affected the euro area economy. These disruptions have also caused considerable fluctuations in key economic indicators, posing major challenges when updating and re-estimating short-term forecasting models, making it more difficult to discern economic relations. The sudden and extreme fluctuations in economic activity disrupted seasonal patterns, creating problems for traditional seasonal adjustment methods and leading to potential distortions in the adjusted data. In addition, revisions to GDP and other economic data have been more frequent and substantial than in the past, adding another layer of complexity.¹

These shocks have had highly heterogeneous effects across sectors, which are not easily captured by short-term forecasting models. During the pandemic, contact-intensive services, such as hospitality, travel and entertainment, were hit particularly hard owing to restrictions on movement and social interaction, while other services, such as digital services and e-commerce, experienced elevated demand. The subsequent energy crisis further exacerbated sectoral disparities, as energy-intensive industries, such as manufacturing and transport, faced sharp increases in production costs. These sector-specific shifts in economic activity posed significant challenges for short-term GDP forecasting models, increasing the divergence between survey-based data and hard economic indicators. Thus, it has become evident that forecasting models require greater flexibility and adaptability to account for rapid changes in sectoral composition and their impact on aggregate output.

Structural factors and underlying trends, such as climate change, demographic changes (e.g. an ageing population) and the growth of digital technologies, also play a role. While these factors are expected to have a significant impact on the economy in the medium to long term, they may also

¹ Another persistent challenge is volatility in the area of intellectual property product investments, especially those relating to the activities of multinational corporations in Ireland. Even before the pandemic, volatile intellectual property product investments in Ireland had disproportionately affected euro area GDP figures. Since the pandemic, this volatility has intensified, further distorting aggregate data and complicating the assessment of economic developments (see Andersson et al., 2024).

influence short-term economic developments. However, their gradual and multifaceted nature makes it challenging to incorporate them into short-term forecasting models.

These issues have collectively challenged the performance of the existing short-term forecasting models used at the ECB. While the revised short-term forecasting toolbox described in this article does not resolve all these issues, it addresses some of the key challenges, such as changes in the relation between survey data and hard indicators, heightened volatility, forecast uncertainty (including parameter uncertainty) and the incorporation of additional data sources to more comprehensively capture different aspects of the economy. However, issues such as seasonal adjustment, intellectual property product investments in Ireland and structural changes do not fall within the scope of the revised toolbox.

3 The revised short-term forecasting toolbox

Central banks use a variety of econometric models for business cycle analysis and short-term forecasting of economic activity. Among the most widely used are simple linear regression models (bridge equations), dynamic factor models (DFMs), vector autoregressive models (VARs) and mixed data sampling (MIDAS) models. Each of these model classes has distinct characteristics that make them well suited for short-term forecasting, and all have been widely applied by academics, central banks and other forecasters.²

The previous generation of short-term forecast models for euro area real GDP growth was based on a system of linear regressions or bridge equations.³ This framework (hereinafter the “old ECB models”) relied on a system of linear regressions (bridge equations) to forecast quarterly GDP growth using a set of quarterly predictors and monthly predictors aggregated to quarterly frequency. The old ECB models adopted a supply perspective for real GDP measurement, given its more complete and timelier data coverage and greater accuracy relative to the demand perspective.⁴ The monthly predictors included in the bridge equations for GDP growth forecasts were, in turn, forecast using auxiliary models (DFMs and VARs) incorporating information from other monthly variables. The dataset used was of medium size (30 indicators) and combined hard indicators (e.g. industrial production, retail sales) with soft data (surveys) and financial indicators. Finally, in addition to producing point forecasts, this framework provided density forecasts to capture the uncertainty around the point forecasts as well as a decomposition of the drivers of forecast revisions between updates (a “news analysis”).

² See, for example, Linzenich and Meunier (2024) for the toolbox developed at the ECB; Deutsche Bundesbank (2023); and Almuzara et al. (2023).

³ See Bańbura and Saiz (2020) for an overview of the old ECB models for short-term forecasting of euro area economic activity.

⁴ The supply perspective for GDP measurement relies on the production of goods and services (value added in industry and services), whereas the demand perspective considers the total amount spent on goods and services (consumption and investment).

The old ECB models provided reasonably accurate euro area real GDP growth forecasts until late 2019. However, their performance deteriorated following the outbreak of the pandemic. While their performance has recovered somewhat, ECB staff refined this framework, placing particular emphasis on improving its forecast performance in the post-pandemic period and developing approaches that are more robust to the impact of large shocks. The following subsection describes the features of this new framework. To facilitate comparison, Table 1 outlines the characteristics of the old and new frameworks.

Table 1
Characteristics of old and new ECB models

	Old ECB models	New ECB models
Bridge equations	Six bridge equations of two types (supply side, survey-based) • Supply side predictors: industrial production and value added in services • Survey-based predictors: composite output Purchasing Managers' Index and construction output Purchasing Managers' Index	Two bridge equations of one type (supply side) • Supply side predictors: value added in services, value added in construction and value added in industry
Auxiliary models	Three VARs, two DFMs Monthly frequency Constant volatility	Three VARs, three DFMs Quarterly and monthly frequency Stochastic volatility
Point forecasts	Mean	Median ¹⁾
Density forecasts	Combination of six normal densities	Combination of two densities

1) Owing to the increased volatility of the data, point forecasts in new ECB models are calculated using the median of the distribution of possible outcomes. The median provides more stable forecasts than the mean, as it is less influenced by extreme values.

3.1 Revised bridge equation framework

The revised framework is still based on bridge equations, which are relatively flexible despite their simplicity. The new ECB models continue to deploy a system of linear regression models, focusing on forecasting GDP growth from the supply side (i.e. value added by sector). This approach was preferred because it is straightforward to estimate, easy to interpret and communicate, and provides better forecast accuracy compared with other models. At the same time, despite its simple structure, the bridge equation framework is flexible since it can accommodate a range of auxiliary model classes.

The new ECB models incorporate two types of state-of-the-art auxiliary models. Like its predecessor, the new model relies on the same two auxiliary model types: DFMs and VARs.⁵ However, these auxiliary models were comprehensively revised, combining monthly and quarterly indicators and including time-varying volatility to better capture changes in the dynamics of economic data (see Box 1 for technical details of the revised framework).

⁵ While models such as DFMs and VARs have distinctive features making them suitable for forecasting, their accuracy may change over time against the background of a rapidly changing economic environment. Integrating these model classes into the bridge equation system allows their forecasting strengths to be exploited, while mitigating model uncertainty.

The set of predictors was revised to include newly available data, such as services production, and to achieve a more balanced proportion of survey-based and hard indicators. This adjustment addresses the limitations of relying on survey-based or qualitative indicators, which, despite being timely and informative, have shown a weaker and less stable relation with economic activity in recent years. Furthermore, the lack of hard indicators for the services sector was identified as a factor in the deterioration in the performance of the old ECB models.

Like their predecessors, the new ECB models can produce both point and density forecasts. Point forecasts give a single, central estimate of where GDP is expected to go and are the primary forecasts reported. However, since the pandemic, heightened uncertainty has made it increasingly important to look beyond single-point predictions and to focus on density forecasts. Density forecasts offer a range of possible GDP outcomes and their associated probabilities. In simple terms, the width of the density forecast indicates the uncertainty surrounding the point forecast.

The new framework continues to report the impact of incoming data on forecast revisions. In addition to point and density forecasts, the new framework also provides a decomposition of GDP growth forecast revisions (i.e. the difference between consecutive GDP forecasts) into the model-based surprises or “news” content in the releases of monthly and quarterly predictors (plus the effects of historical data revisions and parameter re-estimation).⁶ Accordingly, the sign of the news (positive or negative) indicates whether the new data release was better or worse than expected by the model. For the sake of clarity, the news decomposition is grouped into broad categories of economic indicators, such as services indicators, industry indicators and surveys (see Box 2 for an illustration of the use of the revised framework in practice for real-time, short-term forecast analysis).

Box 1

The revised system of bridge equations: technical summary

Prepared by Sercan Eraslan and Lorena Saiz

The revised toolbox continues to rely on a bridge equation system – a short-term forecasting model widely used among central banks and other forecasters.⁷ It is a simple linear regression, in which the quarterly indicator of interest (e.g. quarterly real GDP growth) is predicted using other quarterly regressors, such as its supply-side GDP components (e.g. value added in industry, services and construction). Accordingly, the bridge equation for quarterly GDP growth can be specified as follows:

$$y_{m,t}^Q = \alpha + \sum_{i=1}^k \beta_i X_{i,t}^Q + \epsilon_t^Q$$

where $y_{m,t}^Q$ is the target indicator and $X_{i,t}^Q$ is the predictor indicator i ($i = 1, \dots, k$) at the same frequency. The intercept is denoted by α , while β_i is the regression coefficients and ϵ_t^Q captures

⁶ See Bańbura and Modugno (2014) for a detailed overview of the news decomposition and Bańbura and Saiz (2020) for its implementation in euro area real GDP growth forecasts at the ECB.

⁷ A bridge equation is typically a linear regression that connects a low-frequency target variable with one or more high frequency indicators, effectively creating a bridge between them.

the regression residual. The bridge equation system consists of two linear regressions. Both include the same set of quarterly predictors: value added in industry, value added in services and value added in construction ($k = 3$), which are predicted by two different auxiliary models ($m = 1, 2$). These equations are estimated using Bayesian techniques and assuming normal-inverse-gamma priors. The estimation sample starts in 1995.

Each of the quarterly predictors used to forecast GDP growth is forecast by means of a dynamic factor model (DFM) and a vector autoregressive model (VAR). Both models include quarterly and monthly indicators (i.e. mixed frequencies), are estimated using Bayesian techniques, and feature time-varying stochastic volatilities leading to better predictions of economic activity in times of high uncertainty. Both models can also handle different data frequencies and missing observations effectively. In addition, certain model properties, such as the common factor structure in DFMs and the outlier correction for time-varying volatilities in VARs, help to filter out noise in the data.

The mixed-frequency DFM mainly follows the approach proposed by Antolín-Díaz et al. (2017, 2024) and combines it with the suggestion of Camacho and Pérez-Quirós (2010) in dealing with survey-based indicators in the model.⁸ For each quarterly GDP predictor, a separate auxiliary DFM is estimated using a small set of monthly indicators. Each DFM includes one common factor and a number of idiosyncratic components which follow a second-order autoregressive process. The model is specified and estimated in state-space form using Bayesian techniques, with the residuals in both the measurement and transition equations exhibiting stochastic volatility and outlier adjustment in line with Carriero et al. (2024).

The mixed-frequency VAR model extends the Bayesian VARs with stochastic volatility and outlier adjustments to a mixed-frequency setting. Specifically, the mixed-frequency auxiliary VAR models allow for t -distributed errors and outlier adjustment in the stochastic volatility, making it more robust to large shocks and outliers. The VAR estimation is based on Bayesian techniques, using the algorithm developed by Chan et al. (2023) for sampling missing observations (e.g. due to mixed frequencies or publication lags). In line with the approach used for the auxiliary DFMs, separate auxiliary VARs are estimated for each quarterly predictor using the same datasets as the DFMs. Each VAR is specified with three lags and with Minnesota priors for the coefficients.

Finally, the quarterly GDP growth forecasts are generated in two steps. First, the forecasts for quarterly predictors – value added in industry, in services, in construction – are produced using the auxiliary models. Second, the predictions for these indicators are used in the two bridge equations to generate forecasts of GDP growth. Based on Bayesian estimation techniques, all the probability distributions are estimated for the two steps. The individual probability distributions for GDP growth are pooled to calculate both point and density forecasts for GDP growth. Point forecasts for GDP growth are obtained as the median of the combined density forecasts from the two bridge equations. The predictive densities take into account time-varying volatilities and therefore consider both changing parameters and residual uncertainties surrounding the central tendency of GDP growth forecasts.

⁸ The original model proposed by Antolín-Díaz et al. (2017, 2024) also allows for gradual shifts in long-term growth. However, a preliminary analysis found this feature not to be beneficial to the performance of the model in forecasting euro area real GDP growth.

3.2 Forecast performance

A real-time forecast evaluation exercise was conducted for the new ECB models, with a particular focus on post-pandemic performance. The forecast accuracy of the models was compared both with the old ECB models and with Eurosystem/ECB staff macroeconomic projections. For this purpose, real-time vintages of the dataset were constructed using information from the ECB Data Portal.⁹

The evaluation of its performance follows the publication calendars for statistical data (such as industrial production) and survey-based sentiment indicators (such as the Purchasing Managers Index). This leads to a biweekly forecast calendar, producing a total of 12 estimates for each target quarter in the evaluation sample, meaning that at each point in time, forecasts are generated for the next two quarters to be released. The first forecast is generated approximately five months before the end of the target quarter and the final forecast is produced two weeks after the quarter ends. For the point forecasts, the accuracy is assessed using the bias to measure systematic overprediction or underprediction and the mean absolute forecast error (MAFE) to evaluate the average size of forecast errors regardless of the sign.¹⁰ The evaluation period spans the post-pandemic period, from the first quarter of 2022 to the second quarter of 2025. Both metrics are calculated using the first release (preliminary flash estimate) of GDP growth published around 30 days after the end of the reference quarter.

The forecast accuracy of the new ECB models in the post-pandemic period is noticeably higher than that of their predecessors.¹¹ Chart 1 shows the bias (panel a) and MAFE (panel b) for the old ECB models (yellow bars) and the new ECB models (blue bars) as well as for the Eurosystem/ECB staff macroeconomic projections (red line) for the entire evaluation period. While forecasts based on the old ECB models tended to underpredict real GDP growth, as indicated by their negative bias, the new ECB models generally exhibit a bias much closer to zero. The new ECB models are also more accurate overall, as demonstrated by their lower MAFE values compared with the old ECB models. However, while forecast accuracy typically improves (i.e. MAFE decreases) as more information becomes available, the accuracy of the forecasts in this case was more erratic. This could be attributed to the relatively short evaluation sample, which coincided with a period of heightened uncertainty due to successive shocks to euro area economic activity. These include Russia's war against Ukraine, with the subsequent surge in energy prices and inflation, and, more recently, trade-related uncertainties. When comparing the forecast performance of the new ECB models with the Eurosystem/ECB staff macroeconomic projections (which incorporate expert judgement), no systematic

⁹ For indicators without real-time vintages, the latest available (final) vintage is used to replicate the publication lag for past vintages (i.e. pseudo-real time).

¹⁰ Bias measures average forecast errors considering the sign of such errors. Accordingly, positive (negative) bias indicates that the model is overpredicting (underpredicting) the target on average.

¹¹ However, the old ECB models had a better forecast performance than the new models during the pre-pandemic period.

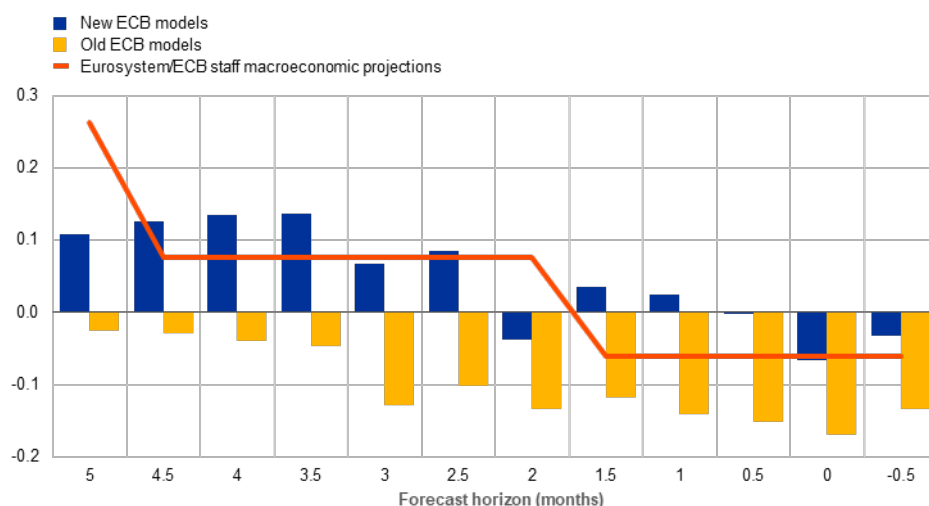
direction of bias was observed in either. However, the macroeconomic projections proved to be more accurate overall.

Chart 1

Forecast accuracy of ECB models and Eurosystem/ECB staff macroeconomic projections since 2022

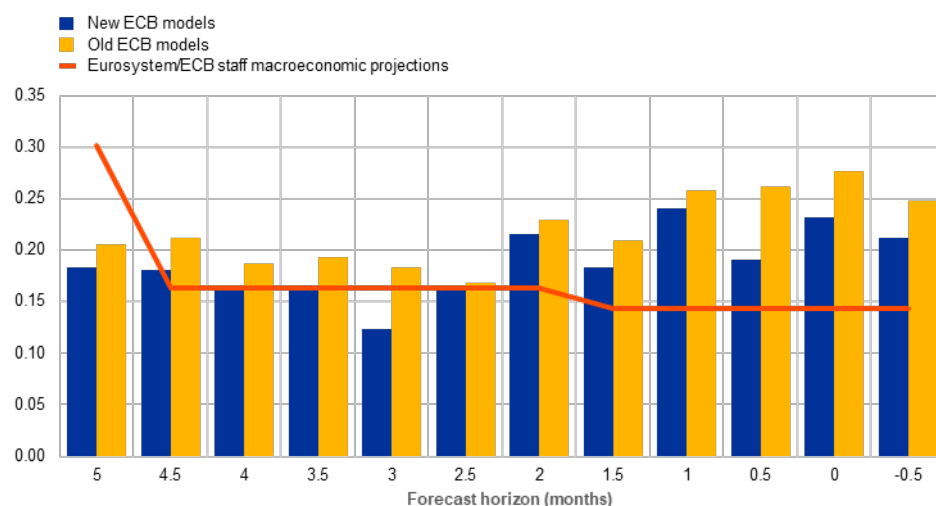
a) Bias

(percentage points)



b) Mean absolute forecast error

(percentage points)



Source: ECB calculations.

Notes: For each quarter, a sequence of 12 real-time forecast updates is evaluated. The forecast horizon (x-axis) is defined as the distance (in months) between the date of the forecast and the end of the reference quarter. A convention is adopted in line with the fact that Eurosystem/ECB staff macroeconomic projections are finalised around the middle of the second month of each quarter (1.5 or 4.5 months before the end of the reference quarter). Bias is defined as the average difference between the forecast and the outcome. A positive (negative) bias indicates overprediction (underprediction). The forecast accuracy is measured by the mean absolute forecast error. GDP forecasts are evaluated against the preliminary flash estimate of GDP growth (released at the end of the first month of the following quarter).

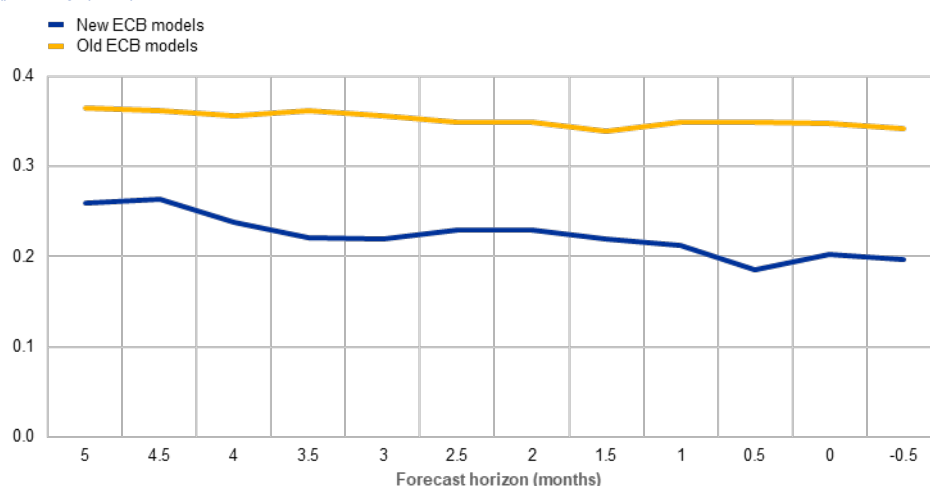
The new ECB models also deliver more accurate density forecasts. In addition to evaluating the point forecasts, the accuracy of the entire forecast distribution is assessed. To this end, the continuous ranked probability score (CRPS), which compares predicted distributions to actual outcomes, is used to evaluate the density

forecasts produced by the old and new ECB models. The Eurosystem/ECB staff macroeconomic projections are not included in this evaluation, as they do not provide density forecasts.¹² Chart 2 shows that the new ECB models deliver more accurate probabilities (lower CRPS) than the old ECB models at all forecast horizons. This result is unsurprising, as the inclusion of time-varying volatilities enhances the calibration of the forecast densities.

Chart 2

Density forecast accuracy – continuous ranked probability score

(percentage points)



Source: ECB calculations.

Notes: See the notes to Chart 1. The continuous ranked probability score measures the accuracy of density forecasts using the expected absolute difference between the forecast distribution and the realised value. Lower values indicate more accurate and better calibrated forecasts.

4 Complementary framework: a quantile regression forest model

Machine learning models are used increasingly for economic forecasting thanks to their flexibility and strong predictive performance. Unlike traditional time series forecasting models, which rely on specific econometric frameworks and parametric assumptions, machine learning models identify patterns directly from the data. This enables them to capture complex, possibly non-linear relations among variables. Although machine learning models typically treat observations as independent and do not explicitly account for temporal dependencies, this feature can be advantageous in rapidly changing environments where recent lags may be less informative or where underlying dynamics take time to unfold.

This section briefly describes one specific machine learning model – the quantile regression forest (QRF) model – that has been tested for short-term GDP forecasting. QRF models are a well-established machine learning method that is already deployed at the ECB to predict short-term inflation dynamics with

¹² The implementation of the continuous ranked probability score follows Panagiotelis and Smith (2008), p. 719.

comparatively high accuracy.¹³ The QRF model combines the concept of a quantile regression, which estimates specific percentiles of the distribution of the target variable, with the predictive power of an ensemble of decision trees (i.e. forests).¹⁴ By aggregating predictions from many trees, the QRF model provides both a point forecast and a predictive distribution of the target variable, which is particularly useful for assessing uncertainty and risk. An additional advantage of this approach is the possibility of assessing the contribution of each predictor to the forecast using Shapley values.¹⁵ This feature enables the impact of new data releases on the forecast revisions to be evaluated (similar to the news analysis in the bridge equation framework), thereby enhancing transparency and interpretability and reducing the perception of the model as a “black box”.

The model is estimated using contemporaneous relations between GDP growth and a broad set of economic indicators.

The dataset includes industrial production, trade, surveys, financial activity and other hard data, all originally available at a monthly frequency. These are aggregated to quarterly frequency using simple averages to match the GDP data, while missing values are projected through an autoregressive integrated moving average (ARIMA) model. Forecasts are then produced using indicators at quarterly frequency for the target quarter. The forest is estimated using hyperparameters recommended in the literature on regressions, ensuring model stability and a balance between bias and variance.¹⁶

A real-time forecast evaluation exercise was performed for the post-pandemic period to assess the performance of the QRF model.

The evaluation period spanned from the first quarter of 2022 to the second quarter of 2025 (as in Section 3.2). Six forecasts were produced for each quarter, starting five months before the end of the target quarter.¹⁷ Chart 3 reports the forecast accuracy, showing the bias (panel a) and the MAFE (panel b) for both the QRF and the new ECB models. The QRF model displays a somewhat smaller bias in magnitude but with the same sign across all the forecast horizons. In MAFE terms, the QRF exhibits larger errors than the new ECB models at the beginning of the forecast horizon, but its accuracy improves steadily as more data become available and surpasses that of the new ECB models towards the end of the target quarter. This improvement was most pronounced in 2022, when the QRF showed higher predictive accuracy, possibly due to non-linearities as a result of the lingering effects of the pandemic and the emerging energy crisis (e.g. reopening of the economy, supply-chain disruptions). However, over a longer evaluation sample starting in 2017 (not shown), the model's performance was slightly worse than that of the new ECB models. Overall, the QRF model performs well as a tool for short-term GDP forecasting, particularly during

¹³ See Lenza et al. (2025).

¹⁴ A decision tree works by dividing data into smaller and smaller groups based on the values of input variables such as industrial production, consumer confidence and retail sales. In each step, the tree tries to make predictions as accurately as possible by splitting the data on the basis of the variable that explains the most variation in the target value.

¹⁵ Shapley values attribute each feature's contribution to a specific forecast in a fair and consistent way (Lundberg et al., 2019).

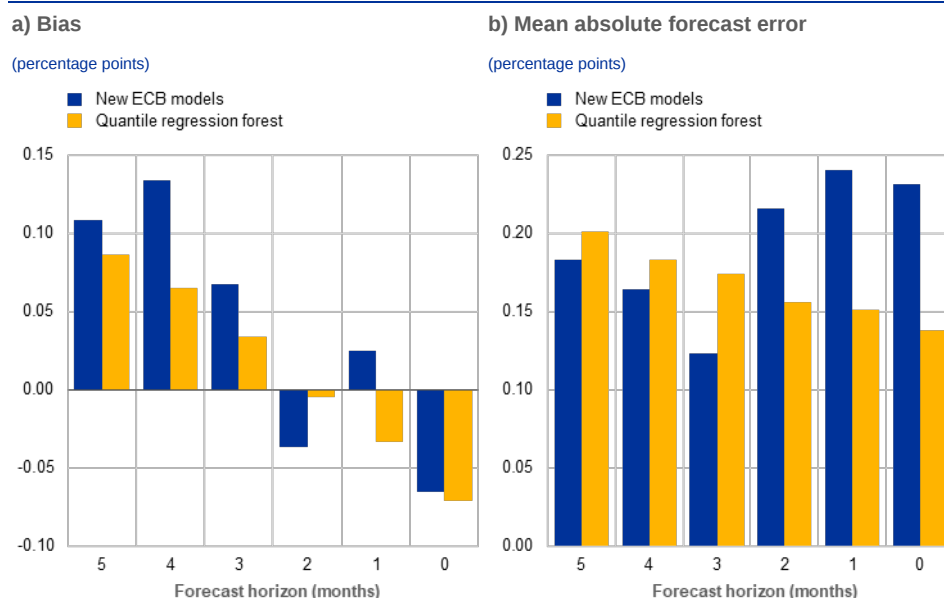
¹⁶ The model considers 1,000 trees with a minimum of ten observations per leaf and one-third of the available predictors considered at each split.

¹⁷ The results of the mid-month forecasts are not shown in Chart 3 but follow the same pattern.

periods of economic instability, and can serve as a useful cross-check against the main workhorse models.

Chart 3

Forecast accuracy of the quantile regression forest model



Source: ECB calculations.

Notes: The forecast horizon (x-axis) is defined as the distance (in months) between the date of the forecast and the end of the reference quarter. Bias is defined as the average difference between the forecast and the outcome. A positive (negative) bias indicates overprediction (underprediction). The forecast accuracy is measured by the mean absolute forecast error. GDP forecasts are evaluated against the preliminary flash estimate of GDP growth (released at the end of the first month of the following quarter).

Box 2

A case study: short-term GDP forecasts for the third quarter of 2025 in real time

Prepared by Sercan Eraslan, Andrea Fabbri and Lorena Saiz

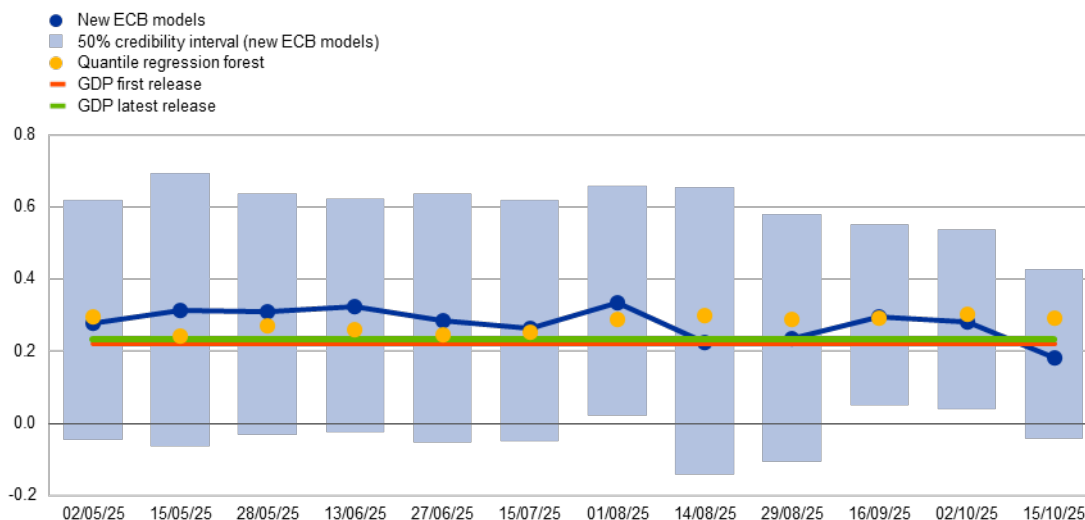
This box presents an illustrative case to show how short-term GDP forecasting models are used in the day-to-day work of the ECB. Focusing on the third quarter of 2025, this box shows the developments in the point and density forecasts produced by the new ECB models and assesses the impact of incoming data on forecast revisions.

Chart A displays the sequence of 12 real-time forecasts of euro area real GDP growth for the third quarter of 2025 based on the new ECB models. Besides the point forecasts, the chart shows the range of possible outcomes within a 50% credibility interval. The first forecast was made at the beginning of May 2025, five months ahead of the release of the preliminary flash estimate of GDP. The forecasts were subsequently updated biweekly, with the final forecast generated two weeks before the GDP release on 30 October. Over the forecast horizon, the median GDP growth prediction fluctuated between 0.2% and 0.3%, declining just below 0.2% in the final mid-October iteration. This final forecast was close to the preliminary flash GDP estimate, which fell within the 50% credibility interval of the combined density forecast from the new ECB models. Forecasts produced by the complementary QRF model closely mirrored the forecasts generated by the new ECB models, with the final forecast resulting slightly above the realised value.

Chart A

Real GDP growth forecasts for the third quarter of 2025

(quarter-on-quarter percentage changes)



Sources: Eurostat and ECB calculations.

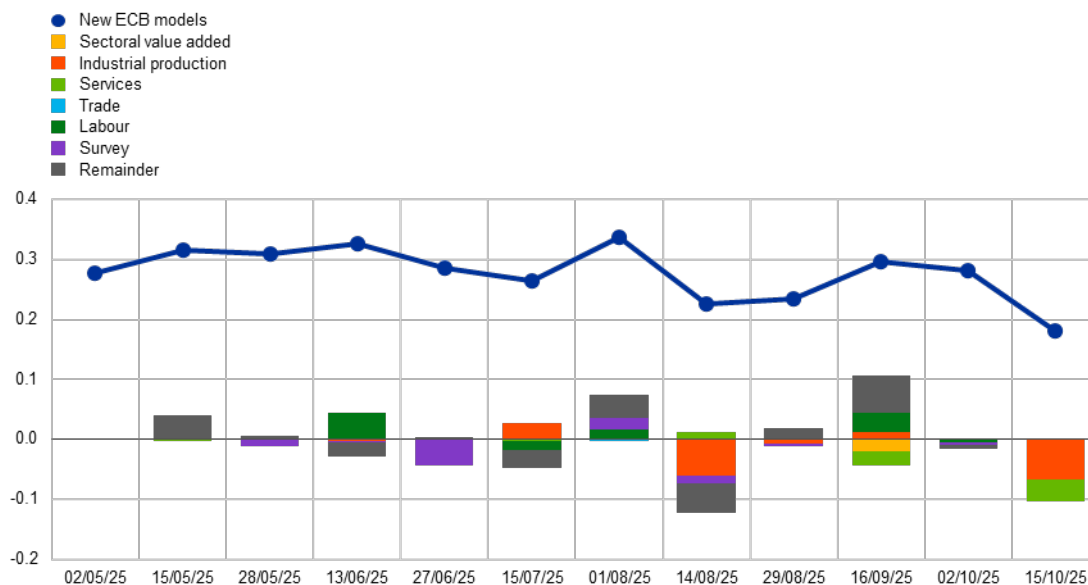
Notes: The blue line represents the point forecasts for real GDP growth in the third quarter of 2025 based on the new ECB models from different forecast updates (x-axis). The bars indicate the range of possible outcomes with a 50% probability (50% credibility interval or interquartile range) based on the new ECB models. The point forecasts of the complementary quantile regression forest model are shown as yellow dots. The red and green lines refer, respectively, to the preliminary flash estimate (30 October) and the flash estimate (14 November) of GDP growth published by Eurostat.

Chart B illustrates the analysis of the drivers of forecast revisions between consecutive updates for the third quarter of 2025. The bars represent model-based surprises that drive GDP forecast revisions, grouped into various indicator categories. For example, negative surprises in survey data (purple bars) contributed to downward revisions of GDP forecasts between May and July 2025. During the same period, positive surprises in the labour market indicators and in industrial production data (dark green bars and red bars respectively) pushed GDP forecasts upwards. The most significant forecast adjustments occurred later in the forecast horizon, specifically in both mid-August and mid-October. Both revisions were largely driven by negative surprises in industrial production data, with the downward revision in the final update also reflecting negative surprises in services data (light green bars). Chart B also highlights the impact of historical data revisions on forecast revisions, which are captured by the remainder category (dark grey bars). For instance, the upward revision of the forecast of 16 September 2025 was primarily driven by the remainder, largely reflecting the significant effect of industrial production data revisions on the GDP growth forecasts.

Chart B

Model-based news and revisions to real GDP growth forecasts for the third quarter of 2025

(quarterly percentage changes and percentage point contributions)



Source: ECB calculations.

Notes: The blue line represents the median point forecasts of the new ECB models (from the combined density of two bridge equations) for real GDP growth in the third quarter of 2025 from different forecast updates (x-axis). The bars indicate the decomposition of forecast revisions between consecutive updates into news stemming from different groups of indicators: Sectoral value added = sectoral value added GDP components; Industrial production = industrial production indicators; Services = services and retail indicators; Trade = international trade-related indicators; Labour = labour market indicators; Survey = survey-based indicators; Remainder = effects of historical data revisions and parameter re-estimations.

5 Conclusions

Over the past five years, a series of major shocks have posed significant challenges to economic modelling and short-term GDP forecasting. The pandemic and its associated supply-chain disruptions, the Russian invasion of Ukraine and the subsequent energy crisis and surge in inflation, and the more recent trade-related uncertainties have all contributed to sizeable fluctuations in economic activity and a more dynamic and unpredictable economic and political environment. As a result, model and forecast uncertainty have increased.

In response to the evolving economic environment, the ECB's toolbox for short-term GDP forecasting has been comprehensively updated. This revision has focused on improving forecast performance by addressing heightened volatility and model uncertainty. A two-fold strategy was devised to update and finetune the short-term GDP forecasting framework. First, the workhorse models based on the bridge equation framework were comprehensively revised and improved. The revision incorporated state-of-the-art auxiliary DFMs and VARs with time-varying volatility. In addition, newly available indicators, such as those for the services sector, were incorporated into the dataset, building on the recommendations of Bańbura and Saiz (2020). Second, alternative approaches using advanced machine learning methods were explored to complement the traditional workhorse models. Notably, the QRF model exhibited a forecast accuracy comparable to that of the workhorse models in the post-pandemic period for both current quarter and one-

quarter ahead GDP growth forecasts. This is particularly noteworthy given the purely data-driven nature of this machine learning model in contrast to the careful variable selection and parameterisation required for the workhorse models. However, it remains unclear whether the relatively strong performance of the QRF model is specific to the current highly volatile environment.

Nevertheless, it is important to recognise that the post-pandemic period continues to be marked by unusually high uncertainty, necessitating frequent and systematic evaluations and reviews of the forecasting models to ensure their accuracy. As emphasised in the ECB's 2025 monetary policy strategy assessment, forecast performance will be monitored regularly and the short-term GDP forecasting models will be revised as needed. Furthermore, continued exploration of new data sources and advanced machine learning methods should remain a priority to further enhance short-term macroeconomic forecasting.

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