

Macrocast

Gilles Moëc

AXA Group Chief Economist
and Head of AXA IM Research



Bretton Woods 3.0

- Europeans have replaced China as the marginal lender to the US. Contrary to the old “Bretton Woods 2.0”, this is not the flipside of a huge bilateral deficit. This “Bretton Woods 3.0” is much more beneficial to the US.
- A CDU-SPD coalition – less dilutive than a broader arrangement – has a majority in Germany. This would help rebuild a European “counter-narrative”, but non-mainstream parties could block the reform of the debt brake.

Bretton Woods 2.0”, coined by Folkerts-Landau and Garber in 2003, described a monetary order organised around China recycling its surpluses into US debt, thus acting as both the source of the deterioration of the US current account and the enabler of its sustainability. We think that a “Bretton Woods 3.0” framework has emerged, with two major differences with the Folkerts-Landau/Garber model: first, the key counterpart of the US funding need is a mature economy, Europe. Since 2022, Euro area investors have been the largest foreign holders of US government debt. This should be seen as beneficial to the US: it is safer to rely on savings from a political and military ally to continue running spendthrift fiscal policies than on a geopolitical rival such as China. Second, this does not entail a massive US bilateral current account deficit: the US trade deficit with the Euro area in goods is offset by strong exports of intellectual property. This puts the US in a comfortable position.

Why fix something that is not broken? The new Chair of the US Council of Economic Advisors came up with ideas to force Europeans to increase their exposure to US debt, as a “fee” to benefit from US military support and avoid tariffs. This is “overkill” since Europeans are already spontaneously strongly contributing to the US financial sustainability. In his plans, Europeans would also be requested to appreciate their currency vis-à-vis the dollar under a “Mar A Lago Accord”, which – short of financial wizardry which we think is impractical – contradicts the first objective, while weighing on Europe’s already shaky growth performance. A limit to such US coercive approach is that the Europeans’ alternative strategies – e.g. developing their own defence sovereignty – could become economically attractive if the cost of the transatlantic relationship becomes too high. We find it interesting that Friedrich Merz, CDU-leader and winner of last Sunday’s election, has expressed interest for such strategic overhaul. A coalition with SPD could make it happen, but that non-mainstream parties will have the possibility to block the constitutional reforms needed to increase Germany’s fiscal space will however be an obstacle.

The transatlantic relationship beyond the trade balance

Bilateral trade deficits should not matter from a macroeconomic point of view. It is only the *overall* current account balance – which measures the share of domestic investment which cannot be covered by domestic saving, and hence determines the quantum of capital inflows needed from the rest of the world – which matters in terms of financial sustainability. Yet, since bilateral balances seem to be Donald Trump’s compass in these issues, in practice they cannot be ignored given the size of the bilateral trade deficit of the US vis-à-vis the EU (USD235bn in 2024, one fifth of the total). The picture of the transatlantic relationship which emerges is however much more complex – and more balanced – than what a cursory look at trade in goods would suggest.

The “trade balance” usually looks at exchanges of goods only. On this count, the deterioration of the US position relative to the Euro area is plain to see, from an already significant deficit 10 years ago. Interestingly, at least for now the new European reliance on US liquefied gas to replace Russian natural gas has not moved the dial: the regularity of the deterioration of the US bilateral trade balance, incidentally seemingly impervious to changes of political direction in Washington DC, suggests that something properly structural has been at play there. However, **this large US trade deficit** (c. EUR200bn cumulatively in the four quarters to Q3 2024, the latest available data point when using European, not US data) **is not matched by an equivalent current account deficit**: on this measure, the bilateral relationship between the US and the Euro area has been almost perfectly balanced over the last two years (see Exhibit 1).

Simplifying a bit, one needs to add to the trade balance exchanges of services and income flows to get to the current account. Until early 2019, the trade and current account balances moved in sync. What triggered the divergence was **a sudden and massive deterioration of the Euro area’s deficit in exchanges of services with the US, and to a lesser extent a worsening of its income balance** (see Exhibit 2).

Exhibit 1 – Divergence between trade and current account

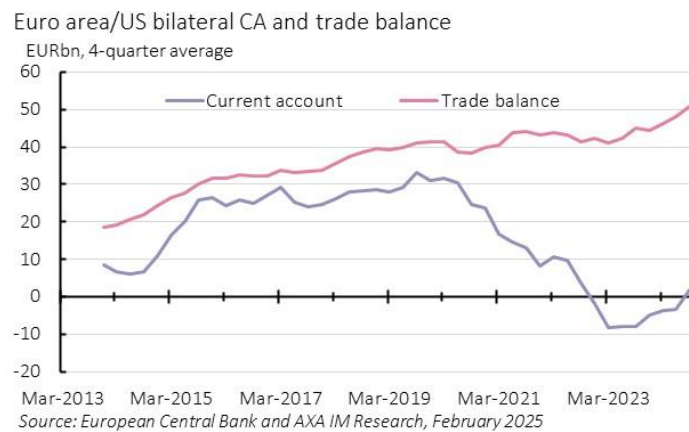
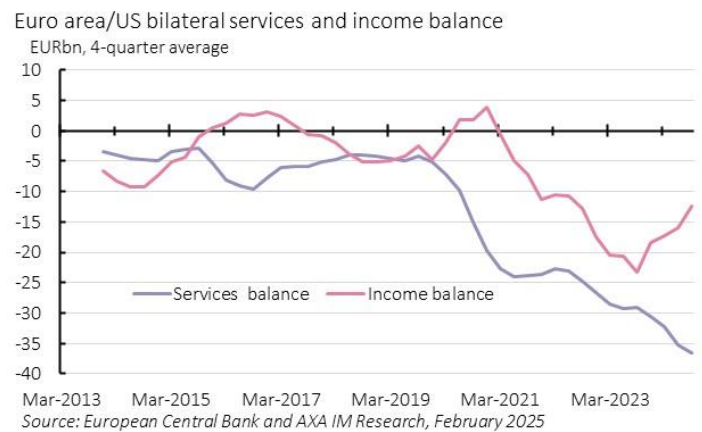
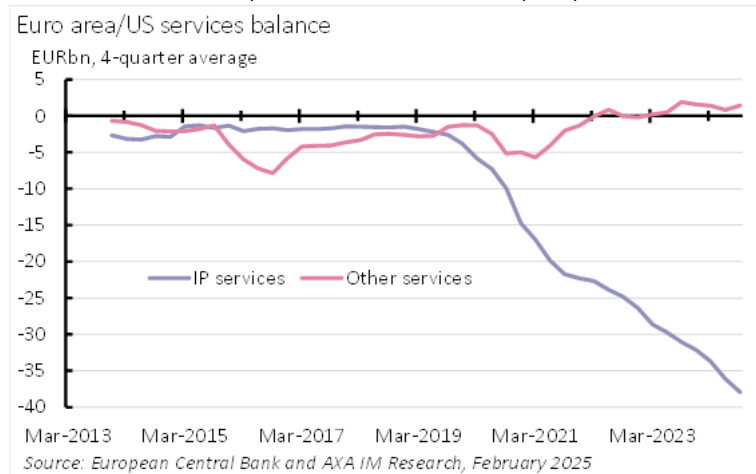


Exhibit 2 – EA’s deterioration on services and income



Let us start with services. The European Central Bank (ECB) provides a quite precise breakdown of the bilateral services balance. Trade in “charges for the use of Intellectual Property” (IP) has been the main driver of the Euro area’s overall deterioration in its services balance with the US over the last few years (see Exhibit 3). The ECB in its June 2023 bulletin article investigating the Euro area’s current account post pandemic mentioned this (see link [here](#).) They attributed this move to “restructuring operations by large MNEs including the relocation to the United States of intellectual property assets, previously held in subsidiaries in offshore centres. From the euro area perspective, these transactions mostly involve Ireland and the Netherlands, due to their role as hubs for large MNEs in the euro area”. This looks utterly technical, but, in our view, beyond the corporate re-organisations, there is a proper economic “truth” to this. For years, the European services balance had been understating imports of Intellectual Property products which were objectively American (i.e. software licences granted by US-based developers). That they are now relocated to the US – notably for tax reasons which we will explore later - makes the services exchanges as recorded by the current account data today more realistic, in our view.

Exhibit 3 – It’s mostly about Intellectual Property



So, in a nutshell, **Europe sells old school “physical goods” to the US, and in exchange buys “dematerialised goods” from the US, in an essentially balanced manner.** To make it more concrete (and of course caricatural), in daytime Europeans make cars for the US market using US software to design them, before going home to watch US TV series on American platforms (Netflix or whatever your preferred provider is). Dynamically, this is not a great specialisation for Europe. Indeed, as income grows, consumers’ preferences move towards “experiences” – mostly provided by services (e.g. recreation, or good healthcare) – rather than owning physical goods. In addition, while US dominance in IP remains unchallenged – at least for now – competition on goods provision is intense (e.g. on cars).

Given these dynamics, when adding services to the mix, the transatlantic relationship looks beneficial to the US in the long run. The only bone of contention should be of a political nature: in the intellectual framework of the current US administration, the focus is on the deficit in physical goods, since this is seen as threatening the job prospects of American blue collars. There is in our view very little evidence that this is the case – the bilateral trade deficit has been constantly rising over more than 10 years while the share of manufacturing in total employment has stabilised at around 10% in the US – and this may not even look like a great political calculus in the long-run (more Americans are today employed by Google than by Ford Motors), but those political lenses obviously matter in the ongoing negotiations.

Let us now turn to the balance of income. **The paradox is that, today, given their deficit on the bilateral income balance, Europeans receive less on their huge financial investment in US assets than they pay to Americans investors on their comparatively smaller investment in Europeans assets** (see Exhibit 4), despite the fact that interest rates are on trend higher in the US than in Europe. The income yield on portfolio investment is much higher for US investors into the Euro area than for European investors into the US, possibly reflecting the fact that US companies typically pay lower dividends than their European counterparts. But there is also a significant difference on the revenue yield from direct investment, much higher for Americans than Europeans (see Exhibit 5), with a significant spread appearing in the last five years. We are tempted to explain this by the sweeping corporate tax reform implemented by Donald Trump during his first term, which strongly incentivized US-headquartered multi-national businesses to repatriate earnings from their foreign entities by reducing the headline corporate tax rate from 35% to 21% and changing the exemption rules on earnings accumulated in foreign countries (this was also probably the reason why they re-shored their IP). The only component on which Euro area investors into the US are better off than US investors into the Euro area is on “other investment”. This component comprises loans and currency deposits, on which the interest rate differential mechanically plays.

This should act as a reminder, in the US administration, that American companies are doing “good business” in the Euro area, and that the earnings produced there contribute to offsetting the US trade deficit and generate much needed tax revenue for the US budget. But more profoundly, **the extent to which Europeans recycle their savings into US assets helps ensure the financial sustainability of the US economy.**

Exhibit 4 – Europeans hold a lot of US assets...

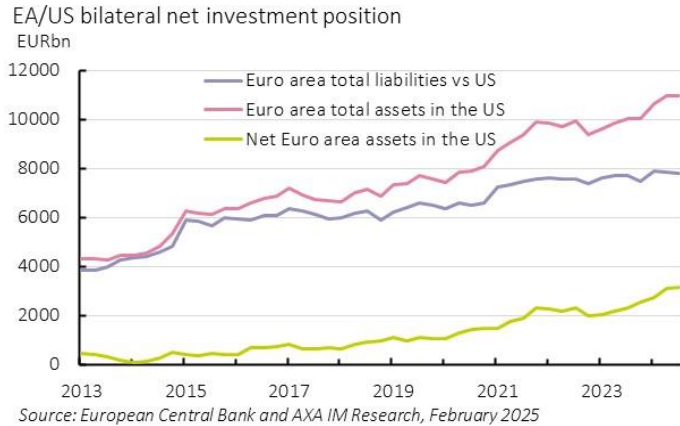
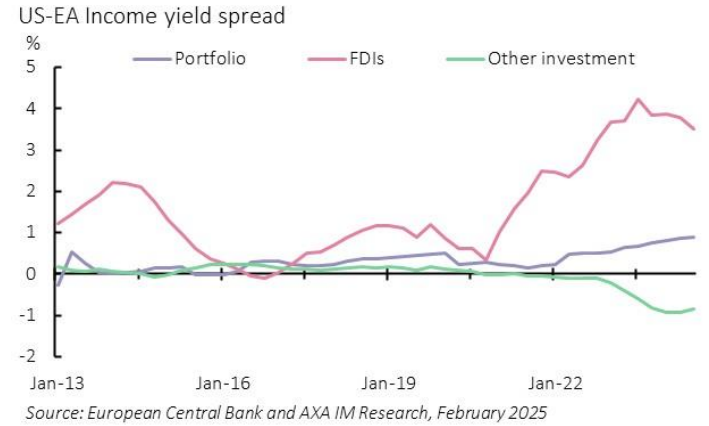


Exhibit 5 – ...but get comparatively little income from them



True, a lot of the steep increase in the stock of US assets owned by Europeans in the US merely reflects strong valuation effects (see Exhibit 6, which breaks down the year-on-year change in the holding of US portfolio investment by Euro area investors), as equity prices have routinely been stronger in the US than in the Euro area, but the *flows* – i.e. actual transfers – have still been averaging EUR300bn a year. **The Euro area has become in 2022 the first source of foreign funding of the US fiscal deficit, when breaking down the non-resident holdings of US Treasury securities.** China has been regularly reducing its contribution to the funding of the US deficit since a peak during the Great Financial Crisis of 2009, but so has Japan (see Exhibit 7).

Exhibit 6 – Strong valuation effects

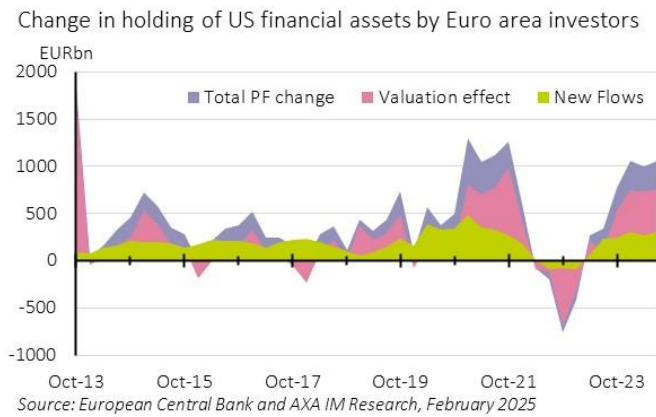
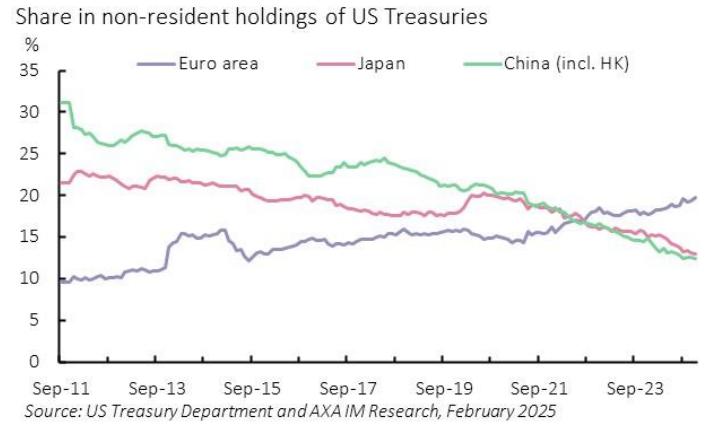


Exhibit 7 – Europeans now first foreign holders of USTs



David Folkerts-Landau coined with Peter Garber the term “Bretton Woods 2.0” in 2003 to describe a potentially stable global monetary order organised around China recycling its surpluses into US assets – especially Treasury securities – thus acting as both the source of the deterioration of the US current account deficit and the source of its funding. In 2009 they predicted that with China maturing as an economy – thus generating less surplus – other emerging nations such as India would take the lead. Our view is that a **“Bretton Woods 3.0” spontaneous arrangement is already live, with two major differences with the Folkerts-Landau/Garber model: first, the key counterpart of the US funding need is a mature economy, the Euro area, not an emerging one, and two, this is not the flip-side of a US bilateral deficit vis-à-vis Europe when one takes on board exchanges of services and revenue flows.** Again, this should be seen as beneficial to the US: it is much comfortable to rely on savings from a political and military ally to continue running spendthrift fiscal policies than on savings from a geopolitical rival such as China.

A condition for such Bretton Woods 3.0 to continue operating is that the Euro area keeps on generating overall current account surpluses (beyond its bilateral relationship with the US) to be able to export excess savings to the US. There are (at

least) two ways to look at current account surpluses: either as the symptom of a weakness in domestic demand, or as the result of strong competitiveness. **This is where we get to the internal contradictions in the current US approach to Europe.** American policymakers routinely lament the softness in European demand – this was expressed by Donald Trump in his address to Davos last month – but it is precisely this softness, which is the flip-side of Europe’s excess saving, which allows Europeans to purchase massive amounts of US securities. The weakness in European growth also feeds into lower value for European financial assets relative to American ones, which makes holdings in US dollars attractive to Europeans. To come back to our analysis of Exhibit 5, Europeans can accept being poorly remunerated in terms of dividends and interests on their US assets if their *capital* returns remain strong. Now, if on top of the weakness in domestic demand, Europeans were hit by customs duties, their capacity to recycle savings into US assets would fall, and so would their capacity to direct a large share of their consumption to products generating intellectual property revenues to US firms.

The same holds for currency concerns. **The US administration wants a lower US dollar. Yet, a euro appreciation would result in a smaller current account surplus in Europe and hence in a lower capacity to fund the US deficit.** Stephen Miran, who has been appointed chair of the White House’s Council of Economic Advisors, wrote during his days in the private sector a very cogent essay on how to twist the global monetary system to better suit the US economic interests (see link [here](#)). He discussed several ways to trigger a depreciation in the dollar without at the same time generating a decline in the demand for US assets which would lift interest rates in the US and ultimately slow down the economy and make the already complex fiscal equation even more difficult to solve. His idea is that, as part of a “Mar A Lago Accord” which would emulate the Louvre and Plaza agreements of the 1980s when Europe and Japan consented to a joint effort to depreciate the dollar, foreign central banks would accept to shift their reserves into very long-term US treasury bonds – possibly even perpetual debt – which would cap long-term interest rates while private investors would desert the US market, anticipating the dollar depreciation. Interestingly, Miran himself mentions how unlikely it would be for Europeans to accept such move, and this is where he introduces coercion: **long-term investment in US debt would be the “fee” Europeans would pay to avoid tariffs and benefit from maintained military protection from Washington DC.**

However – and that is a point Miran alludes to, without solving it – a major problem is that **European investments in the US are mostly the result of a myriad of decentralized decisions by private operators** – real-economy businesses when it comes to direct investment, asset managers and institutional investors when it comes to portfolio movements. Central bank reserves play a very modest part. That is a key difference with Bretton Woods 2.0 when Chinese investment in US Treasuries were centralised by the government.

It is not clear to us how a Mar A Lago Accord would work in practice: if foreign private investors in the US decide to stay put, there is no amount of *verbal* intervention by central banks which could convince them to move. Incidentally, if at the same time of a “solemn joint declaration” in favour of a weaker dollar, the ECB were to announce it is committing to buying ultra-long US debt securities, private investors could decide that, with the long-term sustainability of the US public finances being strengthened, it actually makes more sense to raise their holdings of US assets. There is another – concerning – idea in Miran’s essay: the possibility to tax interests paid by Treasury securities to non-resident investors. This would probably “flush” them away from the US bond market but given the discrepancy between the quantum of central banks’ reserves and US holdings by private investors, the net effect on US overall funding cost could well be dramatic for the health of the US economy.

In the real world, we **think a “Mar A Lago Accord” could not work without a commitment by non-US central banks to lift their policy rates to reduce the differential with the Federal Reserve (Fed).** This would be key to triggering an orderly repatriation of savings outside the US. Even if one ignores the not so trivial issue of the ECB’s independence, the calculation for the Europeans would then become very ambiguous. Indeed, they may decide that military protection from the US and avoiding tariffs may not be worth a competitiveness-killing appreciation in the euro, combined with a monetary policy stance which could only make the continent’s mediocre economic performance even worse. The cost of scaling up their own defence effort could, comparatively, look acceptable, especially if a significant share of this additional spending goes to European firms.

This is the conclusion of these 2,000 odd words of arcane balance of payments exploration. **The current US approach to the trade and financial relationship with Europe is basically trying to fix something which is already largely beneficial to the US.** There is a limit to advancing America's interests with coercion: it is possibility that the Europeans – and other stakeholders – consider that the overall, macroeconomic price of trying at all costs to maintain the tight political and defence link with the US becomes simply too expensive, so that other geopolitical options would look more palatable.

A strategic shift in Germany?

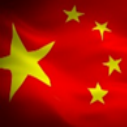

In his 2022 book, *“Leadership, six studies in World Strategy”*, Henry Kissinger recalled how the European leaders he respected the most – the book contains penetrating analysis of Adenauer and De Gaulle's acumen – often expressed to him doubts as to the solidity of the US commitment to the defence of its European allies. One event in particular was routinely mentioned in his conversations with Adenauer: the fact that the US stopped three of its key allies (France, Israel and the UK) in their operation in Suez in 1956. Ultimately, the conclusion France drew from Suez was the need to build its own military nuclear capability, while Germany – after Adenauer left power – started developing its own strategy towards the Soviet Block (*“Ostpolitik”*) as an interesting add-on to its Atlanticist alignment.

In this realm, we found the following statement by Friedrich Merz, who as we write is going to be the next German Chancellor, quite striking: *“We need to have discussions with both the British and the French – the two European nuclear powers – about whether nuclear sharing, or at least nuclear security from the U.K. and France, could also apply to us”*. **This reflects a deep shift from Germany's strategic doctrine**, especially coming from the leader of CDU, a party which, historically, has been the staunchest defender of the alignment on the US for defence purposes.

Now, of course a shift to defence sovereignty for Germany and Europe entails a strong sense of political direction in Berlin. After much suspense on Sunday night, a two-party coalition between centre-right CDU and centre-left SPD is in position to govern, securing 328 seats –12 more than the absolutely majority threshold –, spread between 208 for CDU and 120 for SPD. A CDU-Greens coalition would not pass the majority threshold (293 seats). Talks will be difficult of course – Friedrich Merz recognized it *“won't be simple”* – since CDU and SPD hold distinct views on domestic economic priorities (in a nutshell CDU wants to lift Germany out of recession through corporate tax cuts, SPD wants to direct tax cuts to those at the bottom of the income ladder), but this would probably be less dilutive than a three-party coalition extending to the Greens. Moreover, CDU and SPD share a common interest in lifting defence spending and supporting Ukraine, as well as a staunch pro-European outlook. The *“centre had held”* in the EU's biggest member state, despite the progression of the far-right which remains institutionally isolated. In addition, even if they are outside the government coalition, the Greens and their 85 seats also broadly share the same foreign policy goals.

Yet, with an unexpectedly strong result for the historical hard left *“Die Linke”* (64 seats), **the non-mainstream parties – with far right AFD at c.20% of the votes, in line with the polls, and securing 152 seats – will together hold of blocking minority of 33% of the seats for constitutional change.** As we discussed last week, this would weigh on Germany's capacity to expand its fiscal space by preventing a reform of the *“debt brake”*. A particularly thorny issue is that, as far away from AFD as it can be ideologically, Die Linke is at heart a pacifist party which would probably reject a removal of the *“debt brake”* if this was explicitly done to help fund an additional defence effort. In the short run, the new government could probably still invoke *“exceptional circumstances”* to remove the practical constraints of the debt brake for another year, but defence spending needs multi-year planning and visibility.

Friedrich Merz stated he intends to finalise coalition negotiations *“within two months”*. During these two months, we probably need to brace ourselves for more disruptive initiatives from the US. Still, the German coalition agreement may not be the crux of the matter. The crucial moment will probably come when a constitutional amendment to the debt brake is put forward. This could decide the capacity of Europe to mount a credible *“counter-narrative”* to what has been relentlessly coming from Washington. This will be the moment when we know if the US administration has not played its hand too far.

| Country/Region | What we focused on last week | What we will focus on in next weeks |
|---|---|---|
|  | <ul style="list-style-type: none"> FOMC minutes (Jan) reiterated “careful” approach amid elevated inflation and high uncertainty US and Russia officials met in Saudi yet no deal reached PMIs (Feb, p) mfg up to 51.6, highest since Mar 2024, svc fell again, to 49.7 from 52.9 in Jan Empire mfg surveys (Feb) rose to 5.7 in Feb led by new orders | <ul style="list-style-type: none"> PCE inflation (Jan) expected to stay firm, reinforcing Fed’s “careful” approach US consumer confidence (Feb), watch for signs of softening Durable goods orders (Jan, p), likely to rebound mom after Dec’s decline GDP (Q4, 2nd est.), watch for revisions to consumption and investment affecting growth outlook |
|  | <ul style="list-style-type: none"> EU and Ukraine have been put aside for the first round of negotiation about a potential truce deal EMU Flash PMIs Composite (Feb) was flat at 50.2 but Svcs fell to 50.7 (-0.6) after Fr index collapsed (-3.7pt). EMU Mfg sector is improving (+0.7pt) but remains in contraction territory. Fr bus climate was more mixed at 96 (+1pt; Nov level). Ge PMI Comp rose to 51 (+0.5pt) EMU consumer confidence remains weak but improved for the 2nd consecutive month | <ul style="list-style-type: none"> The results of the early election in Germany with two main results from next week already: a coalition with one or two partners and if the opposition has a blocking minority to avoid changing the rule of public spending in the constitution. Discussions will last several weeks to find a common platform for the new coalition Monitoring developments on truce deal in Ukraine EC surveys (Feb), Sp inflation (Feb), loans (Jan) |
|  | <ul style="list-style-type: none"> Unemp rate unch in Dec at 4.4%, while emp rose to 107k from 35k in Nov. 3M avg wage picked up to +6% from 5.5% in Nov CPI inflation (Jan) headline ticked up to 3% from 2.5% in Dec, as services rebound to 5% from 4.4% Retail sales (Jan) up 1.7%mom; 1.0%yoy GfK cons. conf. (Feb) remained weak at -20 Flash PMIs (Feb) comp PMI at 50.5, from 50.6 | <ul style="list-style-type: none"> Nationwide House Prices (Feb) should maintain strength in build up to the SDLT threshold changes in spring |
|  | <ul style="list-style-type: none"> GDP (Q4) rose by 0.7%qoq; 0.1% across 2024 Exports (Jan) up 7.2%yoy CPI inflation (Jan) ex. energy and food up 2.5%, from 2.4% Flash PMIs (Feb) comp. up at 51.6, from 51.1 | <ul style="list-style-type: none"> Tokyo CPI (Feb) looks for signs that the core measure – which excludes fresh food and energy – is accelerating in the city Retail Sales (Jan) looks for further increase |
|  | <ul style="list-style-type: none"> House prices stayed flat on the month in Jan and slowed the fall on the year to -5% vs -5.3% in Dec. Foreign direct ivst not back yet, falling -13.4% in Jan, vs. -27.1% in 2024 as a whole LPR unch at 3.1% (1Y) and 3.6% (5Y) | <ul style="list-style-type: none"> NBS mfg PMI (Feb), looking for signs of tariff impact NBS non-mfg PMI (Feb), check for recovery in services |
|  | <ul style="list-style-type: none"> CB: Indonesia on hold at 5.75% GDP (Q4 yoy): Colombia (2.3%), Thailand (3.2%) CPI (Jan yoy): Malaysia (1.7%) Industrial production (Jan yoy): Poland (-1.0%) | <ul style="list-style-type: none"> CB: Thailand (2.25%) and Hungary (6.5%) on hold, South Korea 25bp cut to 2.75% GDP (Q4): Czech Republic, India, Turkey CPI (Jan): Singapore, South Africa Industrial production (Jan): Singapore, Taiwan, Thailand |
| Upcoming events | <p>US: Tue: S&P CoreLogic Case-Shiller index (Dec), FHFA index (Dec), Consumer confidence (Feb); Wed: New home sales (Jan); Thu: GDP (1st revision) (Q4), Core PCE index (1st revision) (Q4), Durable goods orders (Jan, p), Initial jobless claims (w/e 22 feb), Pending home sales (Jan); Fri: PCE price index (Jan), Personal income and spending (Jan), Goods trade balance (Jan)</p> | |
| | <p>Euro Area: Mon: Ge Ifo business climate index (Feb), Ez HICP (Jan); Tue: Ge GDP (Q4); Wed: GfK consumer confidence (Mar); Thu: Sp HICP (Feb, p), Ez M3 money supply (Jan), ISTAT business confidence (Feb), Ez Industrial confidence (Feb); Fri: Fr GDP (Q4), Fr Consumer spending (Jan), Ge unemp (Feb), Ez ECB consumer inflation expectations (Jan), It HICP (Feb, p), Ge HICP (Feb, p), Ge CPI (Feb, p), Fr S&P credit rating review, Ge Fitch credit rating review</p> | |
| | <p>UK: Mon: BoE BEAR conference; Fri: Nationwide house price index (Feb), Fitch credit rating review</p> | |
| | <p>Japan: Fri: IP (Jan, p), Retail sales (Jan)</p> | |
| | <p>China: Sat: Official mfg PMI (Feb), Official non-mfg PMI (Feb)</p> | |

Our Research is available online: www.axa-im.com/investment-institute



About AXA Investment Managers

AXA Investment Managers (AXA IM) is a leading global asset manager offering a diverse range of global investment opportunities in both alternative and traditional asset classes. Through our products we aim to diversify and grow portfolios, while delivering long-term investment performance and value for clients.

AXA IM manages approximately €859 billion in assets*, and has €480 billion of ESG-integrated, sustainable or impact assets**. Our purpose is to act for human progress by investing for what matters. As a responsible asset manager, we are committed to integrating ESG principles across our business, from stock selection to our corporate actions and culture.

Part of the AXA Group, a worldwide leader in insurance and asset management, AXA IM employs over 2,800 employees and operates from 23 offices in 18 countries globally**.

*As at the end of June 2024, including non-consolidated entities.

** As at the end of December 2023.

Visit our website: <http://www.axa-im.com>

Follow us on Twitter: [@AXAIM & @AXAIM_UK](https://twitter.com/AXAIM)

Follow us on LinkedIn: <https://www.linkedin.com/company/axa-investment-managers>

Visit our media centre: www.axa-im.com/en/media-centre

This document is for informational purposes only and does not constitute investment research or financial analysis relating to transactions in financial instruments as per MIF Directive (2014/65/EU), nor does it constitute on the part of AXA Investment Managers or its affiliated companies an offer to buy or sell any investments, products or services, and should not be considered as solicitation or investment, legal or tax advice, a recommendation for an investment strategy or a personalized recommendation to buy or sell securities.

It has been established on the basis of data, projections, forecasts, anticipations and hypothesis which are subjective. Its analysis and conclusions are the expression of an opinion, based on available data at a specific date.

All information in this document is established on data made public by official providers of economic and market statistics. AXA Investment Managers disclaims any and all liability relating to a decision based on or for reliance on this document. All exhibits included in this document, unless stated otherwise, are as of the publication date of this document.

Furthermore, due to the subjective nature of these opinions and analysis, these data, projections, forecasts, anticipations, hypothesis, etc. are not necessarily used or followed by AXA IM's portfolio management teams or its affiliates, who may act based on their own opinions. Any reproduction of this information, in whole or in part is, unless otherwise authorised by AXA IM, prohibited.

Neither MSCI nor any other party involved in or related to compiling, computing or creating the MSCI data makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such data. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in or related to compiling, computing or creating the data have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages. No further distribution or dissemination of the MSCI data is permitted without MSCI's express written consent.

Issued in the UK by AXA Investment Managers UK Limited, which is authorised and regulated by the Financial Conduct Authority in the UK. Registered in England and Wales No: 01431068. Registered Office: 22 Bishopsgate London EC2N 4BQ

In other jurisdictions, this document is issued by AXA Investment Managers SA's affiliates in those countries.

© AXA Investment Managers 2025. All rights reserved