

16 November 2023

03 Residential: stumbling but still standing **07** Non-residential: The US is reaching for the sky

10

Profitability: Tailwind from lower input prices but wage pressures and liquidity issues remain

Allianz Research

Global construction outlook: Liquidity cracks

Executive summary



Ano Kuhanathan Head of Corporate Research ano.kuhanathan@allianz-trade.com



Jasmin Gröschl Senior Economist for Europe jasmin.groeschl@allianz.com



Maxime Lemerle, Lead Analyst for Insolvency Research maxime.lemerle@allianz-trade.com **Residential construction is stumbling but still standing.** As higher interest rates drive up mortgage costs, house prices have decreased significantly in Germany (close to -10% in Q2 2023) and decelerated in most other European countries and in the US. Residential building permits have also modestly declined in most countries for over a year now. In Europe, credit surveys suggest a dip in construction output similar to that of 2008 but survey data have already bottomed out and renovation activity remains supportive. In the US, new house builds are holding up, thanks to a tight supply of existing homes. Going forward, the sector should get a boost from the second quarter of 2024 as interest rates start to decrease and the macroeconomic backdrop improves.

Meanwhile, non-residential construction is reaching for the sky in the US while Europe lags behind. The Inflation Reduction Act (IRA) and the CHIPS Act have resulted in a significant rise in non-residential construction spending in the US. Manufacturing construction in particular has been growing very rapidly over the last couple of years, with spending up +62%y/y in September 2023, led by computer, electronic and electrical manufacturing, which has nearly quadrupled since early 2022. In Europe, however, non-residential growth has been sluggish. Infrastructure growth in the US is also outpacing that of Europe and this divide is likely to continue into 2024 as we expect stronger growth in the US over Europe.

Easing input prices are being somewhat offset by wage pressures but profitability remains solid. Prices of cement, concrete products and other soft products have decelerated. However, prices are still oriented upward: For instance, cement prices are still growing by over +17% y/y in the Eurozone. Wages are also growing as the sector grapples with labor shortages amid the still inflationary context. The latest data suggest wage growth for construction workers above +4% in all regions. Nevertheless, output prices are rising faster than input prices, both in the US and in Europe, supporting corporate profitability. Looking ahead, the outlook for both output prices and input prices is on the downside, which should preserve margins. However, the interest-rate burden will likely remain an issue, especially in Canada, Sweden, Norway and the US, where net gearing is above 75%.

Liquidity remains the issue for smaller players as insolvencies pick up in the sector. The construction sector is mainly composed of SMEs that face a longer cash-conversion cycle. These companies have been quite exposed to rising input costs and financing issues amid rising interest rates and tightening financial conditions. Consequently, in Western Europe, the construction sector keeps on posting a large number of business insolvencies, contributing to more than 20% of the national count when combining cases in pure construction and real estate activities in Germany, France, the UK and Italy.

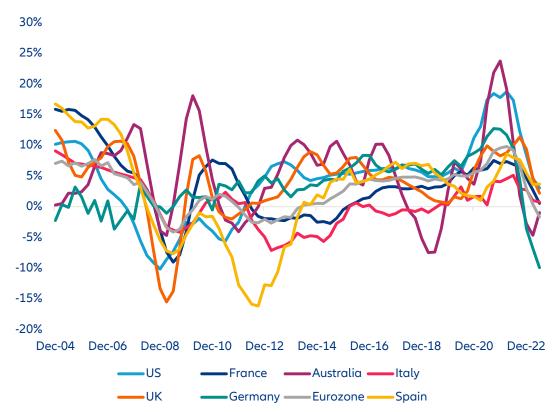
Residential: stumbling but still standing

As higher interest rates drive up mortgage costs, house prices have been consolidating and building permits falling across most major economies. Since Q3 2022, the global housing market has significantly slowed down (Figure 1), with house prices declining by as much as -10% in Germany in Q2 2023 (compared to -2% for the Eurozone overall). In the US, UK, France and Italy, house prices are still growing but at a slower pace. In this context, new residential building permits have also seen a sharp decline (Figure 2), notably in Germany (-38% y/y as of August 2023), though they are still holding up in Spain and the US (-8% and -7%, respectively).

In the Eurozone, residential construction should start to slow amid the sluggish credit outlook. Although building permits can be seen as a leading indicator, the credit survey tends to better anticipate actual construction production in the Eurozone. If the past is any relevant indicator of what lies ahead, the most recent data seem to point to a slowdown comparable to that seen in 2008-2009 (Figure 3): In August 2023, the housing credit survey printed at -53; back in September 2008, it stood at -52 and 12 months later, construction production dropped by -8%. However, we do not expect a dip as pronounced as in 2020 this time.

Higher interest rates are also biting in the US. Interest rates currently stand at close to 8% for 30-year mortgages, sending monthly repayments surging and effectively diminishing the purchasing power of potential home buyers. This has deterred many from entering the real estate market, resulting in a downturn in mortgage applications (Figure 4).

```
Figure 1: House prices (y/y%)
```



Sources: Refinitiv, OECD, Allianz Research

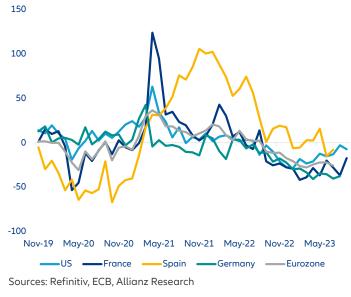


Figure 2: Residential building permits (y/y%)

Figure 4: Mortgage applications and affordability in the US



Sources: Refinitiv, ECB, Allianz Research

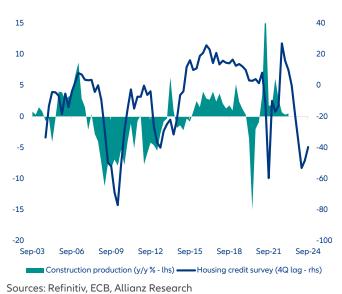


Figure 5: Supply of existing homes and housing starts in the US





Figure 3: Construction and credit survey in the Eurozone

But a tight supply of existing homes still provides a tailwind to construction. The ripple effects of higher rates are also having more surprising effects: existing homeowners are reticent to refinance at higher rates and/or sell their homes as they locked-in very low rates and current real estate prices are not incentivizing sales. As a result, the supply of existing homes on the market is decreasing. At the same time, there is still demand for homes even as some new entrants are waiting for more favorable mortgage conditions. As a consequence, housing starts are decreasing but still remain at high levels (Figure 5).

Renovation activity is more resilient in Europe. The enthusiasm for remodels and renovations, a legacy of the Covid-19 lockdowns, is waning under the current environment. The surge in material costs, driven by supply-chain disruptions and inflationary pressures, has not spared the construction sector. In the US, the cost of lumber has seen significant fluctuations, while the prices of metals, paint and other essential materials have climbed steadily. Consolidating house prices and higher interest rates have also reduced the attractivity of financing options such as home equity loans and lines of credit, which were popular ways of funding home improvements. These economic headwinds are compounded by a general atmosphere of uncertainty around the real estate market, with consumers now prioritizing savings over spending on home upgrades. In contrast, the European renovation segment has remained rather resilient (Figure 6). This is most likely the result of the energy crisis, which has been much more acute in Europe than in the US, prompting greater efforts to make homes more energy efficient. Climate policies are also playing a role: France, for instance, requires landlords with low-efficiency rentals to improve them, though this regulation may be delayed.

Despite the economic challenges, we expect the residential segment to remain resilient in the coming quarters. Even as demand is slowing, stretched supply in most markets will keep the sector resilient. Moreover, most economies avoiding recession and unemployment remaining contained should also support the cyclical sector. Most importantly, we expect interest rates to decrease in the second half of 2024. For now, home prices have not decreased enough to compensate for the loss of purchasing power of potential homebuyers¹: As of Q2 2023, house prices still needed to fall by about -16% in France, -17% in Italy and another -5% in Germany – which seems to be the closest to bottoming out. However, for most markets, a tailwind should come from lower interest rates in the second half of 2024.



Figure 6: Renovation indicators (y/y%)

Sources: Refinitiv, CERC, Allianz Research

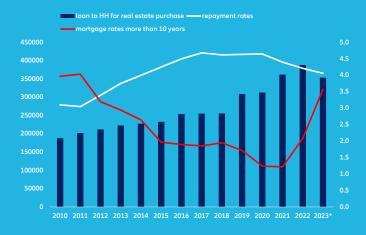
¹ See our report "Eurozone housing market and home affordability – still too expensive"

The German residential construction sector is cracking but property prices and interest rates weigh on purchasing decisions

The German construction sector is running at a low while tenants struggle to cope with soaring housing costs. As financial tightening reduces the take-up of loans, high construction prices have led to a decline in construction projects. Building permits are down -38% and ever rising construction costs have further weakened the German construction sector. Real sales in the construction industry fell by -4.0% in real terms in the first eight months of 2023 compared to the same period last year and rose by +5.4%in nominal terms due to increased construction prices. The pressure on the construction sector is not helping Germany's supply shortages: In 2023, the market was lacking 700,000 flats. With rising interest rates, building housing has become even more expensive, while increased inflation has placed more pressure on the stock of existing housing. Rents have risen to record highs across Germany and concerns are rising over a looming shortage of housing, especially cheaper flats.

But property prices have dropped dramatically. After a record -9.9% y/y drop in Q2 2023, German property prices seem to have stabilized but are at a record low. A slight uptick in the September numbers signals that the market

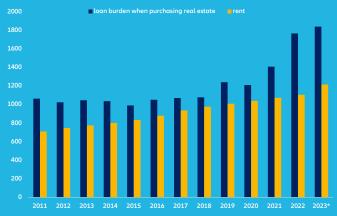
Figure 7: Average loans for real estate, repayment rates and mortgage rates of private households in Germany (2010-2023 in EUR and in %)



Sources: Interhyp, Refinitiv Datastream, Allianz Research Note: 2023* is a forecast that assumes a drop in property prices of -9.9%, which pushes through to average loan uptakes. may have arrived at the turning point. While the loan uptake of German households to buy real estate increased between 2010 and 2022, repayment rates have slowed since 2020 and average mortgage rates across cities have increased sharply with monetary tightening (Figure 7).

Normalizing the rent-versus-buy situation is not easy. We calculate the average monthly loan burden of a private household to purchase real estate against average monthly rents of private households in Germany between 2011 and 2023 (Figure 8). We find that purchasing real estate is on average still far more expensive than renting in Germany. Even if rents were to increase to the legal maximum of 20% based on 2023 levels, the difference between an average monthly loan burden and an average monthly rent would still amount to EUR381. The situation could reverse if at the same time house prices drop by -20% compared to 2022 – hence by another -10% compared to current levels – or if, instead, mortgage rates drop to 1.78% in addition to the rent increase.

Figure 8: Average monthly loan burden versus rent of private households in Germany (2011-2023 in EUR)



Sources: Destatis, Europace, Interhyp, Refinitiv Datastream, Allianz Research.

Note: 2023* is a forecast that assumes a drop in property prices of -9.9%, which pushes through to average loan uptakes. Rents are calculated based on the average German flat size times price per square meter. The average monthly loan burden is calculated by taking the average loan size, a duration of 25 years and average mortgage rates for morethan-10-year loans to calculate the compound rate plus the monthly repayment rate.

Non-residential: The US is reaching for the sky

A policy-driven boom in the US. The US has seen a significant rise in non-residential construction spending (Figure 9). Manufacturing construction has been growing very rapidly over the last couple of years, with spending up +62%y/y in September 2023. In particular, computer, electronic and electrical manufacturing has nearly quadrupled since early 2022 (Figure 10). This boom has mostly been driven by strong policies such as the Inflation Reduction Act (IRA) and the CHIPS Act that provide funding and tax incentives for projects in infrastructure, clean energy, batteries, electric vehicles and semiconductor-related facilities. For instance, we count 18 new facilities starting between 2021 and 2023 and over 50 semiconductor projects announced after the CHIPS act was passed. Public spending has also been increasing substantially.

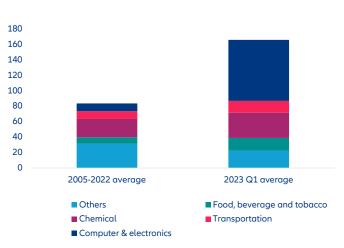
In contrast, non-residential construction in Europe is resilient but sluggish. Europe has seen much more moderate growth in non-residential construction (Figure 11), the result of factors such as the economic uncertainty fueled by fluctuating EU policies, the ongoing energy crisis, the impact of Brexit for the UK and potential hysteresis effects from Covid-19. Investment in sectors such as commercial real estate and offices has been rather muted as businesses are cautious about committing to longterm capital expenditures amid an uncertain economic outlook. Moreover, potentially costly regulations regarding environmental sustainability may have also cooled down some projects.

Continental Europe is also lagging in civil engineering and infrastructure. The Infrastructure Investment and Jobs Act (IIJA) in the US has also translated into increased spending on roads, bridges and water systems, with over USD50bn allocated for water infrastructure and USD110bn for roads and bridges over five years (Figure 12). On the other side of the Atlantic, infrastructure and civil engineering work has been much more muted – with the exception of the UK, where infrastructure output grew by +13% y/y in August 2023. Civil engineering grew by close to +4% in both Germany and Spain, and meagre +1.3% in France in July 2023 (Figure 13).



Figure 9: Non-residential construction spending in the US (y/y%)

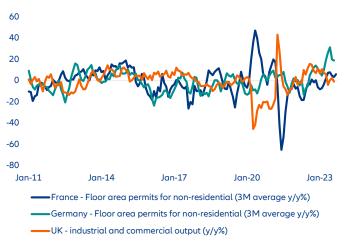
Sources: BLS, Allianz Research



Sources: BLS, Allianz Research

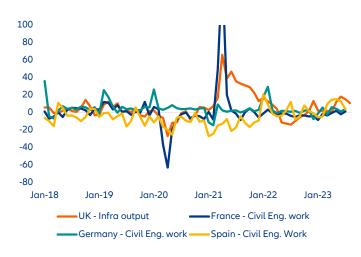
Figure 10: Breakdown of manufacturing construction spending (USD bn)

Figure 11: Non-residential segment indicators in selected European countries



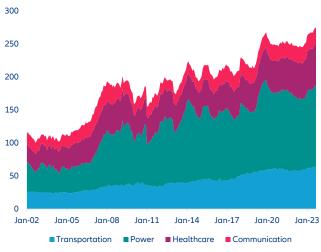
Sources: Eurostat, ONS, Allianz Research

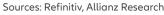
Figure 13: Infrastructure output in selected European countries (y/y%)



Sources: ONS, Eurostat, Allianz Research

Figure 12: Selected infrastructure spending in the US (USD bn)





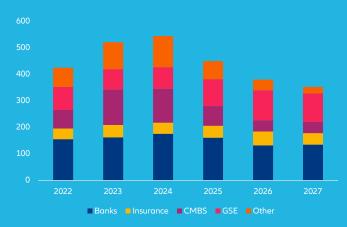


Commercial real estate in muddy water

Commercial real estate (CRE) is seeing a significant downturn due to rising interest rates and the rise of remote work. Higher interest rates have made properties less attractive compared to risk-free government bonds and also led to a significant drop in asset values. This situation has been exacerbated by record vacancy rates in office buildings. The decrease in property prices has been particularly acute as fixed rental incomes that looked attractive in a zero-interest-rate world cannot guickly adjust to the demand for higher yields. An aggravating factor is that many properties were bought with massive amounts of debt. This price decline has made it difficult for property firms to refinance as their loan-to-value ratios worsen, potentially leading to asset sales in a depressed market. In the US, the industry faces the challenge of refinancing a staggering USD1.5trn of loans maturing by the end of 2025 (Figure 14).

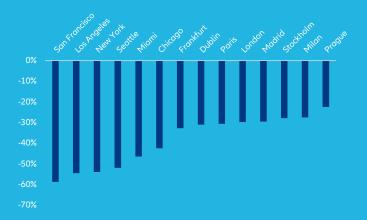
There is no silver lining for the office segment. While some properties, such as shopping malls or retail, were somewhat protected due to prior devaluations resulting from the rise of e-commerce, the office segment has been hit hard. In Europe, office property prices were more affected due to initially lower yields, but the US saw a larger correction in valuations due to a larger stock of new and vacant buildings (Figure 15). The market is now divided between high-value, green-certified buildings and those requiring costly upgrades, with banks increasingly hesitant to finance such renovations due to their own strained finances.

Figure 14: US CRE debt maturity profile (USD bn)



Sources: Refinitiv, Allianz Research

Figure 15: Change in office prices between Q3 2023 and Q2 2022



Sources: Green Street, Allianz Research

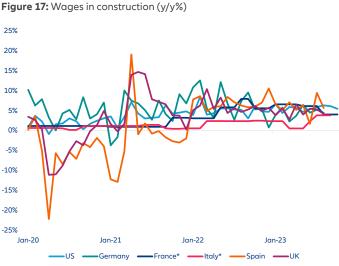
Profitability: Tailwind from lower input prices but wage pressures and liquidity issues remain

The consolidation of input prices provides a tailwind for profitability. The construction industry is going through a welcome decline in input price growth, particularly for cement and concrete products, which are key to building and infrastructure projects. But this trend is also noticeable for clay, glass and other soft products around the world. The slowdown is the result of consolidating energy prices, smoother supply chains and the stabilization of demand. However, producer price indexes suggest that overall prices continue to rise, although at more moderate pace: prices continued to grow by +17.2% y/y in the Eurozone in August 2023, and by +10.8% in the US and +3.5% in the UK in September 2023 (Figure 16).

However, persistent wage pressures continue. The construction sector is currently facing a significant rise in labor costs that are pressuring profitability. Two factors are behind this trend: labor shortages and the inflationary backdrop, which has pushed up wages. In France and Italy, regulated wages that apply to most construction workers are up +4% y/y as of September/August 2023, while wages are up +6% in the US (Figure 17). These rising costs are not easily being absorbed by corporates, leading to increased overall project costs and, in some cases, delayed projects. With demand sluggish in many segments and regions, these rising costs could eventually squeeze profitability.



Figure 16: Producer prices for cement (y/y%)



Sources: Refinitiv, Allianz Research

* France and Italy are regulated/minimum wages

Profitability is still solid in the US and recovering in Europe. Despite factors playing in opposite directions, overall profitability has improved in Europe, where output prices grew 4pps more than input prices (Figure 19). In the US, the difference between output price growth and input price growth has been in favor of construction firms since May 2022. However, we note that the difference is decreasing (Figure 18), hinting at a potential slowdown in profitability growth. Nevertheless, profitability remains solid in the US. In both regions, we expect input prices to continue to consolidate and output prices to continue to grow moderately. All in all, the profitability outlook seems quite solid going forward.

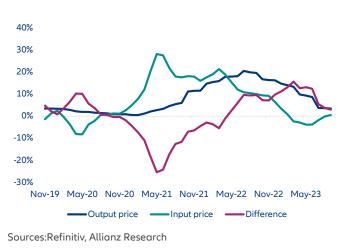


Figure 18: Construction output prices vs input prices in the US (y/y%)





Sources: Refinitiv, Allianz Research



Interest coverage should continue to deteriorate further as interest rates remain high. With higher interest expenses, the interest coverage of construction firms has deteriorated in many countries. This is especially worrisome in countries where leverage is already high. In Canada, Sweden, Norway or the US, for instance, net gearing (i.e. the ratio of total debt to equity) stood above 75% in 2022 and interest coverage has been leaning downward (Figure 20). At the opposite end of the spectrum, we see some deleveraging in countries such as the UK, Finland or South Africa. Going forward, we expect interest coverage to remain under pressure.

SMEs are particularly at risk as liquidity remains an issue, setting the stage for more insolvencies. The construction sector is mainly composed of SMEs that often work as subcontractors for large firms. As a result, they have lower pricing power, higher exposure to the business cycle and a longer cash-conversion cycle (i.e. they have to pay for most of their inputs and their labor force months before getting paid by their clients). Consequently, SMEs have been guite exposed to rising input costs and financing issues amid rising interest rates and tightening financial conditions. Indeed, the aggregate picture in terms of activity and profitability hides a significant dispersion: A few big players have benefited but a large number of smaller entities are facing numerous challenges. Construction is one of the weakest sectors within the Allianz Trade risk rating framework, with nine out of 10 countries ranked at 'sensitive' or 'high' (the main exceptions being the US and Asian countries such as India, the Philippines, Taiwan, Vietnam and Hong Kong). In Western Europe, the sector continues to post a large number of business insolvencies, contributing to more than 20% of the national count when combining cases in pure construction and real estate activities in Germany, France, the UK and Italy (Figure 21).

Figure 20: Construction sector firms' leverage and liquidity metrics 2021-2022

Country	Net Gearing	Change in net gearing	OCF Coefficient	Change in OCF coefficient	Interest coverage	Change in interest coverage
Canada	90%	23.5	10.4	1.0	3	0
Sweden	85%	10.8	7.5	-0.7	3	-1
Norway	76%	8.9	4.0	-0.3	3	-1
France	66%	13.7	5.7	1.3	6	1
US	76%	2.6	6.4	0.5	4	0
Spain	43%	5.8	5.6	0.5	3	0
Hong Kong	29%	10.9	2.0	1.5	4	0
Germany	56%	3.4	4.3	-0.6	5	-1
China	41%	2.7	2.3	0.7	4	-2
Switzerland	74%	2.9	9.3	-0.8	8	-3
Belgium	60%	1.4	6.1	-1.4	6	-4
Italy	30%	10.3	2.7	1.2	5	1
Brazil	31%	3.1	0.0	-0.2	2	-1
Taiwan	55%	11.8	0.1	-0.6	9	-6
Australia	31%	1.9	0.6	-1.2	1	-5
Poland	13%	7.2	0.9	0.5	6	-3
Denmark	50%	-11.3	8.6	4.9	11	2
Saudi Arabia	21%	1.1	2.0	1.3	15	-6
Singapore	53%	-2.1	3.8	-1.1	4	0
Korea	35%	8.9	0.6	-0.7	6	-3
Netherlands	31%	-4.0	1.6	-2.2	5	-9
Finland	67%	18.2	0.6	-2.3	8	4
Greece	49%	-19.5	5.5	-2.7	3	2
UK	27%	2.0	3.0	0.6	10	5
India	15%	-1.2	1.6	0.4	5	3
Turkey	5%	2.5	0.4	0.2	5	2
South Africa	57%	-2.1	1.1	-7.0	6	4
Japan	-5%	-10.3	1.2	-0.6	38	6

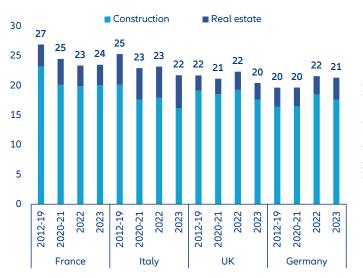
Sources: Bloomberg, Allianz Research

Interest coverage = EBIDTA / Interest expense

Net gearing = (long term financial debt + short term financial debt - cash & cash equivalents) / total equity

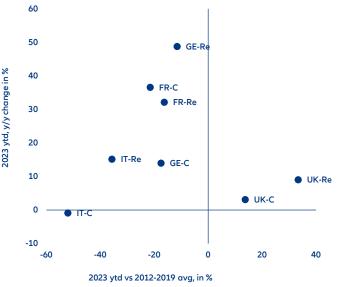
Operating cash flow (OCF) coefficient = (Long term financial debts + Short term financials debts) / Operating cash flow, in years. Net gearing (2022 level + 2022/2021 change), operating cashflow coefficient (2022 level + 2022/2021 change), interest expense coverage (2022 level + 2022/2021 change). Median figures for sectors with 5+ listed firms. The real estate segment is leading the rebound in insolvencies. The trend is on the upside in almost all European countries, boosted by a rebound in real estate that is most often outpacing the increase in construction (Figure 22). At this stage, France stands out with the largest increase in 2023 year-to-date terms (+36% to 9,398 cases over the first nine months), ahead of Germany (+19% to 2,167 cases over the first seven months) and Italy (+3% to 1,195 cases over the first nine months). The uptick is losing momentum in the UK (+4% year-to-date to 4,172 cases over the first nine months) but the latter already noticeably exceeded its pre-pandemic level of business insolvencies after two consecutive years of rebounds (+13% in 2021 and +53% in 2022). **Going forward, insolvencies in the sector should continue to grow at the current pace.** As rates should remain close to current levels and economic activity should decelerate, especially in Europe, we expect construction to contribute to about 20% of insolvencies. This would mean over 11,000 construction firms going bust in France, close to 4,000 in Germany, close to 6,000 in the UK and 2,000 in Italy.

Figure 21: Share of construction in insolvencies (% of total)



Sources: DeStatis, INSEE, CCCM, ONS, Allianz Research

Figure 22: Share of construction in insolvencies (% of total)



Sources: DeStatis, INSEE, CCCM, ONS, Allianz Research



Chief Economist Allianz SE

Head of **Economic Research** Allianz Trade



Ludovic Subran ludovic.subran@allianz.com

Ana Boata



ana.boata@allianz-trade.com

Macroeconomic Research





Maxime Darmet Cucchiarini Senior Economist for US & France maxime.darmet@allianz-trade.com



Maddalena Martini Senior Economist for Italy & Greece maddalena.martini@allianz.com



Roberta Fortes Senior Economist for Ibero-Latam roberta.fortes@allianz-trade.com



Luca Moneta Senior Economist for Africa & Middle East Senior Economist for Middle East & luca.moneta@allianz-trade.com



Arne Holzhausen

arne.holzhausen@allianz.com

Jasmin Gröschl Senior Economist for Europe jasmin.groeschl@allianz.com

Head of Insurance, Wealth

& Trend Research

Allianz SE



Manfred Stamer **Emerging Europe** manfred.stamer@allianz-trade.com



Françoise Huang Senior Economist for Asia Pacific francoise.huang@allianz-trade.com

Corporate Research



Ano Kuhanathan Head of Corporate Research ano.kuhanathan@allianz-trade.com



Aurélien Duthoit Senior Sector Advisor, B2C aurelien.duthoit@allianz-trade.com



Maria Latorre Sector Advisor, B2B maria.latorre@allianz-trade.com



Maxime Lemerle Lead Advisor, Insolvency Research maxime.lemerle@allianz-trade.com

Capital Markets Research



Jordi Basco Carrera Lead Investment Strategist jordi.basco_carrera@allianz.com



Bjoern Griesbach Senior Investment Strategist bjoern.griesbach@allianz.com



Pablo Espinosa Uriel Investment Strategist, Emerging Markets & Alternative Assets pablo.espinosa-uriel@allianz.com

Insurance, Wealth and Trends Research



Michaela Grimm Senior Economist. Demography & Social Protection michaela.grimm@allianz.com



Patricia Pelayo-Romero Economist, Insurance & ESG patricia.pelayo-romero@allianz.com



Kathrin Stoffel Economist, Insurance & Wealth kathrin.stoffel@allianz.com



Markus Zimmer Senior Economist, ESG markus.zimmer@allianz.com

Recent Publications

10/11/2023 What to watch | Economic scenarios for Israel - Hamas conflict, rolling back on climate goals, and drought at Panama Canal disrupts trade

09/11/2023 India: A rising star

03/11/2023 What to watch | The wind sector bust, immigration boosts growth and corporate spreads repricing risk

31/10/2023 Greening global trade, one container at a time

27/10/2023 What to watch | The Fed between a rock and a hard place, Emerging Asia v. higher-for-longer, zero growth in the Eurozone and net impact of interest rates

26/10/2023 A bolt from the blue? Amplified social risk ahead

19/10/2023 What to watch | ECB's turning point, EU-Mercosur deal, Argentina's dollarization debate, winds of change in Poland and Chinese equities pressured by geopolitics

18/10/2023 Global Insolvency Outlook 2023-25

13/10/2023 What to watch Fasten your bond belts, Italian spreads v. the ECB, CBAM day 1, India open for bond business and a call to action in honor of Nobel Claudia Goldin

12/10/2023 Going together and going far – Powering Africa's economic and social potential

12/10/2023 Global Economic Outlook 2023-25: The last hike?

26/09/2023 Allianz Global Wealth Report 2023: The next chapter

25/09/2023 Climate tech- the missing piece in the net zero puzzle

21/09/2023 All eyes on fiscal in the Eurozone

14/09/2023 Germany needs more than a plan

12/09/2023 Sector Atlas: Assessing non-payment risk across global sectors

07/09/2023 A slow landing for china

05/09/2023 | Is diversification dead?

04/08/2023 Global boiling: Heatwave may have cost 0.6pp of GDP

01/08/2023 Critical raw materiels- Is Europe ready to go back to the future?

28/07/2023 US & Eurozone growth defying gravity

27/07/2023 | Playing with a squared ball: the financal literacy gender gap

21/07/2023 US immaculate disinflation: How much should we thank the Fed for?

20/07/2023 Back to the beach: Tourism rebound in Southern Europe?

13/07/2023 A new Eurozone doom loop?

12/07/2023 | European Retail: a cocktail of lower spending and tighter funding

06/07/2023 | Eurozone convergenve: two steps foward, one step back

04/07/2023 More emission, than meet the eye: Decorbonizing the ICT sector

29/06/2023 | De-dollarization? No so fast ...

Director of Publications

Ludovic Subran, Chief Economist Allianz Research Phone +49 89 3800 7859

Allianz Group Economic Research

http://www.allianz.com/en/economic_research http://www.allianz-trade.com/economic-research Königinstraße 28 | 80802 Munich | Germany allianz.research@allianz.com

💓 @allianz

in allianz

Allianz Trade Economic Research

http://www.allianz-trade.com/economic-research 1 Place des Saisons | 92048 Paris-La-Défense Cedex | France research@allianz-trade.com

🍯 @allianz-trade

in allianz-trade

About Allianz Research

Allianz Research encompasses Allianz Group Economic Research and the Economic Research department of Allianz Trade.

Forward looking statements

The statements contained herein may include prospects, statements of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such forward-looking statements.

Such deviations may arise due to, without limitation, (i) changes of the general economic conditions and competitive situation, particularly in the Allianz Group's core business and core markets, (ii) performance of financial markets (particularly market volatility, liquidity and credit events), (iii) frequency and severity of insured loss events, including from natural catastrophes, and the development of loss expenses, (iv) mortality and morbidity levels and trends, (v) per-sistency levels, (vi) particularly in the banking business, the extent of credit defaults, (vii) interest rate levels, (viii) currency exchange rates including the EUR/USD exchange rate, (ix) changes in laws and regulations, including tax regulations, (x) the impact of acquisitions, including related integration issues, and reorganization measures, and (xi) general compet-itive factors, in each case on a local, regional, national and/or global basis. Many of these factors

No duty to update

The company assumes no obligation to update any information or forward-looking statement contained herein, save for any information required to be disclosed by law. may be more likely to occur, or more pronounced, as a result of terrorist activities and their consequences.