



WHITEPAPER

Navigating Global Dynamics

Threats and Opportunities for European Businesses



Key Insights

It has always been essential for businesses to understand critical trends that shape the global economy. Ever since 2020, this "obligatory exercise" seems to have turned from a quarterly routine into a daily requirement – with COVID-19 and the Ukraine war only being two of the most urgent factors. Looking closer at current economic developments, it becomes clear that **several "tectonic shifts" will not manifest themselves favourably in Europe.**

By examining these trends and their implications, companies can gain insight to navigate the challenges and capitalise on emerging opportunities in the global economy.



Energy transition - an energy crisis?

Despite significant energy price easing in 2023, the partly unsolved "energy crisis" will affect industrial competitiveness as European gas prices are likely to remain six times higher than the US price level.

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(European) supply chain woes

European metal production is still well below historical levels – while more crucial metals would be required to drive the energy transition. Reducing dependency on Russian gas leads to a significant increase in reliance on Chinese raw materials.

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Unravelling geopolitics

Trade restrictions are on the rise, particularly in strategic sectors. While Europe maintained a trade-dependent path, China has grown increasingly isolationist.

6



Demographic development and lack of (skilled) workers

Working populations in China and Europe are projected to shrink significantly within the next decades. In several sectors, labour shortages are already at alarming levels.

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The end of "easy money"

Corporate debt grew to record levels in 2022. Rapidly rising interest rates will make refinancing and investment projects more difficult across the board. However, some sectors appear more affected than others.

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Impact on economic growth

As a result of the multiple challenges, economic growth is expected to accelerate in only five out of the global top 30 economies. Most European economies are expected to perform weakly until 2030.

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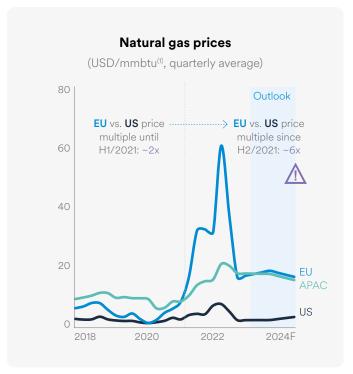


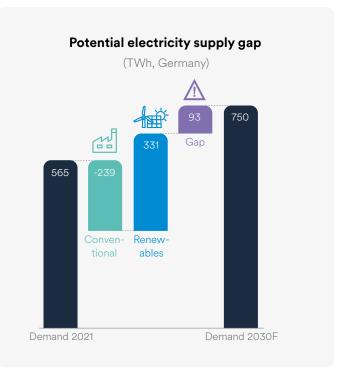
Energy transition – an energy crisis?

A major concern these days is the energy transition: Some consider it an "energy revolution" and some an "energy crisis". It is certain, however, that the transition remains a **major factor of uncertainty not only in the short but also in the medium and long term.** Driven by the effects of the Ukraine war, European natural gas prices skyrocketed and rose to 20 times the historical level in Q3/2022. Though followed by subsequent ease, European gas prices are likely to remain six times higher than the US price level. Due to increasing exposure to global LNG markets, prices in Europe and APAC are expected to approximate each other going forward. Prices in the US will remain far lower due to the local gas supply. Similar price differences hit industrial electricity users in 2022.

To drive the energy transition forward, traditional fossil-fueled electricity plants are being phased out to comply with national legislation, for example in Germany. This, however, **reduces energy supply by approx. -40**% (of 2021 levels), while it is expected that there will be a considerable increase in (peak) demand, for example, due to the aspired decarbonisation of industrial production, the transition of heating towards heat pumps, and transportation towards electric vehicles (by approx. +30% until 2023 vs. 2021 levels). On top, it is questionable whether the renewable energy targets (expansion of renewables to 80% share in energy supply by 2030) can be met.

This unsolved issue has led to insecurity, especially in European energy-intensive sectors (e.g., metals production/processing, glass/ceramics, and chemicals). Given their role as key suppliers, negative effects are likely to trickle down into major downstream manufacturing sectors (e.g., automotive sector) and **challenge European industrial competitiveness.** And, in case of possible energy **shortages** and/or rising prices next winter, this situation might aggravate considerably. According to current knowledge, the latter event is unlikely, but **cannot be completely ruled out either.**





(1) 1 mmbtu (million British thermal units) = approx. 0.29 MWh Source: Agora Energiewende; BP; Census Bureau; Federal Government and Ministries (Germany); GPP; ONS; FTI-Andersch

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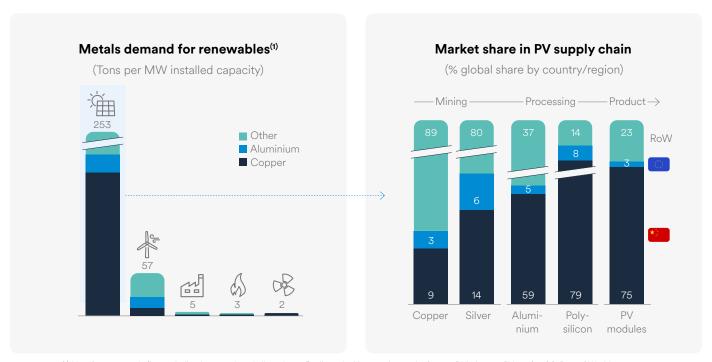
(European) supply chain woes (1/2)

Supply chain resilience will be critical in ensuring a successful energy transition. However, recent development in the European metals sector undermine this goal: Following low industrial demand in 2020, the weakened sector was hit by the energy crisis in 2021/22. Consequently, significant capacities across Europe have been shut down, leading to production well below historical levels. According to ING, "since the start of the energy crisis, European aluminium output has fallen by more than half".

In Autumn 2022, the industry association Eurometaux warned about an "existential threat" to the sector, citing potential permanent smelter shutdowns. Reflecting this, the STOXX Europe Total Market Industrial Metals Index has declined by approx. -25% since April 2022. In the case of other metals (e.g., lithium and nickel), Europe is reliant on China, which has a chokehold on the renewables and EV supply chain, including mining, processing and end products. The EU Critical Materials Act is intended to reduce this dependency as of 2030, e.g., by setting a domestic target market of 10% for production and 40% for processing as well as capping single-country import market shares at 65%. According to the Economist Intelligence Unit (EIU), "the EU will find it difficult to meet the targets set out by the Act, whose passage will not substantially improve supply-chain resilience for the region", among others due to environmental concerns regarding mining and competition from China and the U.S.

By reducing dependency on Russian gas, there will be a significant increase in reliance on Chinese raw materials and intermediate products.

The adoption of e-mobility and renewable energy generation will lead to significant growth in global mineral demand of up to 41x for lithium and 19x for nickel (2040 vs. 2020). For example, each EV will require approx. 210 kg in minerals (excl. aluminium and ferrous metals) vs. approx. 30 kg for internal combustion vehicles (factor of approx. 7x). Similarly, PV generation will require approx. 3 tons of copper per MW capacity (approx. 26 tons after natural capacity factors adjustment), compared to approx. 1.2 tons for coal plants.



(t) Non-ferrous metals (i.e. excluding iron, steel, and alloys thereof) adjusted with natural capacity factors (Wind: 22%, PV: 11%) (2) Rest of World Source: CRU International; EC; EIU; Federal Government and Ministries (Germany); FT; IEA; ING; ifo; Schernikau and Smith (2023); FTI-Andersch

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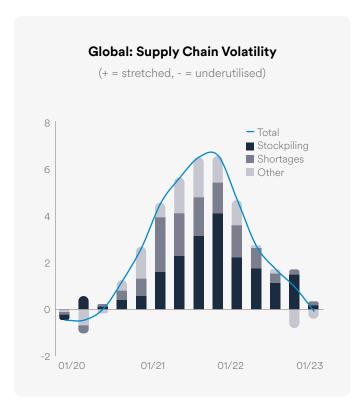


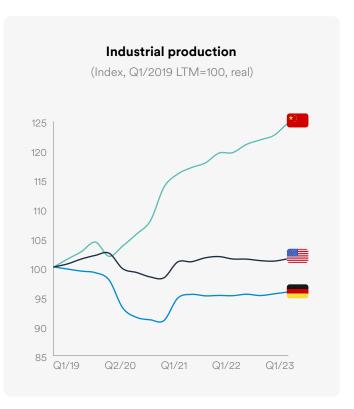
(European) supply chain woes (2/2)

Besides the weak European position in strategic industries, persistent supply chain disruptions remain a concern in Europe. From a global perspective, supply chain volatility started to ease in late 2021, mostly driven by a reduction in stockpiling and item shortages following decongestion of critical infrastructure (e.g., ports on the U.S. West Coast and in China). From a European perspective, disruptions have been shifted and prolonged by the Ukraine war – and continue to pose a challenge in certain areas.

In Germany, 35% of surveyed industrial companies still reported shortages in May 2023, contributing to 46% of respondents still facing cost increases in production materials and intermediate products as of April 2023. Recent surveys indicate deflationary trends in certain sectors (e.g., paper), among others due to softening energy prices compared to Autumn 2022. Another consequence is hampered **industrial output** which still remains approx. **-5% below pre-pandemic levels,** whereas China and the U.S. have already reached or exceeded those. According to the Banque de France, supply-side disruption "significantly dampened manufacturing output since 2020", mostly due to extended delivery times for raw materials and intermediate products. In 2022-23, France continually ranked among the worst-performing countries in terms of the manufacturing Purchasing Manager Index (PMI) component "delivery times", frequently even worse than Russia.

Beyond the shortages and disruptions faced by mainland Europe, the UK was further impacted, e.g., by the fuel crisis due lacking heavy goods vehicle drivers, partially driven by fewer workers from Eastern Europe following Brexit and COVID-19.





Source: Banque de France; BNP Paribas; GEP/S&P Global; ifo; Imperial College; Oxford Economics; FTI-Andersch

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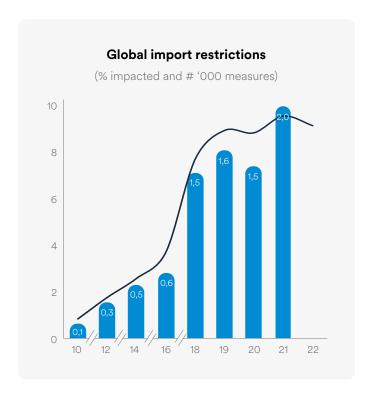
Unravelling geopolitics

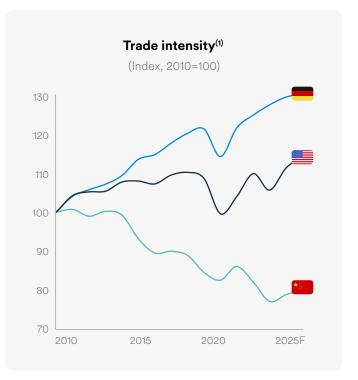
The dependency on international trade applies to both imported goods and exports, especially for European countries with a high trade intensity (e.g., France, Germany, and Italy). Since 2010, the **share of global imports subject to restrictions has grown by factor ten,** most notably following the launch of aluminium tariffs by the Trump administration in 2017/18. In addition to import restrictions including local content quotas (such as the U.S. Inflation Reduction Act), export restrictions are also on the rise (including, for example, the U.S. New Export Controls on Advanced Computing and Semiconductors to China).

Despite those trends, trade data shows a heterogenous picture: **France, Germany, and Italy** are projected to maintain a **trade-dependent** path (also due to strong intra-EU trade), while **China will continue to follow the strategy of becoming more isolationist**, aiming for a reduction in trade intensity from 43% in 2010 to 34% in 2025. This development is in line with the government's "Made in China 2025" policy, which, among others, seeks to achieve 70% self-sufficiency in semiconductor production by 2025.

As of 2021, China ranked third among destinations of German foreign direct investment stocks (€103 bn or 8% of total outward FDI), mostly driven by manufacturing sectors. The EU-wide exposure to China is significantly lower (<3% of extra-EU FDI). Notwithstanding an awareness of increasing tensions and tectonic shifts, it appears that many companies have not initiated sufficient precautionary measures to mitigate geopolitical risks.

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(1) Trade intensity: Sum of exports and imports (gross) to GDP Source: Bundesbank; EUROSTAT; Oxford Economics; WTO; FTI-Andersch



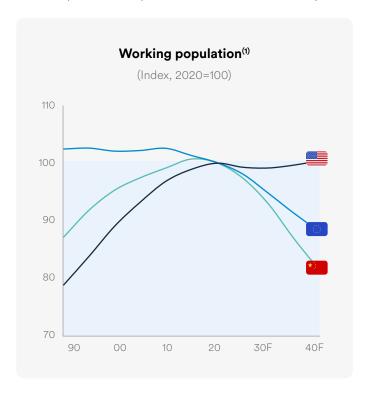


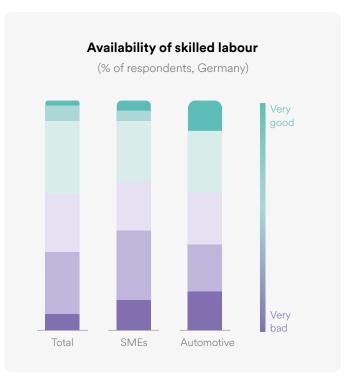
Demographic development and lack of (skilled) workers

The labour shortage is already a major growth constraint among developed economies and will only intensify over the next decades. Working age populations in major European economies are projected to collapse within the next two decades, despite significant migration from the Middle East, Africa, and the Ukraine. The differences among countries are stark: The UK working population is projected to decline by approx. -3% until 2040, the Italian working population is projected to collapse by more than -20% (vs. 2020).

Beyond Europe, China (the EU's #1 trading partner) is not only becoming increasingly isolationist, but also has a declining growth perspective due to demographic factors – 2022 represented the first population drop in six decades. Its working-age population has been described as "the **fastest ageing in the world** and arguably the fastest one in human history", reducing its labour-intensive manufacturing competitiveness and addressable consumer base.

The U.S. birth rate remains comparatively stable (1.7 as of 2021 vs. 1.2 in China), as the country remains a key destination for migrants (historically 0.8-1.2 million p.a. net international migrants excl. 2020/21). Labour shortages in Europe generally and in Germany specifically are already at alarming levels, according to a recent survey Kantar Public conducted on behalf of FTI-Andersch: Especially SMEs struggle in recruiting talent and in many sectors, such as health care and construction, digitalisation and automation offer solutions only to a limited extent. According to our survey results, every second German company already struggles in recruiting talent; one out of three companies even perceive the situation as "(very) bad".





(1) Population aged <65 years old Source: Census Bureau: CFR: DESTATIS: European Parliament: World Bank; Zeihan on Geopolitics: FTI-Andersch

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The end of "easy money"

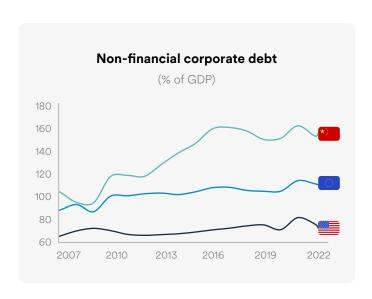
Rising interest rates have become an additional short-term challenge for both the public and private sector.

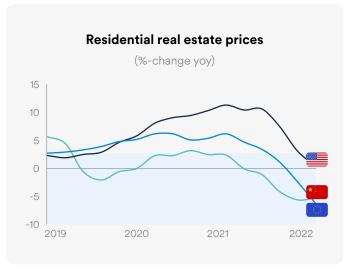
Since the end of the financial crisis (2008/09), corporate debt has developed heterogeneously, rising sharply in China and France while remaining approximately stable in other developed economies. In addition, public debt ballooned due to COVID-19 relief measures. In 2020, total global debt reached the highest one-year increase since World War II.

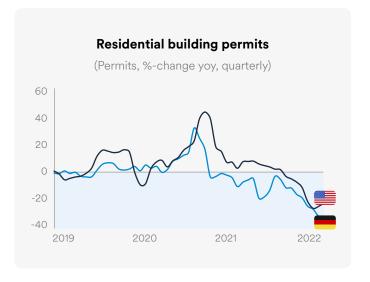
The trend of gradually looser monetary conditions since the 1970s was reversed with the fastest interest rate hikes in history in late 2022. While this makes refinancing and investment projects more difficult across the board, **some sectors** are even more affected than others:

Due to a high reliance on debt financing, rising interest rates have hit the real estate sector with full force. Despite housing shortages, the deterioration in residential real estate prices persist across countries, returning to pre-pandemic levels. Building permits (and applications) mirror this downward trend.

As several European countries face a high share of variable-rate housing loans (as of 03/2023, >50% of new loans in Austria, Portugal, and Baltic states), the ECB is concerned about "disorderly corrections". Beyond that, the commercial real estate segment (including office and retail buildings) shows **significant signs of distress.** About one third of European commercial real estate loans exhibit "significant refinancing risk". According to market experts, prices in Western Europe may even fall by up to 40%.







Source: BIS; CITI; CNBC; EBA; ECB; FTI-Andersch

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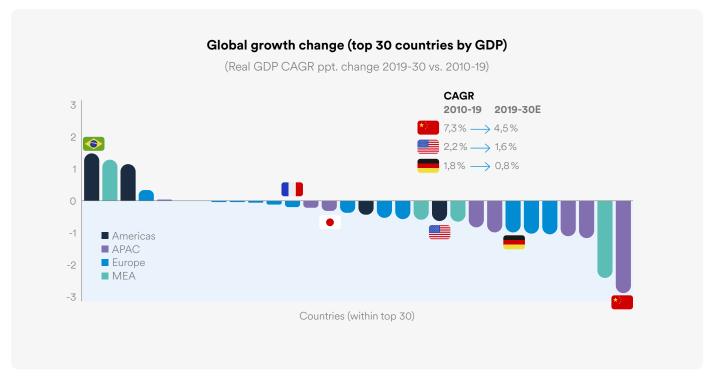
Impact on economic growth

As a result of the multiple challenges, economic growth is expected to accelerate in only five of the top 30 global economies. Most notably, European economies are expected to perform weakly, and China is projected to continue its trend of reduced growth, impacting its main trading partners.

The German economy has not coped well at all with the double crisis of COVID-19 and the Ukraine war. According to the current forecasts, even at the end of 2024 pre-COVID GDP levels will only just be reached. **Germany would then be missing five years of growth** – there has never been such a long period of stagnation in Germany's post-war history. And, unlike the periods following prior recessions, experts predict that the current recession will be followed by several years of much weaker growth.

France ranks among the few countries which are not expected to experience a significant medium-term slowdown in GDP growth (only by -0.2% vs. -0.9% for Germany). Current GDP forecasts by the European Commission back this, projecting 0.7% and 1.4% growth in 2023 and 2024 respectively. Compared to Germany, **France is less reliant on international trade** (trade intensity of approx. 60% vs. approx. 100% for Germany).

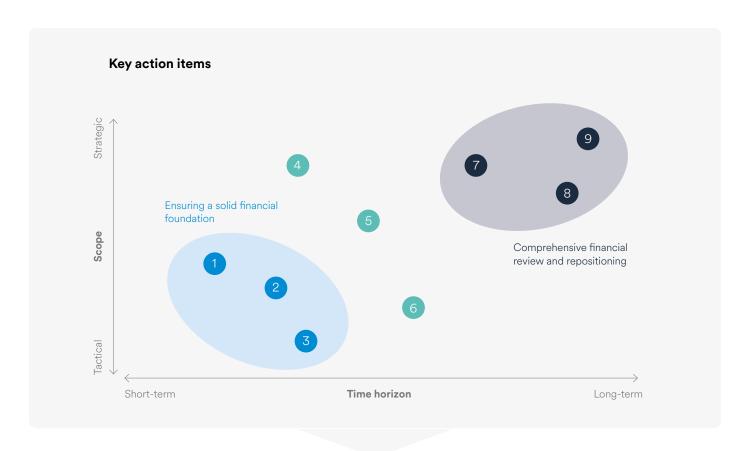
Recent changes to the UK outlook have been mixed. For 2023, independent forecasters project limited growth of 0.3% on average, followed by 1.0% in 2024. A key factor influencing the UK economy will be the impact of rate hikes on mortgage holders and their discretionary spending. Approx. 6.8 million UK dwellings have been purchased with a mortgage, which are typically fixed-rate for 2–3 years and variable-rate for the remaining period, leading to a multiplication of monthly payments in the current environment, hampering consumption.



Source: CBS; EC; gov.uk; HRI; Oxford Economics; FTI-Andersch



How to react to those trends?



Trend(s) addressed

	猫		(3)		
Review financing structure		×			×
2 Initiate scenario-based planning	×	×	×		×
3 Introduce price pass-on clauses	×	×	×		
4 Create action plans with partners	×	×	×		
5 Enhance production efficiency	×	×			
6 Diversify energy sourcing	×		×		
7 Invest in upskilling and training				×	
8 Audit regional risks, enhance footprint		×	×	×	
Develop less exposed products	×	×	×	×	

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Source: BIS; ECB; FTI-Andersch

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