

Renewed economic weakness and price volatility muted index in Q3

The Achilles' Supply Chain Risk Index (ASCRI) showed a mild reduction in risk for Q3 2023 to 59.1 from 58.8 in Q2. Both supply-chain resilience and risk remain at the top end of the typical range.

With the recognition of events in the last months of 2023 and the depressed forward indicators, the next reading is expected to show a marked step-up in risk. There were some spikes in key prices in Q3, although the effect of this on the overall index was mitigated by inflationary adjustments as well as steady country risk and Achilles supplier scores.

After negative pressures slackened through the first half of 2023, the second half promised stability and a more supportive global economic environment. Inflation was stepping down noticeably, food and fuel prices were falling and consumer spending was growing again. Several central banks and policy makers were sufficiently encouraged by progress to cease rate hikes, with some commentators postulating on how soon to expect rate cuts.

These proved to be false starts. Underlying issues persisted. Economic uncertainties, sovereign debt and regional tensions were ever rising and stifling the economy. With indicators for the end of the year and over the holiday period slowly being released, the picture highlights a weakening situation and a lack of confidence in many regions for the coming 12 months.



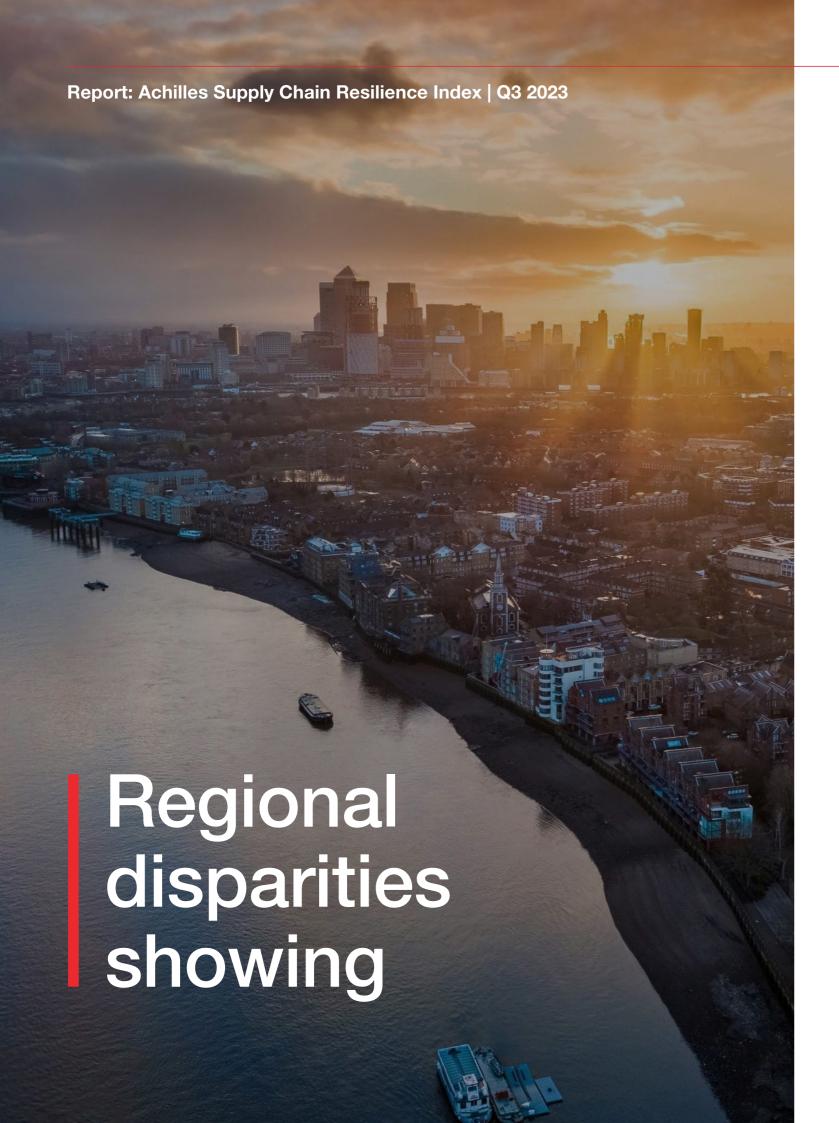
| Price | volatility

Prices of key food and energy commodities spiked in Q3 in part due to climate and geopolitical shocks. This came as labour markets remained tight in key economies, fuelling wage increases that are passed on via price hikes.

Precious metals also showed volatility in Q3, reflecting market uncertainties. Other non-energy prices were more stable in Q3. The other key factors in the model – country risk and Achilles Score were a little firmer over the first half of the year.

ASCRI drivers 70 60 50 40 30 20 10 0 ASCRI Energy Non-Energy Precious Metals Average Country Scores Achilles Score Q1-2023 Q2-2023 Q3-2023

	Q1-2023	Q2-2023	Q3-2023	Change
ASCRI Overall	60.9	58.6	59.1	0.5
Energy	48.4	48.6	36.4	-10.2
Non-Energy	44.3	56.4	52.6	-3.8
Precious Metals	58.1	63.3	39.9	-23.4



The global economy grew 2.9% year-on-year (Y-o-Y) according to provision 2023 figures. With some regions faring noticeably better than others. Bright spots being India and China. India continues to expand both economically and demographically, having overtaken China as the most populous country in 2023. A strong focus on production and exports saw Indian GDP up 6.3% Y-o-Y.

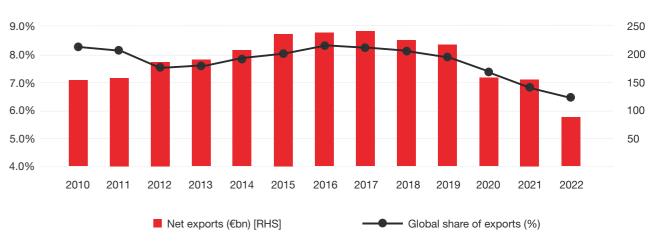
Despite issues with debt in the construction market, weaker regional consumption and a slowdown in exports the Chinese economy lifted 5.2% Y-o-Y. Above the central government's goal of 5.0% Y-o-Y, but a step down from the 5-year, pre-Covid average of 6.8%.

One positive surprise has been the United States. A combination of industrial policies, that are boosting the environmental and high-tech sectors, high employment, and hardening of barriers to imports saw United States GDP grow 2.4% Y-o-Y over 2023. While small compared to the growth in India or China, the United States economy had been forecast to contract over the year and possibly see a hard economic landing. Instead, it turned in decent but uninspiring growth.

This contrasts with Europe. Many European countries have been slow to pick up, with Germany's economic development a problem. Historically the engine of European growth, today Germany is a drag. Expected to have contracted 0.1% Y-o-Y in 2023, Germany's economy is showing the effect of global changes and industrial missteps. Total share of global exports has fallen from 8.4% in 2016 to 6.6% in 2022 (the latest available year) with Germany's trade surplus down two-thirds over the same period. Factor in the need to shift from Russian gas supplies and reduced labour availability from Eastern European countries, and the pillars that have empowered the Germany economy, and so the European Union, are less supportive.

The automotive industry exemplifies the weak momentum. The largest export category, accounting for 15.4% of Germany exports in 2022, it has stagnated as auto companies have had to maintain production of engine-powered vehicles, while developing electric offerings. With the federal government and wider EU incentivised the transition to electric vehicles, German cars have lost some of their appeal. German marques are playing catch up, but a swathe of new, low-price Chinese electric vehicles will keep them on the back foot.

German export indicators



Source: Destatis

With company failures increasing

This is not to single out Germany. Similar signs can be seen across Europe. While on the positive side, company registrations across the EU have continued their previous trends – Ignoring the start of 2020, when they fell sharply due to lockdowns. Bankruptcies also fell during the lock-downs, due to support programmes and furlough schemes. Many of the schemes have completed and support loans are having to be repaid. Factor in

weaker consumer spending and reduced access to funding, and it is no surprise that bankruptcies have risen sharply.

This trend of failing companies is not restricted to Europe. The US Census Bureau reported that businesses filing for bankruptcy increased 29.9% in the twelve months ending September 2023. Business applications for corporations also came off -2.2% over the same period.

Confidence indicators point to a difficult 2024

Most worryingly for businesses are overwhelmingly negative consumer confidence measures, reinforcing the sense that 2024 will see another contraction in consumption in most large economies. Again, India looks like the strongest, large country, but due to significant lags in data this may not be the case. In the United States, despite the economy having turned in a better-than-expected year, confidence is pointing downwards. This may be pertinent for the on-going US presidential primaries and the election in November.

Not only in America, but this time next year, 60% of the global population may have changed their governments. Other major elections include most of Europe, Russia, India, Indonesia and Pakistan. The risks that stem from new administrations will be playing on company's and people's minds, alike. Adding to the negative sentiment. Include the effects of on-going conflicts and threats of others developing, and confidence is under sustained downward pressure.



Report: Achilles Supply Chain Resilience Index | Q3 2023

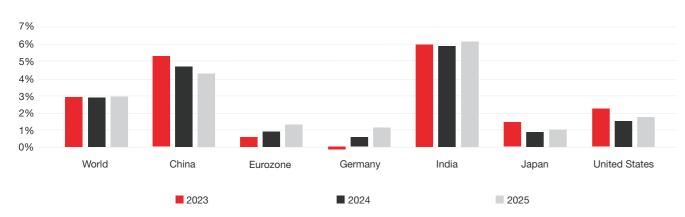
These headwinds are reflected in lacklustre growth forecasts for 2024 and into 2025. However, these should be seen in the continuing efforts to bring inflation under control. Down significantly, it is less of a drag in most major economies and expected to average 2.5-3% over 2024. Close to the common 2% target and setting the foundation for a recovery in later years. Central banks and governments have become adept at treading a fine line that supports economic growth, while bringing inflation down, so there should be confidence that they can navigate these difficulties.

The signs are for a challenging 2024 in many countries, but especially Europe. The drop off in demand and poor lead indicators suggest that further work needs to be done

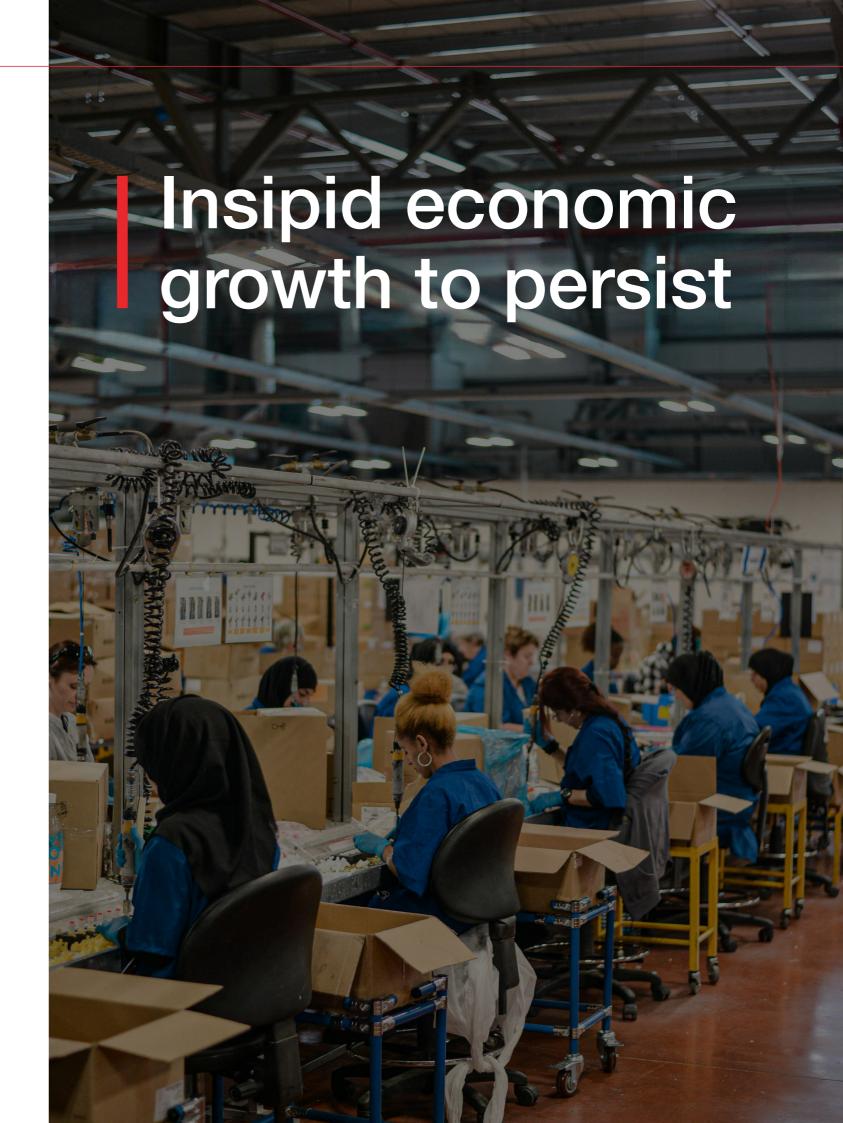
before economic growth recovers.
Unfortunately, existing and lingering risks add future uncertainty. The on-going conflicts and elections make predictions impossible, with forecasters not discounting the negative implications. Weaker demand may improve supply chains resilience, but most businesses would prefer to see customers returning, even if it taxes their distribution channels.

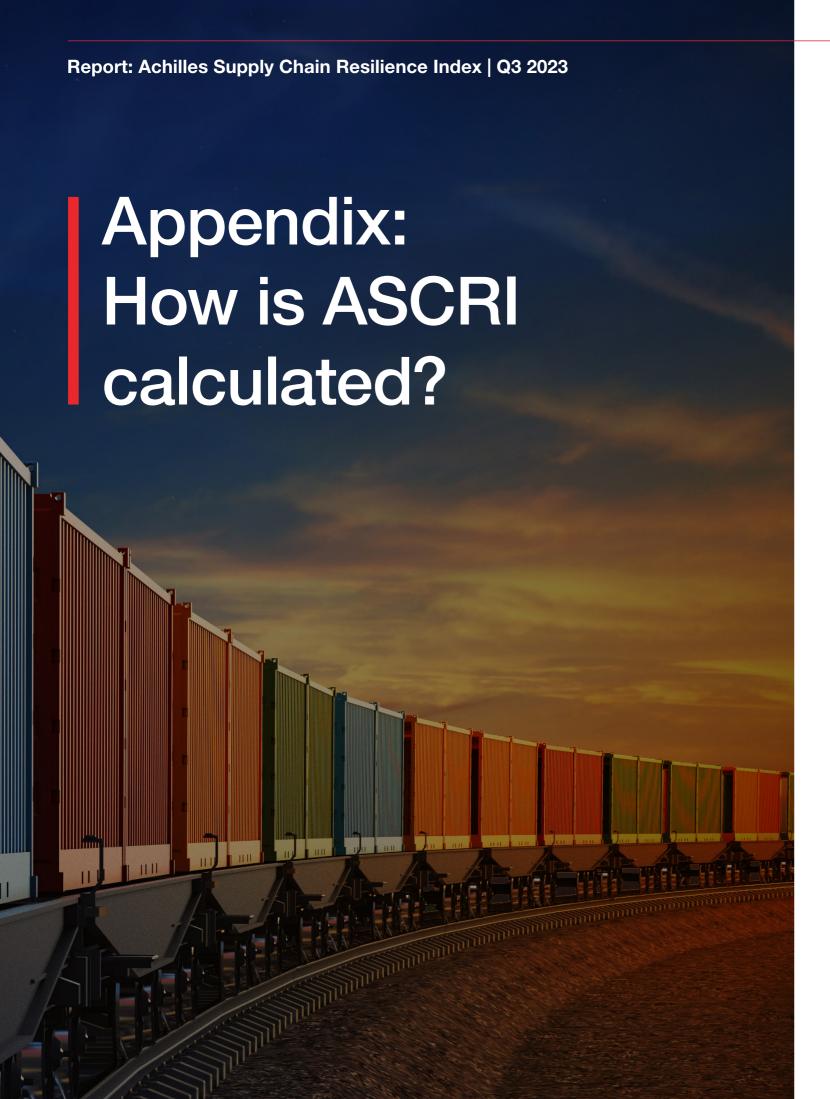
The Chinese zodiac's Year of the Dragon started on 10 February 2024. The dragon is seen as a prosperous sign and so often leads to a spike in births. Perhaps not enough to see China regain its most populous nation status, but a small boon for businesses selling goods for babies at least.

Global real GDP growth forecasts (%)



Source: OECD, November

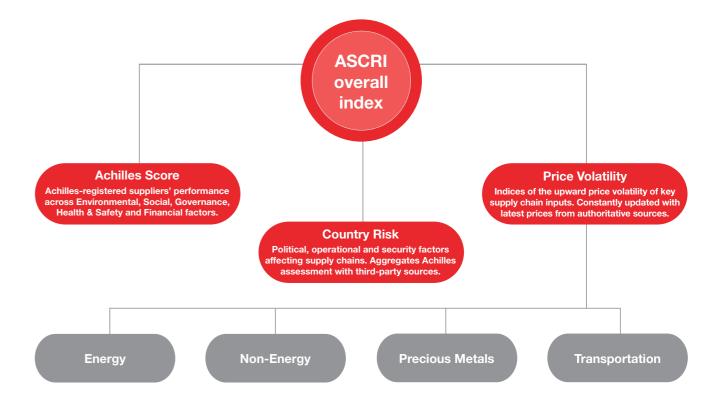




ASCRI draws on a unique methodology that combines Achilles' proprietary data on supplier performance with country risk factors and price volatility. The output is the most comprehensive index of supply chain resilience available. The minimum score of 1 would show extremely low resilience (high supply chain risk), while 100 equates to maximum resilience (minimal supply chain risk). It is produced by our in-house data science team and has been built on the basis of extensive analysis and

benchmarking against other providers. Different data sources are refreshed at different times which means we offer flash estimates of the latest quarter, followed by actual data in following quarters. In Q2 2023 we added more indicators from the International Labour Organization (ILO) to our country scores, covering areas such as child labour rates, size of the informal economy and work stoppages.

The inputs can be summarised as follows:



81-100	Resilience is very high, and risk is significantly lower than average
61-80	Resilience is high and risk is relatively low
51-60	Resilience is average and risk is moderate
41-50	Resilience is lower than average and risk is high
1-40	Resilience is quite low, and risk is very high





Achilles Supply Chain Resilience Index Q3 2023

For more Achilles Papers, visit www.achilles.com