Investment Institute Macroeconomics

The outlook for China against US or European recession

Assessing the potential impacts of global slowdown on China

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Key points

- Growing stress in the global economy is stoking fears that a sharp slowdown in external demand could be the last straw for the Chinese economy
- Using OECD 's data, we estimate the potential shock to China in various slowdown scenarios. In the case of a soft landing – whereby developed economies slow but avoid a recession – China's export growth would fall to single-digits, reducing its GDP contribution by half compared to 2021. But in two adverse scenarios – varied by the severity of recession – falling export growth could subtract up to 0.7% from China's GDP
- We also consider the possible impact of a broader economic slowdown spreading to the rest of the world. Against which, we think, Beijing would likely take aggressive action to cushion the growth shock. However, the policy offsets are unlikely to be complete. Hence, some revision to our growth forecast would be warranted depending on the timing and severity of the shock
- Finally, we examine how financial markets in China may react to a slowing US economy. The recent dollar strength may continue on safe-haven flows. Chinese equities will unlikely be immune from further US market weakness but the downside could be limited by relative valuations. In the bond market, the current level of US interest rates points to upside risks to Chinese bond yields

The US and Eurozone economies have staged impressive post-pandemic recoveries, but both are showing signs of significant fatigue now. The slowdown, which we expect to lead to a recession in both regions, has been generated in part by a large food and energy price shock. This has required their respective central banks to tackle multi-decade high inflation, with the policy-induced tightening of financial conditions exacerbated by falling equity prices, widening credit spreads and strengthening currencies. With the Federal Reserve (Fed) and European Central Bank (ECB) now tightening into slowing economies, fears of a policy overshoot and an economic hard-landing have risen.

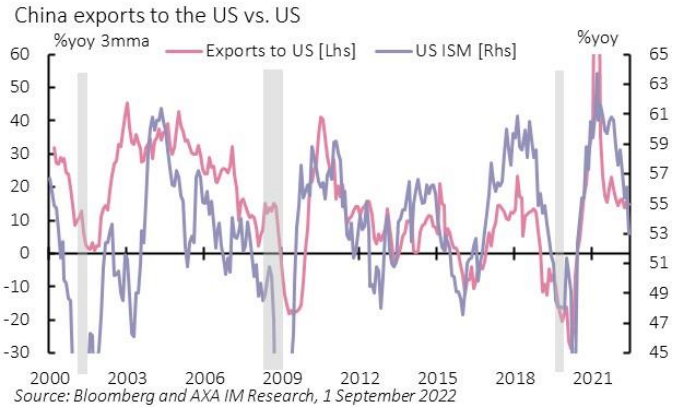
Slowing demand in the world's two major economies, even if they manage to avert a hard landing, could have far-reaching consequences. China is particularly vulnerable given its still-close trade ties with the US and Europe, despite the tariffs spat, and a growing dependency on foreign capital thanks to its recent financial market liberalisation.

In this paper, we examine the channels through which weakening demand in developed economies could affect China across different scenarios. We also consider a broader demand shock from the rest of the global economy, and discuss how Beijing may respond based on its past reactions to export-led downturns. Finally, we study how China's financial assets may react to a US recession given the historical relationship of the two markets.

Trade to bear the brunt

The US and China are each other's largest trading partners. The latter accounted for, on average, 17% of China's gross exports over the past three years, after that share peaked at almost 20% before the Sino-US trade war. Cyclical changes of these activities have, unsurpringly, followed the ebb and flow of the US economy (Exhibit 1).

Exhibit 1: Changes in end-demand dictate export trends



Source: Bloomberg and AXA IM Research, 1 September 2022

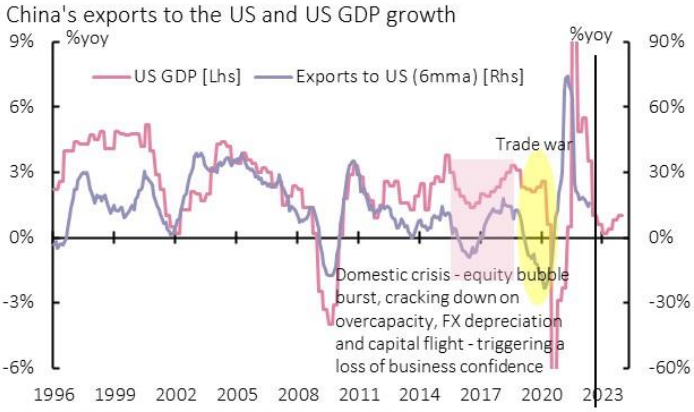
China's available trade data expands across a period that includes three US recessions. The first was after the burst of the dotcom bubble and the terrorist attacks on 11 September 2001; then there was the economic collapse during the global financial crisis; and finally the sudden stop triggered by the COVID-19 pandemic. China's exports to the US slowed visibly in all three episodes (Exhibit 1) – collapsing in 2008-2009 and 2020, but managing to escape a prolonged decline in the early 2000s.[1]

As the largest consumer of Chinese products, sales to the US were worth 3.2% of China's GDP in 2021, based on customs data. However, these numbers fail to capture the supply chain effects in international trade. On one end, the data 'mis-records' China's supply of intermediate goods for assembly in a third country before final products are shipped to the US. Such exports (of components) are ultimately driven by US demand, and should be part of US-China trade relations. On the flipside, gross exports could 'overestimate' China's contribution to products of which it is the final assembler of components from supply-chain partners. An obvious example is the iPhone, to which China's production contributes only 10.4% of its retail value,[2] but the customs data assigns China the full amount as it is the final port of departure.

To adjust for these supply chain distortions, we use the Organisation for Economic Co-operation and Development (OECD)'s Trade in Value Added (TiVA) data – a system which considers the value added by each country in the production of goods and services which are consumed worldwide – to trace China's 'true' exposure to the US. Our analysis, based on latest available data for 2018, shows that US demand accounted for 19.5% of China's total exports, or 3.5% of GDP that year.[3, 4]

Using these estimates we can gauge the impact of three possible 'landing' scenarios for the US economy. The best case assumes a so-called 'soft-landing', whereby the economy continues to grow at a subdued rate over the next 12 months. Despite narrowly avoiding a recession, economic growth is expected to slow materially and reach almost stall speed in early 2023 (Exhibit 2). China's exports to the US would slow, falling from 16% currently to low single-digits at the turn of the year. For 2022 as a whole, full year growth (of US-bound exports) would fall to 11%, contributing 0.4% of GDP, half that of 2021 (Exhibit 3).

Exhibit 2: Export growth to slow but avoid a contraction



Source: CEIC and AXA IM Research, 1 September 2022

We also consider two 'hard-landing' scenarios. The first is the US economy tipping over into a shallow recession similar to 2001. This is now our base case, against which we see a small, single-digits, contraction in China's US-bound exports over the ensuing 12 months. All else being equal, this would trim China's GDP growth by 0.2%. The second is a 'crash-landing' scenario calibrated against the global financial crisis. Repeating such a catastrophe would see China's exports fall by 20%, knocking 0.7% off China's GDP, all else being equal.

[1] The better performance in China's exports in early 2000s could reflect a shallower US recession in 2001 and that China was on the cusp of joining the World Trade Organisation and had already started to gain export market share.

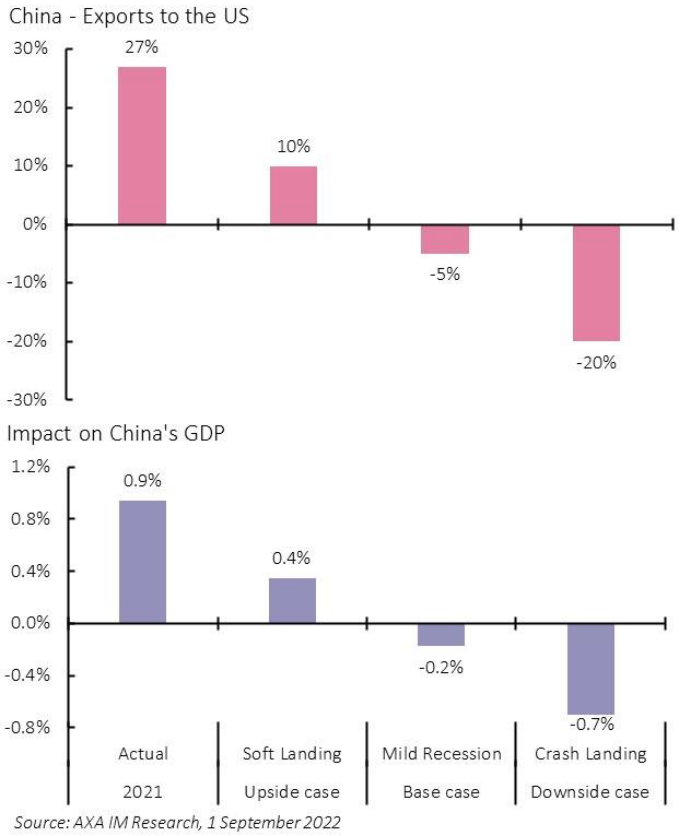
[2] How the iPhone widens the US trade deficit with China | VOX, CEPR Policy Portal (voxeu.org)

[3] This measures the significance of exports alone, as we are interested in how changes in US final demand would affect China. However, to assess the full growth impact, one also needs to consider changes on the import side, discussed later in the note.

[4] The small difference between TiVA and customs data is counter-intuitive at first glance, given China's extensive participation in global supply chains. Our extensive crosschecks suggest that this simply reflects China's finely balanced contribution to US-bound trade as both an intermediate value contributor and final assembler.

However, the assumption of *ceteris paribus* in the crash-landing case is clearly unrealistic, as the rest of the world is unlikely to be immune from a collapse of the world's largest economy. The next section considers the impact of a broader economic slowdown that engulfs the Eurozone and beyond.

Exhibit 3: Shock estimates from different US 'landing' scenarios



Source: AXA IM Research, 1 September 2022

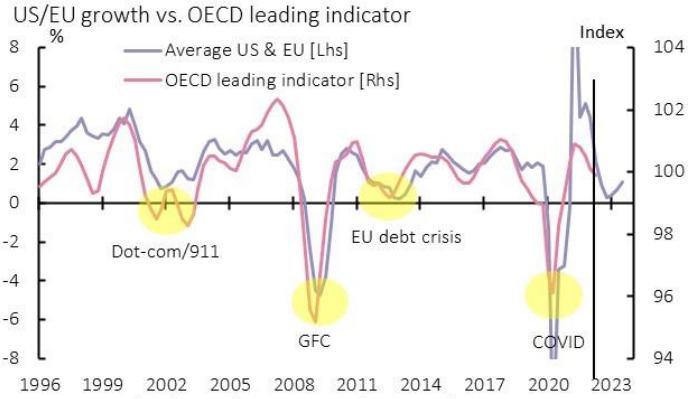
If recession spreads…

The risk of a synchronised recession in the US and Eurozone is not trivial. Apart from suffering the same economic malaise brought on by surging inflation and tightening financial conditions, the region is also confronting the risk of an energy crisis if Russia cuts gas supplies. The Eurozone economy has already slowed and our upside case is for the trend to continue, with year-on-year growth dropping to just 0.4% at the turn of the year. Such a soft-landing in demand is expected to slow China's exports to the region, albeit avoiding an outright contraction.

Our updated base case, however, assumes the Eurozone will fall into a mild recession, similar to the downturn of the 2011-2012 debt crisis. China's exports to the region fell by 5% over that period, which seems an appropriate proximation for a 'hard landing' case. As for the 'crash-landing' scenario, we consider the 2008-2009 global financial crisis as a benchmark and assume China's exports would plunge by over 20%. Exhibit 5 summarises the magnitude of shocks to China's GDP. Considering it independently and in isolation, the impacts are about half the size of the US shocks.

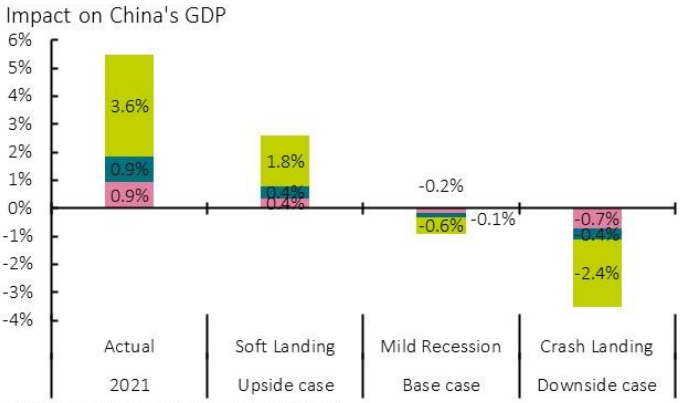
With the US and Europe teetering on the brink, the rest of the global economy is walking a tightrope (Exhibit 4). The ultimate worst-case scenario is the entire global economy falls into recession, creating a full-fledged shock to China's external demand. Exhibit 5 shows China's GDP could contract by up to 0.9% in a mild global recession – of which 0.3% would be attributed to the US and EU. And in a GFC-style crash landing scenario, the impact would escalate to 3.5% of GDP.

Exhibit 4: When the US/EU sneezes, the world catches a cold



Source: OECD, Bloomberg and AXA IM Research, 1 September 2022

Exhibit 5: Impact from different scenarios of slowing demand



Source: AXA IM Research, 1 September 2022

Policy to the rescue

The above analysis assumes *all else being equal*. In reality, this is unlikely to be the case. In the face of rapidly declining exports the Chinese authorities would likely take actions to buffer the shock. Indeed, changes of China's credit impulse – a proxy for monetary policy – have correlated strongly with the rise and fall of export growth, easing when activity slows and tightening when it is strong (Exhibit 6).

Fiscal policy has also played a counterbalancing role. Exhibit 7 shows that all three episodes of major fiscal expansion since 2008 – during the Global Financial Crisis (GFC), 2013-2018, and at the beginning of the pandemic – have coincided with declining export growth. Conversely, periods of strong external performance have seen the Chinese authorities withdrawing stimuli. Given these patterns, it is quite likely that Beijing would step up policy easing to counter the impact of a global recession.
Be that as it may, the policy offset is unlikely to be complete. Had Beijing been successful in ironing out the impact of export fluctuation, one would see little correlation in China's aggregate growth and export cycles. The fact the two still move in lockstep (Exhibit 8) suggests the policy offsets have only been partial.

Finally, we need to consider the import side of the equation too, as it is 'net export' that makes up final GDP. Historically, China's imports from the US, in customs terms, have tended to rise and fall with exports. In part this reflects US's contribution to China's final production, and this difference is reduced, but not eliminated, in the TiVA data. It could also reflect the more general synchronisation in the two economic cycles. Once adjusted, the share of 'net export' to the US drops to around 1.8% of China's GDP, from 3.5%. This, in turn, reduces the growth impacts of the three scenarios of US slowdown to 0.2%, -0.1% and -0.4% of GDP, about half those in Exhibit 3.

Bringing everything together, our current base case projection for China has already incorporated a soft-landing of US and Eurozone economies. A mild recession in the latter would require a small growth downgrade for China, considering the likely partial offsets from policy and imports. A larger growth downgrade would be warranted against a broader and more severe demand shock, even if we ascribe a very low probability to such an outlook at the moment.

Market impact – this time could be different

Finally, we consider how China's financial markets may react to a slowing US economy. In fixed income markets, movements in long-term bond yields between the two countries have shown a decent correlation,[5] and such a relationship is statistically significant even after considering China's domestic economic and policy variables.[6]

Currently, there is a yield premium to US 10-year Treasury bonds over Chinese bonds, which has not happened since 2010. This points to upside risks to China's interest rates, particularly if the local economy recovers sequentially later in the year (Exhibit 9). Even with a shallow recession keeping US bond yields at below 3%, the bilateral relationship still implies room for Chinese rates to move modestly higher.

Chinese equity markets have not been immune to large US market sell-offs in the past. In fact, offshore equities – proxied by the MSCI China index – have tended to underperform US markets, while onshore A-shares have proven more resilient, on average. This could be because the onshore markets have been relatively insulated by China's capital controls, whereas offshore equities have tended to move together with other emerging markets, suffering more in times of surging global risk aversion.

Exhibits 6, 7, and 8: Policy tries to offset the external shock but the offset is rarely complete

Source: Bloomberg, CEIC and AXA IM Research, 1 September 2022

Source: CEIC and AXA IM Research, 1 September 2022

Source: CEIC and AXA IM Research, 1 September 2022

[5] The limited opening of China's onshore bond market questions such an intuition. Even with strong inflows in recent years, total foreign holdings of onshore bonds account for only about 3% of the market. Hence, the historical co-movements of bond yields are unlikely driven by private-sector flows. Instead, the monetary authorities – the People's Bank of China (PBoC) and State Administration of Foreign Exchange (SAFE) – which manage China's balance of payment have likely played a more important role. During periods of flush US liquidity, pushing local yields lower, China is likely to have experienced inflows via trade and foreign direct investment channels. The PBoC would receive these inflows under the closed capital account and fixed exchange rate, and released RMB liquidity into the system. While they would have tried to sterilise this operation by hiking bank reserve requirements, this operation is rarely perfect. In most cases, this results in net growth in domestic liquidity, which puts pressure on Chinese interest rates. The reverse can also happen. Overall, it is difficult for an economy as integrated as China's in the global economy to insulate itself from global trends.

[6] We regress 10-year China bond yields on 10-year US yields, China's bank reserve requirements (RRR) to proxy for changes in monetary policy, and the PMI index to capture the influence of the economy. All three variables are statistically significant and carry the correct signs. The coefficient on US yield suggests that a 100 basis points (bp) change in US rates will raise China's rates by 17bps.

A study of historical equity market patterns reveals two interesting aspects. First, the current correction in US equities – measured by the S&P 500 index – is among the largest in non-recession periods (down circa 24% peak through this year). Therefore, one may think the downside to the market is limited if the US economy manages to avoid a full-blown recession. However, if the latter fails to hold, the average recession-period market decline is 36% since the 1970s.

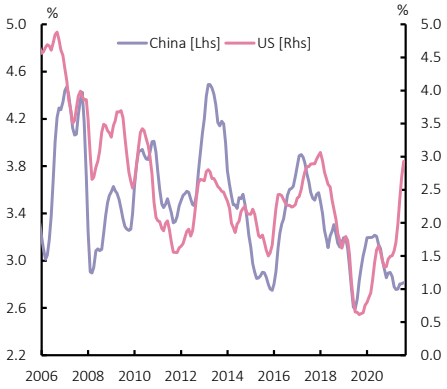
Second, while the historical relationship does not bode well for Chinese equities against a US recession, one needs to consider the starting-point valuations. Exhibit 10 shows that China's (offshore) equities have never underperformed by more than they are now before an onslaught in the US market started. This suggests that a lot of bad news has already been priced into the market.

Finally, there is only a short history since the renminbi became relatively free of government intervention, offering little direct gauge on the CNY/USD against past US recessions. In contrast, there is plenty of data on how the dollar has performed in past economic downturns. The result, however, is not clear-cut. In four of the eight recessions since the 1970s, the dollar strengthened against a basket of currencies, three saw it depreciate, and one recorded a flat performance (Exhibit 11).

This may be inconclusive over the whole period, but it does appear the dollar has tended to strengthen in the most recent recessions. This occurred in four of the five instances since the 1980s. A repeat of this history would lift the dollar against the yuan on safe-haven flows.

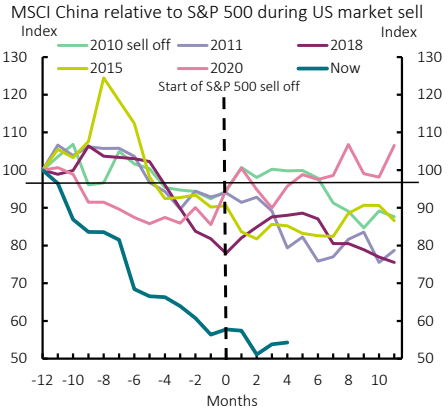
Exhibits 9, 10, and 11: China's financial markets will react to a US slowdown

10 year generic yields of government bonds (3mma)



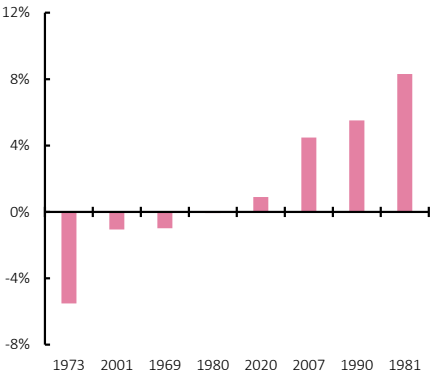
Source: Bloomberg and AXA IM Research, 1 September 2022

MSCI China relative to S&P 500 during US market sell



Source: Bloomberg and AXA IM Research, 1 September 2022

Dollar DXY moves during US recessions



Source: Bloomberg and AXA IM Research, 1 September 2022

7 September 2022

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