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Geopolitics and ballpark estimates

By Thomas Lam and David Fernandez

MOST economists commenced 2022 with 3 key assumptions on the global economy: 1) Some policy normalisation and reversal, though cautious and uneven, are likely to occur in economies with above-average growth and inflation; 2) The Covid-19 infection wave, while presumably asymmetric and recurrent across countries, appears to have less of an imprint on cyclical activity on balance; 3) The lingering supply disruptions resulting from the pandemic, albeit still intense and widespread, should be easing gradually.

As such, the global gross domestic product (gdp) growth and inflation outlook was generally expected to mean-revert, but only partially, in 2022. Then on Feb 24, a major geopolitical conflict erupted in Europe, jolting financial markets and raising risk assessments across the world. Broadly, this conflict not only exacerbates supply disruptions, but also weakens demand via various channels. Consequently, the global outlook – depending on the duration, magnitude and pervasiveness of the shocks – becomes uncomfortably foggy.

Although geopolitical risk is generally viewed as a crucial input to economic decisions, it is not easy to encapsulate, assess and map out its ramifications. One approach is to harness text-based measures and proxy indicators to provide ballpark estimates of the likely impact of geopolitical risk on headline growth and inflation.

A text-based Geopolitical Risk (GPR) Index (developed by Dario Caldara and Matteo Iacoviello), which captures the frequency of relevant articles in English-language newspapers, is one available measure that seeks to detect and condense a long history of salient geopolitical events. The GPR Index can be further divided into “threats” and “acts”, with the former being relatively less noisy, possibly emitting better signals at times on the likely economic impact.

Our calculations using the GPR Index (with longer history) suggest that the recent Russia-Ukraine escalation probably ranks at least in the top 10 per cent of the starkest global geopolitical events going back to 1900. Indeed, Senior Minister Tharman Shanmugaratnam emphasised in remarks at an investment conference on Mar 9 that the “war in Ukraine represents a rupture in the system of rules that governed global stability... We now face a period of heightened and likely prolonged geopolitical insecurity”.

Longer-term implications could be more tectonic

To gauge the extent of the Russia-Ukraine conflict on the global economy, we construct a simple econometric framework, using GDP, equity-implied volatility and different GPR measures (the GPR Index and its sub-components). Our exercise suggests that the recent escalation might subtract between a tenth and seven-tenths from global growth, with the upper end of the range corresponding to the outsized reaction in the “threats” sub-index.

In addition, we find that the greatest negative imprint on growth tends to be concentrated either 1 or 2 quarters after the initial jump in geopolitical risk, with the bulk of the impact observed during the first 4 quarters. Moreover, we discover that geopolitical events tend to impart a larger contemporaneous effect on financial conditions, as implied by higher equity volatility, possibly with more enduring negative effects on growth and extending beyond the initial 4 quarters.

Alternatively, we can analyse the reaction from oil prices, which is usually viewed as a correlate of geopolitical shocks, to estimate the likely imprint on headline growth and inflation. As best we can judge, an increase in the price of oil to around US\$140 a barrel from its year-end 2021 level, all else equal, is likely to lower global GDP growth by roughly 1 percentage point (with a range between 0.5 point and 1.5 points) and raise headline inflation by almost 1.5 percentage points (ranging at least 1 point to roughly 2 points) on average.

Broadly, global energy supply shocks, all else equal, typically impact emerging market economies more than developed economies, though the growth and inflation response in the current episode is very likely to be greater at the epicentre in Europe. Similarly, net commodity importers are usually more negatively affected than commodity exporters, especially the smaller and more open economies. Although geopolitical events are often linked to supply shocks, which tend to raise prices and lower output in general, the aforementioned estimates merely provide a static view of the current economic shifts with unchanged policy assumptions.

To be sure, the actual dynamics are more complex if the spillovers are viewed through a broader lens of supply and demand interactions, especially when amplified by financial market adjustments. Still, when a geopolitical situation remains decidedly fluid, as in the current context, ballpark estimates might allow us to connect the hazy dots and help assess partially the risks surrounding the modal outcome. Besides, the longer-term implications of the current geopolitics, which one may only speculate on at this juncture, can potentially be more tectonic.

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