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TOP_{of} MIND



The potential geopolitical, economic, and asset implications of the conflict unfolding between Russia and the West over Ukraine are Top of Mind. We speak to three Russia watchers for context and views: former US senior intelligence officer Andrea Kendall-Taylor, Director of the Moscow Center of the Carnegie Endowment, Dmitri Trenin, and Professor at Johns Hopkins SAIS, Michael Mandelbaum. They interpret the lead-up to recent events very differently. But, at this point, Kendall-Taylor believes that Russia may not relent until it has secured a large swath of Ukrainian territory, and Trenin envisions a more permanent rupture between Russia and the West. We turn to sanctions policy expert Eddie Fishman and GS analysts to understand why

and how sanctions—and their economic and market impacts—will differ from the 2014 conflict. And we argue that a tighter backdrop for commodities leaves them more vulnerable to even small disruptions, and the de-globalization trend that these geopolitical risks reflect could reinforce the other major global concern today—inflationary pressures.

We should expect Russian occupation of a large part of Ukraine, even if that means a war that could end in tens of thousands of casualties and lead to a refugee crisis as Ukrainians pour into Eastern Europe.

- Andrea Kendall-Taylor

What started as an attempt to restore a geopolitical and strategic equilibrium between Russia and the West in Europe has evolved into a battle in, and for, Ukraine... and no compromise appears possible for the foreseeable future.

- Dmitri Trenin

WHAT'S INSIDE

INTERVIEWS WITH:

Andrea Kendall-Taylor, Director, Transatlantic Security Program, CNAS Dmitri Trenin, Director, Carnegie Moscow Center Eddie Fishman, Nonresident Senior Fellow, Atlantic Council Michael Mandelbaum, Professor, Johns Hopkins University GREATER RESILIENCE, GREATER LEVERAGE Clemens Grafe and Andrew Matheny, GS CEEMEA Economics Research SANCTIONS: WHERE, AND HOW, FROM HERE Alec Phillips, GS US Economics Research THE GEOPOLITICAL HEDGE OF FIRST RESORT

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Damien Courvalin, Samantha Dart, Callum Bruce, GS Commodities Research

THE COST OF DE-GLOBALIZATION Jeff Currie, GS Commodities Research

RUSSIA-UKRAINE: EUROPEAN ECONOMIC RISKS Jari Stehn, GS Europe Economics Research

RUSSIA-UKRAINE: AN ECONOMIC DECOUPLING Andrew Matheny, GS CEEMEA Economics Research

...AND MORE

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Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.

Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

- We raised our Fed baseline to seven 25bp rate hikes in 2022 following the strong Jan CPI inflation print.
- We raised our YE22 core PCE inflation forecast to 3.1% to reflect continued firmness in price and wage inflation.
- Slightly lowered our 2022 Q4/Q4 GDP forecast to 2.2% based on the Omicron hit to growth and a sharp expected fiscal drag.

Datapoints/trends we're focused on

- Terminal rate; we see 2.5%-2.75% vs. market pricing ~1.7%.
- Wage-price spiral, which we view as a risk given the tight labor market and an extended period of price inflation.

Fed: steeper and further

Fed funds rate, percent

Japan

Latest GS proprietary datapoints/major changes in views

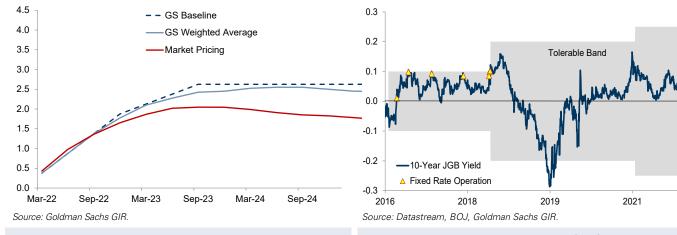
• We lowered our CY2022 GDP forecast to 2% based on a larger-than-expected Omicron hit to activity in Q1.

Datapoints/trends we're focused on

- Yield curve control, which we expect the BOJ to defend despite the recent appreciation of 10y JGB yields close to the upper limit of their tolerable band.
- Shunto wage negotiations, which we think will see a 2% headline wage hike based on CPI and corporate earnings.
- Omicron wave; cases continue to rise and people mobility has dropped sharply, posing downside risk to the growth outlook.

YCC: under pressure

10y JGB yield and the BOJ's tolerance band, %



Europe

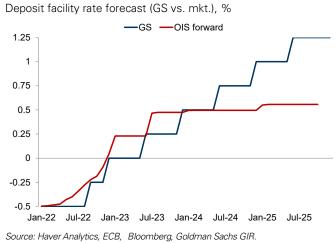
Latest GS proprietary datapoints/major changes in views

- We recently brought forward our expectation for the end of ECB QE to June and the start of rate hikes to Sept given recent ECB messaging and labor market/inflation data.
- We raised our YE22 core inflation forecast to 2%, and see upside risk from energy prices and supply bottlenecks.
- We steepened our expectation for the path of BoE rate hikes to include two additional 25bp moves through August.

Datapoints/trends we're focused on

• Russia-Ukraine, which could weigh on Euro area growth in the event of sharp FCI tightening and energy supply cuts.

ECB: an end to negative rates in sight?



Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

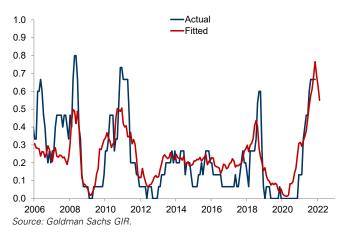
• We lowered our 2022 Russia GDP forecast to 2% given recent FCI tightening and slower oil production growth.

Datapoints/trends we're focused on

- The EM hiking cycle, which may be reaching a peak, albeit with notable differentiation between "early" and "late" hikers.
- China policy easing; we continue to expect another 50bp RRR cut and 10bp policy rate cut by end-Q2.
- Commodities; we see more room to run for oil, copper, and aluminum prices, suggesting upside for EM inflation.
- Global FCI, which is now tighter than it was pre-Covid.

EM hiking cycle: reaching a peak

Share of countries hiking rates over the following 3m, ratio



Russia Risk

With a broader Russian invasion of Ukraine underway, the potential geopolitical, economic, and asset implications of the conflict between Russia and the West over Ukraine are once again Top of Mind. We turn to several Russia watchers for context on what led to the recent reescalation in tensions following Russia's annexation of Crimea in 2014, what Putin's ultimate goals are in this latest crisis, and, crucially, just how far he is willing to go to achieve them.

We first speak with Andrea Kendall-Taylor, former Deputy National Intelligence Officer for Russia and Eurasia at the National Intelligence Council, who believes that Putin's primary objective is to keep Ukraine in Russia's sphere of influence, consistent with his long-held view that Russia and Ukraine are one and the same. She argues that the recognition of the independence of Donetsk and Luhansk—territories in Eastern Ukraine where Russian-backed separatist forces have been present since 2014—was a clear prelude to a broader confrontation because Russia accomplished little with that action alone. And she believes that its recent advances may not stop until it has secured a significant swath of Ukrainian territory.

But Dmitri Trenin, Director of the Moscow Center of the Carnegie Endowment for International Peace who we also spoke to in 2014, views the latest conflict as initially about Europe's post-Cold War security architecture, although, he says, what started as an attempt to restore a geopolitical and strategic equilibrium between Russia and the West in Europe has evolved into a battle in, and for, Ukraine. In his view, the recent developments represent the clearest and most permanent rupture between Russia and the West since the end of the Cold War.

Michael Mandelbaum, Professor Emeritus of American foreign policy at Johns Hopkins' School of Advanced International Studies, then makes the case that NATO expansion, which he characterizes as one of the greatest blunders in the history of American foreign policy, played an important role in laying the groundwork for the current conflict by helping to create a reflexively anti-Western mindset in Russia.

So where does the conflict go from here? With sanctions quickly rolled out following the recognition of independence of Donetsk and Luhansk and substantially ramped up following Russia's latest escalation, we turn to Alec Phillips, GS Chief US Political Economist, to detail the current set of sanctions, and what additional sanctions are, and aren't, on the table from the Biden administration. And given that the sanctions imposed in response to Russia's annexation of Crimea have clearly failed at deterring further Russian advances, we also speak to Eddie Fishman, former Russia and Europe lead in the US State Department's Office of Economic Sanctions Policy and Implementation, to understand how the sanctions are different this time around.

Fishman explains that unlike in 2014 when sanctions were intended to be measured given that US policy toward Russia

was still focused on Russia's integration into global economy, the Administration's strategy today is to "start high and stay high", which he says the Administration has already made good on by imposing full-blocking sanctions on several major Russian banks—an unprecedented move—and export controls on critical technologies. Fishman says there is little doubt that these harsh sanctions, and potentially others, will significantly impact Russia's financial system and economy.

But GS CEEMEA economists Clemens Grafe and Andrew Matheny argue that the set of policy options available to the West today is more limited than it was in 2014, as the sanctions imposed in the wake of the Crimea annexation have ultimately left Russia more resilient and insulated from Western pressures. Case in point: Russia's balance sheet, external, and fiscal balances have strengthened considerably since 2014, and it is no longer dependent on external financing. At the same time, the largest arrow in Russia's quiver—the world's, and especially Europe's, reliance on Russian commodities—remains intact, with Russia still providing ~25-30% of European energy supplies. In short, Russia has greater leverage today.

But while that may be the case, GS commodities analysts Damien Courvalin, Samantha Dart, and Callum Bruce argue that incentives on both sides of the conflict suggest prolonged disruptions to commodity supplies are unlikely. This, according to GS Chief European Economist Jari Stehn, is one reason why the current situation poses downside risk to European growth, but this risk is likely to be manageable unless the situation deteriorates markedly.

But our commodities analysts also emphasize that, unlike in 2014 when the world was on the verge of an energy glut, exceptionally tight inventory levels and low spare production capacity across the commodity complex today leave commodities vulnerable to even small physical disruptions that could result from a conflict. And they see oil, and especially gold, as an effective diversifier against geopolitical risk. As a result, they argue that the case for a larger portfolio allocation to commodities has rarely been stronger. And beyond commodities, we dig into the specific implications of the conflict for Russian and Ukrainian FX, credit, and equities on page 21.

Finally, Jeff Currie, GS Global Head of Commodities Research, puts all of the above into a broader context, making the case that the geopolitical tensions playing out today are a continuation of a de-globalization trend that has more room to run, likely reinforcing the other major global concern of the moment—rising inflationary pressures.

Allison Nathan, Editor

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Interview with Andrea Kendall-Taylor

Andrea Kendall-Taylor is the former Deputy National Intelligence Officer for Russia and Eurasia at the National Intelligence Council in the Office of the Director of National Intelligence and a former senior analyst at the Central Intelligence Agency, where she worked on Russia and Eurasia. She is Senior Fellow and Director of the Transatlantic Security Program at the Center for a New American Security. Below, she argues that Russia's invasion will not be limited and that Moscow may attempt to hold on to a significant amount of Ukrainian territory. *The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.*



Allison Nathan: Why was the formal recognition of the independence of two separatist regions in Ukraine – Donetsk and Luhansk – clearly only a first step in President Putin achieving his objectives vis-à-vis Ukraine?

Andrea Kendall-Taylor: Russianbacked separatist forces have been in

Ukraine in Donetsk and Luhansk since 2014, so that move just formalized and made more overt Russia's presence there. This was clearly just a prelude for a broader confrontation with Ukraine, as Russia accomplished little by recognizing their independence. If Putin had stopped there, he would have been arguably worse off because recognizing these territories spelled the end of the Minsk II Agreement, which, if implemented, would have provided political autonomy to Donetsk and Luhansk within the Ukrainian state, giving Russia a veto over Ukraine's foreign policy. Minsk II is now dead, and so, in theory, the rest of Ukraine would have been free to continue democratizing and moving towards Europe, leaving the separatist regions behind. So if Russia's goal is to keep Ukraine in its orbit, Putin had to take further action, and that is clearly playing out at this point.

Allison Nathan: But is ensuring that Ukraine remains in Russia's sphere of influence Putin's main objective with these actions?

Andrea Kendall-Taylor: Yes, it's clear that keeping Ukraine in Russia's orbit is Putin's primary objective. That was on full display in his February 21 address, in which he again articulated his view that Ukraine and Russia are one and the same, and his deep belief that Ukraine doesn't have the right to be an independent nation. Although Putin's remarks at times have a loose relationship with the truth and are obfuscated in an effort to forward his underlying strategic objectives, at other times he very clearly lays out his objectives for the world to see. These are important moments, like his 2007 Munich speech, in which he railed against the US and what he sees as its unilateralism.

The February 21 speech felt like that to me; he was laying out his grievances about Ukraine and, more broadly, Russia's position in the world at the end of the Cold War. And, importantly, he was building a case for war with the domestic population. He was explaining to the Russian public why the use of force, which had been approved by the Duma, Russia's parliament, would be necessary—because Russia can no longer sit back and accept what he sees as US and Western aggression against it, which has deprived Russia of its rightful position as a great global power. So, I think this is a case where he clearly telegraphed where this conflict was headed, and we should expect Russian occupation of a large part of Ukraine, even if that means a war that could end in tens of thousands of casualties and lead to a refugee crisis as Ukrainians pour into Eastern Europe. I hope that doesn't happen, but it's clear that Putin is willing to go that far if need be, and all signs point to a large and prolonged conflict at this point.

Allison Nathan: But Putin seems to want the support of his people, which arguably a drawn-out war that incurs substantial losses wouldn't get him. How does that consideration factor in?

Andrea Kendall-Taylor: Putin is now ruling through fear and calculating that he has increased domestic repression sufficiently that there's no space for any significant backlash. But we shouldn't underestimate the risk that Putin is taking, and that he could be grossly miscalculating. It's important to underscore just how isolated Putin has been in the last couple of years, and particularly during the pandemic. It's also clear from that recent mockery of a security council meeting between himself and his advisors that there is now nobody within his inner circle who can constrain him and who can present information that is inconsistent with Putin's world view. So we are in a dangerous place.

This is a case where [Putin] clearly telegraphed where this conflict was headed, and we should expect Russian occupation of a large part of Ukraine, even if that means a war that could end in tens of thousands of casualties and lead to a refugee crisis as Ukrainians pour into Eastern Europe."

Allison Nathan: If Putin's ultimate intention was the broader action that has now begun to take place, why take the initial steps of advertising his intentions and recognizing the separatist-backed regions as independent?

Andrea Kendall-Taylor: These actions were meant to provide the pretext for an eventual invasion. Russia legally recognizing these territories as independent led to Donetsk and Luhansk "inviting" Russian forces in to help defend them from Ukraine. A similar situation occurred in Syria in 2015, when President Bashar al-Assad "invited" Russian forces into the country to combat anti-government rebel groups. Establishing such a pretext is an effort to flip the script so that at least some of Russia's population, and/or other potentially sympathetic audiences, maybe in China, Argentina, or Brazil, continue to support Russia, and it doesn't end up entirely isolated. These steps are also indicative of an incrementalism that Putin is known for in which he pokes and prods his adversaries to gauge their response. It's possible that he wanted to see if the West would be divided and argue about whether or not this step constituted an invasion.

Allison Nathan: Is diplomacy now dead? And if so, what is the West's likely next move?

Andrea Kendall-Taylor: Yes, it seems that way. But once Putin really laid out his case for war, it was difficult to envision any sort of compromise that would have fulfilled the objectives that he has articulated in any case.

So in terms of what the West is likely to do from here, it's clear that sanctions will remain a key tool; the Administration has already implemented harsh sanctions and more could be imposed. The Administration is also sending more US troops to the Baltic countries to reassure our NATO allies and shore up our Eastern flank to ensure that the conflict remains contained to Ukraine. The Administration is also focused on the risk of asymmetric retaliation from Russia through cyber warfare, and other means, and is working with our allies and partners to strengthen our resilience against such threats.

Allison Nathan: But even if the US is sending more troops to Eastern Europe, isn't it clear that we won't commit troops to any confrontation that emanates from this crisis?

Andrea Kendall-Taylor: Yes, the Administration won't put US forces in harm's way, or in any potential situation that would risk a direct military confrontation with Russia. The risk of escalation between two nuclear powers in this way is a place nobody has any intention of going. We are instead focused on strengthening the NATO alliance, which extends to other non-NATO member states like Sweden and Finland. And even if we are not willing to engage in direct combat, the prospect of Russia moving its military infrastructure into Ukraine—right up against NATO's borders—and keeping military forces in Belarus is setting up for a period of heightened risk and a prolonged and intense confrontation between Russia and US and its allies.

Allison Nathan: Given all of this, do even very restrictive sanctions have any hope of shifting the course of the conflict? What can sanctions really achieve?

Andrea Kendall-Taylor: No, sanctions won't act as a deterrent when dealing with someone like Putin, who is so intent on pursuing maximalist objectives that the economic costs don't factor into his calculus to any meaningful degree. The goal of sanctions at this point is to raise the costs of the conflict, to signal to the Russian people that Putin is taking their country in the wrong direction, and, critically, to strangle Russia's ability to partake in destabilizing activities internationally. To that end, the West has targeted segments of Russia's economy that could drive growth, that then fuel the defense budget. And additional measures, like export controls, are being implemented to try to restrict Russia's defense-industrial complex.

Allison Nathan: Will the current adversarial relationship between Russia and the West likely outlast Putin?

Andrea Kendall-Taylor: My sense is that Putin is setting up his successor for prolonged confrontation, because it will be very difficult to resolve the thicket of thorny issues he will have left behind. For example, when Putin is no longer ruling Russia, will the new leader just give Crimea back to Ukraine? That's highly unlikely. It's also important to remember that many of the pillars of Russian foreign policy that Putin espouses, such as Russia's right to a sphere of influence on par with the great powers, are widely held by the Russian elite, and would continue to guide Russian foreign policy regardless of who's in power. And history suggests that when longtime leaders exit, usually by death in office, it's more common to have policy continuity because there is substantial pressure to find a consensus replacement who can ensure that the regime lives on. So, unfortunately, the odds are that this adversarial relationship will continue beyond Putin.

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Allison Nathan: What are the broader geopolitical implications of the recent developments?

Andrea Kendall-Taylor: As the threat from Russia continues to rise at the same time that we're dealing with a rising China, the US will have to carefully consider how to manage two adversaries at the same time. In the wake of the recent developments, the demand from allies for an enhanced US military presence into Europe will increase. But the more forces and weapon systems we put in Europe, the less resources that will be available to keep China in check, which we recognize probably poses the more significant, longer-term threat. So finding the right balance and figuring out how to simultaneously navigate two rivals, who, by the way, have deepened their relationship with each other, is going to be the number one challenge for the US moving forward.

Interview with Dmitri Trenin

Dmitri Trenin is Director of the Moscow Center of the Carnegie Endowment for International Peace. From 1972 to 1993, he served in the Soviet and Russian armed forces, including participation on the staff for US-Soviet nuclear talks in Geneva and teaching at the Military Institute. Below, he argues that Putin's main objective in the crisis with Ukraine is to alter Europe's security order, but that has evolved to be a battle in, and for, Ukraine. *The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.*





Allison Nathan: We last spoke following Russia's annexation of Crimea in 2014. How has the evolution of the relationship between Russia and the West since contributed to the current crisis?

Dmitri Trenin: We have embarked on something truly major in terms of Russia's position in the world and its

relationship with the West. In 2014, President Putin still saw some possibility of reaching an accommodation with the West. Although I was quite skeptical from the very start, the view from the Kremlin initially was that Crimea would be similar to Russia's 2008 war with Georgia in that a period of heightened tensions would eventually be followed by some form of reset in the Russian-Western relationship.

But after many years of severely strained relations, it's now widely accepted in Russia that such a reset won't happen in the foreseeable future and that confrontation will continue and intensify, with the US maintaining and building up pressure in the hope that Putin will eventually be succeeded by a more Western-oriented leader. In response to these pressures, Russia is finally moving away from its illusion of integration with the West and toward reconstructing its true distinct identity. So it's not just the post-Cold War legacy of Gorbachev and Yeltsin that Putin is revising, but that of Peter the Great who saw in Europe a model for Russia to follow.

This is clear not only in foreign policy, where the joint statement <u>released</u> by Xi and Putin after Putin's visit to Beijing at the start of this year's Olympics underscored that Russia and China subscribe to a very different worldview than the West, but also in Russia's domestic politics, where amendments to the country's constitution in 2020 not only allowed Putin to serve as president until 2036, but laid out a set of traditional national values as the bedrock of the state and society. So, while we've seen plenty of ups and downs between Russia and the West in recent decades, the current crisis centered on Ukraine and leading to Moscow's recognition of the breakaway Donetsk and Luhansk republics as independent states, and now further advances and a large-scale military operation in Ukraine, represent a clearer and more permanent rupture with the West.

Allison Nathan: Does the West bear some responsibility for how things have played out?

Dmitri Trenin: While both sides have played a role, my thinking on this question has evolved. For a long time, I blamed the US as the stronger, wiser, and more comfortably disposed party for not managing Russia more amicably. But I've since come

around to the view that Russia's exclusion from the post-Cold War security architecture in Europe was actually based on pretty good instincts in the West that if you let Russia into the tent, you likely won't recognize the tent a few years later. A NATO that includes Russia would look a lot like the UN Security Council where Russia wields a veto, greatly diluting the US position. So, I don't find arguments that greater Russian integration into the West would've prevented the current crisis particularly compelling.

The bigger disappointment for the Kremlin in the past eight years has been Europe. While the US has always been regarded as a hegemon that jealously guards its dominant position, Europe has typically been seen as a friendlier part of the West, but that no longer seems to be the case. This was richly reflected in recent events around the current crisis; Berlin and Paris have essentially backed Kyiv and are fully on board with Washington on the sanctions issue, including on the Nord Stream 2 gas pipeline. That said, it's now clearer than ever that it's simply not in Russia's DNA to walk under any other power, be it the now adversarial United States or the strategic partner China. Russia today is seeking a role as an independent global power.

So, while we've seen plenty of ups and downs between Russia and the West in recent decades, the current crisis centered on Ukraine and leading to Moscow's recognition of the breakaway Donetsk and Luhansk republics as independent states, and now further advances in Ukraine, represent a clearer and more permanent rupture with the West."

Allison Nathan: Given that context, what are Putin's goals vis-à-vis Ukraine at this point, and why has he decided to take action now?

Dmitri Trenin: The decision to initiate the recent crisis around Ukraine was taken by Putin, and him alone, with the objective of changing Europe's security architecture from one dominated by the US and managed though NATO to one that instead rests on two pillars—the US and Russia—and is regulated by agreements between them. In terms of why now, in <u>remarks</u> that Putin gave to the Duma—the Russian parliament—in 2018 while revealing an array of new Russian weapons systems, he essentially said to the US, "you haven't listened to us in the past, listen to us now." That is to say, Putin has come to believe that the US only understands the language of force, and the new weapons systems emboldened him to embark on a show of force to attract attention to Russian demands. This began in March 2021 with the first troop concentration along the Ukrainian border, which got President Biden to sit down with Putin and discuss strategic stability and cybersecurity, something that wasn't originally on Biden's agenda. And then again in late 2021, when the new weapons systems were ready to be deployed, which Putin felt provided a temporary strategic advantage to be exploited, he once again saw an opening to force attention to his demands for a new security order in Europe. The security status and the geopolitical orientation of Ukraine were central to the issue.

Allison Nathan: But is this really about European security, or instead Putin's desire to reestablish territorial control over former Soviet states, as <u>he described</u> in his February 21, 2022 address?

Dmitri Trenin: The recent crisis was originally about the European security order and, as Putin put it, US/NATO security guarantees to Russia. Top of the list in those guarantees was banning Ukraine from ever being admitted to NATO, foreswearing not to deploy strike weapons or place Western military bases in Ukraine, and ending Western military assistance to Kyiv. Closely linked to that list of demands was the insistence that France, Germany and, above all, the United States, compel Kyiv to start implementing its obligations under the 2015 Minsk II Agreement on Donbas. On all of those key issues, however, Russia was rebuffed. This led Vladimir Putin to make an about-face, and declare the Minsk II Agreement as non-performing due to Ukraine's position de facto supported by the West-which is essentially correct-and recognize the selfproclaimed Donbas republics and deploy Russian military units there, and then mount what he is calling a special military operation in all of Ukraine.

What started as an attempt to restore a geopolitical and strategic equilibrium between Russia and the West in Europe has evolved into a battle in, and for, Ukraine. This will probably be the hot spot in Europe's east for the foreseeable future. Ukraine now features very highly on the Kremlin's agenda, and no compromise appears possible for the foreseeable future."

This step in itself had huge implications. In the February 21, 2022 address to the nation that accompanied the recognition, Putin essentially called Ukraine an artificial creation of Lenin and the Russian Bolsheviks and vowed to help Kyiv to "do away with that Communist legacy". This raised the specter of other Russian-speaking territories, beyond Donbas, being chipped

away from Ukraine. Putin also said the current "regime" in Kyiv was the result of the 2014 Maidan coup d'etat, and, moreover, responsible for numerous crimes, such as the "genocide" of ethnic Russians. So, what started as an attempt to restore a geopolitical and strategic equilibrium between Russia and the West in Europe has evolved into a battle in, and for, Ukraine. This will probably be the hot spot in Europe's east for the foreseeable future. Ukraine now features very highly on the Kremlin's agenda, and no compromise appears possible for the foreseeable future.

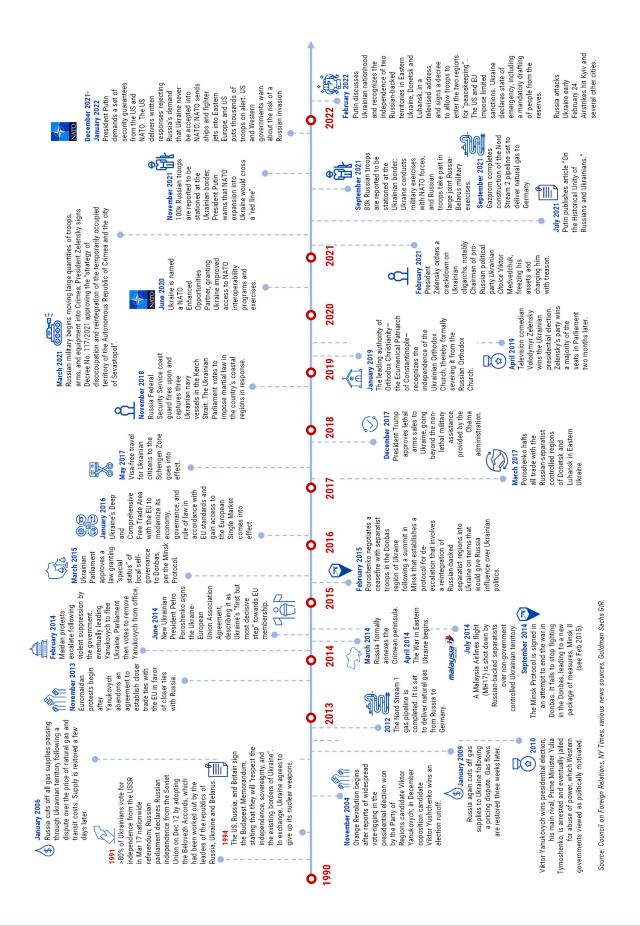
Allison Nathan: Is another motivation of the recent actions to rally the Russian people around him as a successful wartime president?

Dmitri Trenin: That Western narrative is just flat out wrong. Russian people by and large are not a warlike people. Foreign wars aren't very popular in Russia; it's not in the culture. Even the war in Syria is only a source of pride in the very narrow sense that it demonstrated Russia's military capabilities; it, like the Soviet invasion of Afghanistan, is treated with respect, but isn't celebrated in Russia. Russians were exuberant after Crimea's incorporation into Russia largely because it happened like a miracle without a single shot fired, which is one reason why Putin became so popular in its aftermath. But that would likely have been different if there'd been real fighting and losses. The idea that he needs to invade a new country every year to stay in power is off base and fails to understand the character of the Russian people and what they desire in a leader.

Western sanctions won't stop Putin. More broadly, almost anything Russia identifies as a military objective, including a full invasion all the way to Kyiv and beyond, is strategically and tactically possible."

Allison Nathan: Will sanctions or other Western actions barring a military response, which seems off the table compel Russia to stand down at some point?

Dmitri Trenin: Western sanctions won't stop Putin. More broadly, almost anything Russia identifies as a military objective, including a full invasion all the way to Kyiv and beyond, is strategically and tactically possible. There are few military obstacles to Russia in Ukraine given its overwhelming force advantage. Clearly, this threat has weight in Ukraine given that half of the Rada—the Ukrainian parliament—failed to show up for a recent vote, having already fled the country along with essentially all of the moneyed elite, which just underscores how little loyalty there was to the country within parts of the elite. For the Kremlin, that was an interesting piece of intelligence.



Vladimir Putin... in his own words

C "Russia was and will remain a great power. It is preconditioned by the inseparable characteristics of its geopolitical, economic and cultural existence. They determined the mentality of Russians and the policy of the government throughout the history of Russia and they cannot but do so at present."

"Russia at the Turn of the Millennium", December 1999

"I think it is obvious that NATO expansion does not have any relation with the modernization of the Alliance itself or with ensuring security in Europe. On the contrary, it represents a serious provocation that reduces the level of mutual trust. And we have the right to ask: against whom is this expansion intended?"

"Speech to the Munich Security Conference on Security Policy", February 2007

"We are seeing a greater and greater disdain for the basic principles of international law. And independent legal norms are, as a matter of fact, coming increasingly closer to one state's legal system.... First and foremost, the United States, has overstepped its national borders in every way. This is visible in the economic, political, cultural and educational policies it imposes on other nations."

"Speech to the Munich Security Conference on Security Policy", February 2007

"We view the appearance of a powerful military bloc on our borders, a bloc whose members are subject in part to Article 5 of the Washington Treaty, as a direct threat to the security of our country. The claim that this process is not directed against Russia will not suffice. National security is not based on promises."

"Statement at the NATO Summit in Bucharest", April 2008

"The so-called civilized world, of which our Western colleagues have self-appointed themselves the only representatives, prefers not to notice [the situation in the Donbas] as if there isn't a genocide through which nearly four million people are being put through, all simply because these people did not agree to the Western coup of Ukraine in 2014."

"Address by the President of the Russian Federation", February 2022

Source: Collected speeches of the President of Russia, Kremlin.Ru.

"With Ukraine, our Western partners have crossed the line, playing the bear and acting irresponsibly and unprofessionally.... If you compress the spring all the way to its limit, it will snap back hard. You must always remember this."

"Address by the President of the Russian Federation", March 2014

"The allegations and statements that Russia is trying to establish some sort of empire, encroaching on the sovereignty of its neighbors, are groundless. Russia does not need any kind of special, exclusive place in the world....While respecting the interests of others, we simply want for our own interests to be taken into account and for our position to be respected."

"Speech to the Valdai International Discussion Club", October 2014

"I am confident that true sovereignty of Ukraine is possible only in partnership with Russia. Our spiritual, human and civilizational ties formed for centuries and have their origins in the same sources, they have been hardened by common trials, achievements and victories. Our kinship has been transmitted from generation to generation. It is in the hearts and the memory of people living in modern Russia and Ukraine, in the blood ties that unite millions of our families. Together we have always been and will be many times stronger and more successful. For we are one people."

"On the Historical Unity of Russians and Ukrainians", July 2021

"The new inter-State relations between Russia and China are superior to political and military alliances of the Cold War era. Friendship between the two States has no limits, there are no 'forbidden' areas of cooperation, strengthening of bilateral strategic cooperation is neither aimed against third countries nor affected by the changing international environment and circumstantial changes in third countries."

"Joint Statement of the Russian Federation and the People's Republic of China", February 2022

Greater resilience, greater leverage

Clemens Grafe and Andrew Matheny argue that Russia and Ukraine have become more economically resilient since the 2014 crisis, which has meaningful implications for the strategic options available to the West in the current conflict

Russia's and Ukraine's economic backdrops have significantly changed since Russia's annexation of Crimea in 2014. Both countries entered that crisis with substantial debt, which made for a painful adjustment in the aftermath. Ukraine ultimately defaulted on its obligations and entered an IMF program, while the Russian Ruble lost around half of its value in 2014, as the fall in oil prices compounded the impact of Western sanctions. But both economies are now in a much better position to deal with the economic fallout of any potential escalation. This matters not only for an assessment of the risks, but also because it changes the policy and strategic options available to Russia and Ukraine, as well as to the West.

Sanctions have meaningfully impacted Russia...

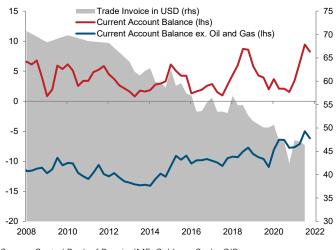
The sanctions imposed on Russia following the Crimea annexation generally targeted the funding of key entities in the financial, energy and defense sectors, as well as the state, and had a meaningful impact. Even though Russia's current terms of trade are similar to those in 2014, the Ruble in real terms is still more than 20% weaker. Russia's inward FDI as a share of GDP fell by about a third between 2014 and 2019.¹. Russian financing from BIS banks fell by three-guarters, and the stock of outstanding Russian Eurobonds essentially halved from 2014 to 2021. Although Russia's economy is larger than it was in 2014 in real terms, final domestic demand is still at its pre-2014 level. Accordingly, cumulative GDP growth over this period is only positive because exports were 17% higher in real terms in 2019 than in 2014, and the real depreciation of the Ruble led the share of imports in GDP to decline in real terms. Most importantly, the role of the Russian state in the economy and society expanded significantly. Although it's difficult to measure the economic impact, we think the state's larger role, together with the lack of FDI and inability of many Russian companies to expand abroad, has likely cost the country economic growth.

...but have also made it more resilient

In the face of these painful consequences, Russia has become more resilient. Russia's balance sheet, external, and fiscal balances have strengthened considerably since 2014. The wider public sector, including the Central Bank of Russia (CBR), the corporate sector, and the financial sector are net external creditors. The CBR has in excess of \$630bn in reserves, enough to back up three quarters of M2. Owing to the exportdriven structure of growth, the current account surplus has risen from below 2% of GDP in 2Q14 to around 9% of GDP in 4Q21, leaving substantial buffers of excess savings that can be tapped should the need arise. Importantly, and unlike in 2014, the Ruble is now free floating and the CBR is viewed as a credible inflation targeter, making it easier to use the exchange rate as a shock absorber. Domestic capital markets have also deepened significantly and are increasingly able to step in when foreign money leaves the country, and the Russian banking system has significantly consolidated, reducing inefficiencies.

Russia has also become largely independent of external financing, and Russian businesses and the government have prepared for potential future shocks like losing access to the USD. The use of the USD in trade and financial transactions has sharply declined. The Ministry of Finance no longer holds any USD-denominated assets in its oil fund, and the CBR has also reduced the share of USD in its reserves by half, to around 20%, as the Euro, and to a lesser extent the CNY, have become preferred alternatives. In addition to actively denominating contracts in different currencies, many Russian corporates and banks now routinely include clauses in contracts that stipulate the use of another currency for settlement in case the USD can't be used. Russia has also accelerated the use of its own payment cards, like Mir, as well as its own SWIFT-like System for Transfer of Financial Messages (SPFS) messaging service. However, both currently only operate domestically, leaving vulnerability to potential frictions around cross-border transactions in other currencies.

Russia has become more resilient since 2014 as its balance sheet, external, and fiscal balances have strengthened and it has become largely independent of external financing % of GDP (lhs), % of total (rhs)



Source: Central Bank of Russia, IMF, Goldman Sachs GIR.

Ukraine has also become more resilient

The structure and management of Ukraine's economy has also changed considerably since 2014, which has reduced its fiscal and external vulnerabilities and has left it much less dependent on foreign support. Specifically, prior to 2014, Ukraine was running sizable twin deficits while targeting the exchange rate, which left the country vulnerable even without the geopolitical shock it endured. But four major shifts have occurred since that

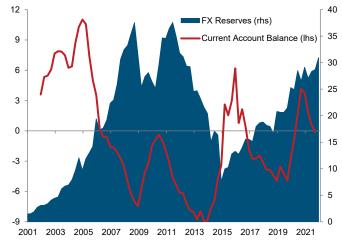
¹ We prefer to look at the cumulative impact since 2013, because the short term impact was compounded by the fall in oil prices, a factor that has now reverted. We compare with 2019 to avoid the pandemic shock.

have left Ukraine more resilient to external shocks: i) similar to Russia, a transition to a floating Hryvnia and flexible inflation targeting regime; ii) fiscal and quasi-fiscal consolidation; iii) a clean-up and recapitalization of the banking sector and iv) a sizable diversification of its current account balance receipts away from cyclical metal exports towards soft commodity exports, remittances, and IT and other service exports. Ukraine's economic interdependence with Russia has also fallen to a minimum (see pg. 23), with Ukraine no longer importing gas from Russia.

As a result of these policy adjustments, Ukrainian public debt fell from a peak of 85% of GDP in 2015 to 50% of GDP in 2019, FX reserves more than doubled in that time period, and growth was steady at around 2.5-3%. Ukraine's current account balance also swung into a surplus in 2020, which persisted into 2021, compared to a current account deficit of 9% of GDP in 2013. Historically, Ukrainian sovereign debt redemptions have totaled around 4-6% of GDP, but in 2022 and 2023 stand at 2.5% of GDP².

Even in the absence of any external financing, the current account deficit and sovereign external redemptions amount to 4% of GDP, or \$7bn, in 2022, large but manageable given current FX reserves of around \$30bn. And while external shocks have tended to be accompanied by capital flight in the past, Ukraine's flexible exchange rate, well-capitalized banking sector, and sizable amount of reserves significantly lower such a risk today. Furthermore, Ukraine is currently in a \$5bn IMF Stand-By Arrangement through mid-2022, which would likely be extended should the need arise, serving as an important financial backstop. And from a fiscal perspective, even a negative economic shock would likely push public debt ratios from currently moderate levels (44% of GDP as of 3Q21) to only moderately high levels. A fiscal starting point of a balanced primary budget could also provide more fiscal room if needed.

Reduced fiscal and external vulnerabilities have also left Ukraine more resilient than it was during the 2014 crisis % of GDP (lhs), \$bn (rhs)



Source: National Bank of Ukraine, Goldman Sachs GIR.

What hasn't changed: the world's reliance on Russian and Ukrainian commodities

The only interdependence that hasn't changed much since 2014 is the rest of the world's reliance on Russia and Ukraine for the supply of many commodities. Together, they produce 15-20% of global output of the main grains. Russia is also a significant global producer of hydrocarbons and most industrial metals. Given the tightness in global commodity markets, any disruption to the regions' exports is bound to have a major impact on commodity markets (see pgs. 16-17).

A more complicated set of policy options

Russia and Ukraine's greater resiliency, combined with the world's reliance on their commodity exports, has meaningful implications for the strategic options available to the different countries in the current conflict. Although Western policymakers have begun to roll out sanctions, their impact is uncertain. Additional Western sanctions on external financing won't likely have a significant effect on Russia. Sanctions on Russian exports would lead to substantial short-run costs on the rest of the world through rising commodity prices while Russia's external balance would likely dampen the impact on its economy. Cutting Russian banks off from the international payment system will likely be very painful for Russia, but the costs could spill over into commodity markets.

The least costly sanctions to the West will likely be targeted sanctions on exports to Russia similar to those employed during the Cold War, as well as restrictions on access to software and hardware, which will likely inflict some pain on Russia given its dependence on the West for most capital goods and these technologies. However, it will be difficult to target such sanctions at specific entities inside Russia in the same way as was done in 2014. The Introduction of meaningful sanctions therefore will likely require the West to accept significantly higher costs.

Clemens Grafe, Co-Head of CEEMEA Economics

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² Expected figures based on outstanding debt.

Interview with Eddie Fishman

Eddie Fishman is the former Russia and Europe Lead in the US State Department's Office of Economic Sanctions Policy and Implementation and former member of Secretary of State John Kerry's Policy Planning Staff. He is an Adjunct Professor of International and Public Affairs at Columbia University, an Adjunct Fellow at the Center for a New American Security, and a Nonresident Senior Fellow at the Atlantic Council. Below, he argues that the sanctions the West has begun to implement on Russia in response to the current crisis are an order of magnitude stronger than those rolled out in 2014.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.



Allison Nathan: You played a central role in designing the sanctions imposed on Russia in response to its annexation of Crimea in 2014. Those sanctions ultimately failed to deter Russian advances. Why is that?

Eddie Fishman: The sanctions package implemented in the wake of the Crimea annexation was intended

to be modest and measured. It is important to recall that, before Putin's invasion of Ukraine in 2014, the main objective of US policy toward Russia was to facilitate Russia's entrance into the global economy-a policy that dated back to the 1980s when Gorbachev presided over the warming of US-Soviet relations. Even through US disappointments with Russia that included the Russo-Georgian War in the last year of President George W. Bush's administration and the failed Russian reset during President Obama's first term, reversing the thematic thrust of US policy toward Russia that had prevailed for 25 years was challenging. Across the US government, Russia was not yet viewed as an adversary. So Russia's invasion of Crimea took the West by surprise. As a result, virtually no preparations had been made for such a scenario, and it was several months before US and European policymakers were ready to impose major sanctions. Sectoral sanctions were first imposed in July following the March annexation.

At the same time, the West was concerned that imposing strong economic sanctions on what was then the eighth largest economy in the world would disrupt the still-fragile international economy, which was recovering from the Global Financial Crisis. So the sanctions eventually imposed were modest and measured, largely in the form of sectoral sanctions on major Russian companies and banks that only restricted their access to Western debt markets rather than the full-blocking sanctions that the US has used against Iran and North Korea. For a comparison, if the level of sanctions imposed on Iran was a 10 out of 10, the Russia sanctions were more like a 2 out of 10.

But even though the sanctions were modest, they had a substantial impact. The Russian economy plunged into recession and the Ruble collapsed, sparking a financial crisis, although this was also partly the result of a sharp decline in oil prices around the same time. And while it's impossible to prove a counterfactual, there's good evidence that the sanctions helped discourage Russia from driving further into Ukraine's territory—President Putin abandoned his Novorossiya project

that envisioned annexing a large swath of Ukrainian territory into Russia—and provided motivation for the Minsk Accords. However, sanctions on Russia have stagnated since, and over time the Russian economy has adapted to them to the point that they no longer impact the economy in a significant manner.

Allison Nathan: So how are the sanctions that the Biden administration has imposed and/or could still impose in response to Russia's recent actions any different?

Eddie Fishman: The Biden administration's mantra throughout the current crisis has been "start high and stay high", meaning that the level of sanctions was intended to be more significant right out of the gate. In response to Russia's initial actions, the Biden administration imposed its first salvo of sanctions, including full-blocking sanctions on VEB and enhanced restrictions on Russian sovereign debt. My sense is that the Biden administration intended these actions as a shot across the bow. The sanctions imposed against VEB were significant-they marked the first time the US has imposed fullblocking sanctions on a major state-owned Russian financial institution. It's also noteworthy that the actions closely mirrored those announced by the EU, which projected to Putin that the US and Europe stood united. And I interpreted those sanctions as a warning that the Biden administration was prepared to cut off other major Russian banks from the US financial system, which it has since done following Russia's latest escalation on February 23.

Specifically, the Biden administration announced action against Russia's two largest financial institutions, Sberbank and VTB. It is imposing correspondent and payable-through account sanctions on Sberbank, and full-blocking sanctions on VTB. These are the strongest sanctions that have ever been applied to Russia, and will likely have a substantial impact on Russia's financial system and economy, as Sberbank and VTB combined hold 60% of all Russian deposits and over half of all Russian wages and pensions are paid through Sberbank. The Administration has also announced export controls on critical technologies, basically pulling out the playbook that was developed against Huawei and applying it to Russia, which will also likely be very significant and degrade Russia's defenseindustrial base over time.

Allison Nathan: Are there mechanisms to limit the potential blowback of impairing Russia's banks on the global economy?

Eddie Fishman: Yes, American sanctions law provides the Administration effectively limitless discretion in granting

general licenses and other exemptions to sanctions that could minimize blowback and rectify unintended consequences. Following the latest round of sanctions, OFAC issued several general licenses authorizing certain transactions, including those related to energy, to ensure that any unintentional ensnaring of payments for Russian energy in sanctions on Russian banks are avoided. That said, the type of high-impact sanctions that the Administration has implemented so far are never cost free. There will inevitably be some blowback.

The Biden administration today announced action against Russia's two largest financial institutions, Sberbank and VTB...these are the strongest sanctions that have ever been applied to Russia, and will likely have a substantial impact on Russia's financial system and economy."

Allison Nathan: The removal of Russia from SWIFT—the global electronic payment-messaging system—has been referred to as the "nuclear option" for sanctions. Do you agree with that characterization?

Eddie Fishman: No—it's not even close to being the nuclear option. SWIFT is just a messaging service. If the US and Europe decided to cut Russians banks off from SWIFT without imposing full-blocking sanctions on them, they could still transact with US and European financial institutions—they just couldn't use SWIFT to do so. And in a perverse way, that may actually increase the demand for SWIFT alternatives, such as Russia's own System for Transfer of Financial Messages (SPFS).

Allison Nathan: What effect will the recent halting of Gazprom's Nord Stream 2 pipeline have? Are further sanctions related to oil/gas exports on the table? Can any sanctions' package that doesn't include broader energy sanctions be effective?

Eddie Fishman: Germany's halting of the Nord Stream 2 pipeline is significant in what it means for the future of

Europe's reliance on Russian gas, but it won't have an immediate impact on Russia's economy. However, even with broader energy sanctions not being included in the sanctions announced and implemented so far, full-blocking and correspondent banking sanctions on Russia's largest banks will be very impactful. That said, any additional escalation from here that would inflict more pain on the Russian economy would almost certainly have to impact energy, which represents roughly two-thirds of Russia's exports and 50% of its budget revenues. So energy sanctions can't be off the table, and there's precedent for them. Rosneft, Russia's state-owned oil giant, and Russian gas company Novatek were both slapped with debt restrictions in 2014. The US and Europe also prohibited foreign investment in Russia's Arctic offshore, deepwater and shale oil projects. Those restrictions could be expanded to all conventional oil projects in Russia. And while sanctions on oil and especially gas sales would be the last straw given Europe's dependence on Russian natural gas and the lack of sufficient alternatives, it's possible that Russian oil sales could be sanctioned because oil is a much more fungible commodity that could be replaced over time. If the recent events lead to a major war in Europe, it would only be a matter of time before very harsh sanctions would be imposed across the Russian economy, including on the oil and gas sector.

While the Biden administration doesn't need Congress to impose similar sanctions on Russian oil [as on Iran], congressional action could compel the Administration to do so."

Congress can also play an important role. The 2012 sanctions that drastically curbed Iran's oil exports from 2.5 million barrels/day to below 1 million barrels/day were enshrined in congressional legislation that became law. While the Biden administration doesn't need Congress to impose similar sanctions on Russian oil, congressional action could compel the Administration to do so.

Sanctions: where, and how, from here

Alec Phillips lays out what additional sanctions on Russia are, and aren't, on the table from the Biden administration and the West, cautioning that several risks lie ahead

In response to Russia's recent actions in Ukraine, the Biden administration has announced two sets of sanctions on Russian entities. On February 22, the White House announced a first tranche of sanctions against Russia: full-blocking sanctions on two Russian-state owned banks, VEB and PSB, sanctions on five individuals the Treasury describes as "elites and families close to President Putin", and prohibiting US entities from transacting in the secondary market for Russian sovereign debt after March 1 (the primary market transactions and direct lending to government entities were already prohibited). The UK and EU took similar measures, with the UK sanctioning five banks and three individuals associated with Russian businesses and the EU sanctioning 22 individuals while Germany announced a halting of the Nord Stream 2 pipeline's approval. Other developed economies, including Australia, Canada, Japan, and Norway, have also announced steps.

The second round: export controls and further financial sanctions

Following Russia's escalation on February 23, on February 24 the US sanctioned five additional banks, including Russia's largest financial institutions Sberbank and VTB. Sberbank will be prohibited from maintaining correspondent accounts at US institutions, effectively preventing Dollar transactions, while the other banks will be fully blocked, which also includes a freeze on assets. The US also announced a ban on debt or equity investment in 13 Russian firms (five banks, four energy companies, and firms in telecom, shipping, rail, and diamond mining), and sanctions on seven individuals. The UK announced similar steps, including blocking and freezing the assets of major Russian banks as well as asset freezes on 100 Russian individuals and businesses. The EU also <u>announced</u> a second round of sanctions on Feb. 24.

In addition to sanctions on banks, individuals, and other entities, the US and UK have also announced new restrictions on exports to Russia. In the US, this includes new license requirements for a variety of technologies, including microelectronics, telecommunications items, sensors, navigation equipment, avionics, marine equipment, and aircraft components, with an assumption of denial. The Commerce Department has also added 49 firms to the "Entity List", effectively denying those firms access to US technology. Notably, this would cover US-produced goods as well as any foreign-produced goods in the relevant categories that are the "direct product" of US software or technology. Enforcing these restrictions on third-country produced products could be difficult, however.

Energy dependence complicates further actions

Where the West goes from here depends on how the situation in Ukraine evolves, but the most severe sanctions face two challenges. One, the measures that would substantially impact the Russian economy—like energy sanctions—would likely spill over into other economies, including the US and Europe. Two, such spillovers could weaken unity among allies, some of whom would bear a greater economic cost than others, in turn making sanctions less effective.

As a result, the US sanctions package announced on Feb. 24 has substantial exceptions. Most notably, while it sanctions major Russian financial institutions, it exempts certain transactions with those institutions related to energy and agricultural commodities, which account for nearly two-thirds of total exports. While an across-the-board block on Russian banks is possible, similar exceptions would likely apply, blunting the impact of such sanctions. The apparent reluctance of US and EU officials to cut off Russia from the SWIFT system likely relates to the same issue, as it could be difficult to provide the same types of exceptions.

It also appears unlikely that the US or EU would attempt to directly restrict Russian energy exports, in light of the EU's reliance on Russian gas and US political sensitivity to higher oil/gasoline prices, though the Biden administration might consider this as a last resort. If the US and its allies seek to target the energy sector or other extractive industries, a more likely avenue would be imposing restrictions on supplying financing, technology, or services to Russian companies in these sectors. Both the US and EU already impose financing restrictions on several Russian companies in the energy, defense, and financial sectors, and limited restrictions on trade with Russian energy companies.

Risks ahead

While we expect Western political leaders to pursue the sanctions with limited impacts on the US and European economies, there are nevertheless risks. One, the US Congress could pass and further strengthen sanctions legislation that had earlier stalled, now that Russia has taken tangible steps regarding Ukraine. This could come to the Senate floor in the next couple of weeks. While we would expect any congressional legislation to provide the Biden administration with some flexibility, there is a chance that it could mandate harsher sanctions than what the White House might undertake unilaterally.

Two, it's unclear how Russia's government might respond to sanctions. Russia has reacted to prior US sanctions with its own economic measures, including by banning imports of various US agricultural goods. While restrictions on exports to Russia would have little impact on the EU or US—exports to Russia and Ukraine account for 1% of Euro area GDP (see pg. 22) and less than 0.1% of US GDP—restrictions on the supply of commodities from Russia could have much more significant effects. While Russia has little incentive to curtail the supply of major commodities like oil and natural gas in light of their large share of overall Russian exports, a disruption to the supply of other commodities that provide less export income to Russia, like palladium, could pose challenges for international supply chains, as well as upside risks to inflation.

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Instrument	Sector	Action	Status (as of Feb 24)	Countries		
Nord Stream 2	Energy	Suspend certification, which was awaiting regulatory approval from the German government Sanction Nord Stream 2 AG and its corporate officers	Complete	GER, US		
Sovereign Debt	Financial	Prohibit transactions in Russian sovereign debt in the US/EU (US prohibitions currently for debt issued to begin after March 1, 2022; US institutions were already prohibited from the primary market)	New steps taken	US, EU, UK, JPN, CA, NOR ¹		
Property/Travel	Individuals	Freeze assets and ban travel	New steps taken	US, EU, UK, JPN, CA, AUS, NOR		
Blocking Banks	Block Russian banks from transacting with foreign entities <i>First tranche:</i> The US blocked two Russian banks: VEB, involved in domestic development and PSB, involved in defense ² ; the EU blocked two banks; and the UK blocked five banks <i>Second tranche:</i> New US restrictions on Sberbank, and full block on VTB, Otkritie, Novikom, and Sovcom; exceptions provided in 8 categories (e.g. energy). UK blocked and froze assets of major Russian banks, including VTB; EU announcements were still to come at the time of publication.		New steps taken	US, EU, UK, CA, AUS, NOR		
Currency Transactions	Financial	Coordinate to "limit Russia's ability" to transact in Dollars, Euros, Pounds, and Yen	New steps taken	US, EU, UK, JPN		
Export Controls	Tech, Restrict exports to Russia of US software, Export Defense,		New steps taken	US, EU, UK, JPN, CA, AUS		
Controls Aviation,		Further restrict lending and investment in Russian firms (previous US and EU ban on investment/lending to certain banks, defense firms, and energy firms; energy trade/services restrictions were limited to Arctic offshore, deepwater, and shale) The US applied financing prohibitions (new debt longer than 14 days and new equity) against 13 firms – two private entities and 11 SOEs, including Sberbank, Gazprombank, and Gazprom.	New steps taken	US, UK		
Energy Trade	Energy and Commodities	Further restrict trade of commodities and energy	No new actions			
SWIFT	Financial	Block Russia from using SWIFT system, making it difficult for Russian banks to transact overseas in any currency	No new actions			

Source: Treasury Department, White House, Congressional Research Service, New York Times, Goldman Sachs GIR.

¹ The UK and Japan will prohibit new debt issuance, but it's unclear whether secondary trading will be prohibited in the UK.
² VEB was already subject to financing restrictions, and PSB is involved in financing defense contractors that were already under US sanctions.

The geopolitical hedge of first resort

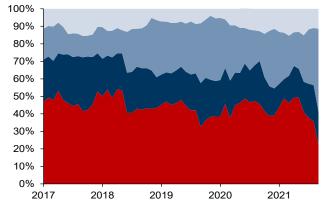
GS commodities research analysts argue that while current tensions are unlikely to significantly disrupt commodity flows, they only reinforce the bull case for commodities

The unfolding crisis between Russia and Ukraine raises the risk of disruptions to commodity flows, but our base case remains that prolonged disruptions are unlikely. That said, against the backdrop of already exceptionally tight inventory levels and low spare production capacity across the commodity complex, even small disruptions can have a large impact and potentially meaningful ripple effects across the complex. As a result, commodity price risk remains skewed to the upside from already elevated levels, particularly for European natural gas, wheat, corn and oil prices higher from already-elevated levels. More broadly, both oil and gold have historically served as effective diversifiers of geopolitical risk, with gold in particular potentially providing the cleanest hedge today should the conflict stoke global growth fears. As a result, the case for a rising portfolio allocation to commodities has rarely been stronger.

European natural gas: NS2 delay suggests higher prices

The EU's dependency on Russian natural gas—with Russia representing 22% of European gas supplies—will most likely preclude Western governments from imposing gas-focused sanctions on existing Russian gas flows, reducing the risk of near-term disruptions in Europe. Indeed, when tight European gas markets led to surging prices last year, governments already had to step in to limit the cost pass-through to consumers, leading to a number of utility bankruptcies. And sourcing additional supplies to make up for sanctions-induced shortfalls would be difficult, especially as incremental LNG would be unlikely to fully fill the gap given sailing times, limited additional import capacity and competition from Asian spot buyers.

Russian pipe flows represent ~22% of Europe's gas supply Total Europe gas sources, %



Russia Pipe UK/NL Production LNG Algeria Pipe

In the near term, a major concern for gas is therefore that Russia could unilaterally decide to curtail flows into Europe. However, this is also unlikely, as it would represent a breach of long-term offtake commitments, raising the risk of legal consequences and undermining Russia's desire for additional long-term contracts. In

addition, such an escalation would entail a short-term loss of revenues, as Europe represents ~85% of total Russian pipeline gas exports, and would cause domestic storage constraints, forcing costly and damaging well shut-ins.

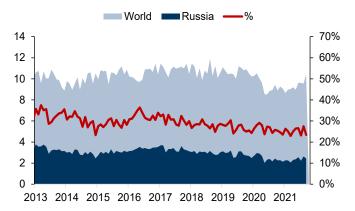
This leaves any flow disruption most likely having to emanate directly from Ukraine. The impact of such a disruption, however, would be most significant for Eastern European gas buyers, given Gazprom's ability to redirect Ukrainian gas flows to North West Europe through the Yamal pipeline that doesn't traverse Ukraine. Further, we note that already high European natural gas prices and a warm February, along with additional LNG supplies, have built an inventory buffer over the course of the past several weeks. We estimate this buffer would more than compensate for a potential short (two-week) loss of flows through Ukraine. Therefore, though an escalation of tensions might increase market volatility, we would expect no sustained impact to TTF gas prices from such a transient disruption.

As a result, while European natural gas prices remain vulnerable should near-term disruptions induced by sanctions or physical outages be larger than we expect, we believe that the largest implication of the escalation in Russia-Ukraine tensions for the European natural gas market stem from the decision to delay the start-up of the recently completed Nord Stream 2 pipeline, which is intended to deliver gas from western Siberia to Europe via Germany. This decision implies that NS2 volumes won't likely ramp up until 4Q22, which we think should contribute to a tighter gas balance and sustained higher prices through the summer and into next winter. As a result, we recently increased our European gas price forecasts for the remainder of the year to spur demand destruction in 2H2022, and see risks as significantly skewed to the upside next winter.

Oil: near-term disruptions unlikely

We don't believe sanctions are likely to be imposed on oil flows, either, as unilateral US/Europe sanctions would likely have only a limited impact on Russia, given its ability to divert oil flows, but would still leave Europe with the daunting challenge of sourcing alternative supplies to the ~2.5 mb/d of crude/condensate Russia sends to the continent, as well as the ~1.5 mb/d of petroleum products.

Russia's share of Europe's crude imports are ~25% today European imports of crude oil by origin (mb/d, lhs) and RU share (%, rhs)



Source: GTT, Goldman Sachs GIR.

We estimate that Russia's main ports currently have almost 1 mb/d of spare capacity, enough to redirect a potentially large

Source: Bloomberg, Goldman Sachs GIR.

portion of the current European-Russian pipeline flows, a flexibility displayed during the Druzhba pipeline contamination in April 2019. This scenario would instead be most impactful on freight markets rather than crude prices, creating a pull on dirty tankers comparable to the sanctions imposed on COSCO shipping for transporting Iranian crude in 2019, where rates soared 3-4x.

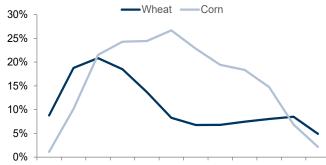
Secondary sanctions, in which entities dealing with a sanctioned country or entity are in turn sanctioned, similar to those imposed on Iran, would likely be too disruptive to the global oil market. We estimate that such sanctions would require an immediate surge in prices to levels that would destroy potentially more than 3m b/d of ex-China oil exports. A potential retaliation on Russian gas exports would also likely prevent the imposition of sanctions on oil.

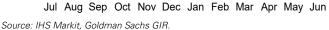
As a result, similar to risks around European natural gas, the main threat to near-term oil flows would also come from a potential disruption of oil pipeline flows in Ukraine. However, of the 0.75 mb/d of Russian crude oil entering into Europe via pipeline, only 0.25 mb/d enter via the southern branch of the Druzhba pipeline that traverses Ukraine (see pg. 18). This, combined with the ability to redirect oil flows to the seaborne ports, suggests a limited price impact from any near-term disruptions in Ukrainian oil pipeline flows. But, also similar to natural gas, we see longerterm implications on the oil sector stemming from potential sanctions that could expand the 2014 restrictions on foreign involvement in Russia's upstream energy sector, which could exacerbate the structural underinvestment that is already a key driver of global energy markets.

Wheat and corn: in the cross hairs

Similar to the 2014 conflict that saw the strongest rallies in grains given Ukraine's role as a large wheat and corn exporter—with Ukraine accounting for 7% and 22% of February's global trade in wheat and corn, respectively—both markets are again vulnerable to disruption risk.

Corn more exposed than wheat to a Ukraine supply disruption Ukraine share of total global wheat and corn exports by month, %





But while logistical or security issues could disrupt export flows, we view both export and planting disruptions as unlikely in the near term, as the majority of grain export terminals are located in Western Ukraine, where armed conflict seems less likely at the moment, and the majority of last year's exports of wheat and corn have been completed, with spring planting season still several months away. However, recent weather developments in Latin America have raised the sensitivity of the global corn market to any disruptions. La Niña has led to a decline in the quality of Argentinian corn crops, which account for ~25% of the first quarter global corn trade, and a disruption in Ukraine could therefore see a much larger-than-expected draw in US corn crop inventories.

That said, we see the most likely impact on agricultural markets stemming from ongoing depreciation of the Ukrainian Hryvnia, which would reduce the incentive to export crops and increase the cost of imported spring crop inputs, potentially lowering planted acreage or yield potential from the planted crop. This is particularly the case for corn, for which the majority of inputs are imported—a pattern visible in the spring 2014 planting season. As crops represent a real asset and effective inflation hedge, the potential for hoarding among Ukrainian farmers should imported inflation pick up materially could reinforce the current costinflation induced grains bull market.

Gold: The currency of last resort

Gold acts as an effective geopolitical hedge, but only as long as the geopolitical event is severe enough to impact the US economy. This may be due to the fact that the Dollar itself often acts as a safe haven when tensions arise in other parts of the world, rather than gold. But when the US itself is affected, gold acts as a hedge of last resort. In our view, the ongoing global energy crisis and above-target US inflation mean that any disruption to commodity flows from Russia and Ukraine could raise concerns of a US inflation overshoot and a subsequent hard landing, which would be bullish for gold. In addition, with energy prices high and Russia less dependent on external financing than in 2014 (see pgs. 10-11), Russian sales of central bank gold reserves may be limited. On net, we expect gold to maintain the cleanest positive correlation to the current geopolitical tensions, and serve as the most efficient hedge of last resort against them.

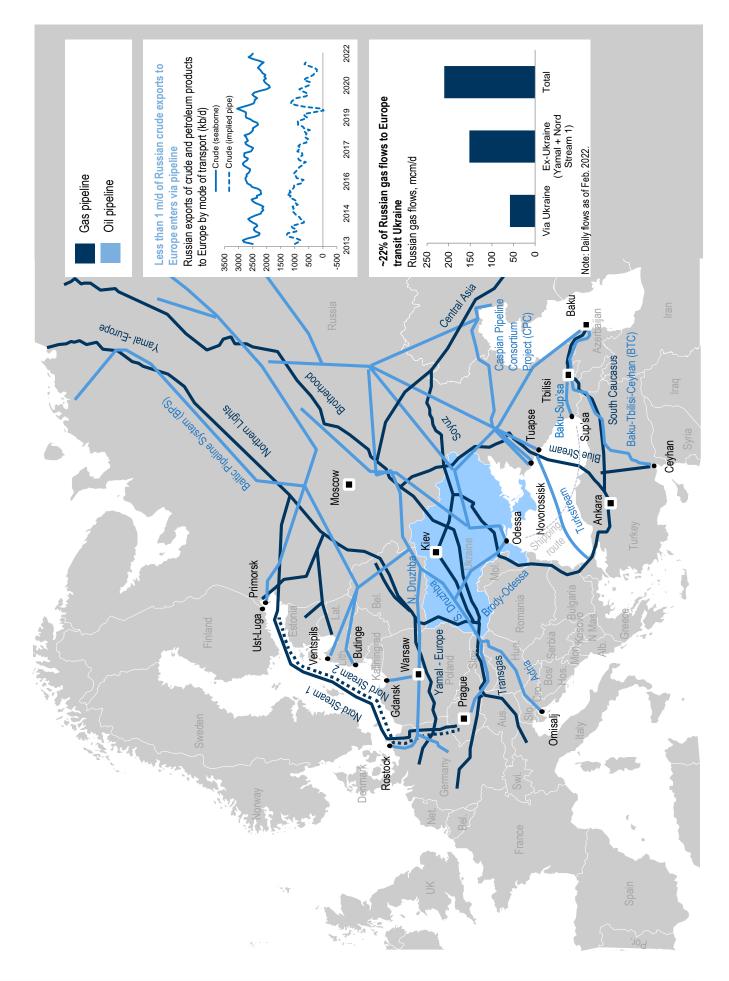
Geopolitical risk reinforces the bull case for commodities

Although incentives on both sides of the conflict suggest large disruptions in commodity flows are unlikely, the severe state of depletion in most commodity markets today suggests that even small disruptions could have outsized price risk. Indeed, the bull case for commodities rests not on the current geopolitical tensions, but rather on the revenge of the old economy that has led to underinvestment in commodity supply capacity at the same time that demand-side policies focused on wealth redistribution in the wake of the pandemic have substantially increased commodity demand. The current geopolitical risk only reinforces this bull case, and with commodities also providing an effective hedge against this risk, the case for owning commodities has never been stronger.

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The cost of de-globalization

Jeff Currie argues that geopolitical tensions continue a de-globalization trend that will likely prove inflationary, as was the case in the past

One of the three tenets of our view that commodities are entering a new super-cycle is the increased demand for commodities driven by de-globalization (in addition to income redistribution and de-carbonization). At the core of this view is the need for domestic economies to create resiliency in their supply chains, whether in response to trade wars, pandemics, climate change or, in the current environment, geopolitical risks from either sanctions or actual hostilities. These pressures all lead to the same trade off—inflationary pressures versus security of supply. These inflationary pressures of moving to a "made at home" model, or economic autarky in economist speak, can be viewed as the costs of de-globalization.

The history: sanctions led to de-globalization

The past 150 years have seen two local peaks in globalization, in 1914-1920 and in 2008-2011. Both peaks were followed by a surge in economic sanctions that ironically were only made possible by the process of globalization itself. It takes the interconnectivity of global markets to make economic sanctions work, particularly sanctions around capital flows. In 1920, following the conclusion of WWI, the founding of the League of Nations created for the first time in history the mechanisms to levy economic sanctions on "rogue states". It took until the 1970s for globalization to resume its previous march upward when the cost of de-globalization proved too expensive to maintain in the face of commodity and price inflation.

Globalization peaks followed by sanctions in '20s and today Value of Global exported goods as share of GDP, %



Source: Fouquin and Hugot (CEPII 2016), Goldman Sachs GIR.

The current decline in globalization once again coincides with a rise in economic sanctions. This round of sanctions began with sanctions on Iran in 2012 around the advancement in its nuclear program, followed by sanctions on Russia in 2014 after the invasion of Crimea and again in 2018 in response to US election tampering, and then "trade war" tariffs on China implemented by President Trump in 2018. Current Russia-Ukraine developments are simply a continuation of this broader trend. Russia is using its leverage in the second largest global market—oil—to demand its political objectives, while the West is using its leverage in the largest global market—capital—as a

threat to deter such objectives. No matter where the current crisis goes from here, the damage to globalization is already occurring. China and Russia are moving closer together, as evidenced by their show of solidarity during the recent Olympics where they signed two major energy supply contracts in both oil and gas, and are increasingly decoupling from the West.

Sanctions leave states more-not less-resilient

Although sanctions are intended to weaken targeted states, in practice, de-globalization makes them more resilient to economic threats by forcing greater economic autarky. By the late 1930s, Nazi Germany had perfected gas-to-liquids technology in lieu of oil imports. After the 2018 sanctions, Russia divested from Dollar assets, selling \$83 billion in US Treasuries and replacing them with gold and greenbacks, which allows them to transact in dollars without using SWIFT. And Russia has created its own SWIFT payments system.

Today, despite ongoing sanctions, Russia and Iran's negotiating leverage with the West may be stronger than ever. At the same time that de-carbonization pressures are rising, both Russia and Iran have the highest total revenues in over a decade, as they have adapted to the sanctions, and have diverted trade flows eastward. China is buying twice as much Iranian oil today as it did under the JCPOA. So while hopes in Washington are high that an Iranian deal and reinstatement of the JCPOA would help ease the oil inflationary pressures created by the Russia-Ukraine standoff, the reality is that Iran's negotiating position is stronger today than it was two years ago, suggesting that this outcome is not assured.

Sanctions use globally has surged in recent decades Cumulative active sanctions globally, count



Economic autarky is rarely the lowest cost solution

Economic sanctions, trade wars, protectionist policies and allout war all characterized the last period of de-globalization and thus far characterize the environment today. The costs of these policies is inflation no matter how the crisis evolves, as the pursuit of economic autarky for strategic purposes favors maintaining higher-cost but more secure supply chains over the lower-cost comparative-advantage model that globalization pursues. Europe will have to source and build new energy supplies to diversify supply chains. Russia already is, and will continue, finding new capital sources, particularly from China. If the 1920-1970s is any guide, these shifts—and their inflationary impacts—are just beginning.

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Snapshot: Russian/Ukrainian asset views

What are the implications of the current geopolitical situation for Russian and Ukrainian assets?

FX

lan Tomb

- The Russian Ruble has sold off sharply in 2022 as geopolitical tensions have risen. Even so, we estimate that the currency is still roughly 5% away from its maximum undervaluation level of the past two decades, meaning that the build-up in political risk premium that we've seen ytd can extend if the Ukraine crisis further deteriorates.
- That said, given that (i) significant risk premium has already been priced into the Ruble, (ii) Russian external balances may be somewhat less sensitive now than they were in 2014 to sanctions as Russia has meaningfully reduced its dependence on external funding and the Dollar (see pgs. 10-11), and (iii) the Central Bank of Russia may step in if the Ruble again shows signs of reaching very weak levels, other Russian assets, rather than FX, may lead the way in any future Russian asset selloff. However, the past few months are a reminder that geopolitical risk is likely to remain a feature of a Ruble view.
- Outside of Russia, the Ukrainian Hryvnia has also depreciated significantly vs. the USD as geopolitical tensions have risen, with Ukraine's central bank taking emergency measures to suspend the FX market on Thursday. Despite FX-friendly economic fundamentals, continued geopolitical volatility likely means that the range of outcomes for the Hryvnia is wide, and USD/UAH may continue to trade at elevated levels.
- Negative FX spillovers from an intensification of the current conflict would likely be most pronounced in the small, open economies of Europe—for CZK, HUF, and PLN on the EM side, and SEK and NOK on the G10 side. On the other hand, if a further escalation caused even larger oil price increases in the days ahead, this could mean that "oily" currencies like CAD on the G10 side, and COP, MXN, and MYR on the EM side, could benefit, at least relative to their typical risk betas.

Credit

Sara Grut

- Both Russia-USD and Ukraine-USD bond spreads have widened significantly since November. In Russia, which is in the BBB sovereign rating bucket, the 5-year CDS is now at distressed levels, pricing a significantly higher risk premium compared to the 2014 Crimea annexation. We expect the risk premium to remain high for the time being, absent any clear resolution to the conflict.
- In Ukraine, which is in the single B sovereign rating bucket, spreads are behaving similarly to that of a sovereign about to experience debt distress. with Ukraine's USD bond curve flattening, suggesting that the market is placing an increased probability on sovereign default. This is despite Ukraine's otherwise strong fundamental backdrop, and our economists' estimates that FX reserves are strong enough to fund near-term liabilities. As with Russia, we think the risk premium in Ukraine credit is likely to remain elevated in the near term.
- The EMBI Global Diversified index is now ~45bp wider ytd, of which ~33bp comes directly from Russia and Ukraine. Moreover, while the USD bond universe of nearby countries is small, spillovers are now becoming evident, with rising USD bond spreads in Hungary and Poland, which have otherwise been resilient so far. Similar to EM FX, we see the most upside for oil exporters (both IG and HY) in the current environment.

Equities

Caesar Maasry

- The escalating tensions between Russia and Ukraine have been clearly evident in Russian equities, with the IMOEX index down 47% year to date (for comparison, the MSCI EM index is down only ~5% in USD terms). This underperformance is significant not just in terms of the absolute moves, but also given the backdrop of higher oil prices, which are up 30% ytd.
- Russian equities appear heavily discounted from a valuation standpoint, with MSCI Russia currently trading below 4x forward EPS. P/E multiples have been quite low in Russia in recent years, but the current level is significantly lower than the 8.4x ratio as of February 2021. Russia P/E multiples are also one standard deviation below historical averages, while broader EM valuation is 0.5 standard deviations above average.
- Our preferred method of measuring risk premia in Russian equities suggests that the recent underperformance signals a 59% discount to "fair value" (relative to other global asset prices), which has surpassed the 50% discount during the height of the Crimea crisis in 2014. In short, Russian equities from here can likely move considerably in either direction, albeit with a slight bias towards the positive tail in terms of potential return.
- We see some evidence of regional contagion forming, as the CEE-3 markets of Poland, Hungary, and the Czech Republic (all NATO members since 1999) have underperformed their global peers by ~17pp over the past two weeks, which is on par with the 16pp underperformance of late 2014.

Interview with Michael Mandelbaum

Michael Mandelbaum is Christian A. Herter Professor Emeritus of American foreign policy at Johns Hopkins' School of Advanced International Studies and author of forthcoming book <u>The Four Ages of American Foreign Policy: Weak Power, Great Power, Superpower, Hyperpower</u>. Below, he argues that NATO expansion helped to create Russia's aggressive foreign policy. The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.



Allison Nathan: <u>You signed</u> a letter to President Clinton in 1997 calling NATO expansion a policy error of historic proportions, and have since <u>referred</u> to it as one of the US's worst foreign policy blunders. Why?

Michael Mandelbaum: I, and many notable people, thought NATO expansion was a serious mistake

because it promised no advantages and threatened very serious adverse consequences. The benefit that the Clinton administration claimed publicly—that it was necessary to solidify democracy in central European countries formerly governed by communists—seemed ludicrous. There's no evidence that belonging to a security organization leads to a democratic form of government. And if that were actually the case, then the first member of an expanded NATO should've been the country where democracy was most in jeopardy and where its success was most important for the world—Russia.

In private, the Clinton administration justified NATO expansion to the Senate, which had to vote to admit new members, by claiming that it wouldn't degrade relations between Russia and the West. But it was clear, even at the time, that this wasn't true. Russians across the political spectrum denounced it. In fact, its most fervent opponents were the Western-oriented Russian democrats because they knew that it would harm their position at home. It was also very badly received by the Russian people, and created the basis for a Russian foreign policy that was, and remains, reflexively anti-Western. In this way, NATO expansion has provided President Putin with a priceless gift: a justification for his aggressive, anti-Western foreign policy and military domination of Russia's neighbors.

Allison Nathan: But wasn't Russia's foreign policy likely to be aggressive regardless of what the West and NATO did?

Michael Mandelbaum: Not necessarily. The current adversarial relationship between Russia and the West wasn't inevitable. Russia isn't genetically destined to be aggressive. George Kennan, the originator of America's Cold War containment doctrine and a former diplomat with deep Russia experience, and Richard Pipes, probably the most distinguished Russian historian of his generation, agreed on few policy issues, but they did agree in opposing NATO expansion. So people with deep knowledge of Russia didn't believe that it was destined to be aggressive. Even with an undemocratic leader, Russia could have had a much better relationship with the countries that now fear it if the West had taken a different course.

Allison Nathan: Didn't expansion have legitimate purposes?

Michael Mandelbaum: Yes. But those could've instead been achieved through building on the unprecedentedly peaceful

security order Europe experienced after the end of the Cold War—what <u>I call</u> the common security order—by welcoming Russia into its natural place in the West, rather than undercutting it with NATO expansion.

Allison Nathan: If NATO expansion was clearly the wrong approach to European security, why was it pursued?

Michael Mandelbaum: President Clinton's calculations about his 1996 reelection may have played a role. Also, this was taking place in a context in which the Administration assumed that Russia was no longer important, so the stakes were believed to be small. I compare the way some Senators saw the vote on NATO expansion with a vote on putting a post office in somebody's district; it was perceived as a favor to small, friendly, would-be democratic European countries that had a hard time during the Cold War, at no cost to the US. But while the costs might have been small in the 1990s when Russia was weak, it was clear that Russia would recover, and at that point the costs could be very high. We see that today.

Allison Nathan: So are Russia's grievances around NATO expansion understandable?

Michael Mandelbaum: Russians in general have a legitimate grievance against NATO expansion because it was always clear that it would exclude them, so that Russia would remain outside of Europe's main security organization even though it's an integral part of European security. That said, NATO doesn't pose a threat to Russia today, as Putin asserts. He likely knows this and is using these charges to further his own agenda, which is, above all, to remain the dictator of Russia. And Ukraine does actually pose a threat in that sense because if the Ukrainians build a thriving democratic country, which could serve as an example to the Russian people of what Russia could be, that could threaten Putin's regime.

Allison Nathan: That said, does this crisis offer a chance for the West to rethink the European security order?

Michael Mandelbaum: In 1997, I argued that we should take an entirely different course in constructing Europe's security order. But it's both too late and too early to do so today. It's too late to build on the common security order of the 1990s. And it's too early to revive a cooperative security arrangement because Putin's policies rule out cordial relations so long as he's in power. In the meantime, the West can't permit Putin to become the sole arbiter of European security as he is effectively demanding, and recent developments suggest that doing so would not even lead him to back down. If, as I and <u>other experts</u> suspect, a key motivation for the tensions today is Putin's desire to be president for life, which he thinks he can only achieve at this point by being a "wartime" president, military threats to Russia's neighbors will remain a feature of his regime.

Russia-Ukraine: European economic risks

Jari Stehn* assesses the potential spillovers to European economic activity from the Russia-Ukraine tensions, finding that spillovers via the gas market are the most important to watch

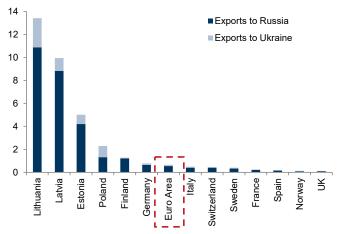
* The author thanks Alexandre Stott, an intern on the European economics team, for his contribution

As the conflict between Russia and Ukraine unfolds, attention has focused on the potential effects of the conflict on the European economy. We see three main channels of transmission through which the rising tensions could spill over onto the European economy: via (1) lower trade with the region, (2) tighter financial conditions, and (3) lower gas supply.

Lower trade: limited impact

While rising tensions could weigh on European activity via lower trade with Russia and Ukraine, Western Europe's export exposure to Russia and Ukraine is quite small—Euro area exports to Russia and Ukraine total only around 1% of its GDP, far less than to neighboring countries, suggesting that spillovers via trade are likely to be limited. We estimate that a 10% drop in demand in Russia would only lower Euro area GDP by about 0.1% via the trade channel.

Euro area has limited trade exposure to Russia and Ukraine % of GDP



Source: IMF, Goldman Sachs GIR.

Financial spillovers: also limited

An intensification of the current conflict could also weigh on European activity via tighter financial conditions. That said, the Euro area FCI didn't tighten significantly during past episodes of Russia-Ukraine tensions, such as Russia's 2014 annexation of Crimea, and the FCI tightening seen in recent days has been modest. A likely reason for the limited financial spillovers is that the Euro area has very low cross-border banking exposure to Russia and Ukraine.

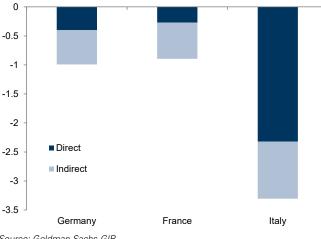
Energy market impacts: important to watch

Russia-Ukraine tensions are likely to affect the European economy via energy markets, especially gas. Russia is Europe's most important provider of natural gas, traditionally supplying 30-40% of Europe's gas demand via its pipelines. Although Europe's energy transition towards renewables will likely amplify its reliance on Russian energy, the Euro area has recently shifted its consumption away from Russian gas to LNG. Moreover, the amount of Russian gas flowing through Ukraine has recently fallen significantly. However, economic spillovers from the conflict could still arise via higher gas prices or lower supply.

The recent spike in gas prices is likely to result in an additional drag on growth by raising the cost of energy for households and thereby lowering consumer spending. However, we see two reasons why this effect is likely to be limited, especially in the near term. One, the pass-through of wholesale to retail energy prices is limited in many countries, including Germany, due to long-term electricity contracts, which would limit the short-term impact of higher gas prices. Two, government support schemes would likely cushion some of the effect of higher wholesale gas prices, especially in France and Italy. We therefore estimate that higher gas prices imply a modest downside risk to growth.

That said, higher gas prices and supply disruptions could also result in negative effects on production. In the near term, we estimate that a disruption of gas flows through Ukraine could imply a production hit of 1% in Germany and France, and as much as 3% in Italy. The magnitude of these growth hits is significantly larger than the drag on consumer spending from higher gas prices, although the hit to production would likely be temporary and output would bounce back once normal gas supply is restored. Further out, our commodities strategists now expect extended curtailments of gas flows through Yamal as a means of Russian retaliation against Germany halting the approval of the NS2 pipeline, prompting a further price reaction and industrial demand destruction in 2H22 (see pgs. 16-17).

Energy risks come mainly from potential supply disruptions Gross value added (GVA) impact of demand destruction equivalent to flows currently transiting through Ukraine, %



Source: Goldman Sachs GIR.

The risk set: negative, but likely manageable

Taken together, our analysis therefore points to downside risks to European growth from the ongoing Russia-Ukraine tensions, but also suggests that there are likely to be manageable, so long as escalating tensions don't lead to sharply tighter financial conditions and/or additional energy disruptions.

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Russia-Ukraine: an economic decoupling

Andrew Matheny chronicles the evolution of Russia and Ukraine's economic relationship, finding that ties have frayed significantly since the collapse of the Soviet Union

Ukraine has had a long, and often fraught, relationship with Russia. Following close economic integration during the Russian empire and early days of the Soviet Union, Ukraine and Russia began to economically de-link after the Second World War. But the watershed moment came in the aftermath of the Maidan Revolution and Russia's 2014 annexation of Crimea, which turned Ukraine away from Russia and towards the West, a trend that will likely only be reinforced by the current crisis.

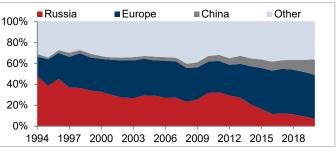
The Soviet era: close, then receding, economic ties

The Russian empire, which included present-day Ukraine, had a primarily agricultural economy, significantly lagging most of Europe in the process of industrialization. Following the Russian Revolution of 1917 and the subsequent formation of the Soviet Union in 1922, the region embarked on large-scale industrialization, and it was in this context that the Donets coal basin—known as Donbas—became the Soviet Union's first industrial heartland, supplying the coal, steel, and heavy machinery that fueled the country's rapid economic modernization and attracting migrant labor from across the region. Vladimir Lenin's slogan that "coal is the veritable bread of industry" captured the Soviet Union's transition from a rural agricultural economy to one of urban industry that characterized the early Soviet history of Eastern Ukraine. But Ukraine suffered disproportionately in WWII, when Donbas came under German occupation. Together with the development of the Kuznetsk coal basin (Kuzbass) in southwestern Siberia and the discovery of natural gas in Western Siberia in the 1950s, this led Ukraine's industrial base to become relatively less important to the post-war Soviet economy, a process that only accelerated in the later Soviet period.

The post-Soviet era: fraying ties, a turn towards the West

When the Soviet Union collapsed in 1991, Ukraine was heavily economically interlinked with Russia via supply chains and trade, with Russia accounting for >50% of Ukrainian exports. Economic decline in both Russia and Ukraine in the 1990s naturally reduced their economic interlinkages, as did Russian policies intended to decrease economic dependency on Ukraine, in particular for the usage of Ukraine's Black Sea ports, natural gas transit and in the military-industrial sector. By the mid-2000s, Russia's share of Ukrainian exports had fallen to around 30%, with Europe making up most of the difference. These developments coincided with the myriad political changes underway in Ukraine at the time: an uprising of civil society in the 2004-2005 Orange Revolution that protested against an allegedly rigged presidential election won by Viktor Yanukovych and established the country's democratic credentials, followed by the ousting of President Yanukovych in the 2014 Maidan Revolution. The latter is particularly notable insofar as the Euromaidan protests were initially prompted by the government's refusal to sign an Association Agreement with the EU intended to deepen economic and trade relations with the bloc in factor of closer ties with Russia.

Russia's share of Ukrainian trade has fallen sharply Share of Ukraine's trade (imports and exports) by region, %



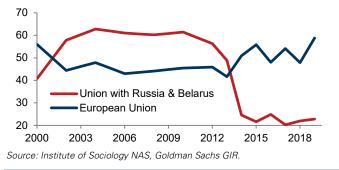
Source: IMF, Goldman Sachs GIR.

The post-Maidan era: a fuller turn towards Europe

The Maidan Revolution and subsequent political developments, including the loss of government control over Crimea and parts of the Donetsk and Luhansk regions in Eastern Ukraine to Russia or Russian-backed separatists, represented a watershed moment for Ukraine from both an economic and societal perspective. With bilateral trade restrictions imposed by both Ukraine and Russia, Russia's share of Ukrainian exports rapidly fell 3x to below 10%, financial ties between the two countries were severed, and supply chain interlinkages were further dismantled. The war in Eastern Ukraine also prompted migrant outflows on the order of several million people, or more than 5% of Ukraine's population, mostly to the West and notably to Poland, which caused annual remittance inflows to double to around \$15bn and strengthened Ukraine's ties with Europe. Despite these headwinds, a major shift in macro-economic policies since 2015 has led Ukraine's economy to rebound, and its export base to shift away from metals toward soft commodities and service exports, including IT (see pgs. 10-11).

The political events of 2014-2015 also prompted a large shift in Ukrainian public opinion, which historically was relatively evenly divided along east-west lines between pro-European and pro-Russian attitudes and preferred economic/political orientations. Recent survey data consistently show that a sizable majority of the Ukrainian population now has more favorable attitudes toward Europe. And while differences in political opinions between eastern and western Ukraine still exist, they have narrowed. As such, Ukrainian people will likely continue to look to the West, leaving their once close history with Russia further behind.

Attitudes have turned more favorably towards Europe % of Ukrainian population that positively views Ukraine joining each



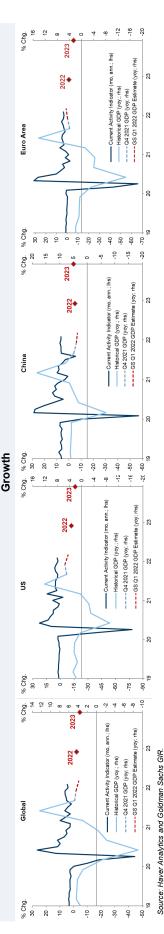
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Watching

- Globally, we expect full-year growth of 4.3% in 2022, more than 1pp above potential, thanks to continued medical improvements and a consumption boost from pent-up savings. We expect a rebound In the US, we expect below-consensus full-year growth of 3.4% in 2022, driven in large part by a sizable fiscal drag and at least a modestly negative impulse from financial conditions. We expect the n Q2 following the Q1 hit from the latest Covid wave, but believe sequential growth should then slow somewhat in 2H22 given tighter financial conditions and a slower pace of reopening. We expect current inflation surge to peak in Q1 and see core PCE inflation falling to 3.1% by end-2022, though the impact of Omicron on price normalization in the goods sector and continued strong wage the combination of this moderation in demand growth and improvements in goods and labor supply to be sufficient to bring inflation back toward DM central banks' targets over the next 2 years.
- eventual equilibrium size over 2-2.5 years. On the fiscal policy front, we think the odds of a scaled down reconciliation package look slightly less than even, which would also mean slightly less than We expect the Fed to deliver seven consecutive 25bp rate hikes in 2022 starting in March, including a hike at the June meeting, at which we also expect the Fed to announce the start of balance sheet reduction. We expect runoff caps of \$60bn per month for Treasury securities and \$40bn per month for mortgage-backed securities, which we project would shrink the balance sheet to its growth pose upside risk. We expect the unemployment rate to fall to 3.4% by the end of 2022. even odds that Congress passes tax increases in 2022.
- In the Euro area, we expect growth of 4.1% in 2022 supported by pent-up savings, room to grow amid the virus recovery, and sustained fiscal support via the Recovery Fund and from the new German government. We expect core inflation to peak at close to 3% in March before falling back to 2% by December. We see downside risk to our growth forecast and upside risk to our inflation forecast form the latest escalation in Russia-Ukraine tensions.
- We expect the ECB to decide in March that APP will end in June, followed by 25bp Deposit Rate hikes in September and December, taking the Deposit Rate to zero by the end of the year. But we believe a speedier decline in goods price inflation in 2H22 and/or a sharp tightening of financial conditions could delay liftoff well into 2023.
 - In China, we expect below-consensus real GDP growth of 4.5% in 2022 and see near-term growth uncertainty in light of the spread of the more infectious Omicron variant given China's zero-Covid policy (ZCP) and the continued weakness in the property sector. We expect macro policy to continue to ease this year, with easier monetary policy, a wider augmented fiscal deficit, modestly faster credit growth, and easier housing policy settings, which we expect will significantly cushion, though not fully absorb, the impact of prolonged ZCP and the downturn in housing.
- WATCH CORONAVIRUS AND THE RUSSIAUKRAINE CONFLICT. We expect most economies to transition to a more endemic stage of the pandemic in the spring, due to accelerated vaccinations, declines in the share of individuals without any form of immunity, and the widespread use of oral antiviral drugs. Russia-Ukraine tensions pose downside risk to growth and upside risk to inflation.





Note: GS CAI is a measure of current growth. For more information on the methodology of the CAI please see "Lessons Learned: Re-engineering Our CAIs in Light of the Pandemic Recession," Global Economics Analyst, Sep. 29, 2020.

Forecasts

		12m YTD E2022 P/		10.0 -11.0 20.2x	17.0 -3.0 13.8x	15.0 -6.0 13.9x	13.0 -7.0 14.8x	Wage Tracker 2021 (%)	Q2 Q3 Q4	2.2 3.8 4.5	1	12.6 7.7	
	Equities	Returns (%)		S&P500	MXAPJ	Topix	STOXX 600		٩	4.0	ł	12.1	
			Cons.	ł	\$248	10%			Unemp. Rate	3.2	6.9	ł	
		E2023	gs	1	\$240	%9		2023	CPI (%, yoy)	3.0	1.2	2.1	
		~	Cons.	1	\$226	8%		~	Unemp. Rate	3.4	7.1	ł	
		E2022	ß	4,900	\$226	8%		2022	CPI (%, yoy)	6.4	4.6	2.5	
		S&P 500		Price	EPS	Growth		Consumer		SU	Euro area	China	
		12m		1.20	1.41	115	6.2	E2022		123	405	162	450
		3m		1.16	1.36	117	6.35	2022		117	375	150	425
		Last		1.13	1.36	115	6.3	Last		121	359	153	410
	Markets	//arkets		EUR/\$	GBP/\$	YJPY	\$/CNY	Credit (bp)		USD IG	Ħ	EUR IG	Ħ
		E2023 FX		2.45 EL	0.90 GE	0.35 \$/	1.90 \$/0	12m (b		105 US	3.55	12,000 EL	2,150
		E2022 E		2.25	0.50	0.25	1.70	3m		93	3.45	10,500 1	1,950
		Last		1.99	0.19	0.19	1.38	Last		97	4.62	9,907	1,905
		Interest rates 10Yr (%)		NS	Germany	Japan	N	Commodities		Crude Oil, Brent (\$/bbl)	Nat Gas (\$/mmBtu)	Copper (\$/mt)	0.07 Gold (\$/troy oz)
			Cons.	3.6	2.5	5.2	2.5		Mkt.	2.10	0.38	1.93	
		2023	ß	3.6	2.1	5.0	2.6	2023	GS	2.63	0.50	2.00	-0.10
		N	Cons.	4.3	3.7	5.2	4.0	8	Mkt.	1.71	-0.16	1.83	0.02
		2022	S	4.3	3.4	4.5	4.1	2022	S	1.88	00:0	2.00	-0.10
	Economics	GDP growth (%)		Global	SU	China	Euro area	Policy rates (%)		NS	Euro area	China	Japan

Issue 106

Glossary of GS proprietary indices

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GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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May 9, 2019 Issue 77

Issue 78

Issue 76



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Issue 92

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Reg AC

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Issue 106

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