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The world will face economic challenges on multiple fronts in 2016. As the U.S. Federal Reserve begins its monetary tightening, Europe is struggling to manage migrant and debt crises, China's financial stability is in doubt, and emerging economies are increasingly fragile.

The global economy "could be doing much worse," writes CFR Senior Fellow and Harvard economist **Kenneth Rogoff**. Low oil prices and weak currencies are keeping the European and Japanese economies afloat, but Rogoff warns of "a slowing Chinese economy, collapsing commodity prices, and the beginning of the U.S. Federal Reserve's rate-hiking cycle."

Emerging economies like Brazil, South Africa, Thailand, and Turkey, rather than China, will be the real sources of concern in 2016, argues U.C. Berkeley's **Barry Eichengreen**. With their high levels of short-term debt, these countries are vulnerable to currency crisis, "potentially leading to economic collapse."

Varun Sivaram thinks new investments announced at the Paris climate talks are reason for optimism in the energy sector. In particular, the \$20 billion earmarked for clean energy research and development "could make it more likely for breakthrough technologies to emerge."

In the United States, meanwhile, steady GDP and job growth has been constrained by weak productivity gains, writes American Enterprise Institute's **James Pethokoukis**. Without increased

productivity delivering higher living standards, the United States could face decades of "unhealthy economic populism."

Europe continues to face the risk of debt crises, writes CFR's **Robert Kahn**, but the most dangerous economic risk for the continent in 2016 is "a growing populist challenge from both the Left and Right," which could create economic policy uncertainty and constrain policymakers.

Kenneth S. Rogoff, Senior Fellow for Economics, Council on Foreign Relations

The best thing that can be said about the global economy as 2016 begins is that it could be doing much worse.

In Europe, Greece's Syriza government—**closely adhering** to the advice of left-leaning U.S. economists—has flirted with pushing the Greek economy off a cliff. The country's membership in the eurozone survived, however, even if the Greek government needlessly squandered both precious time and tens of billions of dollars.

Europe, like Japan, is also facing profound existential problems around aging populations, difficulty in **absorbing refugees and immigrants**, and slow productivity growth due to lack of structural reform. As 2016 dawns, low oil prices and weak currencies are continuing to keep both economies on positive—though not exactly vigorous—growth trajectories.

Meanwhile, the Chinese government suffered a major dent in its credibility by badly mishandling a collapsing stock market bubble, raising questions about how well it will be able to manage the ongoing shift in its economy to slower, but more sustainable, growth. Although the government has managed to alleviate any immediate sense of crisis, the challenges in 2016

remain formidable.

Between a slowing Chinese economy, collapsing commodity prices, and the beginning of the U.S. Federal Reserve's ratehiking cycle, many emerging market economies have become quite fragile, notably Russia and Brazil. Twenty years ago, with inflexible exchange rates and massive foreign currency debt, the kind of duress these countries are experiencing now would have inevitably led to financial crisis. Now, with flexible exchange rates and most government debt denominated in local currency, their economies are more robust: they are suffering deep recessions, yes, but not yet the start of "lost decades." However, with Brazil's multibillion dollar corruption scandal deepening by the day and plummeting oil prices undermining Russia's fiscal sustainability, 2016 will further test these economies.

Can the U.S. economy continue to recover even if growth elsewhere is tepid? For now, it seems that advanced economies will continue to heal from the financial crisis, albeit still suffering from hangovers due to **high debt levels and post-crisis trauma**, especially in Europe. Still, 2016 promises to be anything but a quiet year.

Barry J. Eichengreen, George & Helen Pardee Professor of Economics & Political Science, University of California, Berkeley

It will be another rough year for emerging markets in 2016. But unlike 2015, when investors were fixated on **instability in**Chinese markets and the bungled devaluation of the renminbi, in 2016 they will realize that the situation in China is under control and the real problems are elsewhere.

Financial crises erupt when a country has two problems at once: financial weakness and political weakness. China has financial

weaknesses, to be sure, in the balance sheets of state-owned enterprises, regional government debt, and the shadow banking system. But there is little reason to question the government's capacity to intervene if something goes seriously wrong, particularly given the country's nearly \$3.5 trillion in foreign exchange reserves. These can be used to support the exchange rate if the renminbi shows undue weakness. In an extreme situation, the authorities can resort to direct controls on financial transactions, and they have no reluctance to use them.

The situation is different in other emerging markets like Brazil, South Africa, Thailand, and Turkey. Like China, these countries are financially vulnerable. Their corporations are saddled with large amounts of short-term, dollar-denominated debt which becomes increasingly difficult to service as the dollar strengthens, as it is again likely to do in 2016. In turn, worries about corporate defaults—which damage fiscal accounts either directly by prompting bailouts or indirectly by depressing tax revenues—can cause investors to flee. Since these countries lack the ability to impose controls on financial transactions, the result could be a currency collapse, potentially leading to economic collapse.

To avoid that outcome, a strong government could cut public spending to restore confidence and allow the central bank to raise interest rates in order to attract capital back to the economy. In Brazil, however, President Dilma Rousseff's government has so far failed to push through the necessary, but painful, fiscal measures. The central bank has hesitated to raise its main interest rate, the Selic, for fear it would erode public support for the administration. Instead, it has relied on unsustainable intervention in the foreign exchange market.

Every unhappy emerging market is unhappy in its own way. In Turkey, the problem is largely geopolitical uncertainty centered on the conflict in Syria. In Thailand it is urban-rural divisions, the uncertain health of the king, and an even more uncertain succession. In South Africa it is weak commodity prices and labor unrest. But what they all have in common is uncertainty about the capacity of governments to respond.

Economists, it is famously said, have predicted eleven out of the last seven crises. No one can predict with any confidence when the next one will happen. But it is easier to predict where.

Varun Sivaram, Douglas Dillon Fellow, Council on Foreign Relations

In 2015, representatives from 195 countries succeeded in adopting the "Paris Agreement," which sets up a framework for international cooperation on climate change. For all the fanfare, however, actual commitments are relatively modest. In essence, countries pledged to periodically update plans to curb the greenhouse gas (GHG) emissions that contribute to climate change. This is a major shift away from the previous approach, aimed at allocating top-down, legally binding emissions targets only to developed countries.

Unfortunately, the voluntary pledges made in 2015 are almost certainly insufficient to limit climate change to acceptable temperature thresholds. The hope is that by requiring countries to update their action plans every five years—the first update is due in 2020—countries will ratchet up their ambitions. As CFR's Michael Levi **contends**, whether this strategy can work "only time will tell."

All of this means that international climate negotiations will continue in 2016. In November, diplomats will descend on Morocco to fill in the details of the broad brushstrokes agreed to in Paris, including requirements for transparency, consistency, and verification of national emission reduction efforts.

New clean energy technologies could make it easier for countries to submit increasingly ambitious climate plans. In particular, two announcements made on the sidelines of the Paris summit could boost innovation. First, Bill Gates and twenty-seven other billionaire investors **pledged** to support basic research and development (R&D) in clean energy. In addition, twenty countries, including the United States, China, and India, **pledged** to double public funding for R&D to a collective \$20 billion by 2020. By the end of 2016, substantial investment flows to support R&D could make it more likely for breakthrough technologies to emerge.

Renewable energy companies suffered in 2015, with stock prices plunging. But the sector—based on fairly mature technologies for wind turbines and solar panels—is set to grow rapidly in 2016. China and India have set impressive targets for deploying renewable energy, and the United States recently extended generous tax credits that will support several years of booming renewable energy growth. If this helps these companies recover in 2016, it will be an encouraging sign that the industry is moving in the right direction to challenge the fossil-fuel industry.

James Pethokoukis, Dewitt Wallace Fellow, American Enterprise Institute

If it were possible to peer into the near future and glimpse just one statistic about the U.S. economy in 2016, which would be the most telling? GDP growth? The unemployment rate? The Dow Jones Industrial Average?

In fact, the most important indicator of the United States's long-term economic prospects—that is, productivity—remains persistently weak. Over the past five years, productivity growth has averaged just 0.6 percent, in contrast with the postwar average of 2.2 percent. What's more, the consensus forecast suggests more of the same in the coming twelve months.

Despite steady GDP and job growth, a permanently sluggish "new normal" for productivity would be alarming, especially given the demographic challenges an **aging society** already poses for growth. It would mean living standards improving so slowly that most Americans would feel they were no better off than their parents. A few years of anemic growth has already given rise to an unhealthy economic populism in the American electorate. Imagine how corrosive a few decades of stagnation might be.

Yet perhaps the productivity picture really isn't so bleak. It's hard to reconcile gloomy official numbers with the age of "unicorns"—those dynamic technology companies **worth over** \$1 billion—and the amazing burst of innovation happening right now in places like Silicon Valley and New York.

Explaining this apparent "productivity paradox" leads in several directions. Maybe those innovations really don't amount to much. After all, what's a digital app compared with the invention of the combustion engine? Or perhaps what's happening is that we're really bad at measuring the effects of technological progress, especially in the digital economy.

Another possibility is simply that it takes a maddeningly long time for innovation to boost productivity. For instance, it took years for factory owners to figure out how to efficiently employ electric motors. Recent advancements in areas like artificial intelligence, big data, Bitcoin, drones, the sharing economy, and the "internet of things" may yet be broadly transformative, even if their effects on broader productivity isn't immediately apparent.

Today, we can instantly access all of humanity's collective intelligence with a small device pulled from our pockets. It certainly seems like this should end up making society more productive. It would just be reassuring if the numbers confirmed that intuition. Hopefully in 2016, they will.

Robert Kahn, Steven A. Tananbaum Senior Fellow for International Economics, Council on Foreign Relations

The coming year could be an interesting one for Europe. Backed by lower oil prices, a weaker euro, and European Central Bank (ECB) quantitative easing (QE), eurozone growth is expected to reach 1.5 percent with inflation of around 1 percent in 2016. But many of the fundamental structural challenges that are holding back Europe's recovery—an incomplete monetary union, excess debt overhangs and incomplete capital markets, and structural impediments to full employment and growth—continue to be headwinds.

Weak growth in emerging markets, historically an important market for Europe's exports, presents a further risk. The ECB has done most of the heavy lifting in support of recovery so far, but QE has diminishing returns, and governments will need to do more to support growth in the event of a shock.

Against this backdrop, the most dangerous economic risk for Europe in 2016 comes from a growing populist challenge from both the Left and the Right. These forces are likely to create uncertainty about economic policy and constrain policymakers' options. In the past months, elections in France, Portugal, and Spain have revealed popular support for anti-austerity policies and skepticism of greater integration with Europe. Meanwhile, European governments have in many cases responded by signaling a willingness to let fiscal targets slip, which will support demand—but raises the risk that debt crises could return to the periphery of Europe.

Greece will again be in the news in 2016, as the government faces growing political opposition to pension, tax, and other structural measures it has committed to undertake as a condition for further financing. The timing of promised debt relief from its European partners remains uncertain, and in any case a reduction of future debt service (after 2021) is not going to provide a meaningful spur to growth in the near term. All this suggests a "Grexit" from the eurozone could again be a market-driving issue.

Outside of the eurozone, a UK vote on "Brexit," now expected in 2016, poses fundamental questions about the future of Europe. Regardless of the outcome, the run-up to any referendum is likely to weigh on investment and market sentiment.

If European and global markets remain calm, Europe will continue its recovery. But any of a number of shocks, whether a hard landing in China, debt problems in Europe, or disruptions elsewhere, will create substantial pressure on policymakers at a time when the constraints on their ability to act are intense.