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FINANCE AND DEVELOPMENT

JUNE 2021

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What Next For Emerging Markets?

INTERNATIONAL MONETARY FUND

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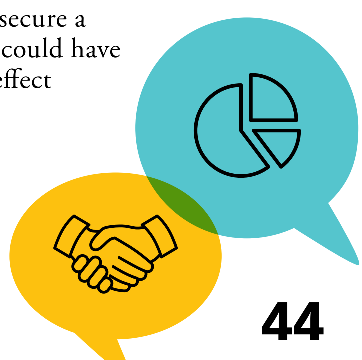

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The Next Move

WE FOCUS THIS ISSUE on the road ahead for emerging markets, a label frequently applied to economies in the middle—neither advanced nor low-income. Because of their growing systemic relevance, this group of countries helps anchor global stability. Yet, as we drill down and define their characteristics, we find a widely diverse set of economies of varying sizes and growth rates that face different prospects, priorities, and challenges.

Some, like China, have managed to emerge quickly from the present crisis. Others may struggle for years to deal with the pandemic's aftereffects.

Amid a multispeed economic recovery—including within countries and across sectors, age groups, genders, and skill levels—this issue explores several cross-cutting themes for emerging markets. The IMF's Rupa Duttagupta and Ceyla Pazarbasioglu take stock, with a focus on debt, economic policy trade-offs, and priorities for stronger growth. Two leading investors, Richard House and David Lubin, discuss how emerging market assets have fared during the pandemic and why they are unlikely to suffer systemic crises as in the 1980s and 1990s. Şebnem Kalemli-Özcan, in contrast, sees the potential for greater turbulence as US interest rates rise. Francisco Ferreira shows that the pandemic's effect on inequality is manifested in counterintuitive ways, depending on how you measure it. And 20 years after coining the acronym "BRICs," Jim O'Neill reconsiders the diverging fortunes of Brazil, Russia, India, and China.

While this crisis will leave scars, it would be inaccurate to see only adversity ahead. Emerging markets can not only reclaim their hard-won economic gains, they can do even better than before the pandemic. This will require well-calibrated economic policies and strategies that improve access to health care and education, support and retrain displaced workers, and strengthen public investment in green projects and digital infrastructure. The goal is to build more inclusive economies that benefit everyone, while ensuring macroeconomic stability.

As in a chess game, every move by leaders and policymakers has consequences. Let them be the right ones. FD

GITA BHATT, editor-in-chief

ON THE COVER

Our June cover by Daniel Garcia Art depicts emerging markets' struggle with COVID-19, market turbulence, and the specter of mounting debt as a chess game. Just as pawns can be "promoted" with the right moves, these countries can overcome challenges with the right policies.

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MILES to go

Emerging markets must balance overcoming the pandemic, returning to more normal policies, and rebuilding their economies

Rupa Duttagupta and Ceyla Pazarbasioglu

As the COVID-19 pandemic enters a second year, concerns are rising about how well emerging markets will fare. So far, they have been agile in responding to the economic fallout from the pandemic with unprecedented rescue packages for their hard-hit sectors and households. After a short-lived period of financial stress in March 2020, most emerging markets were able to return to global financial markets and issue new debt to meet their financing needs. However, in a global recovery in which some countries are rebounding faster than others and uncertainty is high regarding the pandemic, there is likely to be more market volatility. This will test the ability of policymakers in emerging markets to navigate a shifting landscape, manage their policy trade-offs, and achieve a durable recovery.

The emerging market universe is diverse and defies a uniform narrative. Although there is no formal definition, emerging markets are generally identified based on such attributes as sustained market access, progress in reaching middle-income levels, and greater global economic relevance (see box). Even so, these economies are dissimilar, and the distinction between emerging markets and other developing economies is also imprecise.

Emerging markets have made remarkable progress in strengthening their macroeconomic policies since the turn of the century, which helped them more than double per capita incomes on average. Monetary policies in 65 percent of the countries we have identified as emerging markets follow forward-looking inflation-targeting regimes, and inflation has fallen and stabilized in most. Public finances in several are guided by fiscal rules. Many embraced major banking sector reforms after the financial crises of the 1990s. Progress was tempered by the global financial crisis in 2008–09, but not derailed.

Good economic track record

This economic track record helped policymakers in emerging markets deploy bold measures during the pandemic without unraveling market confidence. Economic relief measures included increases in government spending, liquidity support to firms and

banks, release of bank capital buffers with the intent to support lending, and asset purchase programs by central banks to stabilize domestic markets. Low domestic inflation and monetary easing by advanced economies also gave central banks in emerging markets room to cut domestic policy rates substantially. Household savings increased in most emerging markets following the onset of the pandemic. Much of the domestic savings went to finance the government, reducing the need for foreign borrowing, which, together with lower private investment, kept current account deficits in check.

However, some measures—such as direct monetary financing of budget deficits or temporary freezes on loan repayments—raise new risks. Policymakers defended them as temporary tools to alleviate enormous economy-wide strains. Higher fiscal deficits have also added to already elevated sovereign debt in some countries. In others, high corporate sector debt, including of state-owned enterprises, and unhedged foreign exchange exposures in corporate debt pose contingent fiscal risks in the event of corporate distress. Increased government debt held by domestic banks also intensifies the link between the health of the government and that of the banking system.

The pandemic is far from over, so it is too early to determine which measures have worked. Economic activity contracted sharply in most emerging markets in 2020. However, the IMF's April 2021 *World Economic Outlook* estimates suggest that without the policy measures implemented across the world—including in advanced economies and emerging markets—the contraction in global GDP would have been three times worse.

Divergent responses

Divergent recoveries in emerging markets reflect differences in economic positions and policy responses. Those that were able to contain the virus or inoculate their populations (such as China and the United Arab Emirates) are recovering earlier. Those with ample fiscal buffers, market access, or both were able to deploy greater fiscal support (such as the Philippines and Poland). Central bank credibility allowed some to cut policy rates to record lows and engage in unconventional monetary policy without severe exchange rate pressure (Fratto and others 2021). Emerging markets with macroeconomic imbalances or elevated debt burdens continue to face sharp trade-offs between supporting recovery and reducing imbalances (among them Argentina, Egypt, and Turkey).

The road ahead could be somewhat bumpier. Because of threats from new COVID-19 strains, countries will have to weigh the many trade-offs between continued efforts to mitigate spread of the virus—which will likely require maintaining economic support to households and firms—and normalizing policies and rebuilding economic resilience. Securing adequate vaccines is only a first step. Financial market volatility against a backdrop of rising US long-term rates must be deftly managed, particularly for countries with large external financing needs. And political and social support will be central to implementing structural reforms. There are a number of areas requiring policy action, although the priorities will vary from country to country.

Targeting corporate sector support: As the health crisis comes under control, countries must begin to transition from wholesale crisis emergency support measures to those that target support to viable firms and eventually allow a handover to private-led growth. How fast this can be done will depend on the link between growth and employment in the corporate sector and whether a country can afford to support viable firms long enough to allow them to shake off pandemic-induced distress. How efficiently that happens will depend on the strength of labor market institutions, safety nets, banking system oversight, and insolvency procedures for a smooth reallocation of resources. As shown in the IMF's April 2021 *Global Financial Stability Report*, distinguishing between corporate liquidity and solvency will not be easy. Some companies in emerging markets entered the crisis with already elevated debt, and the economy-wide implications of corporate distress need to be better assessed.

While advanced economies face similar challenges, the ensuing trade-offs are likely to be more acute for emerging markets because they typically face more imposing budget constraints. Emerging markets also tend to have weaker frameworks to deal with corporate bankruptcies. Policy interventions must therefore be designed to reduce both risks from excessive liquidations that lead to a wave of bankruptcies and risks of creating zombie firms that can operate on excessive credit support but cannot invest in new activity (Pazarbasioglu and Garcia Mora 2020). Past experience (such as Poland in 1992, Mexico in 1994, many southeast Asian countries in 1997–98, and Turkey in 2001) suggests that successful strategies include timely asset quality reviews

What is an emerging market?

There is no official definition of an emerging market. The IMF *World Economic Outlook* classifies 39 economies as "advanced," based on such factors as high per capita income, exports of diversified goods and services, and greater integration into the global financial system. The remaining countries are classified as "emerging market and developing" economies. Among these, 40 are considered "emerging market and middle-income" economies by the IMF *Fiscal Monitor,* based on their higher incomes.

Income isn't the only characteristic of an emerging market. Most are economies with sustained strong growth and stability that can produce higher-value-added goods and are more like advanced economies not only when it comes to income, but also in participation in global trade and financial market integration. To identify an emerging market, we looked at

- Systemic presence: The size of the country's economy (nominal GDP), its population, and its share of exports in global trade
- Market access: The share of a country's external debt in global external debt, as well as whether it is included in global indices used by large international institutional investors and the frequency and amount of international bonds issued
- Income level: A country's GDP per capita in nominal US dollars

We derive a score for each economy not considered advanced, using five weighted variables:

- 0.40×nominal GDP+
- 0.15×population+
- 0.15 ×GDP per capita+
- 0.15×share of world trade+
- 0.15×share of world external debt

If a country is ranked in the top 20 for 2010–20, it receives a score of 1 for that variable. Otherwise, it is assigned zero. The final score is calculated as the weighted sum of the individual scores. This approach identifies the following countries in the emerging market group, in alphabetical order: Argentina, Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Iran, Malaysia, Mexico, the Philippines, Poland, Russia, Saudi Arabia, South Africa, Thailand, Turkey, and the United Arab Emirates. Two countries were excluded: Nigeria because of its classification as a low-income country (eligible for IMF Poverty Reduction and Growth Trust financing) during the sample period considered (2010–20) and Qatar because of its population of less than 5 million.

These 20 emerging market countries account for 34 percent of the world's nominal GDP in US dollars and 46 percent in purchasing-power-parity terms. These countries are also featured in commonly used indices for emerging markets, such as those of J.P. Morgan, Morgan Stanley Capital International, and Bloomberg.

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as well as a combination of out-of-court workouts, debt relief, and disposal of nonperforming assets (Araujo and others, forthcoming).

Because bank-based financing is more prevalent than market financing in emerging markets, corporate distress could affect financial stability if banks have to recognize increased loan losses after the pandemic. To provide greater transparency, bank asset quality reviews may be necessary in some cases—especially because regulatory measures were eased during the crisis. The rise of shadow, or nonbank, financing of the corporate and household sectors in some emerging markets also raises risks because the nonbank sector is largely unregulated. Hence, a longer-term priority is designing stronger debt resolution and insolvency regimes and developing so-called macro-financial tools to monitor risks to the overall economy from the nonbank financial sector.

Generating job-rich, balanced, and sustainable growth: Beyond the immediate recovery, a vital step toward long-term economic health is raising productivity and lessening the scarring effects of the crisis on investment, employment, human capital (because of setbacks to learning), and financial system strength. The long-term growth payoffs from structural reforms can be significant if they are well designed and properly sequenced (Duval and Furceri 2019). Some priorities include

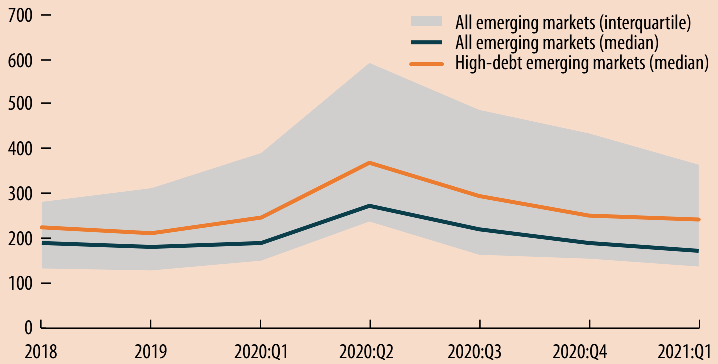
- introducing market-oriented reforms, including for state-owned enterprises (such as in China, India, and Mexico)
- strengthening social safety nets (for example, in Chile and China)
- closing infrastructure gaps (for example, in Indonesia and the Philippines)
- implementing pension, product market, labor market, and governance reforms in many countries

Chart 1

Emerging Market Global Bond Index spreads

Investors typically differentiate across emerging market debt.

(basis points)



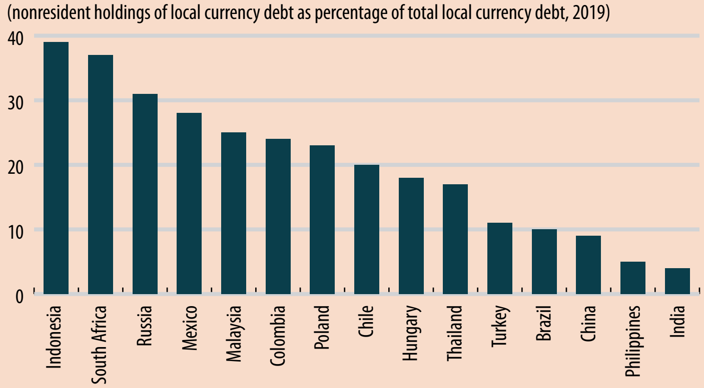
Source: Bloomberg Finance L.P.
Note: The sample excludes Iran and Thailand due to data availability. Emerging Market Global Bond Index data are missing for the United Arab Emirates and Saudi Arabia in 2018. High-debt emerging markets are defined as economies where government gross debt is higher than the median.

Chart 2

Who owns the debt?

The large share of domestic debt held by foreigners makes the domestic financial market a key transmitter of external financial shocks.

(nonresident holdings of local currency debt as percentage of total local currency debt, 2019)



Source: Arslanalp, S., and T. Tsuda. 2014. "Tracking Global Demand for Emerging Market Sovereign Debt." IMF Working Paper 14/29.

Clear communication on policy intentions, with measures to protect the vulnerable, is essential as well to building social support for difficult reforms.

It is also the time to build stronger economies than emerging markets had before the pandemic—by taking steps to create better and more equal access to health care and education, strengthening public infrastructure, and retraining workers displaced by the pandemic. Building resilience to climate change and steering digitalization for inclusive growth are also necessary. COVID-19 has caused more loss of human life in countries with weak health systems and social safety nets. It has triggered greater economic losses in service-oriented sectors and among unskilled, young, and female workers. To ensure a sustained recovery that does not leave anyone behind, the rise in inequality and poverty must be contained. Reducing informality, which accounts for one-fourth to one-third of the economy for most emerging markets (Medina and Schneider 2019), will allow more people to benefit from better wages and redistributive measures.

Some countries are seizing opportunities: in Asia, digitalization is transforming the efficiency of production, communication, and the inclusiveness of government operations (Gaspar and Rhee 2018). Indonesia is addressing the threat from deforestation through a program on sustainable land use. Some emerging markets, such as Malaysia, are strengthening the financial regulatory framework to better monitor and manage transition risks as they move to reduce the economy's carbon footprint.

Restoring macroeconomic resilience: The crisis was a sore reminder of the importance of building economic health during peaceful times. Emerging markets will soon need to start rebuilding fiscal, external, and macro-financial buffers to prepare for the next crisis. That means reestablishing fiscal rules and restoring financial regulatory standards, which were set aside during the pandemic, and rebuilding external reserves if they are running low. Priorities will vary and will need to be addressed without hurting growth prospects—raising tax capacity for spending on public services where safety nets are weak, taking steps to reduce debt and debt accumulation (fiscal consolidation) where the sovereign debt burden is high, and tightening macroprudential policies on financial institutions where financial stability risks are elevated.

Governments in many emerging markets will need to balance different goals, such as raising spending on public investment and social safety while resuming fiscal consolidation to keep public debt on a firm downward path. Public and external debt have risen significantly for the median emerging market economy, reaching 59 and 44 percent of GDP, respectively, in 2020, and gross financing needs are projected to stay above 10 percent of GDP in 2020–21. While low global interest rates have kept debt servicing costs manageable, external borrowing costs should not be expected to stay low indefinitely. Investors typically differentiate across emerging market debt (see Chart 1). Even when debt is incurred in

domestic currency, the sizable share of domestic debt held by foreigners makes the domestic financial market an important transmitter of external financial shocks (see Chart 2). Sustained high debt and gross financing needs will likely aggravate policy trade-offs and expose emerging markets to abrupt changes in the risk appetite of investors.

As the IMF's April 2021 *Fiscal Monitor* argues, stronger tax revenue generation would allow policymakers to provide better public services without adding to debt burdens. Tax revenues in emerging markets indeed stand below 20 percent of GDP on average compared with over 25 percent of GDP in advanced economies. Emerging market governments also tend to spend a higher share of their revenues to meet interest payments.

In the post-pandemic environment, policy space has shrunk. With higher fiscal deficits and debt, larger financing needs, and less room to cut domestic interest rates, policies must therefore be better integrated to achieve the best outcomes for growth and stability, while maintaining the autonomy of fiscal, monetary, and regulatory authorities. For example, where inflation pressure is subdued, monetary policy can continue to support domestic demand, even as fiscal support is withdrawn.

Other policy trade-offs must also be managed as multispeed recoveries give rise to market pressure. While a flexible exchange rate generally acts as an external shock absorber, under some conditions, the effects can be the opposite. For instance, depreciation in the domestic currency can increase the stock of foreign-exchange-denominated liabilities, further intensifying market pressure. Pass-through from depreciation can generate inflation pressure when monetary policy credibility is not fully established. Concerns about navigating financial volatility are foremost in the minds of many policymakers in emerging markets and are a major plank of the IMF's work on the Integrated Policy Framework.

Rebuilding resilience

Past crises demonstrate that emerging market policymakers can overcome adverse shocks and rebuild economic resilience. Moreover, medium-term growth in most emerging markets is projected to remain strong. However, a collective global effort is crucial for emerging markets to realize their growth potential and generate much-needed dynamism in global activity, trade, investment, and finances.

First, *emerging markets must reclaim their hard-won macroeconomic strength*, as they did after the financial crises in the 1990s and early 2000s and the global financial crisis that began in 2008. With recovery from the pandemic proceeding at divergent speeds, emerging markets must also learn from one another how best to navigate risks and maintain resilience. This affects more than just emerging markets. With their growing systemic relevance in the global economy, a strong emerging market universe will also drive global stability.

Second, *major advanced economies must do their part:* Multilateral cooperation on free trade, vaccine supply, and taxes; commitment to providing dollar liquidity under resurgent financial stress; and joint action toward climate change are all essential. Some emerging markets will need financing support to invest in building back stronger without further aggravating climate change.

Third, *global development and financial institutions must be complementary in their efforts:* For the IMF, this will mean working through its key responsibilities—policy dialogue and advice, financial support, including through precautionary lines, and capacity building—serving as a convening platform for cross-country learning and leveraging relevant expertise from other international institutions to help its most dynamic member countries regain their footing in the post-pandemic landscape. FD

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References:

Araujo, J., J. Garrido, E. Kopp, R. Varghese, and Y. Weijia. Forthcoming. "Corporate Debt Resolution in the Time of COVID-19." IMF Departmental Paper, International Monetary Fund, Washington, DC.

Duval, R., and D. Furceri. 2019. "How to Reignite Growth in Emerging Market and Developing Economies." IMFBlog, October 9.

Fratto, C., B. Harnoys Vannier, B. Mircheva, D. de Padua, and H. Poirson. 2021. "Unconventional Monetary Policies in Emerging Markets and Frontier Countries." IMF Working Paper 21/14, International Monetary Fund, Washington, DC.

Gaspar, V., and C. Y. Rhee. 2018. "The Digital Accelerator: Revving Up Government in Asia." IMFBlog, September 26.

Medina, L., and F. Schneider. 2019. "Shedding Light on the Shadow Economy: A Global Database and the Interaction with the Official One." CESifo Working Paper 7981, Munich Society for the Promotion of Economic Research.

Pazarbasioglu C., and A. Garcia Mora. 2020. "Strengthen Insolvency Frameworks to Save Firms and Boost Economic Recovery." World Bank Blog, May 18.

Is the Emerging World Still Emerging?

Two decades on, the BRICs promise lingers

Jim O'Neill

PHOTO: COURTESY OF JIM O'NEILL

WITHOUT COVID-19, GDP growth in the past decade would have been about 3.6 percent—just below the 3.7 percent experienced in 2000–09. Not bad given all the challenges, and contrary to the mood of pre-pandemic times. Indeed, each decade has witnessed stronger economic growth than the 1980s and 1990s, each about 3.3 percent. Hundreds of millions of people have been taken out of absolute poverty as a result, in part because of the growth miracle led by the so-called emerging markets, of which my beloved BRICs were front and center.

The year 2021 marks the 20th anniversary of my coining the acronym "BRICs" to summarize the likely rising economic relevance of Brazil, Russia, India, and China and the implications of their rise for global governance. As the world looks to the remainder of 2021 and beyond, what can we expect from emerging markets?

BRICs revisited

My primary goal in my first paper, "The World Needs Better Economic BRICs," was to make a case for changing the framework for global economic governance, not necessarily the inevitable future growth of these countries.

In subsequent papers I laid out what the world *could* look like, in the highly unlikely event that the countries we studied reached their potential. We defined this potential using the standard methodology for macroeconomics, in which real economic growth is determined by two variables: the size of a nation's workforce and the economy's productivity. Because of their population size, the associated size of their workforce, and the scope for productivity catch-up, it was quite easy to show that the potential growth rates of BRICs were higher than those of most advanced economies. What our analysis was *not* meant to show was that all these countries would persistently grow at their potential. That frankly is not realistic, and not what we intended as our message.

In this context, the second decade of this century has been quite a contrast to the first decade, which for all four countries turned out even better than in the scenarios I outlined in 2001. While India has notably disappointed in recent years, it is broadly developing along the path we envisioned. For both Brazil and Russia, however, 2010–20 economic performance was very disappointing, which has occasionally led me to joke that perhaps I should have called the "BRICs" the "ICs." Brazil and Russia have both suffered from the well-known commodity curse and, as evidence suggests, are far too dependent on the world commodity cycle for their own sustainable development. Each of these countries has considerable differences, but they both need to diversify their economies away from commodities and grow the role of the private sector.

In contrast, the ongoing strength of the Chinese economy suggests that it is fully achieving its potential. China's GDP, in excess of $14 trillion (as of 2019), is more than twice that of the other BRICs in aggregate. The sheer scale of China means that the BRIC economies combined are now larger than that of the European Union and are approaching the size of the United States.

Back to the future

Although China's real GDP growth rate will slow beginning in 2021, given its increasing demographic challenge, that will not stop it from overtaking the United States as the world's biggest economy. For the world to grow faster in aggregate, countries with favorable demographics must boost their productivity.

It will be very hard for the world to get to a real GDP growth rate of 4 percent; even the 3.7 percent of the past two decades could be challenging. Four factors will determine whether we get the growth we need: productivity in developed economies; how quickly China's growth trend slows; the success of India; and, crucially, whether the other highly populated emerging market economies emerge. Can the likes of Indonesia, Mexico, Nigeria, Vietnam, and others get close to their long-term potential? If they do, then real GDP growth for the world could have a better chance of emulating that of the past decade.

Obviously, an immediate strong post–COVID-19 recovery almost exclusively depends on developing and distributing vaccines and treatments to eradicate this pandemic. In my judgment, the multiplier benefits of the required $20–$30 billion from donors are such that it would represent the biggest no-brainer economic stimulus any generation has had the chance to agree to, dwarfing the potential benefits of 2008–09.

The IMF must play an active role in encouraging this stimulus and—in addition to its newfound focus on climate change—must enter the arena of health systems and integrate analysis of health spending in its surveillance work. Aligning with finance ministers to support the Access to COVID-19 Tools (ACT) Accelerator—a collaboration between leading global health organizations—is a small beginning, but it needs to be bigger.

Having led the UK government's independent Review on Antimicrobial Resistance (AMR), I know there are other health threats out there equal to COVID-19. AMR could cause as many as 10 million deaths annually by 2050 and, as a result, a cumulative $100 trillion in lost economic opportunity. Some observers find such numbers hard to believe, but as a result of the pandemic, we now know such things are unfortunately a reality. Trying to strengthen the links between economics, finance, and health should be at the center of our emerging ideas.

Bolder and smarter

In the aftermath of COVID-19, emerging market economies, especially the larger ones, must adopt smart fiscal policies—policies that prioritize public investment. We need a different basis for assessing the real economic framework and circumstances of fiscal policy. To be specific, the time has come to truly distinguish between government investment spending and consumption spending; the former is likely to have a positive multiplier effect and should not be treated from an accounting perspective the same as government expenditures on consumption. Tackling climate change and future health threats requires such investments. Emerging market economies' achievement of their growth potential depends on such investment, which is arguably more important for economic growth than financial conditions.

A framework for smarter fiscal policy will almost definitely require stronger domestic financial systems. Continued dependence on a monetary system based on the US dollar makes this difficult. Despite the relatively smooth but ongoing slow relative decline of the share of the US economy in the world, the dollar-based monetary system remains as dominant, broadly speaking, as it was when I started my financial career in 1982. This means that the world must ride the cyclical roller-coaster of the Federal Reserve's monetary policy, its consequence for the United States, and the global financial conditions that follow. As the Fed tightens, by and large, financial conditions for emerging markets tighten—often chaotically. As the Fed eases, the reverse happens.

There is a way out, and one day, this change will take place. The monetary system needs to evolve to be more reflective of the changing dynamics of the world, and until it does, emerging market nations' ability to reach their growth potential will remain challenging, albeit perhaps not quite as challenging as other domestic initiatives such as health and education systems.

Many emerging market nations need to be bolder and smarter about these issues, and the IMF of course will be there to help them. FD

JIM O'NEILL is chairman of Chatham House and former chairman of Goldman Sachs Assets Management.

End of the Line

A looming oil price super cycle will likely be the last

Rabah Arezki and Per Magnus Nysveen

After a pandemic and a price war sent petroleum prices tumbling in 2020, they are again on the rise. A new oil price super cycle—an extended period during which prices exceed their long-term trend—seems to be in the making, driven by ***pervasive supply shortages*** from the lack of investment that has continued since the 2014 collapse in oil prices and, more recently, reduced investment in shale oil production; and ***demand growth*** triggered by a strong recovery in countries such as China, a big stimulus package in United States, and global optimism about vaccines.

Some of these factors have persistent components and will likely more than offset any downward pressure on consumption that becomes part of a new normal post–COVID-19 environment.

Nevertheless, this could be the last super cycle for oil because major economies appear committed to replacing fossil fuels, and mass car manufacturers have responded by committing to replacing internal combustion engine vehicles with electric vehicles over the medium term. This shift will transform the oil market into one consistent with climate goals, but poses a risk of disorderly adjustment for economies dependent on oil, with far-reaching effects that in some cases could spill over their borders.

Oil investment crunch

Even with relatively lower oil prices, extraction and exploration companies have been highly profitable. At the same time, perhaps in recognition of a less buoyant future, they have reduced their investment. Production in oil fields and the number of wells are declining, and reserve depletion is rapid. The drop in both capital expenditure and replacement of oil reserves has persisted since 2014.

COVID-19 has exacerbated the investment decline. For example, shale oil output—which has a shorter production cycle and therefore is more sensitive to changes in investment—is now increasing by half a million barrels a year, compared with 2 million barrels a year before the onset of the pandemic. While the Biden administration's announced ban on drilling on federal land in the United States will have little direct impact on shale production, it signals a shift in federal government sentiment against the oil industry.

Shale producers have adopted a noticeably more cautious investment posture. As a result, they will be operating with positive cash flows—cash flow was previously directed toward investment spending. This reduced investment will lessen the role of shale as swing production and plants the seeds of a price super cycle. On the other hand, the Organization of the Petroleum Exporting Countries will likely increase production to counter that upward pressure on price.

Industry shift

Traditional car manufacturers are increasingly replacing vehicles powered by internal combustion engines with electric vehicles.

Car manufacturer	Production targets	Target year
VW Group	30 percent of total global sales of electric vehicles	2030
Nissan	Electric vehicles 100 percent of sales in key markets	2030
Renault	30 percent of total vehicle sales battery electric, 35 percent hybrid vehicles	2025
Toyota	5.5 million global electric vehicle sales, at least 1 million of them battery electric and the rest some version of electric, including hybrids	2030
GM	100 percent of global sales to be zero-emission vehicles	2035
Hyundai-Kia Group	Cumulative battery electric vehicle sales to reach 1 million units	2025
Kia	Electric vehicles to account for 40 percent of global sales	2030
Ford	100 percent of European vehicle sales to be battery electric	2030
Honda	Two-thirds of global vehicle sales to be electric	2030
Daimler Group	At least 50 percent of total car sales to be electric	2030
BMW	Electric vehicles to account for 30 percent of year-over-year sales growth	2020–30
Volvo	100 percent of new vehicle sales to be fully electric	2030
Mazda	5 percent of total sales to be fully electric and all new vehicles to have an electric component	2030
PSA Group	100 percent of vehicles to be electric	2025

Source: Rystad Energy.

The debate over peak demand

Several commentators and major oil market players, including BP and Shell, argue that global demand for oil peaked in 2019 at about 100 million barrels a day and that it will never again reach that level because of pandemic-related structural changes. That view seems supported by the sharp reduction in oil consumption for transportation, including jet fuel. After travelers started cancelling flying plans in March 2020, jet fuel consumption collapsed and only began to creep up as travel restrictions started to ease.

Those who believe consumption has peaked still anticipate that gasoline consumption will rise in mid-2021, despite higher prices as a result of the inevitable lag between any demand-induced increase in crude oil production and the increase in refined products to meet demand. With vaccine developments and optimism from a proximate reopening of the global economy, it is expected that oil consumption will continue to recover, but to a level lower than what prevailed before the pandemic—effectively the peak of oil consumption.

Yet proponents of the view that oil demand has peaked overlook the structural increase in consumption that will eventually offset any downward shift from COVID-19. Rising living standards and a growing middle class in China and India will lead to increased demand for individual cars and air travel. So even if economic growth slows, the large numbers of people crossing the income threshold that enables them to afford a car will support demand for travel. In emerging markets such as China and India, any shift toward electric vehicles will likely be slower than in advanced economies given concerns over the availability of charging stations. The rate of adoption of electric vehicles will, by and large, be the major driver of future oil demand because road fuel accounts for half of global oil demand.

The structural increase in oil demand, together with a persistent reduction in production from insufficient investment, will likely precipitate—and keep alive for some time—an oil price super cycle.

But will an increase in oil prices prompt more investment and lead to another price bust as has happened in the past?

Technology and its consequences

Technological innovation may make things different this time. Large investments will likely be discouraged by the new technology at the heart of carmaker plans to replace internal combustion engine vehicles with those that run on electricity. The stock market capitalization of electric carmaker Tesla points to the imminence of the transformation of the automobile market. Tesla's capitalization dwarfs that of traditional carmakers—even though those manufacturers produce vastly more cars than Tesla. That disparity has prompted traditional car manufacturers to commit to replacing vehicles powered by internal combustion engines with those powered by electricity, which in turn has triggered massive research and development on electric vehicles by manufacturers seeking to grab shares of the new market (see table).

A frenetic ramping up of production of electric vehicles is not without risk, however. It could cause supply to exceed demand—which would lead to negative cash flows, illiquidity, and bankruptcies of car manufacturers. The automakers' bet is driven both by the commitment of governments to achieving zero net carbon emissions and by the belief that consumers will want to adopt cleaner modes of consumption—transportation accounts for about a quarter of global energy-related carbon dioxide emissions. But it is unclear whether consumers will merely pay lip service to cleaner consumption or actually change their behavior. Will higher carbon prices become less important to consumers than concern about an inadequate charging infrastructure for automobile batteries?

That said, mass manufacturing will eventually make the price of electric cars attractive, and a spike in oil prices would hasten the conversion to electric vehicles. This last oil price super cycle will be consistent with climate goals and associated with commitments by large economies to net zero carbon emissions in the medium term. However felicitous a development that will be for the global climate, however, it poses a risk that the oil reserves so many oil-dependent economies count on will be less valuable—especially for reserves where extraction costs are high. The reserves and the investment surrounding them become, in effect, stranded assets. That could lead to severe economic woes, including bankruptcies and crises, in turn leading to mass migrations, especially from populous oil-dependent economies, many of them in Africa. Other larger oil-dependent economies in the Middle East, central Asia, and Latin America are also an important source of remittances, employment, and external demand for goods and services that benefit many neighboring countries. The end of oil, then, could not only devastate oil-dependent economies but could also overwhelm their neighbors. It is not all bad news for countries with mineral deposits important to the energy transition. Cobalt, essential for car batteries, will be in much higher demand. Uranium could be valuable as well as electricity generation moves away from fossil fuels and nuclear power becomes more attractive.

The end of oil thus makes economic transformation imperative. Oil-rich countries must diversify to become resilient to the changes in energy markets. An appropriate governance framework to manage proceeds from oil in good and bad times has always been important to fostering economic diversification. But with stranded assets a new risk, radical shifts in governance in oil-dependent economies are urgent. Dubai, for example, facing the depletion of its oil reserves, transformed itself into a global trade hub. Countries and businesses reliant on these markets must formulate policies to address this transformation, including the development of renewable energy. To jettison their hidebound economies, which have led to low productivity and waste, oil-rich economies should commit to reforms that lessen obstacles to innovation and entrepreneurship. Reforming corporate governance and legal systems, promoting markets that have no barriers to entry and exit, and ending favoritism for both state-owned enterprises and politically connected private firms will help attract investment and change attitudes toward innovation (Arezki 2020). FD

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Reference:

Arezki, Rabah. 2020. "The Economics of Sustainability: Causes and Consequences of Energy Market Transformation." *Economics of Energy & Environmental Policy* 9 (2).

GLOBAL CLOUT, DOMESTIC FRAGILITY

China's long-term success will depend primarily on addressing its internal challenges

David Dollar, Yiping Huang, and Yang Yao

In 2012 the Chinese government set a long-term goal: build China into a fully developed and prosperous country by 2049, 100 years after the founding of the People's Republic. Given its success since the beginning of economic reform in 1978, this kind of transformation is certainly possible. But it is difficult and not guaranteed.

China faces serious domestic challenges such as an aging population, a rural-urban divide, an underdeveloped financial system, insufficient innovation, and reliance on carbon-based energy sources. Furthermore, China's external economic relations have become contentious with a number of major partners, resulting in growing trade and investment barriers in both directions. Our book, *China 2049*, examines the policies that can help the country achieve this ambitious goal.

An older population

The COVID-19 pandemic has been a reminder that there will be many unpredictable events between now and 2049. But one thing is certain: China will have a rapidly aging population. Total fertility has dropped to 1.7 births per woman, far below the replacement rate of 2.1. This

decline may have been helped along by the one-child policy, but relaxing it did not produce more babies. China is like many other densely populated Asian countries, with high housing and education costs, where many couples choose to have one child, or none. Even some increase in fertility would not affect the labor force for 20 years.

China's population may have already peaked. More important, the working-age population has already started to decline. The elderly population is expected to increase dramatically in the next few decades (see Chart 1). The over-65 cohort will more than double to 400 million people by 2049. Especially striking is that the "old-old," 85 and over, will more than triple to about 150 million people, surpassing their peers in the United States and Europe combined. The only working-age bracket that will increase is the 55- to 64-year-olds.

This population aging is both a social and an economic issue. Taking care of the elderly will require devoting more resources to health care, long-term care, and assisted living. Traditionally, the elderly are cared for by their children. But, with smaller families, many elders could end up with no one to rely on. It makes humane and economic sense to socialize costs that previously were privately borne.

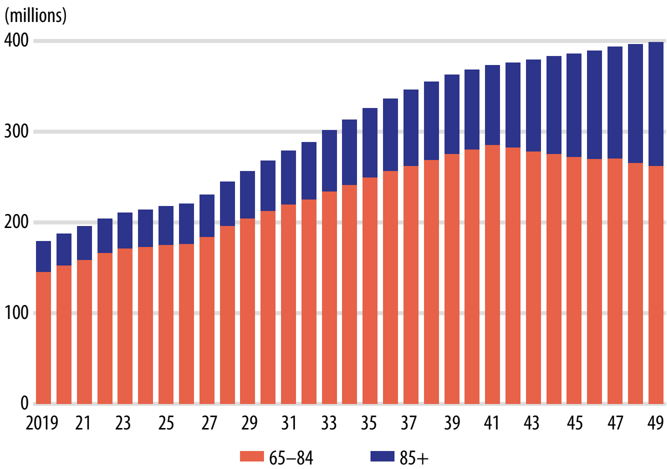
The COVID-19 pandemic has revealed both the strengths and weaknesses of China's health care system. The pandemic was brought under control with a huge ad hoc mobilization that shifted scarce resources to where they were needed most. But many Chinese now feel the need to strengthen the health care system and resource it adequately. This is especially true in rural areas, where many of the elderly live.

Although challenging, the working-age population decline need not presage a dramatic drop in the labor force, depending on what happens with participation. Retirement age, in particular, needs to be reformed and gradually increased: male civil servants can retire at 60, female civil servants at 55. Many people over 65 choose to continue to work if they are healthy. Family-friendly policies can sustain and enhance female labor force participation.

Chart 1

The old will be older

China will see a boom in its 85+ population.



Source: *China Population Prospects 2018*, China Population and Development Research Center, Beijing.

Urban-rural gap

China's 40 years of reform and growth have coincided with steady urbanization. The urban population has been increasing by 1 percentage point a year, from 20 percent at the beginning of the reform to 60 percent today. That includes more than 200 million urban migrant workers still registered as rural residents under the *hukou* household registration system. This migration has been an important source of dynamism and productivity growth in the economy. But migrants face various constraints. If laid off in a downturn, they are expected to return to their rural village. It is difficult to bring children or parents along when migrants move to cities where they do not have full access to social benefits (education, health care, pensions). The result is divided families with parents working in cities while grandparents maintain the family farm and raise the children left behind.

The restrictions on urban registration are gradually being dismantled, especially in smaller cities. Jiangxi province recently scrapped these restrictions. But controls are still strong in the largest centers with the highest productivity, such as Guangzhou and Shanghai. Despite this migration, the ratio of urban to rural income rose steadily. By 2007, urban workers were making 3.14 times as much as those in rural areas—one of the highest levels of rural-urban inequality in the world (see Chart 2). China has about one-fifth of the world's population but only 7 percent of its arable land, making it difficult for 500 million people to live well off the rural economy. Even including rural migrants, China's

ART: ISTOCK / VIKTORIA_YAMS; KONGJONGPHOTOSTOCK; NIKADA

urbanization rate is low relative to the country's per capita income and population density. Fast-growing Asian economies such as South Korea had urbanization closer to 80 percent at this stage of development. It is encouraging that the disparity has come down over the past decade, but it is still high, with urban workers making 2.71 times more.

China would benefit from fully scrapping the internal migration restrictions. On the social side, the rural population is disproportionately composed of children and elderly people. Schools are much better in cities, allowing the workforce of the future access to better education. While some elders will prefer to remain in rural areas, others perhaps would like to move to cities closer to their adult children and to high-quality medical care. Economically, there is still an excess supply of workers in rural areas, and easier migration policies would help maintain the urban workforce.

More bits, fewer bricks

An interesting paradox of China's success is its rapid growth despite an underdeveloped financial system. An index of "financial repression"—based on ownership of banks, regulation of interest rates, intervention in credit allocation, and control of cross-border capital flows—shows China to be one of the most repressed among major economies, similar to India. It ranks as moderately more financially repressed than Russia and South Africa and considerably less liberalized than advanced economies. Almost completely controlled until the 1980s, the Chinese financial system made good progress toward liberalization until about 2000, but has stalled ever since.

Our interpretation is that the initial steps in liberalization were sufficient to carry out the straightforward task of channeling the country's high savings into export-oriented manufacturing and housing. A moderate amount of financial repression can be helpful at this stage of development to ensure that the cost of capital remains relatively low. In both these sectors, lending depends on physical collateral (property, buildings, machinery), so allocation is not that difficult. China's exports come largely from private firms, not state enterprises. Real estate development and housing ownership are also private. So a policy that encouraged exports and real estate was indirectly a policy that channeled resources to the private sector.

The period between accession to the World Trade Organization, in 2001, and the global financial crisis, in 2008, was the golden age of China's growth. There was rapid credit growth, but sufficient GDP growth to keep metrics such as the ratio of nonfinancial corporate debt to GDP stable. This all changed in 2008. To maintain demand in the wake of the global shock, China invested massively in infrastructure by lending to local governments and upstream sectors such as steel that tend to be state-dominated.

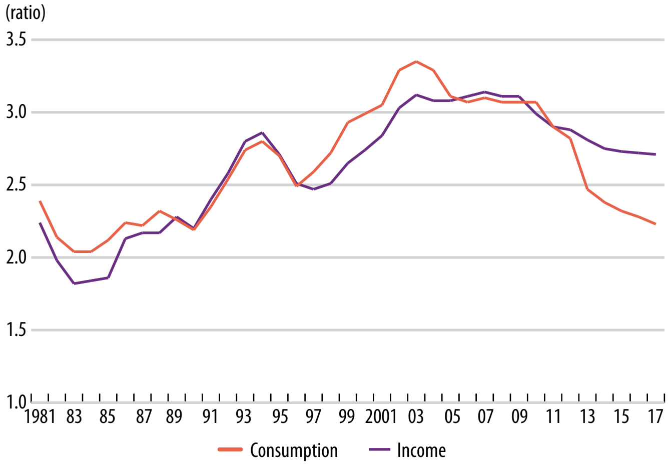
At the same time, the central government decided to channel more resources into key state enterprises, hoping to help them become global champions. The surge in lending to local governments and state enterprises caused overall indebtedness in the economy to grow at an alarming rate, showing that the financial system was not performing well in the new environment. If the financed investments had produced strong growth effects, the debt-to-GDP ratio would have remained stable or risen more slowly. A rapidly rising leverage ratio is a sign that poor investments are being financed.

In recent years, the weakness in capital allocation is also underscored by the stalling of total factor productivity, which measures productivity growth not explained by labor or capital increases. In the early 2000s, following significant direct investment

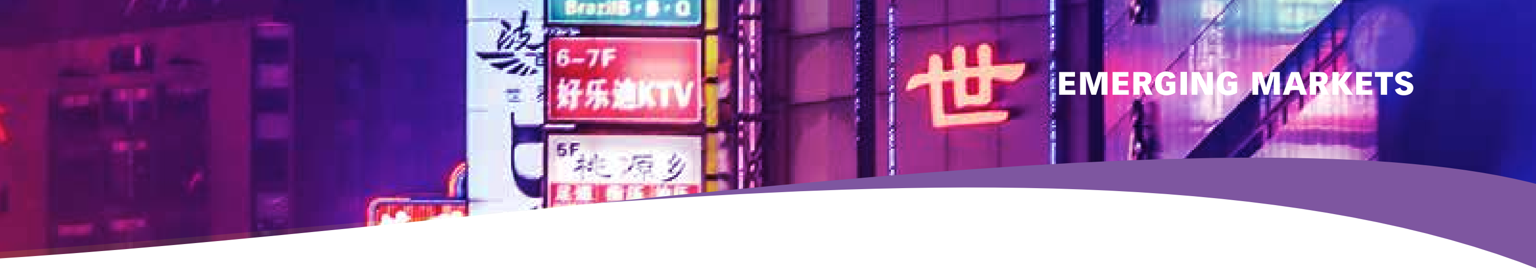
Chart 2

Income gap

Urban workers make almost three times as much as rural workers.



Source: National Bureau of Statistics of China.
Note: The ratio shows how much higher income and consumption are for urban workers than for rural workers.



that helped build up the domestic private manufacturing sector, total factor productivity grew 2.6 percent a year, accelerating to an impressive 3.9 percent in the later part of the past decade. Since the global financial crisis disruption, it has never recovered, growing only 0.2 percent a year between 2015 and 2019.

Stagnant productivity is a signal that China needs more innovation, and a diversified financial system to support it. China has many of the ingredients that contribute to innovation—a large domestic market; high spending (2.4 percent of GDP) on research and development; millions of scientists, engineers, and software developers graduating every year; and gradually improving intellectual property protection. Still, innovation output is inconsistent. There are some impressive areas of technical advancement, such as fintech and artificial intelligence, but productivity growth for the economy as a whole is weak. The state still channels a lot of resources to its own enterprises, whereas most patents are generated by private firms.

The financial system does a better job of funding firms with traditional assets (buildings, machinery) rather than dynamic start-ups built on intellectual property. As China fine-tunes its next five-year plan, it should focus on strengthening the innovation ecosystem, including its financing, rather than supporting particular industries and technologies. Innovation will be the key to meeting the country's environmental goals, especially the target of zero net carbon emissions by 2060.

More trade and investment

China's ability to catch up with advanced economies in GDP per capita depends on continued integration into global trade and investment. It went from virtual self-sufficiency to being the world's largest trading nation and, last year, the largest recipient of foreign direct investment. The current international environment is challenging, however. A bad dynamic has emerged in which China's plan to develop leadership in specific technologies worries its partners, which in turn place trade and investment restrictions on Chinese tech firms. There is a danger that China will turn inward, following its "dual circulation" program, which emphasizes domestic demand and national innovation. Technological decoupling would hurt not only China but also global productivity growth more generally.

A countervailing trend is China's recent membership in major economic agreements, such as the Regional Comprehensive Economic Partnership with countries in the Asia-Pacific region and the Comprehensive Agreement on Investment with the European Union. China has also opened a dialogue with members of the Trans-Pacific Partnership about future membership, which would require significant reforms, such as limits on state enterprises and subsidies and opening up new sectors to foreign investment. China has also made overtures to the Biden administration concerning reduction of trade and investment barriers between the two economies.

Success or failure will depend primarily on China addressing its domestic challenges.

In conclusion, China is at an inflection point in its external economic relations. It makes sense for the country to continue opening up its own economy and negotiating trade and investment agreements in all directions. But success or failure will depend primarily on addressing its domestic challenges. The aging population and the rural-urban divide are interrelated: more integration can help meet the needs of the growing elderly population and prevent an unnecessarily sharp decline in the urban labor force. Financial reform and innovation policy are interrelated as well. Moving away from targeted industrial policy toward more general support of innovation calls for a diversified, competitive financial system that no longer favors state enterprises. Innovation will be the key to eliminating carbon emissions without compromising productivity or living standards. FD

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A boy is home schooled in Guerrero state, Mexico, amid the COVID-19 pandemic.

INEQUALITY *in the time of COVID-19*

All metrics are not equal when it comes to assessing the pandemic's unequal effect

Francisco H. G. Ferreira

The severe impact of the COVID-19 pandemic is clearly seen in the numbers: more than 3.1 million deaths and rising, 120 million people pushed into extreme poverty, and a massive global recession. As suffering and poverty have risen, some data show an increase in another extreme: the wealth of billionaires.

With both extreme poverty and billionaire wealth on the rise, the pandemic's effect on inequality may appear obvious. The reality is not as simple as you may think.

Inequality is a notoriously challenging concept on which to make definitive statements. Inequality of what? Of household income or of GDP per capita? Or even of mortality rates themselves, across different groups? Inequality among whom: should it be viewed at the level of individuals? Households? Countries? Even once a distribution is precisely specified—so that we are clear about what is distributed among whom—firm conclusions about the direction of inequality change will generally depend on what part of the distribution you care about most. Different measures of inequality—such as the Gini coefficient, the Theil index, and the income share of the wealthiest in society—are sensitive to different parts of the distribution and can in principle rank inequality before and after the pandemic differently. Clarity about which inequality is being measured matters a great deal for assessing the unequal impact of the pandemic.

Consider first the global distribution of COVID-19 mortality itself. Using the concept of life years lost to the disease—estimated using ages at death and the residual life expectancies at those ages—we find that the mortality burden of the pandemic is *positively* correlated with national income per capita, despite the superior health and public prevention systems in rich countries (Ferreira and others 2021). The chart plots the number of years of life lost to the pandemic per 100,000 inhabitants against GDP per capita for 145 countries, using log scales on both axes (see chart, next page).

Although there is enormous variation at each income level—with Brazil's mortality burden (adjusted by population) 1,000 times greater than Thailand's, for example—there is nonetheless a very clear positive association. Richer countries suffer greater losses of life years per capita than poorer countries. Measurement error is likely substantial, with a number of poor countries, such as Burundi and Tanzania, clearly underreporting deaths, but the association is so strong that it is unlikely to be spurious. Among other things, it reflects the older age structure of the population in richer countries and an illness whose lethality is highly age-selective. Higher life expectancies, greater urbanization, and the pandemic's spread along major trade routes also likely have played a role.

Examining income inequality

But what about the distribution of *income*, instead of mortality? How did global income inequality change during the pandemic? Well, global inequality in incomes can be understood in at least three ways: first is the question of what happened during COVID-19 to the distribution of GDP per capita among countries—labeled "Concept 1" global inequality by Branko Milanovic. In a recent paper, Nobel laureate Angus Deaton shows that, on average, richer countries also experienced *larger* economic contractions than poorer countries in 2020 (Deaton 2021). And although by itself this result does not necessarily imply a decline in inequality between countries, it turns out that the actual pattern of income declines did indeed lead to a *reduction* in (unweighted) inequality between countries during 2020, whether it is measured by the Gini coefficient, the Theil index, or the coefficient of variation. This represents a continuation of the trend since the turn of the millennium, when Concept 1 global inequality began to fall, owing in large part to the rise of China and India. But Deaton argues that, if anything, the pandemic *accelerated* the decline.

This calculation takes countries as the unit of measurement and thus attaches the same weight to Luxembourg as to China. One might ask, alternatively, what happened during COVID-19 to the distribution of GDP per capita among countries *when these are weighted by population*. That approach is the same as measuring inequality in an imaginary distribution of all individuals in the world, where all people are assigned their country's GDP per capita—Milanovic's "Concept 2" global inequality.

Inequality is a notoriously challenging concept on which to make definitive statements.

When differences in GDP per capita are weighted by population, inequality between countries *increased* during 2020—which Deaton argues can be attributed to the pandemic. More specifically, it can be attributed to the sharp economic contraction in India, which suffered a great deal both in terms of mortality and economic performance—even before the massive second wave in 2021. Although China's positive growth (and far fewer deaths) helps offset India's decline, China is now too close to the global average income to completely compensate for India's economic losses. When India is omitted from the calculation, Concept 2 inequality continues to decline, as it had been doing since the 1990s. Through India, the pandemic *did* contribute to a reversal in the previous pattern of falling weighted inequality between countries.

Of course, people are very far from earning the same income within any given country. Concept 3 global inequality refers to the inequality among all the world's individuals when they are assigned their *own* incomes. This is arguably the most interesting of Milanovic's three concepts of global inequality, and it is the only one that takes inequality *within* countries into account. For many "good" inequality measures, this Concept 3 inequality is just the sum of

PHOTO: GETTY IMAGES / PEDRO PARDO

(appropriately weighted) inequality within countries and Concept 2 inequality between countries.

Since Concept 2 inequality appears to have risen in 2020, it would be enough for "average" inequality within countries also to have risen for us to conclude that global inequality among individuals has grown during the pandemic, in conformance with what most people suspect. Unfortunately, it is too early to tell whether or not that is the case: data on individual incomes come from household surveys and administrative sources that are simply not yet available for 2020. For most countries, it will be at least a year, and typically more, before data on income inequality within countries become available.

For the moment, though, it certainly seems plausible that inequality within many countries is on the increase, given evidence of rising poverty and rising billionaire incomes. There are good reasons to expect that the pandemic both created new inequalities and exacerbated preexisting income gaps within countries. There is long-standing evidence from many countries that people entering the labor market during a severe recession earn less than the cohorts just before and after them—and that those differences linger for many years. By inducing a massive global recession, COVID-19 has certainly created new inequalities among cohorts of young people.

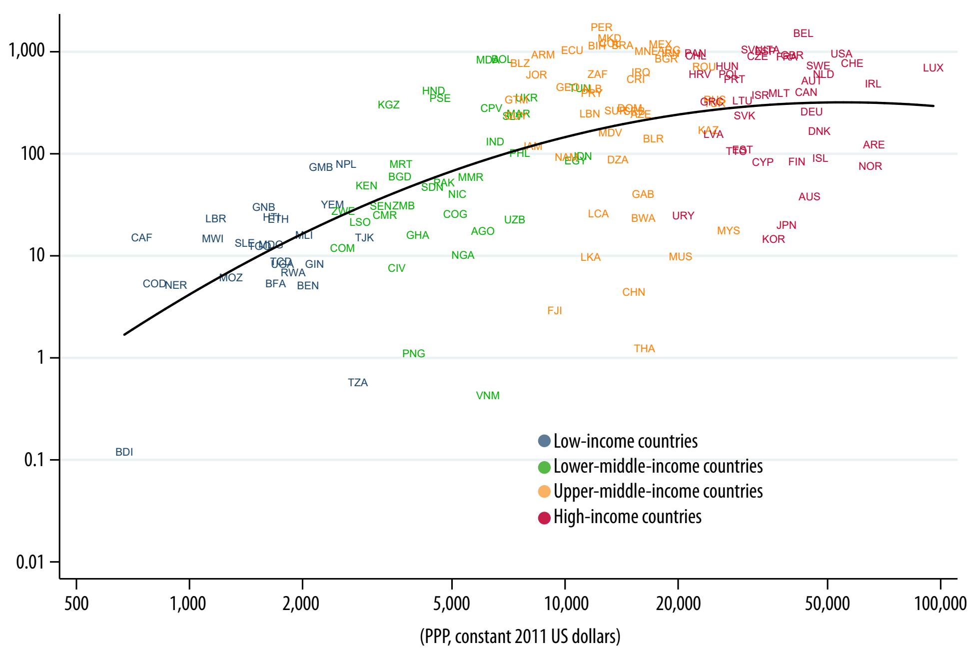
Preexisting conditions

The pandemic has also exacerbated preexisting inequalities in the labor market, largely because the ability to work remotely is highly correlated with education, and hence with pre-pandemic earnings. Despite all the talk of "essential workers" and everyone being "in this together," the stark reality is that job and income losses are likely to have hit lower-skilled and uneducated workers the hardest. Early evidence from both public and private big data sources in the United States seems to confirm

Wealth and health

Despite their advantages, richer countries have shown a larger loss in life years due to the pandemic than many poorer countries.

(life years per 100,000 people)



Source: Ferreira and others (2021).

Note: Country abbreviations are International Organization for Standardization (ISO) country codes. PPP = purchasing power parity.

this—although there are interesting nuances that we don't have space for here. In developing economies, the same labor market forces are, if anything, turbocharged by informality: when lower-skilled labor is predominantly informal, those workers have no access to furlough programs or unemployment insurance. This year, hundreds of millions of such workers faced very stark trade-offs, on a daily basis, between staying safely at home or facing the threat of infection to provide food for their families.

Given preexisting racial and gender occupational differences, the exacerbation of these inequalities in the labor market is also likely to have translated into even greater racial and gender disparities in many countries. In addition, with the burden of additional time required for childcare and housework falling disproportionately on women, gender inequality in earnings is particularly likely to have grown even wider.

Capital markets are also likely to have played a nontrivial role in generating inequality during the pandemic, particularly at the top. In response to the widespread economic collapse in March and April 2020, the world's key central banks further loosened monetary policy, injecting enormous amounts of liquidity into financial markets. While that additional liquidity has not so far translated into goods price inflation, it has certainly helped keep asset prices high. It is the main reason stock markets boomed while the economies that underpin them were in the doldrums. These monetary policy interventions were well-intentioned, and they are likely to have helped prevent bankruptcies and preserve jobs. Nonetheless, they did inflate the value of assets held primarily by rich people and have a lot to do with the generalized growth of billionaire incomes. Owning shares in Amazon or Zoom wasn't the only way to gain wealth during this period.

Social transfers

Yet, despite these multiple reasons the pandemic can be expected to have raised income inequality within countries, we cannot yet be sure of just how general those increases are. For one thing, evidence is emerging from some (apparently) unlikely places that social protection policy responses—such as income transfers targeted to poor and vulnerable workers—have worked rather well. Early work out of Brazil's well-respected IPEA think tank suggests that generous "emergency support" transfers helped *reduce* both poverty and inequality in Brazil between May and September 2020, despite the country's disastrous response to the health emergency. Similar claims have been made about five European countries: France, Germany, Italy, Spain, and Sweden (Clark, D'Ambrosio, and Lepinteur 2020).

The upshot is that we will not know the effects of the pandemic on income inequality within countries for sure until reliable administrative and household survey data become available. In the meantime, the tentative good news that income transfers can provide an effective response, at least in the short term, should spur other countries into action. But more action is needed: perhaps the most insidious new inequality spawned by the pandemic is between children who have been able to continue their schooling over the past year—whether in person or online—and those who have not, because of poor connectivity or weaker, poorer schools. Students in the latter category are often at great risk of falling substantially behind in their learning, or even of dropping out altogether. The learning and schooling inequalities arising from these differences are as stark as they are widespread, and as these children join the labor force the consequences are likely to be with us for decades to come.

The overall picture that emerges from these considerations is, for the moment, one of falling income gaps between countries (when not weighted by population) and—speculatively and preliminarily—rising gaps within countries, on average. Given the educational and labor market dynamics I have outlined, the latter gaps may well persist for more than a generation. What is more, it now appears plausible that even unweighted inequality between countries may well rise in 2021, if the unequal spread of vaccination allows countries such as the United States, the United Kingdom, and parts of developed Asia to recover much more rapidly than India, Latin America, and much of Africa. FD

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References:

Clark, Andrew, Conchita D'Ambrosio, and Anthony Lepinteur. 2020. "The Fall in Income Inequality during COVID-19 in Five European Countries." ECINEQ Working Paper 2020-565, Society for the Study of Economic Inequality, Palma de Mallorca, Spain.

Deaton, Angus. 2021. "COVID-19 and Global Income Inequality." NBER Working Paper 28392, National Bureau of Economic Research, Cambridge, MA.

Ferreira, Francisco, Olivier Sterck, Daniel Mahler, and Benoît Decerf. 2021. "Death and Destitution: The Global Distribution of Welfare Losses from the COVID-19 Pandemic." *LSE Public Policy Review 1(4), 2.*

A COVID-19 TANTRUM?

The Federal Reserve's post-pandemic stance will expose vulnerabilities in emerging markets with high private external debt

Şebnem Kalemli-Özcan

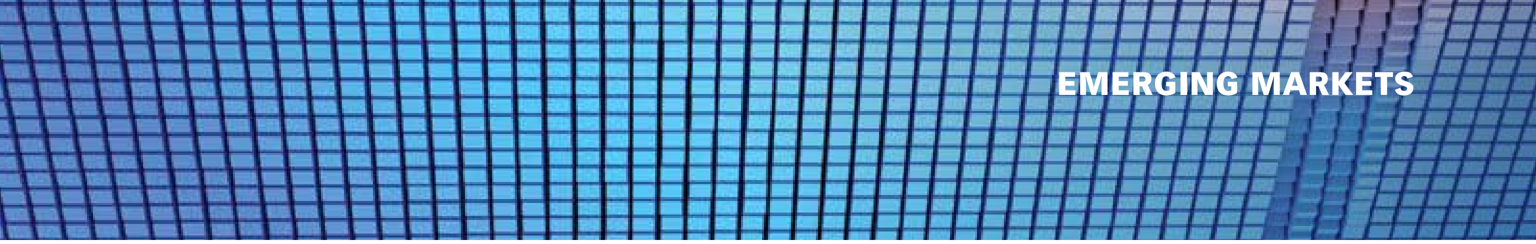
The pandemic has not yet led to a full-blown debt crisis for emerging markets, but substantial risks remain.

The current situation might be an "illusion" of stability that largely results from the mitigating role of US monetary policy on emerging markets' external financing conditions. By weakening the dollar, providing swap lines, and reducing external dollar financing costs for emerging markets, US monetary policy kept capital flowing to these economies. US monetary policy, because of its influence on global investors' perception of risk, has always been the single most important determinant of emerging markets' capital inflows and outflows. Will there be an emerging market crisis when US interest rates eventually start to rise? That will depend on three key issues:

- The effect of US monetary policy on emerging market capital flows, which will vary across emerging markets depending on country-specific risk;
- The currency and sector composition of these economies' external debt—largely in US dollars and borrowed by the private sector—at the outset of the pandemic; and
- Limited fiscal space in emerging market economies to fight the pandemic, requiring continuous domestic and external government borrowing.

US monetary policy

Historically, sovereign borrowing has played a major role in emerging market economies. Literature going



back to the 1980s has argued that the difference in interest rates between US Treasury securities and emerging market government bonds affects demand for emerging market debt. More recently, this tight link has begun to weaken.

Chart 1 shows a much lower correlation since the global financial crisis between capital flows and policy interest rate differentials, which directly affect short-term government bond rates. This is because private capital flows, such as cross-border bank flows and corporate loans and bonds, have become a much more significant component of emerging markets' total external borrowing since the early 2000s. Private capital flows are more likely to be affected by private investors' perceptions of risk for a particular emerging market economy than by government bond interest rate differentials. Of course, public flows can also be sensitive to global risk perception, especially if they are in local currency. Thus, US policy affects both private and public capital flows in and out of emerging markets. Note that these flows can also go in opposite directions: public flows could come into emerging markets and private flows could go out, if US policy rates go down and global risk sentiment goes up.

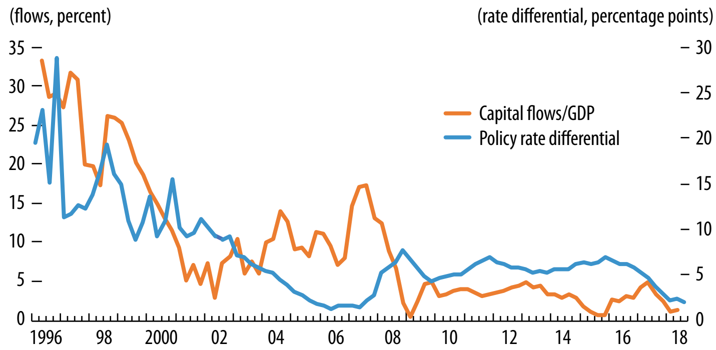
Unprecedented action by the Federal Reserve led to a comeback of the initial \$100 billion in outflows of public and private portfolio holdings (securities such as stocks and bonds) that had left emerging markets between January and May 2020. The Fed's action not only lowered borrowing costs for emerging markets, but it also helped to ease global risk aversion, which in turn encouraged private sector capital flows into emerging markets during the second half of 2020, with a lower risk premium on such investments. There was also heterogeneity in capital flows across emerging markets depending on how they handled the pandemic (Çakmaklı and others 2020; IMF April 2020). This heterogeneity was not surprising, as we knew from the previous episodes of US monetary policy changes (Kalemli-Özcan 2019). The responses of emerging markets to the Federal Reserve's policy stance vary according to country-specific risk, which is directly affected by their handling of the pandemic.

This is all good news, but since we lack real-time balance of payments data to track *total* capital flows, we might get an incomplete picture about potential capital flow responses to COVID-19 and to US monetary policy from figures that cover only portfolio

Chart 1

Policy and government bond rates less influential

The difference between emerging market and US policy interest rates has affected emerging market capital inflows less since the global financial crisis.



Source: Adapted from Kalemli-Ozcan (2019), Jackson Hole Symposium. Author's calculations are based on IMF data.
Note: Policy rate differentials are in logs and vis-à-vis the United States. Capital flows are normalized by GDP and plotted as three-quarter moving averages. All variables are averaged across countries on a given date. Quarterly observations are from 46 emerging market economies.

flows out of emerging markets—\$70 billion in portfolio equity and \$30 billion in portfolio debt (IMF April 2020). Knowing what types of capital flows were most drained during previous emerging market crises and the composition of the stock of external debt in emerging market economies at the outset of the pandemic will deliver a fuller understanding of emerging markets' remaining vulnerabilities to possible future capital outflows under changing global conditions.

Currencies and sectors

So what was the currency and sector composition of emerging market debt at the end of 2019, just before the pandemic? While portfolio debt, composed of emerging market government and corporate borrowing in bonds, constitutes a significant portion of their external debt, cross-border bank loans are equally important. Yet these loans are not included under portfolio flows. In emerging markets, a disproportionate share of external liabilities (65 percent) is in portfolio debt (bonds) and other investment debt (loans), in about equal amounts. Portfolio equity and foreign direct investment constitute the remaining 35 percent. Sovereigns account for over 60 percent of the portfolio debt, whereas banks and corporate loans together account for 80 percent of other investment debt (Avdjiev and others 2020). Although sovereigns can borrow externally

ART: ISTOCK / FLORIANA

via local currency bonds, most cross-border bank and corporate bonds and loans are in US dollars.

It is important to know which borrowing sector and what type of asset class lost the most foreign capital during previous emerging market crises, such as the 2008 global financial crisis and the 2013 "taper tantrum," when US Treasury yields surged on speculation that the Federal Reserve would slow, or "taper," its purchases of financial assets to boost the economy. During those episodes, the largest capital outflows from emerging markets were cross-border bank loans, followed by cross-border corporate loans and corporate bonds, as shown in Chart 2.

The 2008 and 2013 episodes show that what we witnessed in terms of capital outflows from emerging markets at the beginning of the pandemic in March–May 2020 actually could have been worse. During the financial crisis and taper tantrum episodes, outflows focusing on total debt of the private sector—as opposed to portfolio debt alone—were understandably much larger than the $30 billion in portfolio debt outflows early on in the pandemic. As for the $70 billion that left portfolio equity, this was not surprising since this is the riskiest emerging market asset class and COVID-19 was the biggest shock since the global financial crisis in terms of investor flight from risk.

Banking and corporate debt flows for emerging markets stayed intact in 2020, unlike during the global financial crisis and the taper tantrum, thanks to fast, clear, and unprecedented action by the Federal Reserve. US monetary policy is the key determinant of emerging market private sector flows, which are in dollars and borrowed from private creditors, and sensitive to the risk appetite of global investors.

Fiscal policy

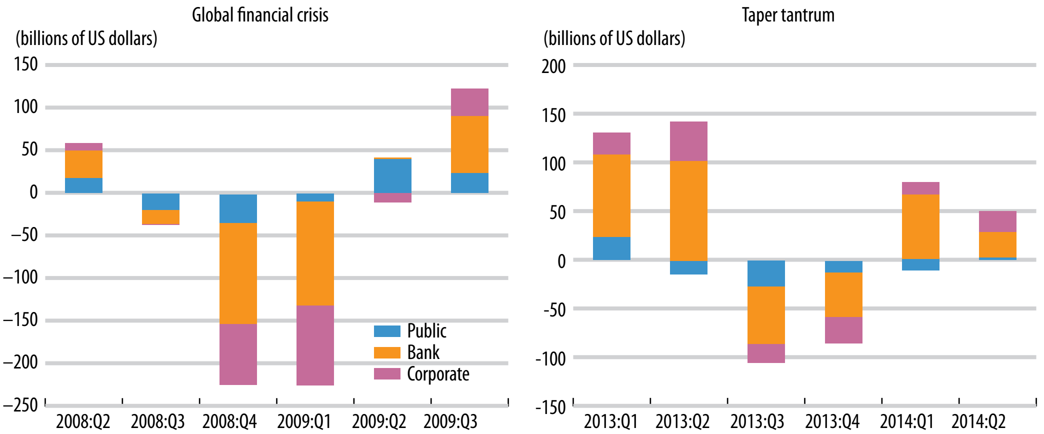
Will we witness another taper tantrum event, with capital fleeing emerging markets once US policy rates rise as the US economy strengthens? The answer depends on country-specific risk, which is not only a function of classic vulnerabilities, such as high external debt, high domestic private sector foreign currency debt, and inflation, but also emerging markets' policy response to COVID-19. So far, emerging markets, like advanced economies, have adopted a fiscal/monetary policy mix. As we know from emerging markets' own histories, fiscal policy has a specific role in the nexus of external debt, domestic debt, and inflation.

Emerging market governments must fight the pandemic domestically, and their private sectors must roll over their external foreign currency debt. This means that these governments need to raise financing both domestically and externally, not only to fund the fight against the pandemic but also to prepare for possible private sector defaults leading to government-financed bailouts. However, these countries' governments have limited fiscal space.

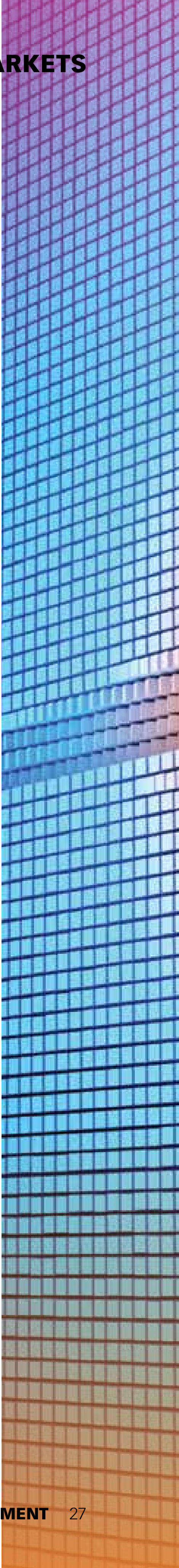
Chart 2

Past capital outflows

Bank loans represented the largest capital outflows from emerging markets during the 2008–09 global financial crisis and the 2013 "taper tantrum."



Sources: Adapted from Avdjiev and others (2020). Author's calculations are based on IMF and Bank for International Settlements data.



At a time when emerging market economies need all the support they can get, they need to raise both domestic and external financing.

There were large differences between advanced and emerging market economies in the scale of their fiscal packages early in the pandemic. As of early 2021, these differences had grown larger; emerging market economies put together fiscal support worth only 6 percent of their GDP on average, compared with average support of about 20 percent of GDP in advanced economies (IMF 2021).

A close look at the US numbers can put things in perspective when it comes to the size of this shock relative to the global financial crisis. So far in the pandemic, US active and promised future support amounts to $7.25 trillion, which is 34 percent of 2019 US GDP. In comparison, US support of $830 billion in the wake of the 2007–09 financial crisis amounted to just 6 percent of 2007 GDP. The fiscal support needed for a shock like COVID-19 was dramatically larger.

Many emerging market economies, lacking the resources to mount fiscal packages on this scale, added monetary policy to the mix. Like advanced economies, they turned to asset purchases, so-called quantitative easing (QE) programs. Academics and policymakers immediately warned of debt monetization—printing money to buy government debt. The fear is that this will lead to inflation in emerging markets, reversing the hard-won gains of the past two decades, as a result of the adoption of inflation-targeting regimes.

The link between inflation and fiscal policy has always bedeviled emerging market economies. Many of them learned the hard way that fiscal discipline is the key to successful inflation targeting. Any emerging market central banker will tell you that controlling inflation calls for fiscal discipline. The consensus that fiscal backing and central bank independence are the key to taming inflation arose in advanced economies first, after the high-inflation episodes of the 1970s. For emerging markets, as in advanced economies, central bank independence and fiscal discipline can prevent QE programs from being inflationary. The backbone of a successful QE program is policy credibility.

Fifteen emerging market economies undertook these programs with the rationale that, without them, the increase in the budget deficit would flood the market with government bonds, forcing interest rates higher. By purchasing these bonds, emerging market central banks hoped to prevent this (BIS 2020; IMF 2020). So far, most of these programs, though small, have been successful, with a few exceptions where central banks did not have the credibility to assure markets that they would not fund the government indefinitely. The cost of credit default swaps (CDSs)—essentially insurance against default, a good barometer of external financing costs—reflects in part this lack of confidence. The CDS spreads have increased on certain emerging markets but not on others, reflecting the heterogeneity in the credibility of the monetary/fiscal policy mixes.

At a time when emerging market economies need all the support they can get, they need to raise both domestic and external financing. Higher costs for external financing can lead to disastrous outcomes at such a juncture, especially if the Federal Reserve starts raising rates, reversing the accommodating tide it has provided to emerging markets so far. So emerging market economies should balance the monetary and fiscal policy mix carefully, communicating these policies in a transparent way and watching closely their effects on their external borrowing costs. FD

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References:

Avdjiev, Stefan, Bryan Hardy, Şebnem Kalemli-Özcan, and Luis Servén. 2020. "Gross Capital Flows by Banks, Corporates and Sovereigns." NBER Working Paper 23116, National Bureau of Economic Research, Cambridge, MA.

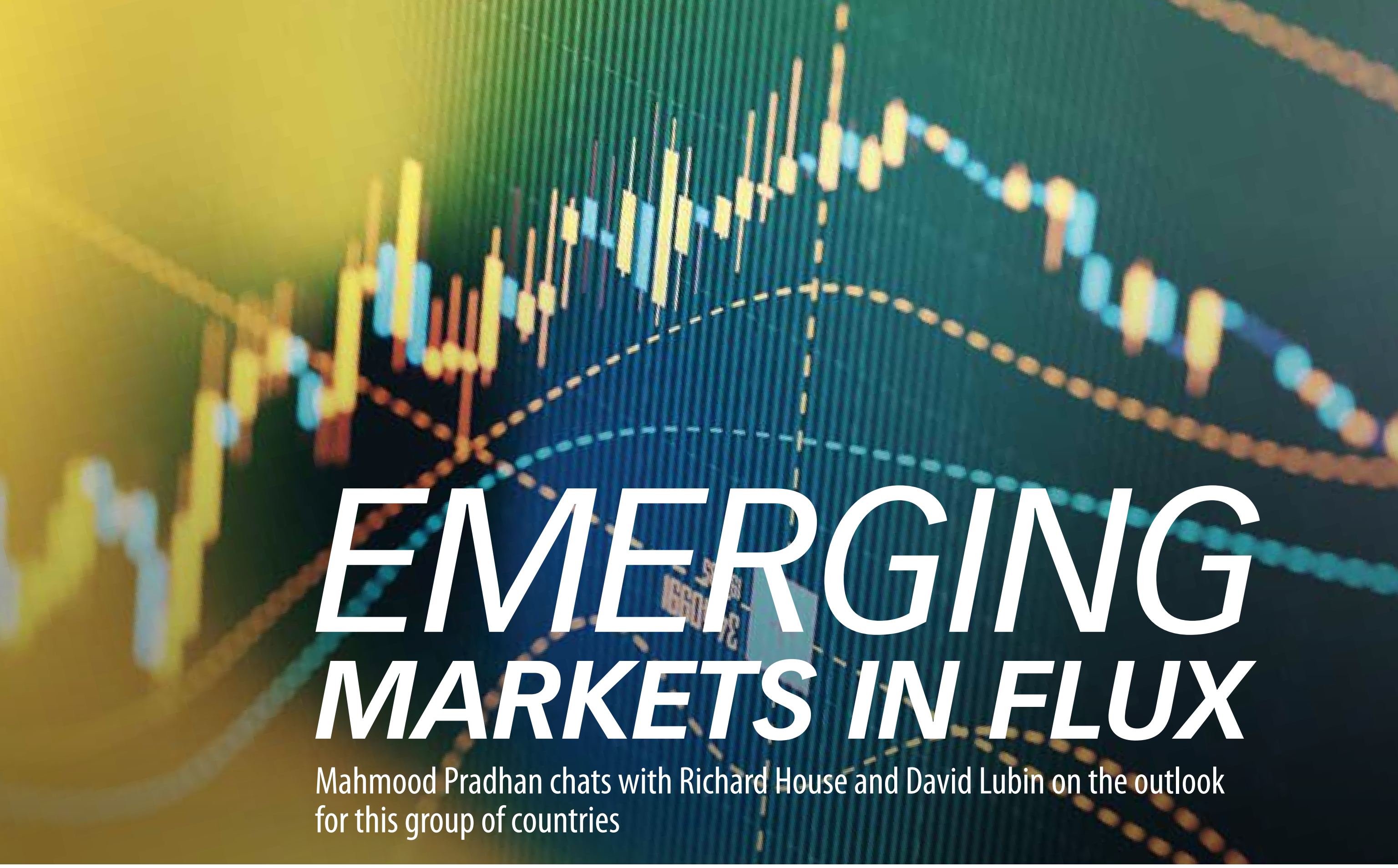
Bank for International Settlements (BIS). 2020. *BIS Bulletin*, June.

Çakmaklı, Cem, Selva Demiralp, Şebnem Kalemli-Özcan, Sevcan Yesiltas, and Muhammed A. Yildirim. 2020. "COVID-19 and Emerging Markets: A SIR Model, Demand Shocks and Capital Flows." NBER Working Paper 27191, National Bureau of Economic Research, Cambridge, MA.

International Monetary Fund (IMF). 2020. *Global Financial Stability Report*, Washington, DC, April and October.

———2021. *World Economic Outlook*. Washington, DC, April.

Kalemli-Özcan, Şebnem. 2019. "The U.S. Monetary Policy and International Risk Spillovers." Jackson Hole Symposium Proceedings, September.



EMERGING MARKETS IN FLUX

Mahmood Pradhan chats with Richard House and David Lubin on the outlook for this group of countries

Emerging market assets have proved remarkably resilient over the past year, confounding more dire expectations at the outbreak of the COVID-19 pandemic. The very large liquidity injections from central banks in advanced economies have undoubtedly helped. But some emerging market economies have also found more policy space, including turning to unconventional monetary policies that many would have thought available only to advanced economies. This crisis will, however, leave scars. Debt burdens of emerging markets and low-income countries are rising to unprecedented levels. Will more countries need financial assistance when the tide of global liquidity turns? And will private investors be willing to share the burden?

Two veteran market players—Richard House, chief investment officer for emerging market debt at Allianz Global Investors, and David Lubin, head of emerging market economics at Citibank—explain why the maturity of this asset class helped limit the fallout and bodes well for its resilience and return to a more normal global liquidity environment. But they do see a need for the private sector to share the burden of adjustment in some countries. They also call for the public sector, including the IMF, to help countries take advantage of the growing demand for debt issuance that complies with environmental, social, and governance standards.

F&D: Are you surprised by how well the emerging market asset class has fared during the pandemic?

RH: No, for two reasons. First, emerging markets have become a much more diversified asset class. Second, ownership now is mostly domestic. When I started out, 25 years ago, there were just a handful of countries to choose from, and foreign investors like ourselves dominated the asset class. Today, there are more than 80 countries to choose from, and average ownership of foreigners is about 20 percent, including corporate debt. Large domestic ownership limits contagion and has made the whole asset class more resilient.

DL: The scale of the health crisis was so devastating that there could have been any number of outcomes. But the collapse of US real interest rates starting in late March was critical—40 years of history teaches us that when that happens, capital is pushed toward emerging economies. For the whole of 2020, Eurobond issuance by emerging economy borrowers was some $800 billion, more than a 10 percent increase over 2019. This was particularly surprising because many emerging economies saw their external financing needs go down due to the recession-induced reduction in their current account deficits.

F&D: What will happen when long-term yields begin to normalize in advanced economies and central banks start to unwind asset purchases?


Richard House


David Lubin

DL: Rises in US interest rates have been a threat to emerging markets' capital flows since the 1970s. A recent small increase in 10-year US Treasuries caused some turbulence. But by any historical standards, a 10-year US Treasury yield that remains negative in real terms is absurdly low. As long as that remains the case, the threat of significant capital outflows should be contained.

F&D: You both think emerging markets are more resilient for being less dependent on foreign investors. But are foreign investors also better at differentiating between countries? Or has the large-scale policy response from advanced economies muddied the waters?

RH: Almost all asset classes collapsed early last year, then bounced back strongly. Liquidity injections have masked some problems, but not everywhere. While a rising liquidity tide has certainly lifted many boats, macro and political drivers ultimately drive asset prices. There has been reasonable differentiation, certainly in sovereign credit and foreign exchange.

DL: The biggest surprise last year was how almost all emerging economies were able to ease monetary policy. This was significantly facilitated by the Fed, which basically said, in March of 2020, "Leave it with us; we've got this covered." That was a very powerful signal that monetary policy could come to emerging markets' rescue as well. Fiscal policy turned out to be more difficult because many countries did not have the firepower of advanced economies.

F&D: If long-term rates are moving up because of stronger US growth, could that offset the impact of higher borrowing costs?

DL: Under normal circumstances, I would say no. When US monetary conditions tighten, I think emerging economies lose more through capital outflows than they gain from more exports. The reason is that in recent years, the main driver of global investment trade and commodity prices has not been the United States, but China. Emerging markets' capital accounts are impacted by decisions taken in Washington; their current accounts are more influenced by Beijing.

The ideal combination would be a weaker US, with low interest rates pushing capital toward emerging markets, and a stronger China boosting trade and investment. Should the United States be more able to shape global investment growth with President Biden's infrastructure plan, that would help emerging countries, particularly if China refocuses toward consumption.

F&D: Emerging markets used unconventional policies more actively. Does this suggest some countries have more tools in their arsenal than previously envisaged?

RH: It's very hard to generalize: there have been several different forms of quantitative easing. But compared to only a few years ago, every central bank has been unconventional. The narrative that emerging countries cannot do quantitative easing or all hell breaks loose is long past.

DL: There is a lot of diversity. India, for example, has successfully announced expansionary fiscal policy together with caps on bond yields. If others tried that, there would be massive capital outflows. The difference is often in markets' confidence about each country's growth potential, but also how open their capital account is.

F&D: How concerned are you about mounting debt burdens? Can emerging markets, and especially low-income countries, grow their way out of debt?

RH: Coping with COVID-19's financial impact is a global concern. An immediate concern for me is the disparity in growth rates across countries. Sadly, vaccine distribution in emerging economies will be much slower than in advanced ones. Markets are not paying attention to that disparity. Although emerging economies will bounce back, I don't see debt-to-GDP levels coming down to pre–COVID-19 levels for many years.

DL: I would agree. Accumulating large debt in foreign currency is much more dangerous. However, we're still far away from that. Indicators

PHOTOS: MATTHEW LUMB AND COURTESY OF DAVID LUBIN
ART: ISTOCK / MICROSTOCKHUB

like the external debt service ratio and debt to foreign exchange reserves ratio don't look too stretched in historical terms. Low US interest rates will help keep the debt service cost low. The common denominator of the 1980s and 1990s crises was emerging economies' lack of dollar assets. During the last 20 years, many of them made strenuous efforts to accumulate foreign currency reserves. The domestic debt problem is more serious in some countries. Investors and the IMF have very little experience and don't know what such a crisis might look like. Our experience in the last 40 years has been mostly with foreign debt.

RH: The biggest difference is that pegged exchange rates have been thankfully consigned to history. So I don't think there's ever going to be another big systemic emerging markets crisis again. Maybe in some countries at the corporate level, but certainly not at the sovereign level.

F&D: Do you expect many countries will need financial assistance from the IMF or other multilateral institutions? And can the private sector share the burden of adjustment?

RH: We have seen record issuances from emerging markets, sovereign and corporate, in the first quarter of 2021, despite a pretty sizable repricing of US Treasuries. Some countries facing liquidity or solvency issues will need more assistance from the Fund and potential private sector participation in restructurings. They are well known to anyone with a basic grasp of sovereign balance sheet analysis. I do not think there will be contagion. There was no contagion from the most recent defaults or restructurings in Argentina, Ecuador, and Lebanon. Why would it be different now? The private sector should definitely participate when debt is clearly unsustainable.

DL: Portfolio managers are paid to do risk assessment. The IMF first introduced its lending into arrears policy in the 1980s. If private creditors still think the IMF will bail them out, they're not doing their job properly.

F&D: Can emerging markets and low-income countries benefit from the growing demand for environmental, social, and governance–compliant borrowing (ESG)?

RH: It's a nascent asset class, but with huge potential. At an estimated $16 billion, it's still only 4 percent of total funds under management in emerging markets. All investors are demanding them now—three-quarters of my client meetings are about our strategies on these investments.

The IMF can play a role in helping smaller countries get involved, particularly given its commitment to helping them achieve the UN Sustainable Development Goals. There are now internationally used principles on green, social, and sustainable bonds—and lots of public and private data available. The Fund can help in monitoring engagement and reporting.

F&D: Should the IMF focus on helping countries develop capacity to issue green bonds, or on monitoring and enforcement?

RH: Investment banks are eager to help countries issue these bonds. The Fund could help more on monitoring and engagement, and especially on social and governance aspects. It has been encouraging that IMF reports have covered these issues. Engagement with countries is critical. It's the question investors always raise.

DL: It is a complicated area because money is fungible. A country says it is raising money to invest in this green project or to build schools in rural communities. How can we know for sure?

A second problem is that ESG ratings are highly correlated to per capita GDP. I worry that, as green and socially responsible bonds become more entrenched in global markets, there could be perverse consequences. Capital flows to lower-income countries could be at risk.

F&D: But isn't that exactly the point, to exert economic pressure on governments to abandon bad practices?

DL: Investors are used to making risk-based assessments of ESG. Social and governance aspects have always been part of the analysis, because they are part of credit risk. But values-based investing is increasingly the case. "This country treats its journalists terribly; I couldn't possibly invest there until they sort this out," for example. If that kind of thinking seeps into the investment process, I'm not sure who benefits. The leverage investors might have could end up perpetuating a situation. FD

MAHMOOD PRADHAN is deputy director of the IMF's European Department.

From Stream to Flood

Streaming video offers emerging markets an avenue for content at home and around the world

Adam Behsudi

She is a beautiful Nigerian attorney. He is a dashing Indian investment banker. Just as their romance spans the international divide, the movie that immortalizes it is equally cross-cultural: filmed and produced in Nigeria, edited in India, and released by Netflix to a global audience.

Beyond a plotline of disapproving parents and saccharine-sweet dance numbers, the merging of Nigeria's Nollywood and India's Bollywood with the release of *Namaste Wahala* ("Hello trouble" in Hindi and Nigerian pidgin) represents how small the world of entertainment has become in a new age of streaming video.

Streaming giants like Netflix, Disney+, and Amazon are growing new audiences and overlapping markets in ways never seen before. In doing so, they've opened burgeoning film and television industries in some of the most vibrant emerging markets to new possibilities, changing the economic calculation for producing films and redefining what can be a hit.

"What's beautiful about it is we're sitting on the same platform. That's what's exciting—being a Nollywood movie—where it's going, what we're sitting next to in terms of Hollywood production and it being received in that way," said Hamisha Daryani Ahuja, a third-generation Nigerian with Indian roots who created, directed, produced, and acted in the movie that Netflix released on Valentine's Day.

Ahuja's romantic comedy broke into Netflix's top 10 list in the United States for a short period, generating buzz for the streaming company's recent expansion into African content.

ART: ISTOCK / VIDEOWOK_ART; NIKADA; BEYHANYAZAR; OATAWA; METAMORWORKS

The growth of streaming services has only enhanced the entertainment industry as a driver of economic activity in large emerging markets like India, where by some estimates the sector accounts for 1 percent of GDP; Nigeria, where more than a million people work directly or indirectly for Nollywood—the second-highest employer after agriculture; and China, which overtook the United States in box office sales last year. Even though the pandemic has had an unavoidable impact, people's desire to be entertained remains a constant, and the digitization of content is changing the rules of the game.

"I think right now we are at the beginning of a huge wave of international content and more investment in international content than we've ever seen," said Stefan Hall, project lead for media, entertainment, and culture at the World Economic Forum.

Infrastructure is king

In Asia's largest emerging markets, the growth of streaming services has exploded (see Chart 1). Subscriptions to video streaming services in India grew from 4.5 million in 2017 to 59.6 million in 2020. Indonesia saw growth increase from 200,000 subscribers in 2017 to 8 million in 2020. Thailand and the Philippines saw growth in the same period of 130 percent and 71 percent, respectively, according to Media Partners Asia, an independent research and consulting firm.

"In the last three to four years, there has been a mobile revolution in those markets, particularly in India, where you just had a massive data spike," said Vivek Couto, the Singapore-based executive director of Media Partners Asia. "The landscape from an infrastructure perspective has multiplied."

In India, rapid expansion in internet access has fueled fierce competition between the country's largest telecommunications providers, which has driven down data prices to some of the lowest in the world. Most people access streaming video services on their smartphones, and India has some of the highest data usage per smartphone in the world.

In 2019, Netflix in India launched a mobile-only plan that would allow users to stream content to their smartphones or tablets for less than $3 a month. Netflix rolled out a similar plan in Malaysia. On the other side of the world, Spain-based Telefónica, one of the largest providers of telecommunications services in Latin America, announced in 2018 a multiyear partnership that would allow subscribers to seamlessly sign up for Netflix on its platforms across the region. In Africa, where internet service poses more of a challenge, the streaming service is working with telecommunications operators to make it easier for potential subscribers to make payments.

The trend has only accelerated with the COVID-19 pandemic. An annual survey of thousands of viewers from 10 advanced and emerging market economies found that nearly half of those surveyed subscribed to streaming services in the first half of 2020, with spending more time at home as the main reason.

This new level of connectivity in many countries has eased the entry of major streaming players, which has in turn redefined the possibilities and increased competition in the area of content creation.

While streaming services have made it easier for content to travel beyond a country's borders to a regional market or a global audience, enticing and retaining subscribers who seek more options from their own countries remain a key focus.

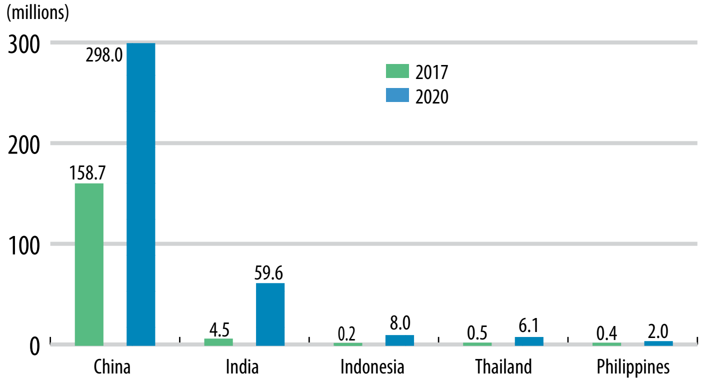
In 2019, Disney+ acquired Hotstar, India's leading streaming service, which now comprises 30 percent of the streaming service's subscriber base. Netflix is steadily ramping up investment in the creation of local content in new parts of the world, including a new push into Africa last year with more original content. The streaming titan that started as a mail-order DVD rental service gained 36.6 million customers in 2020, its largest annual gain, and now boasts more than 200 million subscribers worldwide. After making a

Chart 1

Streaming surge

Subscriptions to streaming services in some of the largest emerging markets in Asia have grown exponentially in recent years.

(millions)



Source: Media Partners Asia.

rare public apology in India in 2019 for a TV series deemed offensive to Hindus, Amazon gave no sign of retreating from the market after announcing in March that it would move beyond television shows and co-produce its first big Bollywood feature.

While US-based companies face some competition from domestic streaming services, they have come to dominate through a willingness to use their deep pockets to finance local content.

"The local content ecosystem is important," said Couto. "As the big internet giants (Netflix and Amazon) and Disney grow within these big local geographies, their commitment to invest locally and grow the creative economy is critical because otherwise there will be a greater degree of hostility against them."

A two-way street

Trade in cultural goods such as movies and music has always been fraught with cultural and political sensitivities. It still is.

European countries have long mandated that a certain portion of content broadcast, and now streamed, be locally produced. China has fashioned a landscape where foreign content is carefully monitored, giving rise to robust streaming dominated by Chinese players Tencent and iQiyi. Cultural sensitivities in India have forced large US companies to make course corrections to keep business growing.

But in markets where US-based giants like Netflix and Amazon operate, they've acted more as facilitators of free trade than cultural hegemons, said Joel Waldfogel, a professor of economics at the University of Minnesota.

"The happy surprise here is that this trade is a two-way street. So now it's a horse race," said Waldfogel, who studies how digitization of content has affected creative economies. "What we've seen in even the slightly longer run is the costs of producing things have fallen so much that there has been an explosion in creation in music and movies."

Waldfogel argues in his 2018 book *Digital Renaissance* that digitization of content is ushering in a golden age of popular culture.

New technologies have put filmmaking capabilities into more hands. The internet, meanwhile, has expanded distribution channels. For movies that means bypassing traditional theaters and box office releases. Amid the pandemic, this trend has accelerated even in markets like India, where straight to streaming has lagged behind the United States.

Streaming services have elevated lower-budget productions and glossy high-dollar films to the same platform.

"Cultural products are extreme examples of products where it's very hard to predict what will be good, meaning appealing to consumers at the time the investment decision gets made," said Waldfogel. "There's an expression in Hollywood, 'nobody knows anything.'"

However, the rise of streaming services has taken some of the guesswork out of film production. In economic terms, the internet has created economies of scale and scope, meaning there is more supply and demand for greater quantity and variety of creative content. By matching viewers more easily with what they want to see, it has created a more efficient business model that can be adapted almost anywhere in the world.

That's been good news for emerging markets with large captive audiences and the capacity to produce content. Streaming services from Netflix and Amazon have played a key role in providing another avenue for TV and film industries in these markets and increasing competition with domestic broadcasters.

"For a producer, there's nothing more than to be seen beyond your natural geographic reach," said Couto, of Media Partners Asia. "For the cultural entities of a country, whether they are governments or institutions, to have a story that showcases your country, that has those values and gives a global name to your content—that's huge as well, because it all comes back in economic contribution."

For Ahuja, the creator of *Namaste Wahala*, the opportunity came with an invite to a launch event with Netflix executives in Lagos in February 2020. Pre-release promotion of her movie had garnered attention. The movie was set to release in Nigerian cinemas in April 2020, but then the pandemic hit. The streaming giant provided an opportunity.

"I feel like this is a content market right now," she says. "I don't think there's a limit on how much content can be put out there." FD

ADAM BEHSUDI is on the staff of *Finance & Development.*

INCLUSIVE INNOVATOR

*Peter J. Walker profiles Yale's **Rohini Pande**, whose work focuses on how better institutions can make life fairer*

PHOTO: PORTER GIFFORD

In 1990 the Indian government said it would set aside some government jobs for lower-caste citizens, leading to widespread student protests and violence, including self-immolations. In the relative peace of the classroom, Rohini Pande, a second-year undergraduate economics student at Delhi University, argued that people should get jobs based on merit, not through special treatment.

A new experience two years later transformed her position. After coming of age as a member of India's privileged elite, she found herself an outsider at the University of Oxford, though she was there as a prestigious Rhodes scholar.

"There was a distinct hierarchy between those from the United States and those from Asia and Africa," Pande says in a video interview. "Scholars from poorer countries came to Oxford for a high-quality education not available in their home country, while for many American scholars it was just a two-year break before they returned to elite US universities."

This imbalance compelled Pande to think more deeply about fairness, and she now saw the plight of India's lower castes from the perspective of disadvantage, she says.

"Like many born into privilege, it took me a long time to recognize what privilege meant," she says. This experience has reverberated through her career as she has sought to understand the role of institutions in people's lives.

Pande, 49 years old, is "one of the most influential development economists of her generation," according to the American Economic Association, and has made groundbreaking contributions to political economy, international development, gender economics, anti-corruption, and efforts to combat climate change.

"Running through her work is an insistence not simply to ask what will work to improve the lives of the poor, but why it works, and what this teaches us about how institutions should be structured and how we should view the world," says Charity Troyer Moore, Yale's director for South Asia economics research.

In 2019, Pande was named the Henry J. Heinz II Professor of Economics at Yale University and director of the Economic Growth Center. She spent the previous 13 years as a senior professor at the Harvard Kennedy School. There she co-founded Evidence for Policy Design, which works with developing economy governments to address policy problems. Pande won the 2018 Carolyn Shaw Bell Award for furthering the status of women in economics.

Political economy

"I have learned a lot from Rohini over the years," says former colleague and Harvard professor Dani Rodrik. "Her approach to development has always been infused with the sense that underdevelopment and disadvantage are rooted as much in politics as they are in economics."

For her doctoral thesis at the London School of Economics after Oxford, Pande focused on India's efforts to increase minority representation in politics by allowing only disadvantaged castes to contest elections in specified jurisdictions, a policy known as "political reservation." She found that at the state level the practice increased redistribution in favor of disadvantaged groups, indicating a direct link between political representation and policy influence.

Pande continued to explore this association by focusing on the importance of sound political institutions for development and for alleviating poverty. She recently made the case that successfully tackling poverty depends less on direct aid and more on creating effective democratic institutions so that vulnerable populations can push their representatives to implement redistributive policies.

"Functional democracy requires far more than just an institution that allows everyone to vote every few years," she says. "Critically, it requires citizens to be well-informed, and we need to protect democratic institutions from corruption."

Politics is also personal for Pande. Her mother is Mrinal Pande, one of India's leading journalists, who was recently accused of sedition for reporting on a major farmers' protest.

"A vigorous free press is necessary for an effective democracy," Rohini says. "Politicians can see it as an unwelcome distraction—but without it, they're flying blind, and the country will end up paying the price."

Challenging thinking

Effective financial institutions are also essential for development, and Pande's work has repeatedly tested conventional wisdom.

Her 2005 paper on rural banks with the London School of Economics' Robin Burgess challenged the prevalent view at the time that because rural banks backed by public funds were unprofitable, they were not a good way of supporting development. However, the researchers showed that rural banks were designed not necessarily to be profitable but to reach poor households and reduce poverty.

Based on that metric, specifically in India, rural banks achieved their primary goals.

"The paper made an extraordinarily important contribution to development economics by establishing a causal relationship between credit and poverty reduction," IMF mission chief Petia Topalova tells F&D. Topalova was a visiting scholar at Harvard while Pande was there and collaborated with her on research.

In the related area of microfinance, Pande has challenged the view that repayments must be frequent to prevent defaults. Focusing on the primary purpose of these initiatives, over several years she identified the benefits of more flexible repayment periods. These include lower transaction costs, less financial stress for recipients, and greater business investment.

Together with Nobel laureate and frequent collaborator Esther Duflo, of the Massachusetts Institute of Technology (MIT), Pande took on firmly entrenched thinking about the role of dams in development. The researchers showed that dams actually increase poverty in the areas where they are built by causing disruption and displacement for which poorer people are not adequately compensated. Although poverty falls in areas downstream, such gains do not make up for worsening the situation in a dam's vicinity.

These findings ruffled some feathers. A senior World Bank official complained to senior development faculty at Yale and MIT, much to the faculties' amusement. The protest "came from the strong belief at the time—around 2005—that big infrastructure projects were good for growth and that distribution was of lesser importance," Pande says.

"Rohini has an unparalleled sense of empathy," Duflo says. "This leads her to understand things about the lives of people that had not even crossed my mind. Traveling with her the long journey from that initial intuition to a publishable piece of research has been one of the great rewards of our collaboration."

Gender politics

Together with Duflo and Topalova, Pande has explored questions around political representation and gender.

A decade ago they studied how quotas for female local leaders affect people's perceptions of their effectiveness. India amended its constitution in 1993 to reserve a third of local government seats for women. Between 1992 and 2005, the proportion of female local leaders rose from 5 to 40 percent.

The authors surveyed 7,000 households in 495 randomly selected villages in the largely rural and poor district of Birbhum in West Bengal. In each household, they interviewed one male adult, one female adult, and all 11- to 15-year-olds.

They found that the more people experienced female leadership, the more they perceived the leaders as acting effectively. They also discovered that having female leaders raised parents' aspirations for their daughters as well as the girls' ambitions. "The long-lasting effect of our work was that people's beliefs may actually be changed by seeing women in leadership positions," Pande says.

While the role model effect was clear, the study did not find evidence of changes in young women's labor market opportunities. Because "close to 100 million Indian women say that they would accept a job if it was offered to them," Pande says there's evidence that they would rather be employed than do housework.

As a result, Pande is focusing on social norms that discourage women from employment. One way to circumvent such notions is to let women manage the money they earn, she says.

But more than just having a bank account, women also need financial education, according to Pande's recent study with Simone Schaner, of the University of Southern California.

"Giving women basic bank skills training and signing them up for direct deposit, relative to just having their own account or no account at all, increases their participation in both the government workfare program and the private sector labor market," Schaner says.

Pande emphasizes that peer networks "can create a recognition that a woman has someone else to learn from, to depend on—and to gauge that beliefs about women working might not be as negative in a community as an individual may think," she wrote for India's *ET Evoke*, a publication of India's *Economic Times* newspaper.

Corruption to climate

Changing attitudes is also an important part of Pande's work on corruption. Her widely cited review and analysis of corruption research with Benjamin Olken of MIT contested the view that poorer countries are more susceptible to corruption because they are willing to put up with it. Instead, they showed that "people are potentially as corrupt in rich and poor countries, but what varies is institutions," suggesting the need to improve transparency and strengthen control mechanisms.

Through her interest in corruption Pande became involved in climate issues, though somewhat by chance. Just over a decade ago she met a woman attending an executive education course at Harvard, Amee Yajnik, a lawyer from the Gujarat Pollution Control Board who is now a member of Parliament for Gujarat. They had a conversation about the difficulty of obtaining reliable emissions data.

This interested Pande, who investigated how to improve the quality of information by addressing conflicts of interest between emitters and regulators. "My interest in climate issues came very much from thinking about issues of corruption," she says. She worked with Duflo and the University of Chicago's Michael Greenstone on aligning incentives to obtain reliable information on pollution.

One piece of advice was to move away from allowing emitters to choose their own auditors, which created conflicts of interest, and instead to assign auditors randomly and have them be paid a fixed rate. While this policy reduced corruption, their other work suggests that a potential cost is an inability to leverage the fact that some monitors may have valuable soft information—suggesting a delicate balancing act. Better information, however achieved, can be invaluable for regulating carbon emissions and tackling climate change. Pande and her colleagues are now examining the feasibility of reducing emissions via emissions trading schemes enabled by innovations in continuous monitoring.

Institutional changes like these could deliver a real blow to climate change. Pande and her colleagues estimated that perfect information on factory emissions, which could become possible through innovations in continuous monitoring, would increase total abatement by 30 percent.

Pande has engaged with policymakers on climate change and in 2019, through Harvard's Evidence for Policy Design, helped to launch the world's first particulate emissions trading system in Gujarat.

Mentoring others

Pande is a committed mentor. The letter in support of her Carolyn Shaw Bell Award and comments during the award ceremony were packed with appreciation and praise from students past and present.

"Everything about Rohini is unusual," Natalia Rigol, a Harvard professor who used to be one of her mentees, tells F&D. Pande treats others with a generosity "otherwise unheard of in this profession," Rigol says. She points out that Pande insists on listing as authors every person involved in academic papers—no matter how junior.

In her efforts to ensure that women are involved, and comfortable, in the study of economics, Pande brings her expertise on institutions to bear. Her recommendations include tackling stereotypes, acknowledging diverse perspectives and views, standardizing how job candidates are assessed, and giving greater visibility to female role models. She stresses the importance of ensuring that there is at least one female speaker in each seminar series and has threatened to boycott conferences that lack sufficient gender balance. Economics students cited Pande as their inspiration when they successfully petitioned to remove a set of paintings of white male professors from the department's main entrance. In her own case, Pande identifies Harvard's Claudia Goldin and Yale's Penny Goldberg as inspirations.

In her efforts to ensure that women are involved, and comfortable, in the study of economics, Pande brings her expertise on institutions to bear.

The respect is mutual. Goldin says she has "always been impressed by Rohini's generosity as a teacher, her dedication as a mentor, and her unstinting efforts at providing public goods of all kinds (including delicious food)." For her part, Goldberg cites Pande's "cutting-edge research, her editorial commitments, and her leadership of Yale's Economic Growth Center."

A new initiative called Inclusion Economics provides a focal point for Pande's work on poverty. Led by Pande and Charity Troyer Moore and headquartered at Yale, it uses data-driven approaches to work out ways for the poor to increase their influence and claim their fair share of growth.

"There's a vicious circle of rising inequality and weakening institutions—particularly democratic institutions—which is going to be exacerbated by planetary limits on growth," Pande says. "What kind of institutional reforms might help us reverse this vicious circle and create instead a virtuous circle of better institutions and lower inequality?" FD

PETER J. WALKER is on the staff of *Finance and Development*.

PHOTO: COURTESY OF TREVOR MANUEL

Putting People First

*South Africa's longest-serving finance minister, **Trevor Manuel**, reflects on the country's lost decade and financing Africa's COVID-19 response*

WHEN THE APARTHEID regime ceded power following South Africa's first democratic elections in 1994, the economy was in shambles and deeply unequal. Debt service costs as a share of GDP were crippling. Trevor Manuel—a veteran of the anti-apartheid struggle who was appointed minister of finance—made a tough call. He revamped the budgeting process and set a stringent deficit reduction target. By 2006, the economy was growing at its fastest pace in more than two decades, and the budget deficit was close to zero—outcomes few thought possible. "Part of leadership," Manuel said, "is that you must not be afraid to take a stand on some issues if you are on solid ground." It's a position that has guided him throughout his career. Blunt in his criticism of the "old order," he put voice and representation of emerging market and developing economies squarely on the international agenda, both as chair of the World Bank's Development Committee and as head of the Committee on IMF Governance Reform.

His advocacy for a level playing field continues, as special envoy of the African Union for Africa's COVID-19 response, following 20 years as a Cabinet minister under the first four presidents of democratic South Africa. In an interview with F&D's Analisa Bala, Manuel talks about South Africa's struggles and the resources needed to get ahead of the pandemic in Africa.

F&D: As finance minister you introduced difficult budgetary reforms and ultimately oversaw the longest phase of economic growth in South Africa. What advice do you have for countries facing hard choices?

TM: In the Constitution, members of the Cabinet are accountable collectively and individually to Parliament. The budget represents that collective responsibility, so it was my job as finance minister to persuade the Cabinet that we needed to reduce the debt-to-GDP ratio. We set up technical committees in the Treasury inviting other departments to explain their spending needs and introduced a medium-term expenditure framework to improve planning. Months in advance of budget day, we'd table a budget policy statement in Parliament to set the size of the spending envelope, in line with government priorities. In a way, the system was designed to compel us to live within our means—that was our strength. We could agree on how to run things because people wanted to be part of delivering democracy.

That attitude doesn't exist anymore. The decade under Jacob Zuma wasn't just "lost" as though everything was static. We regressed. The Treasury was considered too powerful, so the president tried to take it apart. That weakening has produced the outcomes we now have. The ability to collect taxes has been weakened and our overall allocative efficiency destroyed by the extent of corruption.

It may be the same party in power, but it's a very different country.

F&D: South Africa emerged from international isolation to become one of the world's most promising emerging markets, but in recent years it has underperformed relative to its peers. What's holding it back?

TM: Probably 60 percent of members of the trade union federation, COSATU, are public servants. If you compare the pay scales for public servants in South Africa with their emerging market peers at PPP [purchasing power parity] averages, they do relatively well. But that takes state resources off the table.

Many people who worked at the Treasury when I was minister weren't there because they were paid extraordinarily well. There was an esprit de corps that compelled them to deliver—that is how you drive change. When together you take responsibility and can agree on an agenda that is not ideologically driven, you've got institutions that can outlive ministers. Ideological purity is the biggest retardant to transformation in South Africa.

F&D: The country has long struggled with inequality. What can be done differently?

TM: Providing a social safety net is of paramount importance—it's very broken in South Africa—and that means constantly reexamining what constitutes a "social wage." It's more than just unemployment benefits. It's about whether your welfare system works for people who need it the most. It's about the quality of education and health care, and whether people have access to clean water, sanitation, and refuse collection.

A high school student who lives in an informal settlement called Kosovo graduated last year with 99 percent for mathematics and 100 percent for physics. Kosovo has the highest homicide rate in the country. Bullets flew past his shack every night as he studied. You cannot deal with issues of equality without changing the environment these students live in. Social capital is not easily defined, but you can see it in the confidence of young people coming out of an education system that works—it empowers them to do all kinds of things.

F&D: You estimate a funding gap of about $100 billion annually over the next three years for Africa's pandemic response. How do countries cover the shortfall?

TM: As envoys we were tasked with finding a solution for what still is a major risk—rising debt service costs. The obvious place to start was with the IMF and the G20. That is how the Debt Service Suspension Initiative was born. Of the more than $12 billion that was to be deferred, only about $5 billion has been released. It's a drop in the ocean.

When Lehman Brothers collapsed, the G20 convened for the first time ever at the heads-of-state level in October 2008. By April 2009, a proposal for an SDR [special drawing right] allocation was agreed. The world today needs the same quality of leadership. We need a new SDR allocation and a discussion on ways to deploy unused SDRs to boost liquidity for low-income as well as struggling middle-income countries.

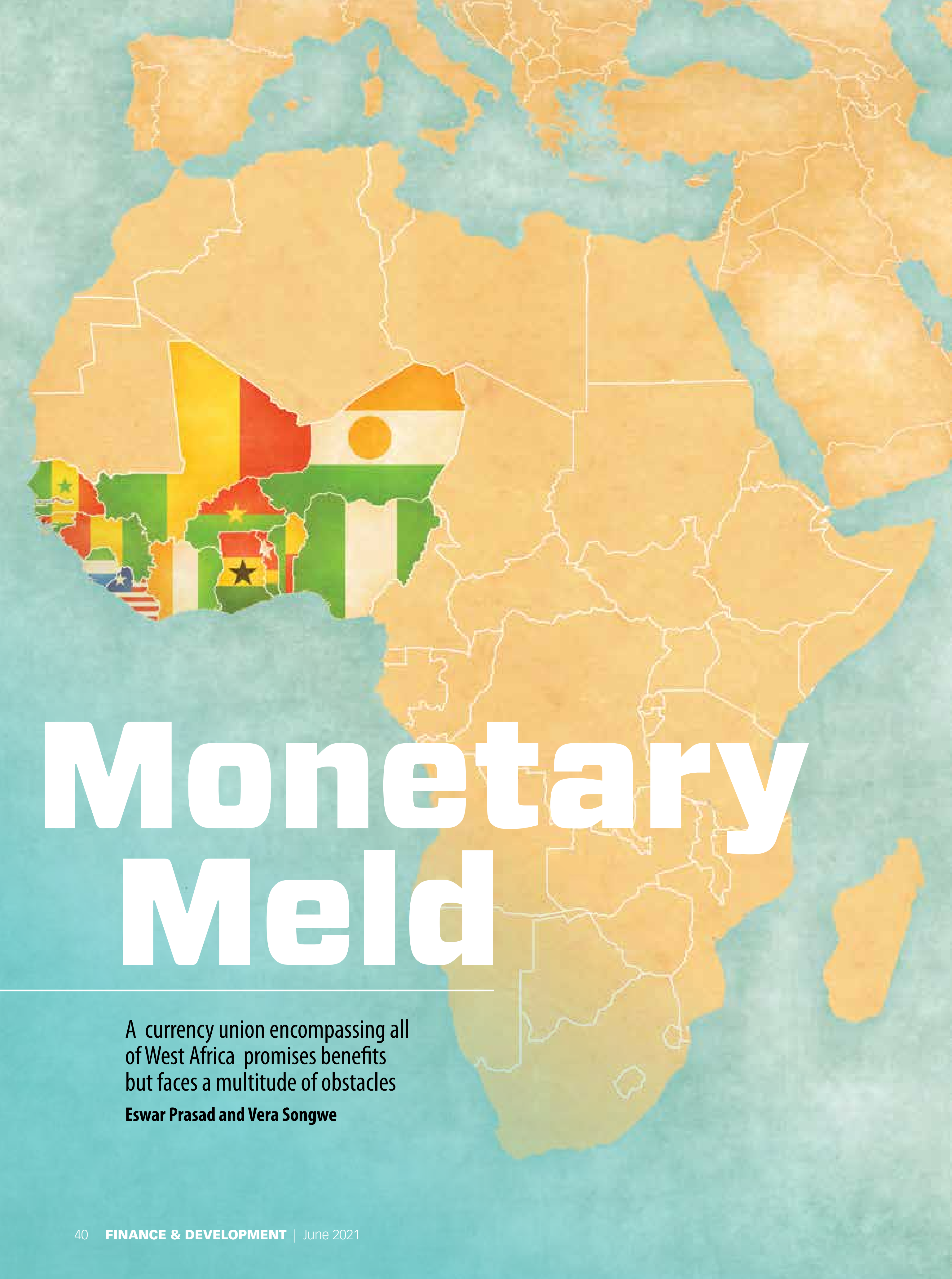
F&D: Reflecting on past debt relief efforts, what should we bear in mind today?

TM: At some point there will need to be discussions on debt reduction, not unlike the joint IMF–World Bank debt relief initiative launched in 1996. Leaving aside the debate on whether the conditions set were viable or not, a number of countries benefited. The difference between then and now is that many more developing countries have access to capital markets. There are countries who desperately need debt relief but are afraid that once they apply, their credit rating will be downgraded—it's a Catch-22.

F&D: You grew up in a segregated city on the wrong side of the tracks—a reality that would shape your career in Cape Town's resistance movement, eventually landing you in jail. What kept you going during the struggle, and how did you stay grounded when you transitioned to the Cabinet?

TM: I wouldn't let circumstances control me. My mother was always present in my life when I was going through anything big. I said at her funeral last year that whenever I presented the budget, I would always look for her in the audience. What mattered to me most was knowing whether she understood what I was saying. I can talk "economics," but what does it matter unless people whose lives are affected understand what it means for them? That's what's important in life—people. You can't let them down. FD

This interview has been edited for length and clarity.



Monetary Meld

A currency union encompassing all of West Africa promises benefits but faces a multitude of obstacles

Eswar Prasad and Vera Songwe

During the COVID-19 pandemic advanced economies have tapped their central banks for extensive liquidity support to their economies and to stave off an even deeper global economic crisis. African countries called for a $100 billion stimulus to respond to the pandemic but lacked the tools to finance such an injection of capital. Would strong regional central banks or even a continental central bank have helped? The regional experience of the Economic Community of West African States (ECOWAS) gives a glimpse of what is needed to accomplish monetary integration. But it also highlights the limits of such an approach, the difficulties the continent faces, and some fundamental issues that must be resolved to promote resilience in the region and foster alternative avenues to regional integration.

The leaders of the 15 ECOWAS member countries aimed to achieve a monetary and currency union by the end of 2020 but abandoned that timetable because the group was not ready. They were far from the macroeconomic convergence—especially similar levels of inflation and sufficiently low public-debt-to-GDP ratios—necessary for such a union to function well. The emergence of the COVID-19 pandemic, with its massive economic and health consequences, has pushed any proposed union to the back burner for countries in the 46-year-old ECOWAS.

Still, a monetary union for the region remains an aspiration with myriad potential benefits. An ECOWAS currency union could improve trade and investment flows in the region, bring added discipline to the macroeconomic and structural policies of member countries, and enhance stability against external shocks. A currency union with a strong central bank could have helped the region better weather the damaging economic effects of the COVID-19 pandemic. It could also serve as an anchor for inflation expectations within the area and as a catalyst for beneficial labor and product market reforms. In addition, a currency union can exert external discipline on fiscal policies.

The desire for a monetary union also speaks to a deep-seated desire for greater economic integration among the countries in the region and, indeed, for the continent as a whole—as evidenced by the advent of the African Continental Free Trade Area (AfCFTA). Whatever the timing, and perhaps even the outcome, of the monetary union project, there are many other elements to integration on which these countries could make progress, and for a few there is already progress to report.

Impediments to integration

The closer economies are in areas such as growth and inflation, the more appropriate a common monetary policy. In ECOWAS many differences present major obstacles to uniting 15 countries under a common currency—differences in their levels of development, the size of their economies, population, and economic structure, among others.

Six of the fifteen can be classified as middle-income countries (with annual per capita income of at least $1,000, based on market exchange rates); the others are low-income countries.

The disparity in the size of the economies is enormous. Nigeria, the continent's largest economy, accounts for about 67 percent of the ECOWAS GDP, while the five smallest members together total less than 2 percent.

Population differences are only slightly less pronounced. Three countries—Nigeria, Ghana, and Côte d'Ivoire—constitute about 67 percent of the 350 million people in ECOWAS, while six countries, each with fewer than 10 million people, together represent 7 percent of the ECOWAS population.

Economies in the region are structured differently too. There are oil exporters and oil importers. Many countries rely heavily on agriculture and extractive industries for most of their GDP and exports, while some have a manufacturing component.

Because of these differences, GDP growth and inflation do not move simultaneously across countries. Changes in the relative prices of exports and imports account for a significant share of the variation in GDP growth and inflation in ECOWAS countries, but these so-called terms-of-trade shocks are not symmetric across the region. For example, the effect of a change in petroleum prices on oil exporter Nigeria is very different from the effect on oil importers.

These disparities pose important technical and governance challenges to a unified currency among the 15 countries. Because member countries have different production and economic structures, the loss of an adjustment mechanism—that is, an independent currency and monetary policy—puts a significant burden on tax and spending policies to maintain stability. Shocks such as the COVID-19 pandemic that put varying stresses on economies in the region point to the difficulties posed by the loss

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of a key policy instrument. Nigeria, for instance, suffered far more than others from plunging oil prices in the early stages of the pandemic.

Moreover, eight ECOWAS countries, largely francophone, are already members of a currency union—Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo. These members of the West African Economic and Monetary Union (WAEMU) share a monetary policy and a currency, the CFA franc, which is linked to the euro. That currency union has worked well, in part because its members have a similar economic structure and, because they are all small, they benefit from a common central bank.

The countries in ECOWAS are more disparate, adding a number of technical, operational, and political obstacles to a well-functioning and durable monetary union that can deliver economic benefits to the ECOWAS community. There have been some calls for a broader, pan-African monetary union. These obstacles would be magnified in such an arrangement because disparities would be even greater.

At the same time, it should be recognized that the countries of the ECOWAS region are already integrating through flows of people, goods, and services. Another perspective on the issues discussed earlier is that they are about ways to build on and intensify this integration.

Tightening linkages

The AfCFTA—formally ratified by 36 of the 54 signatory countries as of February 2021—substantially reduces tariff and nontariff barriers to the free movement of commodities, goods, and services across Africa. It gives Africa a common voice on global trade policy issues in multilateral forums. The AfCFTA will promote integration among ECOWAS countries and strengthen their trade ties with other countries on the continent.

ECOWAS has also taken steps to promote trade integration among its members, including the ECOWAS Trade Liberalization Scheme and the common external tariff, introduced in 2015. But there are still some barriers—countries apply tariffs in an uneven manner and leave in place other restrictions on trade across their borders. There has been progress: national authorities have taken measures at the country level—complemented by ongoing work at the regional level—to remove obstacles to trade flows. But more needs to be done to remove explicit and implicit barriers to trade within the region.

Such integration would benefit the region by reducing impediments to cross-border flows of goods, capital, and labor and would help prepare the region for a possible monetary union. Of course, freer flows have costs. They can complicate domestic policymaking. Unfettered financial flows within a region can contribute to boom-bust cycles in property and other asset markets in certain countries. Moreover, workers moving from one ECOWAS country to another in search of better opportunities can cause social and political tension.

Steps to greater integration

ECOWAS leaders must decide what level of economic union is necessary to promote the stability of a monetary union. There are important lessons for both ECOWAS and the rest of Africa from the experiences of the euro area. Large net fiscal transfers to economically weaker countries, particularly during and after the euro area debt crisis, generated enormous political and economic stress that threatened to tear the monetary union apart. Because banking regulations differed across euro area countries, financial system problems in some of the countries with high borrowing spreads added to system-wide stress.

Full economic union is certainly not essential for the successful operation of a monetary union. But without macroeconomic convergence and strong institutional frameworks, a partial union could generate enormous stress. Differences in productivity growth between countries, for instance, could require fiscal transfers that in turn generate political tension if other adjustment mechanisms, such as equilibrating flows of capital and labor, do not compensate. Tension in the euro area between core and stressed economies highlights this problem.

There are other issues that affect both the strength and sustainability of growth in the ECOWAS region and the equitability of its distribution, regardless of whether there is a monetary union. These include regional financial market development and integration, especially as it relates to markets for government and corporate bonds and money markets. Making financial services available to more people (financial inclusion) through traditional and new technologies—such as mobile banking—is also important. Coordinated regulation of financial markets—including banks and nonbank financial institutions, which have become more closely linked in the region—is beneficial as well.

A strong institutional framework is needed at the regional level. A key element is the uniformity of regulations on current account and capital account transactions to facilitate the freer flow of goods, services, and capital. A regional payment system that is well integrated with domestic and global payment systems and that expedites settlement of cross-border transactions would facilitate commerce across the region. Harmonized banking supervision and regulation that takes into account both institution-specific and systemic risks are also top-priority.

An effective regional mechanism for gathering macroeconomic and financial data, along with multilateral surveillance that cross-checks the policy stances of ECOWAS countries, could help countries maintain good discipline even in the face of domestic pressure for looser policies. A risk-pooling mechanism among members to deal with external shocks (such as commodity price shocks and even unique events such as the COVID-19 pandemic) that affect some countries more than others would be worthwhile.

Alternative approaches

Alternative approaches that generate greater regional trade and financial integration are also worth considering. For instance, Asian countries have an extensive set of trade and financial arrangements, but each retains monetary policy autonomy. Regional risk-sharing mechanisms such as the Chiang Mai Initiative, which includes some pooling of foreign exchange reserves among the participating countries, have taken on some of the proposed functions of a currency union.

Whether such regional trade and financial agreements would be as beneficial as a currency union when it comes to trade flows and broader economic integration is an open question. But the experience of Europe—where the currency union has benefited trade and investment flows but also fostered economic and political tension among euro area countries—cautions against moving hastily toward a currency union. Moreover, in light of Asia's approach and the progress on the AfCFTA, it is worth considering whether a set of arrangements to promote trade and financial integration would serve as a useful—and perhaps even necessary—precursor to a more durable and resilient ECOWAS currency union.

The path forward

ECOWAS leaders must consider carefully the significant costs, operational issues, and transitional risks of a currency union. Member countries' different production and economic structures mean that the loss of an independent currency and monetary policy puts a significant burden on other policies in each country.

The recent experience of the euro area suggests that a currency zone would be fortified by a broader economic union—including a banking union, a unified financial regulatory system, and harmonized institutions that underpin the functioning of labor and product markets. These are long-term considerations for ECOWAS leaders. Robust and sustainable growth and spreading the benefits of growth more evenly in the ECOWAS region also call for regional financial market development and integration and increased financial inclusion through traditional and new technologies.

A single ECOWAS currency would be a major and ambitious undertaking, with many potential benefits.

A single ECOWAS currency would be a major and ambitious undertaking, with many potential benefits. If leaders commit to building resilient policy and institutional frameworks that can create positive benefit-risk trade-offs, it could boost the economic well-being and prosperity of ECOWAS countries.

The COVID-19 pandemic has reignited discussion across Africa about monetary instruments to deal with the crisis and is likely to generate renewed interest in the African Monetary Fund. The lessons of the ECOWAS experience will be invaluable if such an agency becomes a reality. FD

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This article draws extensively on a forthcoming book by the authors, *A Single Currency for West Africa: A Driver of Regional Integration?* Brookings Institution Press, July 2021.

INEQUALITY INTEREST

Central banks should better communicate monetary policy's distributional effects

Nina Budina, Chiara Fratto, Deniz Igan, and Hélène Poirson

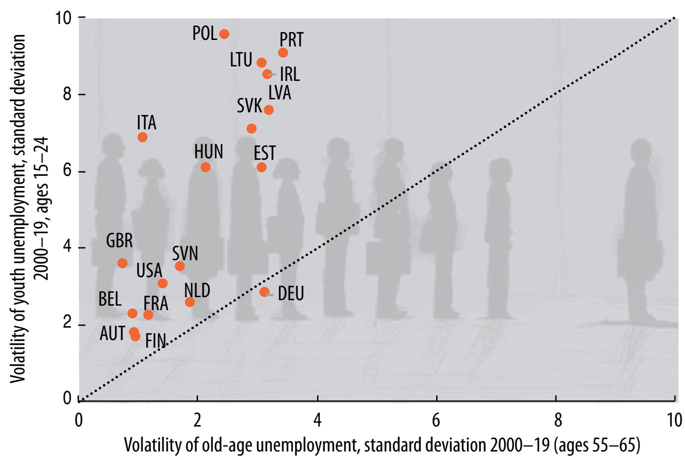
Central banks across the globe are responding to the economic effects of the COVID-19 pandemic through extensive monetary easing, including interest rate cuts and asset purchases. Such accommodative policies have served to limit the fallout from the pandemic. Whether, at the same time, these policies exacerbate inequality, however, is up for debate. Monetary policy is seen, in part, as responsible for boosting equity markets from pandemic lows, which is, in the first instance, good news mainly for the rich. Yet monetary easing also has the potential to reduce inequality; for instance, because low interest rates can encourage small businesses to take out loans and hire workers.

So, on balance, is easy monetary policy increasing or reducing inequality?

Chart 1

The young ones

Young people are more likely than older people to become unemployed.



Sources: Organisation for Economic Co-operation and Development; and IMF staff calculations.
Note: The young, who typically earn less, face a higher risk of unemployment, because youth unemployment is more sensitive to economic cycles. Data labels use International Organization for Standardization (ISO) country codes.

Meet the Sampsons

Monetary policy discussions are often fairly abstract, so let's think about this on a more personal level. What does it mean for you when your central bank eases monetary policy? Does it help or hurt your finances, and how do you fare compared with others? At a basic level, this depends on your income, wealth, savings, and debt.

To illustrate, let's introduce the Sampsons, a hypothetical family composed of Lisa, a young woman in her early twenties; her parents Margarita and Homero; and her uncle Arturo, an accountant in his fifties. How does monetary easing affect them?

First consider Lisa, who relies on her income as a waitress to pursue a nursing degree part-time. She is currently a low-skilled worker and earns less than older, higher-skilled, and more experienced workers, such as her uncle Arturo. Lisa is also more likely than older workers to lose her job during a recession and become unemployed (see Chart 1).

The good news for Lisa is that monetary easing makes recessions less harsh on unemployment. Through this labor earnings channel, monetary easing stimulates economic activity and reduces unemployment, disproportionately benefiting younger, less experienced, and lower-paid workers, who are often the first to lose their jobs in a recession. In the absence of monetary easing, she would have been more likely to lose her job, and the labor earnings gap between her and her uncle would have been even larger. Even if Lisa had found a new job, it might have been precarious—for example, with a short-term contract and few benefits.

Now consider Arturo, who earns a wage, has capital income from investments in bonds and stocks, and owns a house. Lower interest rates would boost his capital income; hence Arturo would benefit via the income composition channel, as well as from the higher value of his investments in bonds, stocks, and real estate via the balance sheet channel. Lisa, however, would not gain directly from higher capital income nor from higher asset prices, as she does not have any assets.

Finally, let's examine the case of Margarita and Homero, who are retired after saving all their lives and rely on their retirement income and interest from bank deposits. They are net savers. Lisa is a net borrower, with both student and car loans. With an interest rate cut, Lisa would owe the bank less

ART: THE NOUN PROJECT

in interest payments, either because her loan rates would be lower (if the loan is adjustable) or because she could refinance at a lower rate. But Margarita and Homero would lose out because their interest income would fall as a result of lower interest rates (and possibly in real terms, as inflation could increase with monetary easing). Their retirement income could fall in real terms.

All else equal, monetary easing tends to hurt savers with little debt and large bank deposits while benefiting net borrowers (Auclert 2019; Tzamourani 2021). In other words, it redistributes from savers to borrowers: this is known as the savings redistribution channel.

The winner is…

The net effect for Lisa, her parents, and uncle would depend on the combined impact of monetary policy action via different channels, as they would gain through some channels but lose through others.

Lisa, for example, would benefit from monetary easing, via her labor earnings and her lower debt servicing cost, although she would not benefit directly from higher asset prices.

Arturo would benefit following monetary easing from both higher labor earnings and higher capital income—but if he is a net saver, he would be hurt by lower interest income. Margarita and Homero's losses on interest income from their savings could be offset by a higher home value—and possibly from no longer having to support their previously struggling daughter if monetary actions help secure her job.

Different channels

As illustrated by the Sampsons, the magnitude of the distributional effects of monetary easing depends on the relative importance of different channels, which may also vary based on different country characteristics.

In countries with higher levels of financial inclusion, for instance, poor households have easier access to credit and are more likely to be able to take out mortgages to buy houses—thereby benefiting from lower interest rates. In other countries, people who tend to buy homes for cash would not benefit from lower rates. In countries with bank-based financial systems, people who hold their savings in bank deposits and are not in debt could lose out from monetary easing through the savings redistribution channel. In countries with more extensive social protection, a lower risk of unemployment for lower-income workers as a result of monetary easing may be more muted than in countries with less social protection.

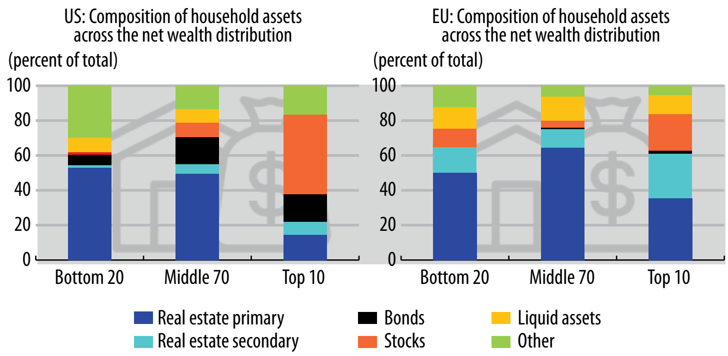
In the European Union and the United States, the impact of the balance sheet channel on inequality can vary depending on the types of assets people own. Capital income tends to matter most for the wealthiest households because they hold more financial assets. This is especially true in the United States, where almost two-thirds of the assets of the wealthiest 10 percent are in bonds (16 percent) and stocks (46 percent—see Chart 2). Except for this group, real estate is the largest asset for most households in both the European Union and the United States. This means that the impact of monetary easing may have more equitable effects via house prices than through capital income, and people with mortgages also benefit from lower debt payments.

Studies (pre–COVID-19) that put together several of the above channels find mixed and often economically negligible net distributional effects overall from transitory monetary policy easing, with some variation across countries and between conventional (interest rates) and unconventional (asset purchases) monetary policy. In the United States, for example, income inequality rises and consumption inequality falls following monetary

Chart 2

What you own matters

People in different parts of the wealth distribution own different assets.



Sources: Household Finance and Consumption Survey (2016) for the European Union; Survey of Consumer Finances (2016) for the United States; and IMF staff calculations.
Note: The EU group comprises Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, The Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, and Spain.

easing—but the effects are small and temporary (Kaplan, Moll, and Violante 2018).

The big question

Given widening income and wealth gaps, and limited room in the budget in many countries, should monetary policy do more to address inequality?

The problem is that monetary policy is a blunt tool that is poorly suited to the challenges facing specific demographic or socioeconomic groups. Moreover, adding one more objective for central banks may undermine the efficacy of monetary policy, since pursuing lower inequality might be at odds with the mandate to maintain price and output stability. Other actors, most notably the government, are better able to tackle issues related to rising inequality given that these long-term trends are driven largely by structural factors and require finer tools to target specific groups.

Central banks, by remaining focused on their primary function, will be free to do what they do best: take appropriate action to counter economic downturns and protect jobs while maintaining price stability. At the same time, central banks should better understand and factor in differences among households within their existing policy frameworks, including through modeling and analysis of the distribution of income and wealth, which affects monetary policy transmission.

At the same time, supportive fiscal policy and structural reforms combined with monetary policy easing can improve both macroeconomic and distributional outcomes. Targeted fiscal support, along with well-sequenced structural reforms—such as active labor market policies, including job search assistance and retraining—is especially well suited to addressing rising inequality and helping those left behind by economic transformation.

The key role for central banks in the inequality debate—including during COVID-19—is clear communication through various outlets, including speeches by central bank officials, official reports, and community outreach events, about the distributional effects of monetary policy actions, both positive and negative. They need to explain how their actions may increase aggregate welfare by boosting the employment prospects of the poorest and reducing consumption inequality. Clear communication is essential for the preservation of public trust and the clarification of capabilities under their mandate.

Major central banks are starting to explicitly discuss the distributional effects of their actions (Carney 2016; Lane 2019). The Federal Reserve has also recently revised its mandate, including to emphasize maximum employment as a broad-based, inclusive goal and to strengthen the benefits of monetary policy stimulus for the poor.

Beyond COVID-19

The pandemic is having considerable distributional effects, and debates about inequality continue, including in the context of central banks. The relative importance of the various channels through which monetary policy affects inequality may change if the pandemic persistently alters the distribution of income and wealth.

While macroeconomic stability remains their primary goal, central banks do have a role to play by communicating about, monitoring, and analyzing the distributional effects of monetary policy. Central banks should also highlight counterfactuals—the overall increase in welfare thanks to monetary policy actions, despite possible distributional effects. Finally, central banks should explain that the secular increase in inequality and long-term decline in interest rates are driven largely by structural factors, which can be tackled only with other government policies. FD

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This article is based on a recent IMF Working Paper ("Distributional Effects of Monetary Policy") by the article authors and Valentina Bonifacio, Luis Brandao-Marques, Balazs Csonto, Philipp Engler, Davide Furceri, Rui Mano, Machiko Narita, Murad Omoev, and Gurnain Pasricha.

References:

Auclert, A. 2019. "Monetary Policy and the Redistribution Channel." *American Economic Review* 109 (6): 2333–367.

Carney, M. 2016. "The Spectre of Monetarism." Roscoe Lecture, John Moores University, Liverpool, UK, December 5.

Kaplan, G., B. Moll, and G. L. Violante. 2018. "Monetary Policy According to HANK." *American Economic Review* 108 (3): 697–743.

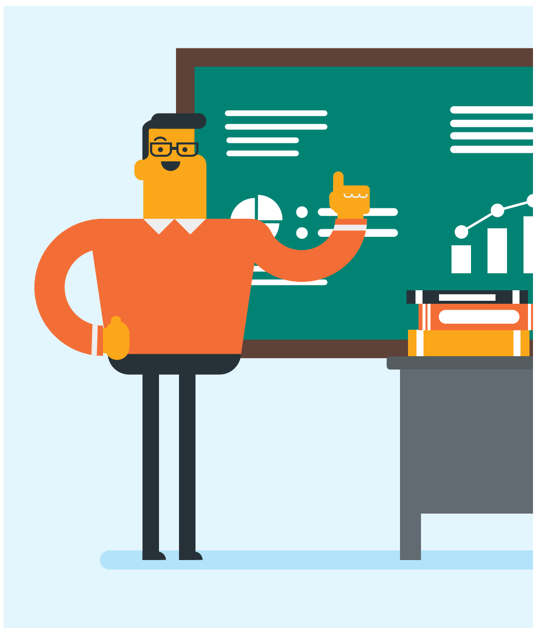
Lane, P. 2019. "Households and the Transmission of Monetary Policy." Speech at the Central Bank of Ireland/ECB Conference on Household Finance and Consumption, Dublin, December 16.

Tzamourani, P. 2021. "The Interest Rate Exposure of Euro Area Households." *European Economic Review* 132 (February): 103643.

Risk and Return: The Search for Yield

Low rates of return tempt investors to take risks, which can cause economic and financial instability

Jay Surti



WHEN INTEREST RATES are high and inflation is low, investing is a cinch: savers can earn easy returns by simply parking their funds in Treasury bills or similar safe assets. But it becomes much harder when interest rates are low, as they have been in most advanced economies since the global financial crisis of 2008–09 and in some of them for longer still. Fed up with zero or near-zero interest rates, savers may be tempted to experiment with riskier assets or strategies in the hope of higher returns. Economists call this the search for yield.

Individual investors may shift money out of savings accounts and into stock markets. Firms might seek to boost income through speculative investments financed by debt because borrowing is cheap. Financial institutions such as banks and insurance companies may make risky bets to maintain profits or even to survive. But riskier portfolios increase the likelihood of loss. Higher indebtedness means firms are in a more precarious position when confronted by adverse shocks. The result is greater institutional vulnerability and increased likelihood of economic and financial instability.

Safe assets, risky assets

The ability to take risks and the appetite for doing so vary: households, firms, and financial institutions all act differently. Yet they are influenced by common forces. Especially important is the Treasury bill equilibrium interest rate (the rate of interest at which the amount of money demanded is equal to the amount of money supplied). This safe asset return influences the return on other investments, including long-term government bonds, bank deposits, and company bonds and shares. Returns on these riskier assets tend to rise and fall in line with the safe asset return.

The temptation to search for yield rises when the safe asset return falls to very low levels over a long period of time, as has been the case in Japan and several European economies for the past two decades. For households, this translates into a low return on savings and slower wealth accumulation. It makes it more difficult to fulfill life cycle ambitions such as buying a home, saving for a secure retirement, or passing on wealth to children.

Households will try to compensate by saving more and spending less. (An important exception is Japan, where older and wealthier households, with less of a need to increase precautionary savings and a greater capacity to search for yield, have invested in high-risk emerging market bonds and stocks.) Lower household borrowing and consumption reduce demand for goods and services sold by firms. Corporate sales and profits slide as a result. The financial sector suffers, too. Bank lending to households declines. As interest rates fall to very low levels, the difference between banks' lending and deposit rates is squeezed. It all combines to drive down profits.

Search-for-yield strategies

Firms typically attempt to compensate for the consumption deficit caused by higher household saving by opportunistically taking advantage of low interest rates and borrowing to finance high-risk, high-return investments. This usually happens in one of two ways. Firms may invest in higher-yielding financial

ART: ISTOCK / RASTUDIO

securities. Or they might expand into new sectors or countries by creating a subsidiary company or buying an existing one. The debt component of such transactions tends to be higher, and the contribution of a firm's own retained earnings or other resources is lower than would be the case if expansion were the natural outcome of strong economic growth and corporate profits.

Like firms, financial institutions deploy different search-for-yield strategies. Large banks may expand abroad to countries where growth and investment returns are brighter. Mid-sized banks may expand domestically, across sectors or regions, taking business from smaller local lenders. Smaller banks, for their part, may merge or partner with mid-sized banks, or with each other, to fend off the competition.

Economists do not oppose risk-taking to boost returns per se: some individuals and institutions are better at managing risk than others, and risk-taking does not necessarily imperil economic growth and financial stability. However, search-for-yield strategies can have system-wide consequences if they are widely adopted by firms and financial institutions. This would concern policymakers.

Risks to the economy

The search for yield can increase the likelihood of deeper and longer recessions. When confronted with adverse economic shocks, firms with a lot of debt would be forced to make larger and longer cuts to investment than if they were debt-free. This decreases national income and economic growth. Some of them would default on loans, which would pressure banks' profits, curbing their ability to extend credit, and so lower economic growth even further. Some banks might not even survive.

Firms that use debt to fund risky acquisitions face new risk exposures that are difficult to manage. A firm from the United States that borrows at home to expand abroad, or an emerging market firm borrowing in the United States to expand at home, may face significant risk from a change in the exchange rate. Since they repay loans and interest in dollars and their earnings are in a foreign currency, an appreciation of the dollar could increase the repayment burden substantially. Firms use financial markets to hedge such risk but find it too expensive to do so entirely. When losses do occur, they can be large.

Since the dollar is a global funding currency, the search-for-yield incentives arising from long periods of low interest rates in the United States are not limited to American banks and firms. Firms from other countries may also borrow in the United States to invest at a higher rate of return at home. This carry trade is financially risky since any tightening of monetary policy in the United States (or a domestic shock) could result in a loss-inducing appreciation of the dollar. The "taper tantrum" of 2013 was one example where large emerging market firms experienced carry trade losses due to dollar appreciation. These losses were significant enough to materially dent firms' market valuations. In some cases, losses increased volatility in domestic financial markets.

Banks that expand abroad may face losses if they do not adapt to new challenges of risk management. A bank's head office may, for instance, find it most effective to expand into a foreign country by delegating operational decisions to local managers. But

Firms that use debt to fund risky acquisitions face new risk exposures that are difficult to manage.

the bank then faces the more difficult challenge of providing effective performance incentives. It may be tempted to make pay and promotion contingent on returns that are unrealistically high and so push local managers to take too many risks.

Finally, consolidation of the banking sector through mergers of small banks or their acquisition by larger ones can stifle competition. This may increase borrowing costs especially for households and small businesses, which would find it more expensive to consume and invest—a serious setback for inclusive growth.

The search for yield can have benefits. When risky bets pay off, they increase income from savings and investment when interest rates are low and it is hard to earn a return. They also spread capital to new markets. But policymakers must be alert to the dangers—of speculative debt-financed investment especially. Some bets will inevitably go sour. The consequences for economic and financial stability can be severe when they do. FD

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Citizenship For Sale

Programs that offer passports in return for investment carry financial integrity risks that must be managed

Francisca Fernando, Jonathan Pampolina, and Robin Sykes

As countries closed their borders to slow the spread of COVID-19, a second passport became an ever-more-desirable commodity, for those who could afford it. While not a new phenomenon—several countries have adopted "golden passport" programs over the years—the onset of the pandemic generated renewed interest. Price tags for a second citizenship—sometimes in only 30 days—range from $100,000 to $2.5 million. Antigua and Barbuda, Cyprus, Grenada, Jordan, Malta, St Kitts and Nevis, and Vanuatu are among the many countries that have offered such deals.

There are few figures about the trade in passports given the overall opacity of these programs. Nevertheless, firms that offer such services reported increasing demand for second passports in the midst of the pandemic. Requests from high-net-worth individuals in advanced economies have skyrocketed. The demand has been further fuelled by discounts offered by some countries.

A second passport has many benefits, such as the ability to travel freely without visas and flee political persecution, conflict, or civil unrest. It can offer attractive tax and wealth management benefits, too. Usually citizens from autocratic countries, where the rule of law is weak, are the most anxious to obtain a golden passport.

But as the coronavirus threatened to overwhelm health services before vaccines became available, wealthy individuals from developed democracies also looked for an escape route. For countries seeking to rebuild pandemic-stricken economies, the sale of passports can seem an easy way to secure revenue and investment. In the past, such arrangements have generated large inflows, which can have a significant economic and fiscal impact—consider, for example, revenue generated by such programs in the Caribbean (see IMF Working Paper No. 20/8). Some countries have used these programs to replenish their coffers after natural disasters (for example, a decline in tax revenue after Hurricane Maria hit Dominica was partly offset by golden passport revenue).

Ultimately the bestowal of citizenship is a government's sovereign decision. However, the risks of selling citizenship can be high. Abuses are widely documented, including enabling corruption, money laundering, tax evasion, and other crimes. If the risks are not properly managed, countries that offer these programs can suffer reputational damage, affecting their economic and financial stability and worsening inequality.

New citizenship can disguise a higher risk profile. Criminals and terrorists may shop around for a country that offers a safe haven from law enforcement or extradition. They might hide behind alternative identities to gain access to financial products or evade sanctions and watch lists. They could use secondary citizenship to conceal a bank account that would otherwise require declaration under international tax rules, or they might seek citizenship in a country that has not agreed to such tax information exchange.

The risks from these programs can spill over to other countries, too. Members of organized crime may use their newly acquired passports to move freely between countries and establish illegal enterprises. The European Commission has launched legal proceedings against two member states (Cyprus and Malta) for offering golden passports to people without a "genuine link" to the bloc; it says they threaten the integrity of EU citizenship as a whole, since a citizen of one EU member state has the right to move, live, and work freely in the other 26 members.

Citizenship by investment can lead to corruption and rent-seeking. Without proper oversight, public

What are golden passports?

Golden passport programs allow individuals and their families to buy new citizenship through targeted investments or contributions.

Investments and contributions: These include direct monetary contributions, the purchase of government debt instruments (for example, investment in government stocks, bonds, securities), investment in specific sectors (for example, real estate, construction), and the establishment of businesses. Qualifying amounts typically range from $100,000 to $2.5 million (excluding fees) and have various financing terms (for example, up-front payments, installments, bank loans).

Administration: Typically, a government agency oversees the program, and may rely on third parties to market the program, facilitate application submissions, and carry out due diligence. Some programs have statutory quotas that limit the number of applications.

Application process: The application process usually requires some background checks (for example, criminal background checks, vetting by third parties), though requirements differ. Processing applications can take from 30 days to more than a year—many offer fast-track options in exchange for higher contribution amounts.

Countries that offer these programs can suffer reputational damage, with impacts on their economic and financial stability.

officials may accept bribes or pocket the fees. Programs linked to specific sectors can cause overdependence that leads to economic imbalances. Some countries, for example, offer citizenship to investors who purchase an expensive property. Foreign money can drive up local property prices and give rise to real estate bubbles.

In reaction to countries that sell passports without proper vetting, other governments may respond with countermeasures such as enhanced checking of regular passport holders from these countries. In some cases, countries could be labeled as high risk. The Organisation for Economic Co-operation and Development, for instance, publishes a list of high-risk programs it suspects allow people to hide their taxable assets abroad. Foreign banks can react to these negative risk perceptions, putting pressure on correspondent banking relationships. This can have far-reaching implications for financial stability.

Evaluating programs

The IMF is working with members on policy advice to highlight the risks of these arrangements, with an eye to properly balancing risks and benefits and avoiding a long-term negative economic impact. For example, the IMF has advised members on the financial integrity risks of such current and past programs in Article IV consultations for Comoros, Cyprus, Dominica, Grenada, Malta, St. Kitts and Nevis, and St. Lucia. More broadly,

- *Countries should clearly understand the risks.* Before launching or continuing with citizenship-by-investment programs, authorities should carefully assess the costs and benefits, including their own capacity to manage the financial integrity risks. Are the application, monitoring, and revocation procedures robust? How effective are the supporting mutual legal assistance, tax information exchange, and anti-money-laundering and counter-terrorism-financing frameworks? Such risk assessments should be ongoing to respond to changes in the environment.
- *Authorities should ensure that there is robust vetting of applicants.* Government agencies or third parties responsible for processing golden passport applications should carry out rigorous background checks on an ongoing basis, including by checking with the home authorities of applicants and consulting databases of sanctioned and politically exposed persons. Agents who handle applications must exercise appropriate due diligence regarding their clients, establish the legitimacy of their sources of wealth and income, and report suspicious activity. Applicants should not be admitted without thorough vetting. All sectors and agents involved should be supervised for compliance with anti-money-laundering and counter-terrorism-financing requirements.
- *Authorities should consider enhanced measures for transparency and oversight.* One way to do this is to publish the names of successful applicants. This can in turn be useful for banks and other businesses when they need to conduct due diligence on their clients and for authorities carrying out investigations. Another way is to ensure that the passport and other citizenship documents issued indicate that these are golden passports. Authorities should also consider periodic public audits to ensure that the proceeds of the program are used for their intended purposes.
- *Countries could consider a regional approach to level the playing field.* A coordinated approach among countries with golden passport programs can help discourage criminals from shopping around for citizenship and prevent a race to the bottom. Effective arrangements for information sharing, standardizing best practices, and enhancing the transparency of the processes for granting (and revoking) citizenship can strengthen safeguard mechanisms. Pooling of resources can reduce costs and establish consistent regional due diligence, monitoring, and enforcement practices.

Golden passports grant all the privileges of a country's citizenship. Ultimately, the decision to grant citizenship is up to each country. Yet citizenship and its attendant benefits should be zealously safeguarded, given the financial and reputational risks when such a precious commodity is bestowed unwisely. Countries should take the time to consider whether the costs of giving noncitizens a second passport really do outweigh the benefits. In some cases, they may not. FD

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What We Owe Each Other

We need a new social contract fit for the 21st century

Minouche Shafik

PHOTO: COURTESY OF THE LONDON SCHOOL OF ECONOMICS

EVERYONE PARTICIPATES in the social contract every day, and we rarely stop to think about it. Yet social contracts shape every aspect of our lives, including how we raise our children and engage in education, what we expect from our employers, and how we experience sickness and old age. All of these activities require us to cooperate with others for mutual benefit, and the terms of that cooperation define the social contract in our society and the shape of our lives.

Laws and norms underpin these daily interactions. In some societies, the social contract relies more on families and communities for mutual support; in others, the market and the state play a greater role. But in all societies, people are expected to contribute to the common good when they are adults in exchange for being looked after when they are young, old, or unable to care for themselves.

My interest in social contracts grew out of a desire to understand the underlying causes of the recent anger manifested in polarized politics, culture wars, conflicts over inequality and race, and intergenerational tensions over climate change. Discontent is widespread. Four out of five people in China, Europe, India, and the United States feel that the system isn't working for them, and in most advanced economies parents fear that their children will be worse off than they are (Edelman 2019). The pandemic served as a great revealer as it hit the most vulnerable—the old, the sick, women, and those in precarious jobs—the hardest and exacerbated existing inequalities.

Most of this disaffection stems from the failure of existing social contracts to deliver on people's expectations for both security and opportunity. Old arrangements have been broken by varied forces, including those whose overall impact on society has been positive. These include technological change, which is revolutionizing work, and the entrance of increasingly educated women into the labor market, which interferes with their ability to care for the young and the old for free. Looking ahead, population aging means that we will need to find new ways to support the elderly, and climate change compels us to work even harder to make the world environmentally sustainable.

The good news, however, is that a new social contract is possible that can satisfy people's need for security and opportunity while also addressing the challenges that affect society as a whole. This new social contract depends on three pillars: security, shared risk, and opportunity. What would this mean in practice?

Security

Labor markets have become more flexible, and informal working is now a common feature of life in both developing and advanced economies. Increasingly, we are on our own in society: workers shoulder the risk when it comes to their income, how many hours they work, and how they cope if they are ill or unemployed. The balance has tilted too far in the direction of flexibility for employers at the expense of security for workers.

Every society can put a floor on income below which no one can fall. This can be achieved through

Harnessing everyone's talents is not just an issue of fairness; it is also good for the economy.

cash transfer programs in developing economies or tax credits for low-wage workers in advanced economies. At the very least, societies should ensure access to a basic health care package and a minimum state pension to prevent destitution in old age. Sick leave, unemployment insurance, and access to reskilling should be provided regardless of the type of employment contract. In developing economies, this means bringing more workers into the formal sector; in advanced economies it means mandating that employers pay benefits to flexible workers. The bottom line is that everyone must have a minimum level of security for a decent life.

Shared risk

Too many risks in our society are borne by individuals when they would be more efficiently managed by others or collectively. Employer flexibility when it comes to being able to hire and fire workers depending on market conditions is feasible if workers are guaranteed unemployment insurance and retraining until they find a new job. The risks from economic shocks should be shared by employers and society as a whole and not placed solely on individuals.

A similar rebalancing of risks needs to occur around childcare, health, and old age. It is not clear why, for example, the costs of parental leave are usually borne by employers when funding it through general taxation would create a more level playing field for men and women in the labor market and be less of a burden for firms, especially smaller ones.

Similarly, many health risks are more efficiently managed by pooling them across a large population while strongly motivating individuals to manage risks through diet and exercise. Linking pension ages to life expectancy would make sure that individuals save enough for their retirement. Financial security in old age can be funded through general taxation rather than linking it to employment as is usually the case—but automatic enrollment in pension plans and insurance for old-age care would give people more security at the end of their lives.

Opportunity

Too often, talent is wasted because people aren't given opportunities to advance. In Denmark, for example, it takes on average about two generations for a person to rise from lower to middle income; in the United Kingdom and the United States it takes five; and in countries such as Brazil, Colombia, and South Africa it takes more than nine generations. In most countries, the architecture of opportunity tends to hold back women, minorities, and children born to families, or in places, that are poor.

Yet harnessing everyone's talents is not just an issue of fairness; it is also good for the economy. For instance, better use of all the talent in society explains between 20 and 40 percent of the productivity gains in the US economy between 1960 and 2010 (Hsieh and others 2019). Instead of drawing on a limited talent pool of mainly white men, changes in laws and norms meant that employers were able to choose from a broader pool of skills and match people with jobs that suited them best. Similarly, if today's "lost Einsteins"—women, minorities, and people with low incomes—could innovate to the same degree as white men from high-income families, the rate of breakthroughs could quadruple (Bell and others 2017).

How can we harness all that talent? Start early: the first 1,000 days of life are the most important for brain development. Intervening during this period is the most efficient way to equalize opportunities and provide the foundational skills for future learning.

Extra nutrition for preschoolers and help with parenting skills also make for better educational outcomes and higher incomes later in life. For instance, in Jamaica, young children visited just once a week by a community health worker earned 42 percent more 20 years later than children who did not get such support (Gertler and others 2014).

All young people should be entitled to education and training and a lifetime endowment to pay for additional skill development over what will be much longer careers. Hundreds of studies of adult learning demonstrate how strong links to employers, early intervention, and sustained funding can keep people in work and contributing to society.

While most countries have equalized educational opportunities for girls and boys, women are still disadvantaged in the workplace because they do about two hours a day more unpaid household work than men. More generous parental leave, public funding to support families, and a fairer division of labor at home would make better use of female talent and allow more people to contribute to the common good.

Is it affordable?

A new social contract is not about higher taxes, more redistribution, and a bigger welfare state. It is about fundamentally reordering and equalizing how opportunity and security are distributed across society. This would increase productivity and more efficiently share risks around childcare, health, work, and old age that cause so much anxiety. We should tax the things we want less of, like carbon and smoking, and subsidize things we want more of, like education and a greener economy. Giving everyone the opportunity to use their talent and contribute reduces the need for redistribution later.

An international system that enables such a transformation is essential. This means ensuring that international financial institutions have the resources to help societies invest in and support minimum incomes, education, and health care. It also means better rules around global taxation so that companies pay taxes where economic activity takes place for the benefit of the people where those companies operate. Such an international system would shore up the global economy with a social contract that is both efficient and fair and therefore more likely to garner public support. FD

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References:

Bell, Alex, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenen. 2017. "Who Becomes an Inventor in America? The Importance of Exposure to Innovation." CEP Discussion Paper 1519, Centre for Economic Performance, London School of Economics.

Edelman Trust Barometer: Global Report. 2019. New York: Edelman.

Gertler, Paul, James Heckman, Rodrigo Pinto, Arianna Zanolini, Christel Vermeersch, Susan Walker, Susan M. Chang, and Sally Grantham-McGregor. 2014. "Labor Market Returns to an Early Childhood Stimulation Intervention in Jamaica." *Science* 344 (6187): 998–1001.

Hsieh, Chang-Tai, Erik Hurst, Charles I. Jones, and Peter J. Klenow. 2019. "The Allocation of Talent and U.S. Economic Growth." *Econometrica* 87 (5): 1439–74.

JOBS DILEMMA

Creating sufficient employment in emerging market economies will require a big boost to economic growth

LAST YEAR, COVID-19 prompted an unprecedented economic collapse in emerging market economies, although a recovery soon followed. While growth will remain bumpy until vaccination rollouts are well underway, the focus will soon shift back to medium-term growth in emerging markets.

Prior to the pandemic, emerging market growth was on a secular decline—that is, it was deteriorating over time irrespective of temporary economic bright or dark spots. Secular stagnation, as it is known, is associated with many problems, including unemployment. Keeping people at work, or helping them get jobs, is tough when growth slows down.

As our recent note from the Institute of International Finance shows, the uncomfortable truth is that creating sufficient jobs in emerging markets will require higher growth rates than those of the past decade. We calculate how much emerging markets had to grow to create a certain number of jobs in the past. We use these relationships and population projections through 2035 to calculate how much countries must grow in the future to create enough jobs for people entering the labor market, while keeping stable the ratio of employment to the working-age population (the proportion of the working-age population that is employed).

We find that creating jobs will still be challenging, even though working-age populations will grow more slowly. The high growth needed to create jobs is close to recent outcomes in only a few countries, including India. In other countries, such as Brazil and South Africa, however, unemployment will increase unless growth picks up. FD

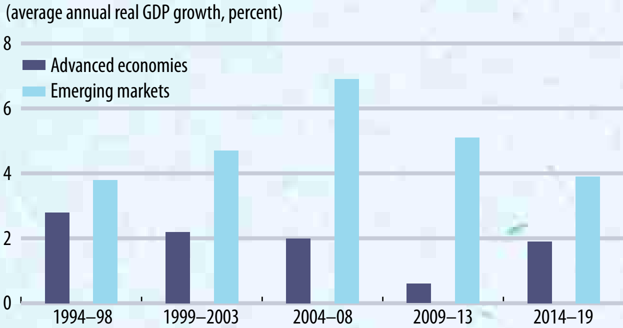
SERGI LANAU *is deputy chief economist of the Institute of International Finance. This feature is based on "Can EMs Create Enough Jobs?" published in* Economic Views, *January 2021.*

Lost decade

Dwindling growth

Economic growth in emerging markets has slowed markedly since the global financial crisis, especially relative to advanced economies.

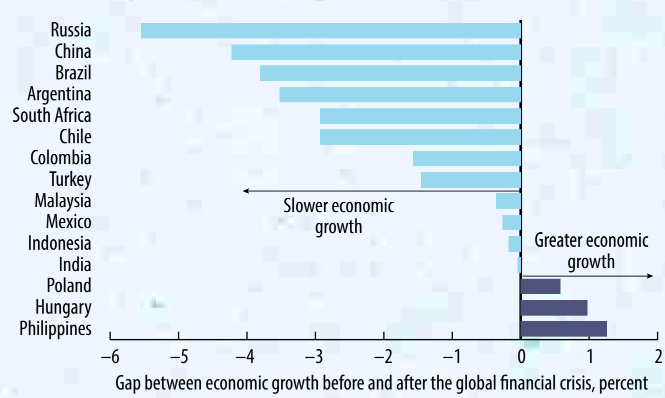
(average annual real GDP growth, percent)



Sources: Haver Analytics; and Institute of International Finance.

Stagnant economies

Secular stagnation in economic growth makes creating jobs a challenge.



Growth for jobs

Slowing population growth

Creating enough jobs will remain challenging even as the working-age population grows more slowly.

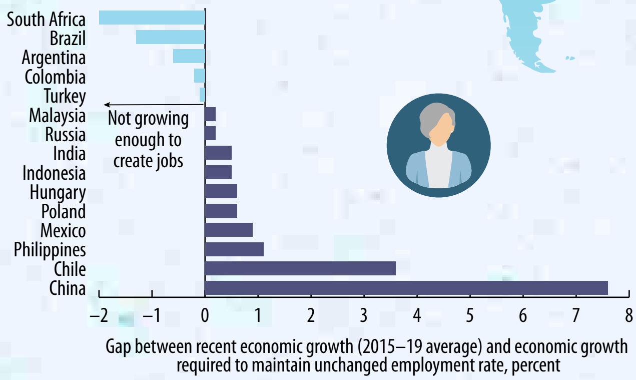
Significant action needed

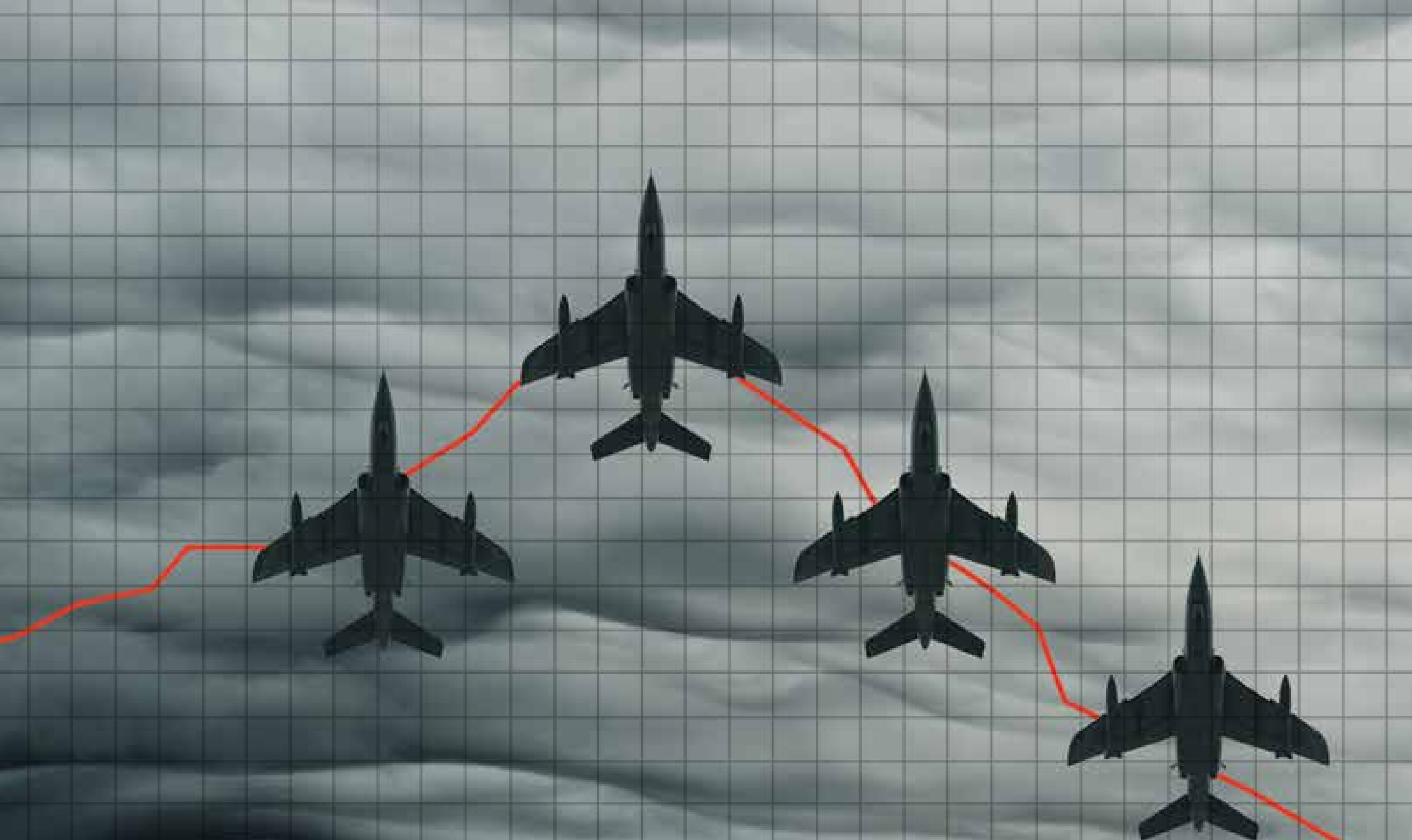
History suggests that emerging markets need to grow significantly to create enough jobs.

Next steps

Growth turnaround

Many emerging markets did not grow enough in the past decade to keep people employed.





MILITARY SPENDING

in the Post-Pandemic Era

Countries' efforts to secure a more peaceful world could have a positive economic effect

Benedict Clements, Sanjeev Gupta, and Saida Khamidova

Governments across the world adopted stimulus packages in 2020 to address the COVID-19 pandemic, with those in advanced economies outstripping those in the rest of the world. The resulting high budget deficits must be brought in line with available resources as pre-pandemic growth resumes. In doing so, governments will need to reassess their overall tax and spending policies. A key question is how major government spending categories will likely evolve over the next several years and where additional spending needs will rise or ease.

Military spending absorbed on average about 6½ percent of government budgets across the world in 2019, according to data from the Stockholm International Peace Research Institute, the most comprehensive and comparable source of data on military spending. Since the end of the Cold War in 1990, defense outlays have declined both as a share of government spending and of the economy's total output (GDP). This has made room for other forms of public spending, such as on education, health, and infrastructure. But will military spending remain at historically low levels? In this

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article, we take a closer look at military spending over a long period and offer tentative implications for government budgets.

Trends in military spending

Worldwide military spending, when estimated on the basis of unweighted country averages, has declined by nearly half, from 3.6 percent of GDP during the Cold War period (1970–90) to 1.9 percent of GDP in the years following the global financial crisis (2010–19) (Chart 1).

Several factors could explain the observed decline in military spending—beyond the end of the Cold War and the associated reduction in international tensions. In advanced economies, one reason may be the pressure for fiscal consolidation, which has persisted—with the average debt-to-GDP ratio exceeding 100 percent in the period following the financial crisis. The advent of the COVID-19 pandemic and the accompanying support from budgets to combat it have raised the ratio by another 16 percentage points (IMF 2021).

Second, since the early 2000s, developing economies have sought to allocate a larger share of their budgets to education, health, and infrastructure to meet their populations' growing needs and to promote growth by investing in physical and human capital.

More recently, the focus has shifted to achievement of the United Nations Sustainable Development Goals, which requires a major increase in government spending on the development of human capital.

Last, advanced economies are faced with rapidly aging populations. In the absence of major reforms of pension and health systems, rising age-related spending will continue to exert pressure on other public spending (Clements and others 2018).

Although military spending has declined, it varies considerably across countries. Chart 2 shows which countries spend less than 2 percent of GDP on defense (83 in total), between 2 and 5 percent (48), and more than 5 percent (7). Several advanced economies are among the top 15 military spenders and responsible for more than 80 percent of military spending worldwide. Despite this heterogeneity, one cannot rule out the possibility that a large number of countries share a trend toward a similar level of spending to GDP over time.

Convergence in military spending

We find that military spending in relation to GDP is not converging to a common level in 138 countries in our sample, but rather taking three different paths (Clements, Gupta, and Khamidova 2021). In the first group of 20 countries experiencing a high degree of conflict, spending has actually risen to a substantially higher level and has diverged from the global trend (Charts 3 and 4). This group accounts for 5 percent of global military expenditure and includes Armenia, Azerbaijan, the Democratic Republic of the Congo, Oman, and Saudi Arabia.

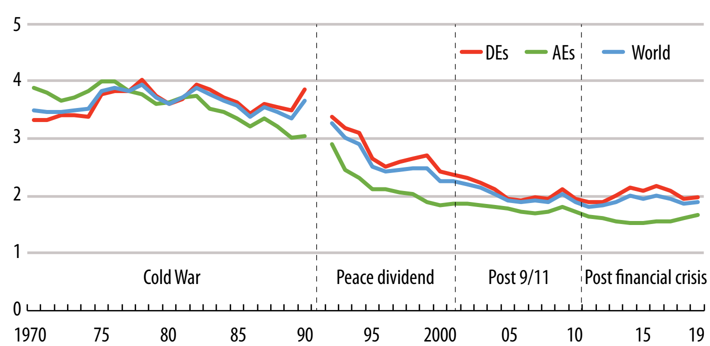
The second group has the largest number of countries—77, of which 30 are advanced economies—accounting for more than 90 percent of global military spending. In this group, outlays on average have plateaued at about 2–2½ percent of GDP. Their average military outlays in relation

Chart 1

Steady drop

Military spending worldwide has declined by half since 1970.

(percent of GDP)

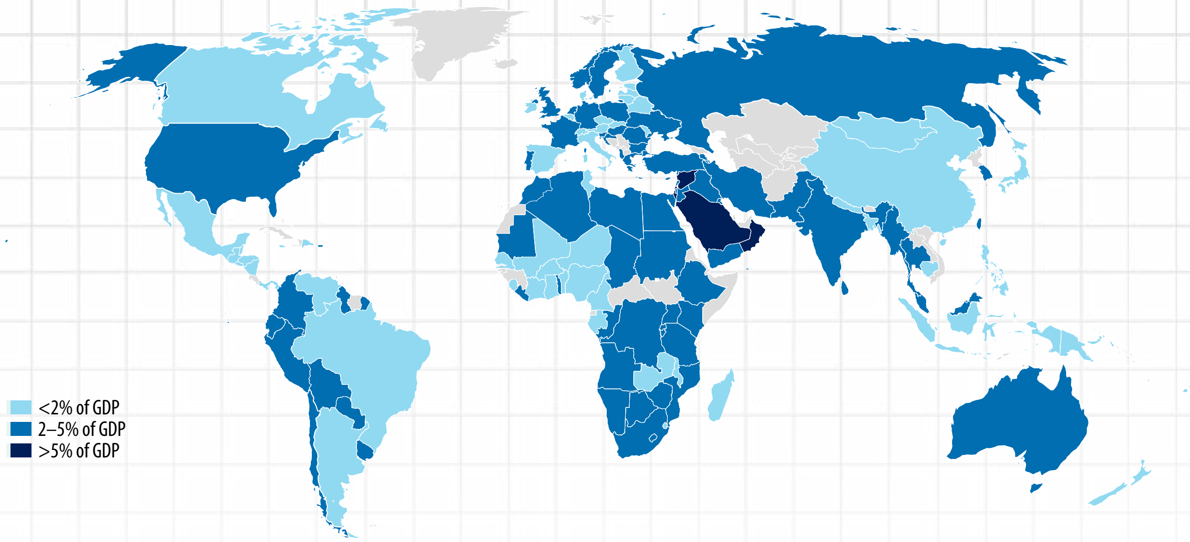


Source: Stockholm International Peace Research Institute.
Note: Military expenditure as a percentage of GDP is calculated as the unweighted country average within each country group. Data for 1991 on a global basis are not available due to the breakup of the former Soviet Union. AEs = advanced economies; DEs = developing economies.

Chart 2

Military spending by country

The top 15 spenders are responsible for over 80 percent of military spending worldwide.



Sources: Stockholm International Peace Research Institute; IMF, *World Economic Outlook*; and authors' calculations.
Note: The chart shows military spending from 1970 to 2019, except for countries shaded in gray, which are outside the sample of countries studied.

to GDP fell significantly from 1990 through the mid-2000s, but have changed little since then. This group includes China, India, Russia, the United Kingdom, and the United States. All these countries are members of the top 15 military spenders in absolute terms.

In the third group, comprising 41 countries, spending has come together at an even lower level of slightly less than 1 percent of GDP. This group consists of 41 countries, only 2 of which are advanced economies—Lithuania and Slovenia.

> High military spending by neighbors can be perceived as threatening, prompting a country to allocate more to defense.

There are many considerations that influence the likelihood of a country's being in a particular spending group. First, high military spending by neighbors can be perceived as threatening, prompting a country to allocate more to defense. In addition, a country is likely to spend more on the military when it faces significant political instability, violence, and terrorism within its territory. Moreover, as discussed earlier, growing age-related and social spending (on education and health) in advanced and developing economies, respectively, could sway budget allocations for defense. The competition for budget resources may be less fierce in developing economies that have the potential to raise more taxes and are striving to do so; this is unlikely in advanced economies.

Finally, whether a country is likely to be in one group rather than another can be affected by membership in a military alliance, such as the North Atlantic Treaty Organization (NATO). Membership in an alliance could exert pressure to either raise or lower military spending. A country that belongs to any of the eight major military alliances in the world has certain obligations when it comes to military spending, while also benefiting from the spending of other alliance members.

We find that political stability and little risk of violence or terrorism, high social spending, and a low level of military spending by neighbors are associated with a higher likelihood of being in the low-spending groups (groups 2 and 3). Our analysis shows that membership in military alliances (such as NATO) does not have a discernible effect on military spending.

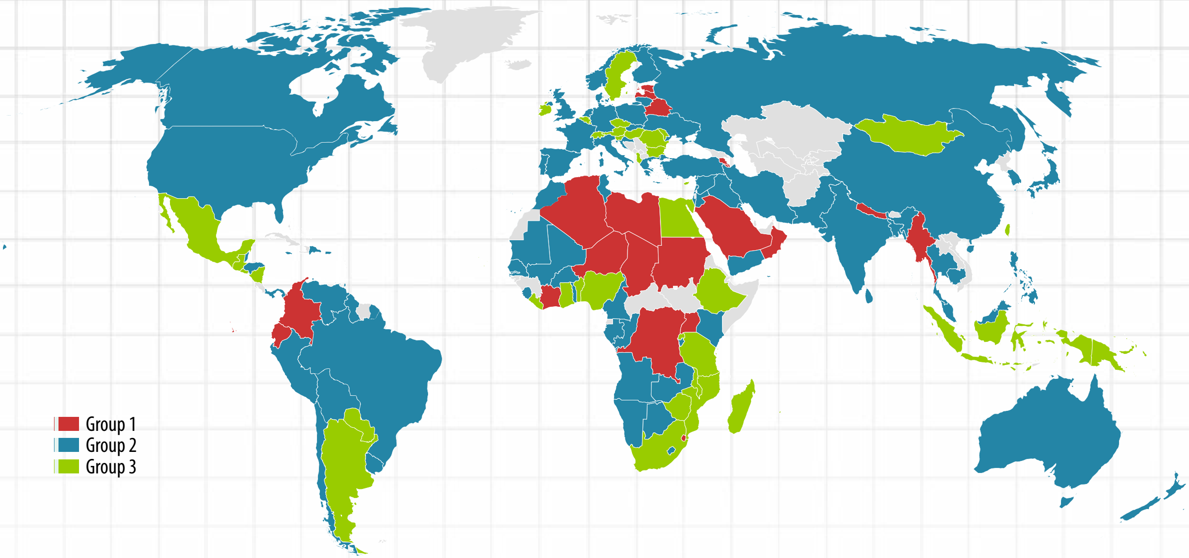
Implications for the post-COVID era

Our results highlight different trends in spending across country groups. In a small group of countries (group 1), conflict has driven increases

Chart 3

Global distribution

Military spending is not converging to a common level around the world: it is taking three different paths.



Sources: Stockholm International Peace Research Institute; and authors' calculations.

Note: The chart shows military spending from 1970 to 2019, except for countries shaded in gray, which are outside the sample of countries studied.

in outlays to a substantially higher 5 percent of GDP, while in a group of primarily developing economies (group 3), spending has fallen to relatively low levels. A country's particular group is influenced by its political stability and risk of violence, its social spending, and military spending by its neighbors. These results underscore the positive economic side effect of efforts to secure a more peaceful world by reducing internal and external conflicts—not only on economic growth but also on government budgets, by reducing military spending.

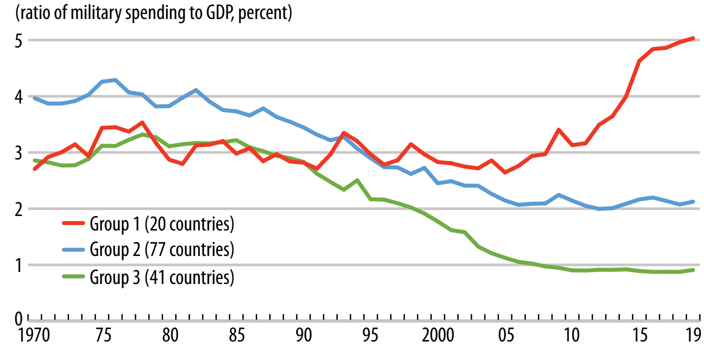
For the largest country group (group 2), it appears that two countervailing forces will determine the future path of military spending. On the one hand, the need to reduce non-COVID-related spending to support fiscal consolidation and maintain social spending will put downward pressure on these outlays. On the other hand, military spending in this group has plateaued in recent years as a share of GDP and no longer shows a tendency to decline over time. Defense spending may in fact start to inch up if global tensions rise. FD

Chart 4

Diverging paths

In countries experiencing significant conflict, military spending has risen to a substantially higher level.

(ratio of military spending to GDP, percent)



Sources: Stockholm International Peace Research Institute; IMF, *World Economic Outlook*; and authors' calculations.

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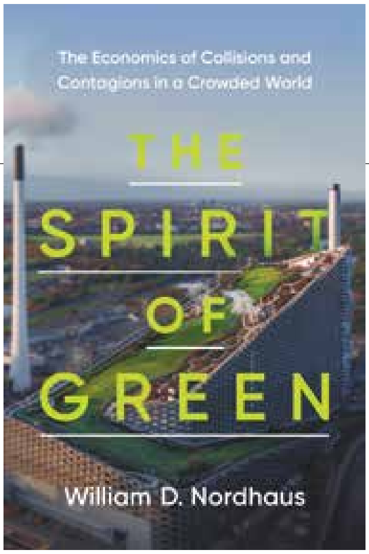
References:

Clements, B., K. Dybczak, V. Gaspar, S. Gupta, and M. Soto. 2018. "The Fiscal Consequences of Shrinking and Ageing Populations." *Ageing International* 43 (4): 391–414.

Clements, B., S. Gupta, and S. Khamidova. 2021. "Is Military Spending Converging to a Low Level across Countries?" *Economic Modelling* 94 (January): 433–41.

International Monetary Fund (IMF). 2021. *A Fair Shot*, Chapter 1. Washington, DC, April.

The Scent of Green Spirit



William D. Nordhaus
The Spirit of Green: The Economics of Collisions and Contagions in a Crowded World
Princeton University Press
Princeton, NJ, 2021, 368 pp., $29.95

THE SPIRIT OF GREEN by William Nordhaus comprehensively tours the landscape of economics, ethics, and the environment. It is a discursive inventory of matters environmental, with eye-opening insights. His account of using lumens per hour as a proxy for productivity builds on the groundbreaking series of experiments he conducted in his 1994 paper. And he details the scope and limitations of green accounting, emphasizing the importance of good data to manage environmental resources and guide decisions.

Nordhaus puts a premium on objectivity. He eschews ideology in favor of evidence, reaffirming his long-standing belief that effective climate policy is "a question of balance." Here too, he stakes his Goldilocks approach midway between the "far left" "deep green movement" and the profiteering "far right…muck brown" (as he puts it) approach.

Consciously steering clear of motivated reasoning on a contentious subject is refreshing and welcome. But by focusing mostly on backward-looking evidence, much of the analysis relates to marginal changes in the context of static market failures. Yet the big environmental questions of our time concern non-marginal transformations and potentially catastrophic systemic shifts. These include the collapse of fisheries, the dieback of tropical rain forests, ecosystem destruction, and runaway climate change—calamities that scientists believe might occur once irreversible thresholds are breached.

The same critique can be leveled at his assessment of the options available to fend off environmental crises. He rightly emphasizes the centrality of pricing damaging behavior in an efficient and nondiscriminatory manner, a message that has yet to make a tangible impact on US climate policy. But by mostly ignoring the theory of endogenous technical change he undersells the importance of driving innovation.

The author argues that emissions reduction is extremely expensive, costing "in the range of 2 to 6% of world income . . . to meet international targets." He concedes that while "miraculous technological breakthroughs might conceivably be discovered that can reduce the costs dramatically, experts do not see them arriving in the near future." But as his co-recipient of the Nobel Prize for economics Paul Romer notes, there is far more room to be conditionally optimistic about our ability to cost-effectively decarbonize the world's economy.

Abatement costs are shaped by innovation. Once a globally scaled and integrated technology becomes sufficiently competitive, economies of scale in production and discovery allow it to undercut incumbents and alter the entire environment in which it operates. Nordhaus's preference for a uniform global carbon price, rising with time, is premised on a static marginal abatement schedule whereby investors pick off the most cost-effective emissions reductions at the margin. But many economists argue that inducing innovation may in fact require front-loading a credibly high carbon price and focusing on the most expensive sectors to kick-start innovation where the potential for induced cost reductions is greatest.

This book is a rigorous and far-reaching introduction to environmental economics, yet *The Spirit of Green* could be less murky in color were it infused with more spirit of discovery. FD

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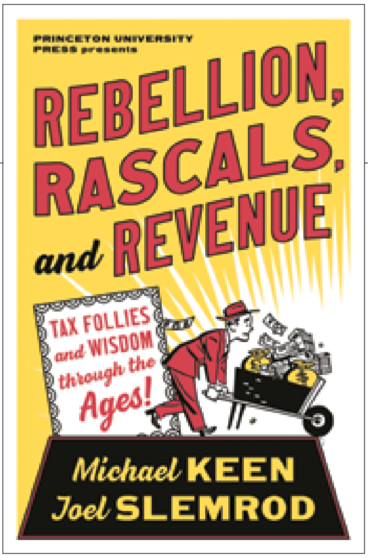
A Colorful History of Taxation

TAX HISTORY RESEMBLES the warehouse in the final scene of the movie *Raiders of the Lost Ark*—an enormous, poorly lit jumble of unlabeled boxes, one of which may be hiding the answer to all the world's tax problems. This new book by two leading tax analysts turns up the lights, organizes many of the boxes in an enlightening way, and presents the results with a style and flair that make the subject not only understandable but—and this may come as a surprise to many—actually fun to read. The authors may not have found the answer, but even the most experienced reader can learn something from this lively and informative book.



Michael Keen and Joel Slemrod
Rebellion, Rascals, and Revenue: Tax Follies and Wisdom through the Ages
Princeton University Press
Princeton, NJ, 2021, 511 pp., $29.95

This is a rare find that can and should be read and enjoyed not only by experts but by anyone who has ever had questions about taxation. As Michael Keen (of the IMF) and Joel Slemrod (University of Michigan) show, "taxes are us" in the sense that everywhere and always, they change and develop with the times.

Although countries' tax practices are usually shaped more by specific and immediate concerns than by higher motives, tax history nonetheless offers some wisdom and displays some follies we should avoid.

Every chapter is good reading and worth at least a skim for even the most knowledgeable. Chapter 2, for example, is an impressive capsule review of the history of taxation, dating back to ancient Egypt, China, and Greece. Chapter 4's title—"Fair Enough"—tells the story of what tax equity is all about. The discussion of who really pays taxes in Chapter 7—"Stick or Shift," another wonderful title—demonstrates that tax analysts may have learned much about tax economics, but they still fall short when it comes to the policy implications of their work. Chapter 12 ("Vlad the Impaler and the Gentle Art of Tax Collection") is a fine introduction to the important and still unduly neglected subject of tax administration. The discussion of this issue is generally excellent, although it does not raise the question of why China's tax system,

> "Taxes are us" in the sense that everywhere and always, they change and develop with the times.

which seems to be administered very differently than the book suggests as preferable, works as well as it does.

Finally, Chapter 11 is a masterful review—if not as easy a read—of the international dimension of taxation. The chapter concludes that problems in this area can be resolved only if countries "… pool and exercise the collective sovereignty that they still possess." The authors return to this theme in the concluding chapter, suggesting that many current tax problems can be resolved only by "deeper international cooperation." I am less optimistic about the outcome of ongoing international discussions of taxation than the authors seem to be. But they make a strong case for their view, and in this, as in all respects, the book is an excellent read. FD

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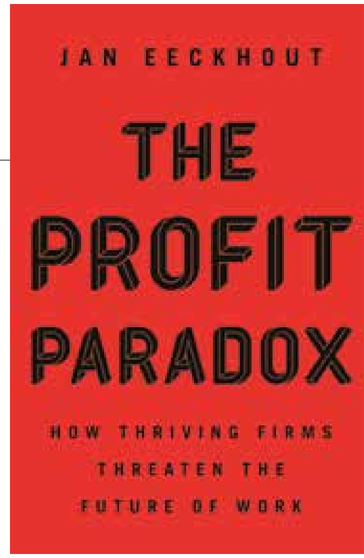
Market Juggernauts



Jan Eeckhout
The Profit Paradox: How Thriving Firms Threaten the Future of Work
Princeton University Press
Princeton, NJ, 2021, 336 pp., $27.95

THE PRE-COVID WORLD carried more than its share of economic anxieties and puzzles. In advanced economies, stunning new technologies failed to translate into significant economic growth. Even this slow growth failed to boost worker incomes much, as labor's share of income declined. And whatever small income gains workers enjoyed essentially went to top incomes, while low- and medium-skilled-worker wages stagnated or even fell. The pandemic is reinforcing these trends: output is still far below where it would have been without COVID-19, low-skilled workers have suffered the brunt of job losses, and dominant firms have thrived as many smaller enterprises struggled.

In *The Profit Paradox*, Jan Eeckhout posits that new technologies can still deliver tremendous gains in living standards for all. What's holding things back is the rise of dominant firms, which can be traced back to the winner-takes-all nature of new technologies and weak pro-competition policies. Dominant firms' successes, reflected in massive profits and booming stock markets, are not beneficial for workers—hence the profit paradox. Market power needs to be reined in, Eeckhout argues, just as it was during the robber baron era.

Through a mix of cutting-edge academic research, personal stories, and colorful examples—from beer to textiles to online advertising—Eeckhout establishes a connection between workers' woes and market power. He sees the latter as an amplifier of societies' other ills, too—from declining social and geographical mobility to rising mortality and climate change—as firms leverage their power to buy politicians into inaction (on climate) or harmful policies (on opioids).

His thesis is vividly illustrated by examples from the United States, making one wonder whether lessons could be learned from international experience. After all, labor force participation has not fallen in Europe in recent decades, and increases in wage inequality and declines in labor income shares have been much more modest than in the United States. At the same time, Europe stopped converging to US living standards four decades ago. Do these facts point to Europe's lesser embrace of new technologies, stronger antitrust enforcement, both, or something else altogether?

While the book convincingly argues for *some* role of market power in workers' woes, it leaves open the question of how big that role has been. Had market power been contained, would the (increasingly labor-saving) nature of technological progress still have hit workers hard, as the work of Daron Acemoğlu and Pascual Restrepo, among others, implies? If so, does addressing market power really hold the promise of enhanced prosperity for all?

Dominant firms' successes, reflected in massive profits and booming stock markets, are not beneficial for workers.

What should be done? Antitrust needs to be strengthened and intellectual property rights rethought, Eeckhout argues. Some of his proposals line up with current thinking, while others are newer to the debate, such as ex-post fines on mergers that fail to deliver, or "inverse" data patents that would grant the collectors of data only temporary exclusivity. At a time when antitrust frameworks are being reconsidered on both sides of the Atlantic, Eeckhout's book is a powerful reminder that this rethink must go big. FD

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