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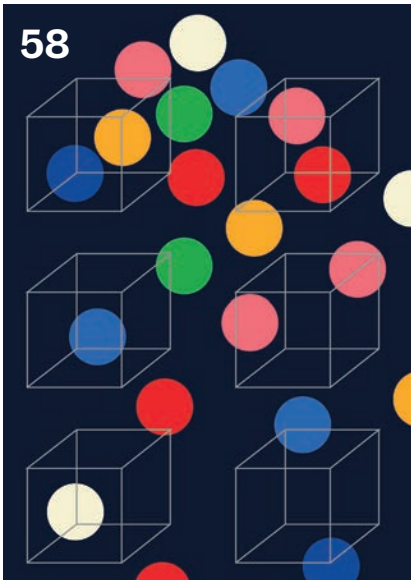

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On the Cover
Malaysian artist Tang Yau Hoong pairs tradition with modernity, setting a fisherman's silhouette against a skyline of Southeast Asia's striking architecture.

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FSC FPO

Editor's Letter

Asia's Next Growth Story

ASIA IS HOME to more than half of humanity and a large share of global growth, trade, and innovation. Its diversity stretches from Pacific islands to China and India, from sophisticated financial centers to agricultural societies. The region influences global debates about development, technology, and power.

Now the forces behind Asia's ascent are shifting. Trade is fragmenting, energy security is a concern, populations are aging, and productivity gains are harder to sustain. Some nations can still benefit from expanding labor forces, but all must navigate a more volatile, shock-prone global economy.

The question for policymakers, then, is how to seize new opportunities to renew Asia's growth story. As the IMF prepares to hold its annual meetings in Bangkok, this issue examines the choices that will shape Asia's future, largely through the lens of Southeast Asia's economies.

The region's economic potential is immense, says Krishna Srinivasan, the IMF's Asia-Pacific director. Artificial intelligence, digitalization, and deeper regional integration can open new paths to growth: While younger economies harness expanding workforces, aging ones can use technology to offset demographic drag , as Japan and Korea are doing already.

Growth must deliver tangible benefits, however. Recent protests across the region point to a troubling reality: Too many young people do not see growth translating into secure work and upward mobility. Indonesia's Muhamad Chatib Basri, a former finance minister, captures the tension when he writes that "prosperity on the dashboard coexists with anger on the street." Reform is not only technocratic—it is political, institutional, and deeply human.

AI-enabled technology can improve lives for the informal workers who are the backbone of daily economic activity, according to Anthony Tan, cofounder of Grab, Southeast Asia's largest super app. But policymakers must embrace informal work, not impose regulations developed for different economic conditions, he argues.

Growth also hinges on the systems that underpin commerce. Dong He examines Asia's "pragmatic pivot" away from the US dollar for trade as it embraces local-currency settlement, digital payments, and tokenized finance. Sethaput Suthiwartnarueput, a former Bank of Thailand governor, reminds us that Asia's digital finance revolution must now move from speed to trust, with new rules that make payment systems resilient when faced with fraud or failure.

"The question for policymakers is how to seize new opportunities to renew Asia's economic growth."

Regional cooperation is also being tested. Ben Bland argues that Southeast Asia can no longer rely on the global system of open rules-based trade that helped propel its rise. Instead, the region must become more practical and coordinated by aligning industrial policies, acting jointly on AI, reforming institutions, and deepening ties to other middle powers. Danny Quah similarly makes the case for flexible, "multilateral-enough" coalitions with aligned incentives.

Southeast Asia's giant neighbors face their own challenges. India's economy is running up against structural constraints, according to Duvvuri Subbarao, a former governor of its central bank. Meanwhile, China's technology-led growth is a powerful new economic engine, but it requires more balanced growth supported by stronger domestic demand and services consumption, writes Yanliang Miao.

Asia's first growth era was about opening to the world as globalization advanced. This made the continent indispensable to the global economy and lifted hundreds of millions out of poverty. The next era is about resilience and renewal. Southeast Asia can point the way through deeper integration, inclusive technology, and pragmatic cooperation. With the right choices, Asia can define not only the global economy's recent past, but also its future. F&D

Gita Bhatt, editor-in-chief

Kaleidoscope

A global view, in brief

THE BIG PICTURE: The Thai capital, Bangkok, hosts this year's annual meetings of the IMF and World Bank, which will take place October 12–16. *Above: The Thai flag flies over the Bangkok skyline. IMF Photo/Andre Malerba.*

Adapting to turbulence

THE IMF is updating its tool kit in response to the forces reshaping the global economy, from aging populations to artificial intelligence and the fragmenting geopolitical order, the director of its Strategy, Policy, and Review Department said in July.

Christian Mumssen told the Atlantic Council that the world has weathered major shifts before, such as the collapse of the Bretton Woods system of fixed exchange rates in the 1970s. But today's changes are unusual, he said, because they are all unfolding at once, demanding greater cooperation just as the global governance system is fragmenting.

In his first major speech since becoming director in November, Mumssen said that global public debt is projected to reach 100 percent of GDP by 2029. Shocks and supply disruptions mean that price stability cannot be taken for granted, and trade-distorting industrial policies have proliferated since 2023, he added.

The IMF aims to better help members navigate the shock-prone and transforming global economy, Mumssen said. Five reviews are underway covering economic surveillance, lending program design, debt sustainability for low-income countries, financial sector assessments, and the external sector.

The IMF's greatest institutional strength is that almost every country in the world has a seat at the table, Mumssen said. "That gives us a common platform for identifying problems and sharing solutions."

"Our institution has to navigate uncertainty like everyone else, including an evolving geoeconomic landscape."

–IMF Strategy, Policy, and Review Director Christian Mumssen

Overheard

"Restoring stability is difficult. Making it endure is even harder. The greatest rewards come only after years of persistence."

—IMF Managing Director Kristalina Georgieva in a blog reflecting on a recent visit to Argentina

"If history is any guide, it is not the technology itself that could cause mass unemployment, but the policies deployed in response."

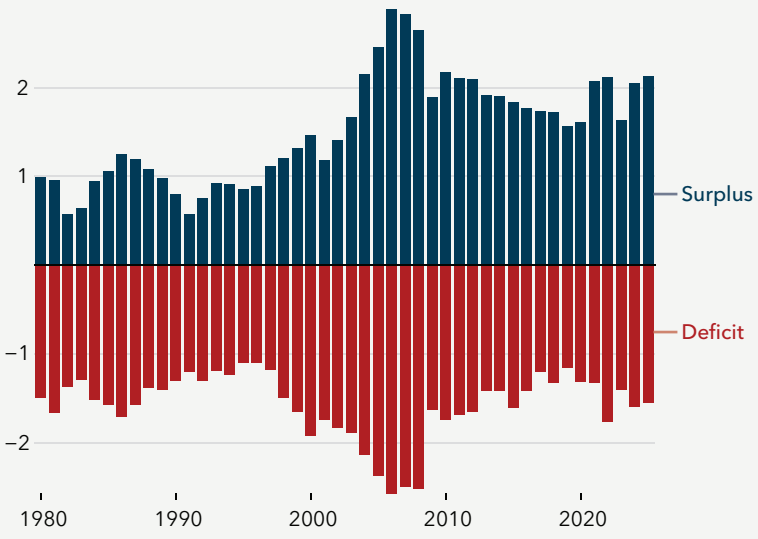
—IMF First Deputy Managing Director Dan Katz on AI's impact on labor markets in an online exclusive for *Finance & Development*.

IN THE NEWS: The IMF has appointed Silvana Tenreyro as its economic counsellor and director of its Research Department, succeeding Pierre-Olivier Gourinchas. An Argentine, British, and Italian national, Tenreyro was previously the James E. Meade Professor of Economics at the London School of Economics. *Above: Tenreyro participates in a seminar during the IMF's 2023 spring meetings. IMF Photo/Ariana Lindquist.*

By the numbers

Global current account balances widened further in 2025.

PERCENT OF GLOBAL GDP



SOURCES: IMF, World Economic Outlook database; and IMF staff calculations.

Back to Basics

A World Seeking Balance

Surpluses and deficits reflect deeper choices about saving and investment across interconnected economies

Manasa Patnam

MORE THAN 80 years ago, John Maynard Keynes centered his work on the persistence of global imbalances. The great economist tried to resolve what he described as the "secular international problem" at the Bretton Woods conference in 1944 through an international clearinghouse. But the conference's final agreement included only a weaker set of remedies.

Concern about imbalances has waxed and waned in the decades since, but has returned to the forefront of the policy debate in recent years. Global imbalances widened again in 2025, reversing steady narrowing during the decade after the global financial crisis and reviving difficult questions about their sustainability.

Keynes's point was simple but profound: In a world of interconnected economies, countries cannot save, spend, or borrow independently. Imagine a small neighborhood. One household saves almost everything it earns. Another spends more than it earns and borrows to make up the difference. For a time, the arrangement works. The thrifty household finds a reliable borrower and earns a return while the spendthrift household enjoys a comfortable lifestyle. But as debts accumulate and positions become entrenched, what began as a mutually convenient arrangement can become fragile and fuel tensions.

Global imbalances are this story's international version and refer to the pattern of surpluses and deficits across countries. Every country keeps a ledger with the rest of the world, called the *current account*. This records the value of the goods and services it sells and buys abroad as well as income flows associated with foreign transactions. When a country sells more than it buys, it runs a *surplus* and lends to the rest of the world. When it buys more than it sells, it has to borrow from other countries and run a *deficit*.

Saving and investment

At its core, a current account balance reflects a simple idea: the difference between what a country saves and what it spends. This is more than a simple accounting identity; it reflects the complex forward-looking choices of economic agents. For instance, households consume and firms invest when they expect higher income in the future or face temporary shortfalls. They save when their income exceeds their desired consumption, when investment opportunities are limited, or when they worry the economy might weaken and want to put money aside.

Exchange rates play a role, too, but it is often misunderstood. A country's currency tends to rise or fall to keep trade broadly in line with the saving and investment balance. Exchange rates, in other words, tend to reflect current account positions rather than drive them.

Seen this way, global imbalances are not primarily about trade competitiveness. They reflect structural differences in the pattern of domestic saving and investment across countries—driven, for example, by demographics, growth prospects, financial development, and policy frameworks.

The recent increase in imbalances reflects mostly developments in the world's two largest economies. A slump in China's property market five years ago depressed domestic investment as construction of new homes stalled; households responded by slashing spending and saving more. In the United States, meanwhile, the government's large fiscal deficit—coupled with robust consumer spending—has depleted national savings.

DALE CROSBY-CLOSE

Cause for concern

Not all deficits or surpluses are a problem. They can be a natural and even desirable outcome of efficient resource allocation, if capital flows to younger fast-growing developing economies from aging advanced economies, for example. The concern arises when imbalances become excessive and are rooted in persistent distortions that pose serious risks to global economic and financial stability.

The longer deficit countries rely on external borrowing, the more vulnerable it leaves them to sharp changes in global financial conditions. If investors lose confidence or financing becomes more expensive, capital inflows can reverse suddenly. The result is often currency depreciation, financial stress, and economic recession, as occurred in Mexico in the early 1990s and East Asia later that decade.

Surplus countries do not face the same risks of correction, but their policies can have consequences for other countries that build gradually over time. When surpluses reflect weak domestic demand, underdeveloped financial systems, or policies that encourage saving, it may indicate that a country is using its resources inefficiently. Excess savings from surplus countries channeled abroad put downward pressure on global interest rates and prices.

Where surpluses stem from policies intended to strengthen export competitiveness, the disinflationary effects of cheaper exports can help trading partners struggling with high inflation—but they weigh on partners already facing weak demand, or those whose industries compete head-to-head with those of the surplus economy, dragging down their economic growth.

Financial markets can punish countries that run persistent deficits and correct their imbalances—by driving down the value of their currencies and driving up their borrowing costs—but countries with persistent surpluses face no comparable disciplining market forces.

At the global level, imbalances can amplify financial cycles. Large capital flows fuel credit booms and inflate asset prices in deficit countries. Surplus countries accumulate large foreign asset positions that are sensitive to exchange rates and interest rates. These dynamics can make the system more fragile.

Action on both sides

Left unchecked, global imbalances can also fuel geopolitical tensions. Factory closures, job losses, and other dislocations in communities or industries exposed to surging imports can fuel the perception that the playing field is unfair, strengthening support for trade tariffs and other protectionist measures.

So how should the world manage persistent imbalances? Countries may be tempted to reach for unilateral trade protection as a shortcut to rebalancing. But higher tariffs and other trade barriers generally have weak and unreliable effects on external balances because they do little to alter the underlying saving and investment drivers. The protectionist measures can instead trigger tit-for-tat reactions that can further disrupt the global economy.

A more balanced outcome requires action on both sides. Adjustment is never a one-country story. After all, one country's deficit is another's surplus, and changes in one economy's saving and investment patterns affect outcomes elsewhere.

"The recent increase in imbalances reflects mostly developments in the world's two largest economies."

Deficit countries need to strengthen saving and ensure that borrowing supports productive investment. Surplus countries need to boost domestic demand or reduce excess saving. When these adjustments take place together, imbalances can narrow in a way that supports global growth.

A balanced approach like this would facilitate orderly adjustment: Saving and investment shift gradually, supported by policy changes and stable financial conditions; exchange rates adjust; domestic demand rebalances; and external gaps narrow without major disruption. In fact, policy-led reforms to fix domestic distortions could yield a double dividend, boosting growth at home and curbing imbalances abroad.

The alternative is disorderly adjustment, driven by sudden shifts in market sentiment or financial conditions. A reversal of capital flows would force a rapid correction of deficits, a sharp contraction in output, and potentially a serious financial crisis with a material loss of global output.

Everyday decisions

Global imbalances are not the result of mysterious forces. They are an outcome of everyday economic decisions—how much to save, how much to invest, and how to plan for the future. They reflect the fact that countries, like households, do not always spend exactly what they earn.

At their best, imbalances allow countries to share risk, smooth consumption, and allocate capital efficiently across borders. At their worst, they reflect domestic distortions, create vulnerabilities, and risk a costly reckoning. The thrifty household and the borrowing neighbor will eventually have to renegotiate their arrangement. The question is whether they can do so without creating a crisis that neither wanted.

That is the enduring challenge at the heart of the global economy—and the reason Keynes's "secular international problem" remains with us today. F&D

MANASA PATNAM *is a deputy division chief in the IMF's Research Department.*

Point of View

What Asia Brings to the Table

Tan Su Shan

Advanced manufacturing, trade, technology, and wealth creation give the region powerful advantages

When the world's central bankers and finance ministers return to Asia for the IMF and World Bank annual meetings in October, they will find a region transformed from when they last gathered here, eight years ago. Since the Bali meetings in 2018, the world has weathered a pandemic, tariff wars, geopolitical conflicts, and now an AI revolution. Asia has emerged from these tests more resilient. How has it managed it?

To unpack what Asia brings to a more fractured world, it's important to understand the hand Asia has—and it holds five favorable cards.

First, Asia has built genuine strength in industries that will power growth over the next decade. These include robotics, data centers, advanced manufacturing, electric vehicles, and renewable energy. That strength is now a structural source of growth for the region. Some of the world's largest and most recognizable brands in these sectors, from BYD to TSMC, are anchored in the region.

Asia accounts for about three-quarters of global industrial robot installations. China alone installed 295,000 robots in 2024, representing 54 percent of the global total. China is also a global leader in climate technologies, producing about 80 percent of all solar panels and 70 percent of wind turbines made globally, as well as more than 60 percent of EVs sold.

Best known for its prowess in services, India is also moving into advanced manufacturing. Tata Electronics is working with global partners to build the nation's first AI-enabled plant, with a capacity of up to 50,000 semiconductor wafers each month for AI, automotive use, and high-performance computing.

As Asia pushes deeper into new industries, its growth continues to be supported by its traditional commodity strengths. Malaysia and Indonesia together supply over 85 percent of the world's palm oil. Indonesia produces nearly two-thirds of the world's mined nickel, more than all other producers combined.

Strength to strength

Second, trade in Asia continues to grow from strength to strength despite multiple rounds of reciprocal tariffs with other parts of the world. Trade outside the United States, or "TOTUS," as we call it at DBS, now accounts for 92 percent of global trade, up from 89 percent at the end of 2025. Asia accounts for a significant share of that activity. Trade between North and South Asia has emerged as a structural growth area; China-India trade, for instance, has nearly doubled since 2020, reaching a record $155 billion last year. Southeast Asia has also become an increasingly prominent trading base as companies diversify supply chains.

Third, Asia's population is mostly digitally native—it grew up using new technology. Southeast Asia's digital economy is estimated to have surpassed $300 bil-

COURTESY TAN SU SHAN

Illustration by Dan Bejar

lion in 2025, with more than 60 percent of all payments made digitally. The use of AI will likely become second nature in Asia—in fact, consumer interest in AI topics is three times higher there than the global average, with many countries from the region ranking among the world's top 20 for interest in multimodal AI. Asia is well positioned to leapfrog other parts of the world in its use of AI both personally and professionally.

Fourth, momentum for equity capital markets is shifting toward the region. Asia's share of global IPOs has risen to nearly 50 percent in the past decade, up from about 30 percent in the 2000s, and that trend shows no signs of slowing. Hong Kong SAR, for instance, reclaimed the top spot globally for IPO fundraising last year.

Fifth, unprecedented wealth creation is emerging as a structural growth driver for the region. Asia posted the world's highest wealth growth in 2025, with the wealth of high-net-worth individuals rising by over 10 percent. Asia's wealth pool—made up of households with investable assets of between $100,000 and $1 million—is projected to reach $4.7 trillion this year. Adding to this is Asia's largest-ever intergenerational wealth transfer, with an estimated $11 trillion expected to change hands over the next two to three decades. This presents an unprecedented opportunity to help families build cohesive, comprehensive estate and legacy plans.

Region of reliability

But for Asia to convert its strong hand into a play that delivers lasting advantage, it must capitalize on three opportunities.

First, Asia must establish itself as a region of reliability in a more contested and unpredictable geoeconomic landscape. This is best achieved through greater policy consistency and clarity. Many economies and corporations are rewiring their operations for flexibility and resilience; Asia can capture a greater share of global investment and supply-chain shifts, which both involve long-term decisions, by demonstrating its reliability in a world beset by disruption.

Greater harmonization of cross-border regulations will also encourage the growth of emerging areas, such as digital assets. Jurisdictions are taking different approaches to regulating stablecoins and tokenized deposits. A level regulatory playing field would allow these assets to complement existing payment, trade, and investment ecosystems rather than compete with them piecemeal.

> "Asia must establish itself as a region of reliability in a more contested and unpredictable geoeconomic landscape."

Asian economies leading the digital asset space, including Singapore, Hong Kong SAR, Japan, and Korea, are setting the pace with forward-thinking regulatory frameworks. The opportunity lies in integrating those frameworks across borders so that the region's advantage compounds rather than fragments.

Second, Asia must continue to build on its early successes in driving regional integration. One case in point is how it has connected domestic payment wallets. The ASEAN Integrated QR Code Payment System aims to link national systems to facilitate cross-border transactions, with successful connections including Singapore (PayNow) with Malaysia (DuitNow) and Singapore with Thailand (PromptPay). Instant transfers between Singapore and India are also possible through the PayNow-UPI linkage.

Could the same success extend to foreign exchange? Many Asian currencies continue to be shaped by capital controls and restrictions on foreign access. These constrain offshore investors' access to deliverable foreign exchange markets and shift activity into offshore non-deliverable forward (NDF) contracts. This fragments liquidity and price discovery. Allowing offshore investors controlled access to domestic funding would improve liquidity. The efficiency of the NDF market could also be strengthened by enhancing infrastructure, accelerating digitalization, and improving fixing methodologies.

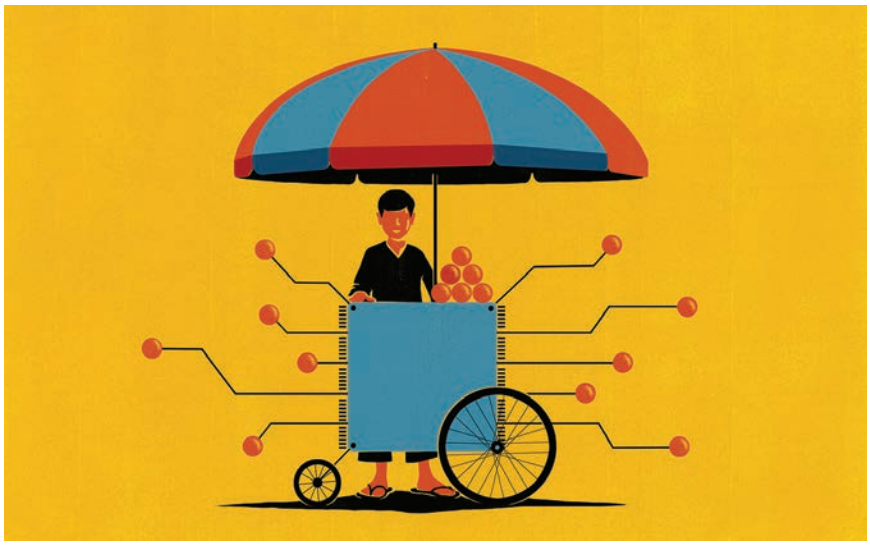
I see similar opportunities in equity markets. Hong Kong SAR and mainland China built Stock Connect to link both markets. Southeast Asia attempted to establish a common stock market in 2012, though it never realized its full ambition. Asia may now be ready for a more complete version of that idea.

Building trust

Finally, Asia needs to foster trust and predictability. These qualities, once structural features of the global order, are increasingly scarce. In an AI world, Asia can show collective leadership in guarding against bad actors, particularly in the areas of data protection, privacy, and cybersecurity, as well as financial crime.

DBS aims to be an AI-enabled bank with a heart that takes a fundamentally optimistic view of what AI can do for people. It's with that same optimism that I see Asia becoming an AI-enabled region with compassion for humanity. Asia can build bridges, deepen understanding, and offer an alternative blueprint for growth and progress. That, I believe, is what Asia truly brings to the table. F&D

TAN SU SHAN *is chief executive of DBS, Southeast Asia's largest bank.*



AI and the Informal Economy

Anthony Tan

Southeast Asia shows how to extend benefits to millions outside the formal economy

How can artificial intelligence benefit more people in developing economies? Any serious answer must start with the economic lives that people actually lead. Most of today's global AI conversation is framed around advanced economies and formal labor markets—salaried jobs, banked populations, institutions that can measure what people earn. Southeast Asia requires a different starting point.

Here, 78 percent of the workforce, numbering hundreds of millions, operates in the informal economy. These are the street hawkers, stall owners, construction workers, and ride-hailing drivers on whom so much of everyday economic life depends. It's a mistake to treat the informality of their work as a passing phase or a development problem to be solved.

It's true that many people do move from informal to formal work, and AI-enabled platforms can provide a pathway for those who want to do so. But the informal economy is the structural foundation on which the region's economic activity rests. It persists because its flexibility and adaptability are features, not failures.

Southeast Asia shows that it's possible to strengthen the resilience and earning power of informal workers in ways that matter well beyond the region. AI-enabled platforms here demonstrate that informal workers can get access to credit, earn more predictably, and participate more fully in economic life—without depending on formal systems.

The task facing policymakers: Extend those gains by focusing on building new skills and designing rules around informality rather than importing formal-economy assumptions that could weaken what's working already.

Platform power

Consider Mylene Estrella. She turned her grandmother's neighborhood bakery in Manila into a premium gifting brand, Mylene's Ensaymada and Banana Cake, which now sells to customers across the Philippines' capital. She scaled up the business with a Grab loan, credit a traditional bank would have denied, and she works with an AI assistant for marketing support.

Last year Grab disbursed $3.2 billion in loans to driver partners and merchant-partner borrowers like Mylene. Sixty-eight percent of those borrowers accessed formal credit for the first time through our platform. We use AI to read platform-generated records of earnings and activity to judge creditworthiness. We set credit limits based on platform earnings, deduct repayments in proportion to daily income, and grant hardship relief on a case-by-case basis if earnings cease. Half of driver-partner borrowers say they turned to Grab to avoid unlicensed lenders.

Average driver-partner earnings per online hour rose by 5.5 percent year over year last year. Platforms like Grab learn from their interactions with informal workers to improve service delivery and propose ways users can maximize their earnings. For example, Grab's ability to assess real-time demand and match driver partners helped boost earnings and shrank the unpaid gap between one job and the next. The platform also reads real-time demand and predicts the best spot for the next job.

COURTESY ANTHONY TAN

Illustration by Dan Bejar

Skills that pay

Realizing AI's potential more broadly requires investment in the skills that allow workers to understand and benefit from AI-enabled tools. Gains from participating in the platform are multiplied for workers who understand how AI shapes the demand patterns on which they depend.

All workers today benefit from AI literacy. But an informal worker must access opportunities to build skills without a formal employer to provide training on paid time and at a fixed workplace.

More than 1.5 million driver partners completed at least one GrabAcademy course last year. That reach is the channel through which practical, work-relevant training reaches workers who have no employer to provide it. AI, meanwhile, pairs tools with training: One in four micro, small, and medium enterprises on the platform now uses Grab's Merchant AI Assistant, which supports marketing, menu management, and operations, and underpinned a 15 percent lift in sales.

My three asks

Scaling up this resilience requires moving beyond what a single company can do alone. It requires governments to govern for the economy as it is. Imposing rules developed for formal employment and applying them without adjustment risk eroding the adaptability on which informal workers depend. Here, I outline three asks.

First, fund AI literacy as a public good. AI literacy must be funded with the same seriousness as roads or energy. Public-private partnerships already work: SkillsFuture Singapore, an initiative led by the skills and workforce development agency, has recognized Grab as an industry leader in championing skills development. Governments are uniquely placed to scale up this kind of permanent, codesigned training across the informal workforce, built with local institutions and structured for workers with irregular hours.

Second, rethink how success is measured. Governance frameworks determine what regulators reward and which platforms are incentivized to build. Frameworks calibrated around formalization rates or financial stability alone will consistently miss what matters for the informal economy: earnings stability and breadth of participation. Regulators must adopt metrics that reflect the informal economy's actual dynamics—earnings volatility, participation in multiple platforms, access to credit—and hold platforms and themselves accountable to those metrics.

Third, unify regional AI governance. The diversity of regulatory frameworks across Southeast Asia's main markets is a massive structural constraint. It makes it harder for platforms to decide how to store data or scale up what works. The May 2026 Association of Southeast Asian Nations' Digital Economy Framework Agreement establishes the needed regional coordination architecture. But policymakers must ensure that the framework works for the informal economy and does not impose formal economic assumptions on a regional scale.

Designing for informality

Southeast Asia offers an instructive case study for what AI-enabled development of the informal economy can look like. After all, informal work accounts for 86 percent of employment in Africa, 68 percent in Asia, and 51 percent in Latin America. For policymakers in these regions, Southeast Asia is the proof of concept for a different development trajectory.

The central lesson is that the most effective measures have been built around informality rather than imported from systems developed for different economic conditions. Real-time behavioral data serve where documentation requirements fail. Platform-based distribution reaches where institutional access does not.

> "The most effective measures have been built around informality rather than imported from systems developed for different economic conditions."

Designing around informality does not mean accepting that workers remain unprotected. Closing the gap between the protection afforded to formal and informal workers is important. However, we must strive to build protection that travels with the worker across jobs and platforms. Take social insurance as an example. Rather than waiting for them to be reclassified as employees, coverage can be funded through a portable plan that follows workers. Malaysia's March 2026 Gig Workers Act does this, extending social security coverage to gig workers through the national program without making them employees.

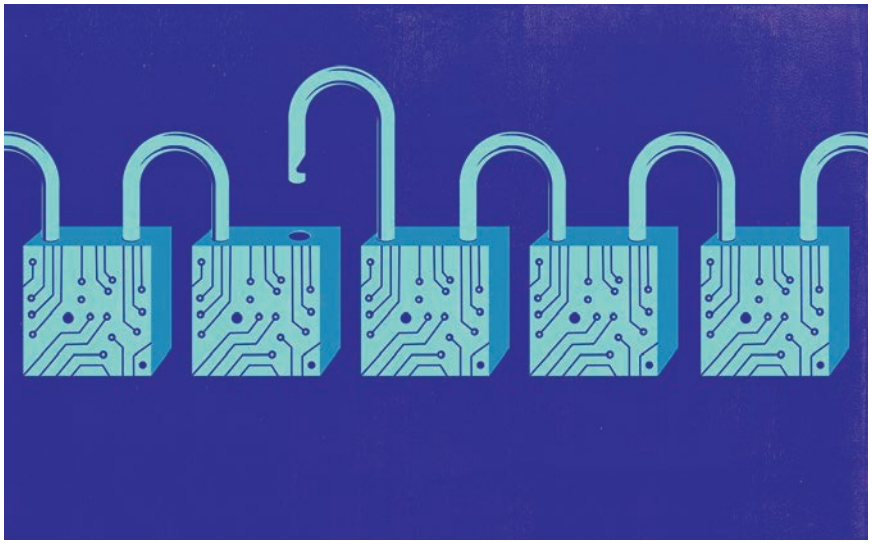
Closing the AI divide is a task no single actor can manage alone. Building the structures that allow governments and platforms to collaborate effectively is among the most consequential policy investments of this decade. Southeast Asia has the opportunity to show the rest of the world how it can be done. I would even say it's doing so already. F&D

ANTHONY TAN *is chief executive and cofounder of Grab, Southeast Asia's leading super app.*

From Speed to Trust in Digital Payments

Sethaput Suthiwartnarueput

Asia's impressive technological progress must now meet the challenge of building trust



Asia's digital finance journey has reached an inflection point. The first phase was about moving beyond card-based systems and building out digital infrastructure at scale. The results have been remarkable. Malaysia's DuitNow has become a nationwide standard. Indonesia's QRIS connects over 30 million merchants. Thailand's PromptPay handles over 75 million transactions daily and reaches more than 70 percent of the population.

The progress extends across borders. The PromptPay-PayNow link between Thailand and Singapore was the world's first cross-border fast-payment connection, allowing instant transfers using only a cell phone number. The Reserve Bank of India and four central banks in the Association of Southeast Asian Nations are working to create a network called Nexus, which will allow any single payment system to link to all the others.

Yet success has brought new vulnerabilities into focus. The very features that make systems powerful—speed, low cost, and finality—also make them attractive to scammers. Fraudsters impersonate police or bank officials, warn of suspicious activity, and pressure victims to transfer money immediately. Once sent, the payment is often irreversible. Cross-border linkages add complexity around anti–money laundering, sanctions screening, and fraud. Without clear allocation of responsibility and robust governance, the openness that empowers users can expose them to new cross-border risks.

Return to basics

So in the next phase of its digital journey, Asia faces a new challenge: ensuring that digital innovations, once widely adopted, remain trustworthy under stressed conditions. This requires a framework for responsible digital innovation.

To build such a framework, we must return to basics. However sophisticated the technology, the fundamentals of money remain unchanged: a unit of account (the measure of value), a means of payment (the instruments that settle obligations), and mechanisms to transfer that means of payment securely and quickly. Underlying these technical elements is something even more fundamental: trust. People must believe that their purchasing power will be preserved, that transfers will execute as promised, and that different forms of money trade at par—that one unit of digital money equals one unit of cash. This trust does not emerge spontaneously. It is built through sound monetary policy, credible institutions, and robust regulation.

There is a second, overlooked, dimen-

COURTESY BANK OF THAILAND

Illustration by Dan Bejar

sion to trust: resilience in failure. We typically judge innovation by whether and how well it works in normal times. But what happens when a platform fails, a provider becomes insolvent, or a cyberattack disrupts operations? Who bears the loss? How is confidence restored?

The 2008 financial crisis showed that a system built on sophisticated technology and complex products can collapse when trust evaporates. Technology did not restore stability. Central banks did, by providing liquidity and reestablishing confidence. That experience teaches us that technology alone cannot ensure resilience in failure.

For digital innovation to be responsible—inclusive, sustainable, and resilient under stress—three elements must come together: robust technology that enables new possibilities while supporting interoperability and security; aligned economic incentives that make it profitable to behave responsibly and ensure scalability, sustainability, and inclusiveness; a clear legal and regulatory framework that defines rights and obligations, allocates liability, and provides guardrails when things go wrong.

These three elements are complementary. Technology without aligned incentives prompts a race to the bottom as fintechs compete to offer the lowest cost and fastest speed, with insufficient investment in fraud prevention or resilience. Systems that look impressive may fail precisely when most needed. Incentives without legal foundations produce cooperation that unravels under stress. When fraud losses rise or a token breaks the peg, providers without well-defined liabilities may abandon the system, shifting losses to consumers.

Consider how this framework applies to three current issues in digital finance in Asia.

Applied framework

First, fraud. Fast-payment systems have performed exceptionally well on the technology front. But as fraud has risen, the limits of technology-only approaches are clear. Who bears responsibility when a user is scammed? If each institution focuses narrowly on its own liability, providers may invest more in shifting responsibility than in collectively stopping fraud.

A responsible approach requires all three elements of the framework. Technology should embed "safety by design": real-time risk scoring, confirmation of payee, and enhanced authentication for unusual patterns. Economic incentives must align so that those best positioned to prevent fraud have the strongest reason to do so—through liability sharing, better know-your-customer standards, and pricing that rewards secure behavior. Legal and regulatory frameworks must clarify responsibilities across participants and borders and create mechanisms for coordinated response. This includes protocols for regulatory agencies to work together on cross-border fraud.

Second, tokenized money. Distributed ledger technology promises programmability and efficiency. But we have seen how quickly confidence in privately issued "stable" tokens can evaporate when backing is weak or redemption rights unclear. The collapse of the Terra-Luna cryptocurrency ecosystem in 2022, which wiped out tens of billions of dollars in value in a matter of days, is a stark reminder of how fragile trust can be when the fundamentals of money are neglected. Responsible tokenization requires clear legal claims, robust redemption rights, and transparent backing. Economic incentives must discourage excessive risk taking and prevent issuers from privatizing gains while socializing losses. Regulation must be designed to address what happens when a token breaks par and confidence evaporates. Guardrails and accountability must be built in from the start, not added later.

And third, data-driven finance. Open banking initiatives—which allow financial data to be shared between banks and third-party service providers—hold great promise. Secure data sharing can expand consumer choice, increase competition, and improve access to credit for those who have been historically underserved. But telling consumers that their data belongs to them through long, complex consent forms is not enough if they lack the tools, understanding, and bargaining power to decide how that data is used.

Technology can make data flow, but it cannot by itself ensure efficient, inclusive, and sustainable outcomes. Economic incentives must encourage banks and fintechs to participate meaningfully in data sharing. Legal frameworks must provide simple enforceable rights and real consequences for misuse so that consent is meaningful rather than a box-checking exercise.

True success

Asia has shown that it can build and scale up a world-class digital payment infrastructure. The challenge now is to ensure that this progress is sustainable and that innovations—and the system—are trustworthy: inclusive, robust, and resilient. Because ultimately the true success of Asia's digital journey will be measured not by how many codes are scanned or how fast transactions are settled, but by whether in times of stress and failure people still have trust in their money and the system. F&D

"The very features that make systems powerful—speed, low cost, and finality—also make them attractive to scammers."

SETHAPUT SUTHIWARTNARUEPUT
is an economist and former governor of the Bank of Thailand.

ASEAN'S TIME

One of the world's most open regions trades surprisingly little with itself

SOUTHEAST ASIA is coming into its own. The 11 ASEAN economies now form a $4.5 trillion bloc, the world's fourth-largest economy, home to about 700 million people and growing at over 4.5 percent annually, among the fastest growth rates globally. As firms hedge their reliance on China, ASEAN has become the world's factory of choice. Carmakers, chipmakers, and electronics giants are all expanding there. Foreign investment reached $244 billion in 2025, climbing 10 percent, and manufacturing investment jumped by nearly 50 percent.

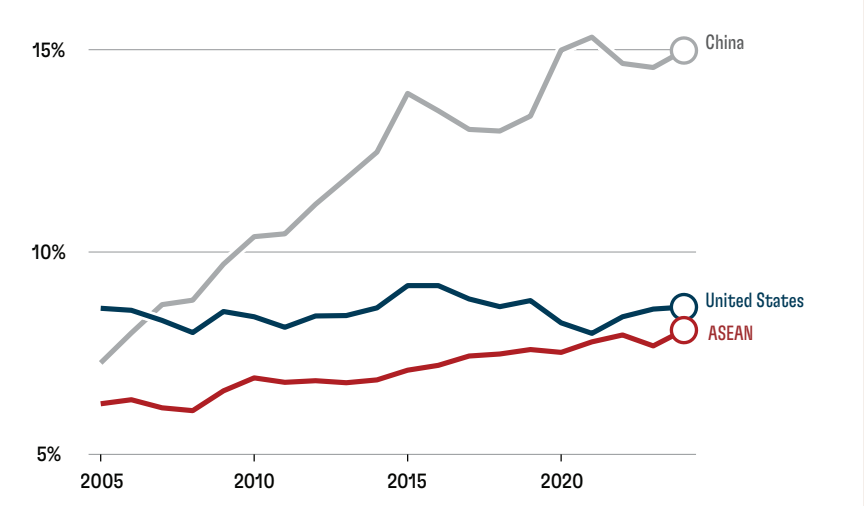
Yet the region trades very little with itself. Only about 22 percent of what ASEAN exports goes to its own members, against 61 percent for example within the European Union. The pattern is starkest among two of the most open economies: Singapore and Vietnam trade enormously with the world, yet relatively little with their neighbors. What does cross internal borders is mostly intermediate goods, the parts and components feeding factories that sell to the rest of the world. ASEAN has built a shared production line, but not a shared market. Its prosperity depends on outside demand, which leaves it exposed when that demand wobbles.

That untapped market is an opportunity. IMF estimates show that dismantling the region's nontariff barriers could raise ASEAN's output by 4.3 percent over the long run, equivalent to adding over a third of Malaysia's economy. As trade flows grow less certain, a deeper home market offers ASEAN another avenue for growth and resilience. As finance ministers gather in Bangkok, a key question is how the region can build it. F&D

ANDREW STANLEY *is on the staff of* Finance & Development.

Trading places

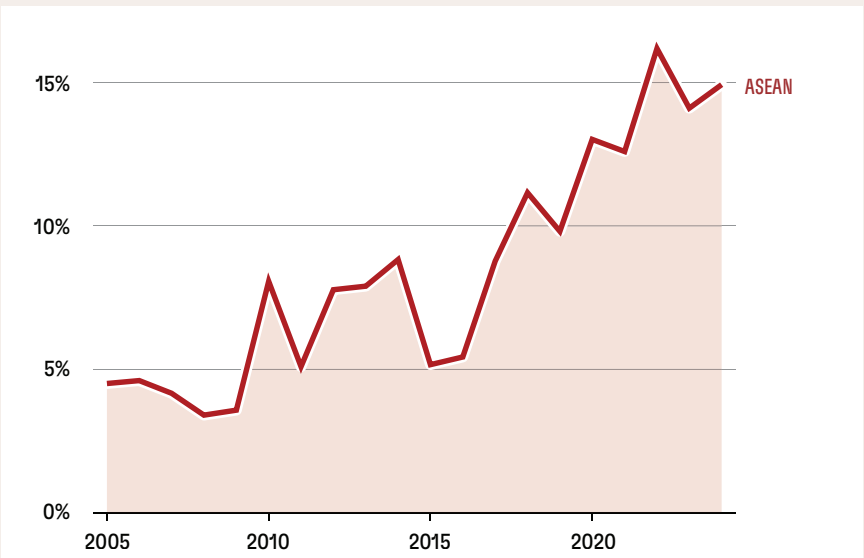
ASEAN's share of world goods exports has nearly caught up to the United States, even as China's share has more than doubled.



SOURCES: IMF, International Trade in Goods database; and author's calculations.

Investment magnet

ASEAN's share of global FDI inflows has tripled since 2005.



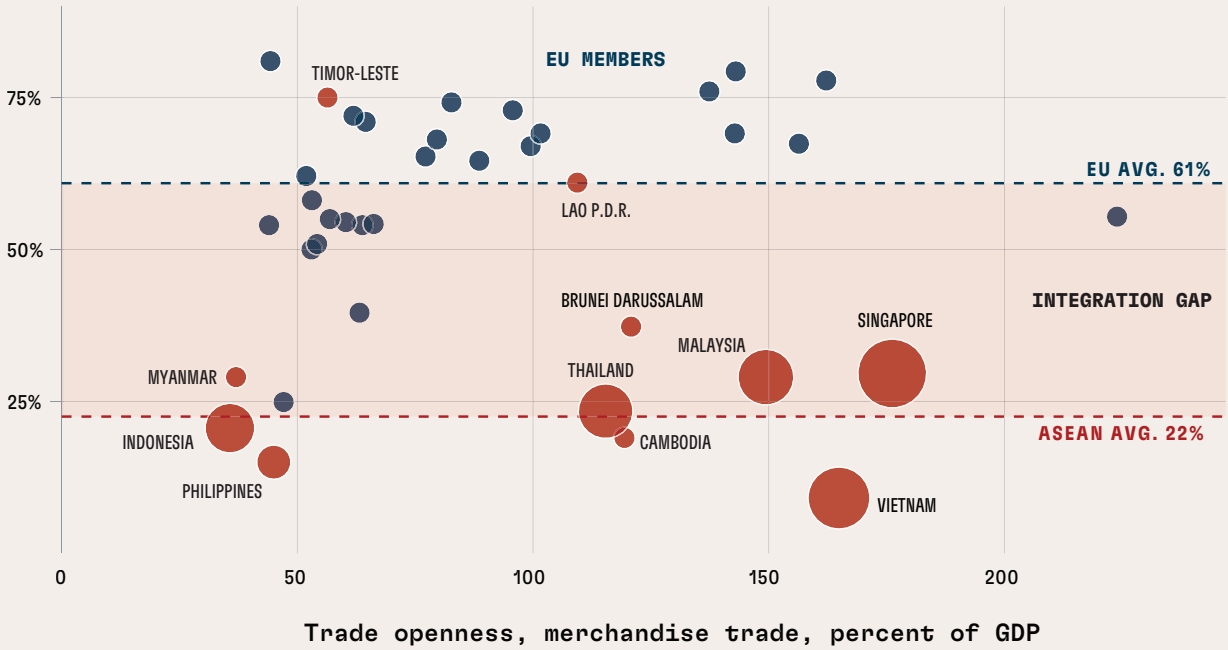
SOURCES: UNCTAD, Foreign Direct Investment database; and author's calculations.
NOTE: FDI = foreign direct investment.

Missing market

ASEAN spans the mainland and islands of Southeast Asia, along some of the world's busiest shipping lanes. But geography hasn't produced a shared market: Plotted against trade openness, ASEAN's economies cluster well below the European Union's on the share of exports that stay within the bloc, even though some rank among the most open economies worldwide.

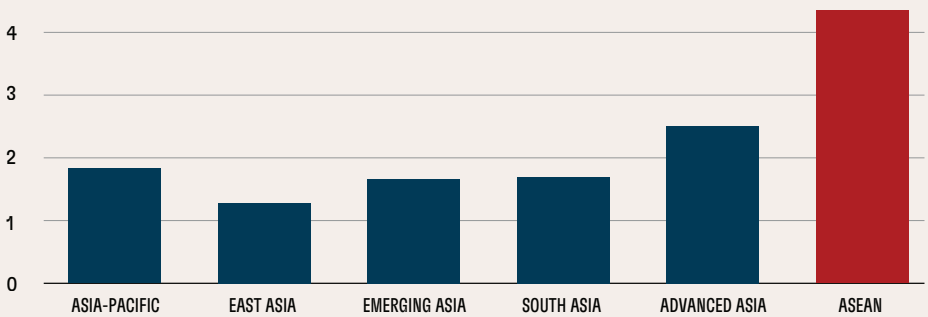
Within-bloc export share

ASEAN member bubbles sized by total goods trade



Home advantage

No region in Asia has more to gain from deeper integration.



4.3%

cumulative rise in real GDP for ASEAN over the long run from deeper regional integration

SOURCES: ASEANstats; Eurostat; UNCTAD; World Bank; and IMF staff calculations. **NOTE:** Within-bloc export share is exports to fellow members as a share of total exports, 2024; avg. is trade weighted. EU shown as 27 members, ASEAN as 11. Gains reflect long-run real GDP under lower regional nontariff barriers. The boundaries, colors, denominations, and any other information shown on the map do not imply, on the part of the IMF, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.

ASIA'S NEW GROWTH CHALLENGE

As societies age and trade fragments, policymakers must adapt to sustain growth and support rising living standards

Krishna Srinivasan

Illustration by Tang Yau Hoong

In the industrial zones on the outskirts of Ho Chi Minh City, a new generation of semiconductor assembly and electronics plants operates around the clock, supplying components essential to global tech giants—and lifting the economy up the value chain.

In Vietnam, like Korea a generation ago, economic stability and openness to trade and foreign investment are transforming its economy and dramatically lifting living standards. This is the kind of transition that powered Asia's economic miracle. And now that model is increasingly under strain as the conditions that sustained decades of success undergo rapid shifts.

Asia increasingly drives the global economy, accounting for nearly 40 percent of output and two-thirds of growth—up from a quarter in the 1990s (see Chart 1). This rise lifted hundreds of millions of people out of poverty and made it the world's factory. Today it's increasingly a hub for innovation, services, and finance.

Sustaining strong and inclusive growth is harder to achieve in an uncertain, aging, and fragmented world. Policymakers must balance competing priorities—efficiency and resilience, innovation and inclusion—while addressing short-term pressures without sacrificing long-term prosperity.

Momentum and headwinds

Sustaining this progress is getting harder as old growth models reach their limits. Productivity gains are slowing, because industrialization pays fewer dividends. The region also faces intense demographic pressures constraining labor supply and potential growth in several economies. This raises the question of whether Asia will grow old before getting rich.

At the same time, trade, long the key engine of growth, is faltering. Reliance on external demand has exposed export-oriented economies, such as China, Korea, and Southeast Asia, to trade shocks amid increasing fragmentation. And high levels of energy intensity and dependence on energy imports add another layer of vulnerability, exposing economies from Japan to Indonesia to energy shocks driven by distant conflicts and the climate transition.

Artificial intelligence and other rapid technological advances are already helping turbocharge growth. But they also risk disrupting jobs and widening divides between those best placed to benefit and others who may be left behind.

The future of Asia depends on how policymakers manage these transformations.

Productivity and investment

Productivity growth—the ultimate driver of sustained income gains—has slowed across much of Asia since the global financial crisis. While investment remains high, returns to capital have declined, reflecting rising misallocation and diminishing efficiency. Credit is abundant, but financial systems remain heavily bank-centric. This favors large incumbents, including state-owned enterprises, over younger, faster-growing, and more innovative firms. As a result, resources often remain trapped in less productive enterprises, dampening dynamism and innovation.

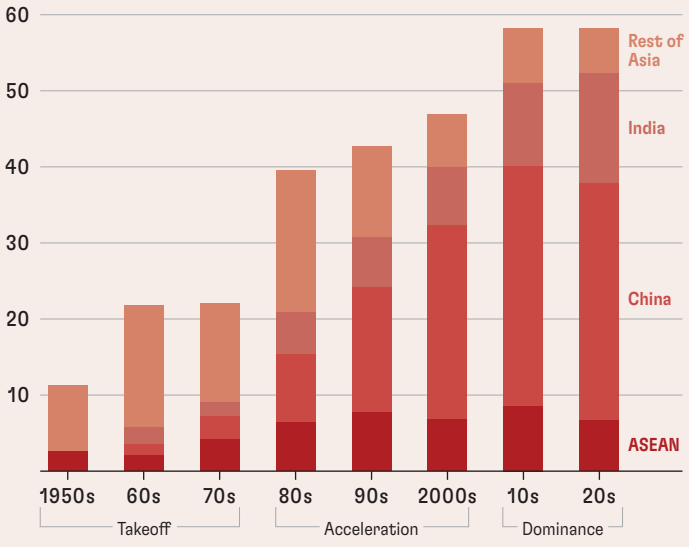
Sustaining growth will require shifting from *more* to *better* investment and strengthening financial systems so that capital flows to its most productive uses. Asia can pivot toward boosting productivity rather than capital accumulation by improving financial access, deepening capital markets, and expanding venture finance. Capital flows to more productive recipients when it's priced and allocated on market terms. This boosts innovation and supports a more efficient growth model.

CHART 1

Powering growth

Asia now accounts for about two-thirds of global growth.

(contribution to global real GDP growth, percent, PPP GDP weighted)



SOURCE: IMF, *World Economic Outlook*. **NOTE:** 2020s includes data for 2020–25 only. PPP = purchasing power parity.

Aging populations

Demographic change is perhaps the most powerful—and least avoidable—force shaping Asia's growth prospects. Since the 1960s, fertility rates across Asia are down sharply—from about 6 children per woman to about 1.6 today—while life expectancy has risen from roughly 50 years to the mid-70s. By 2050, one in five people in Asia will be 65 or older—double today's share—making aging a shared regional reality.

But the region is not aging uniformly (Chart 2). At one end are rapidly aging economies, such as Japan, Korea, and China, where shrinking workforces are already weighing on growth. In the middle are countries like India, Malaysia, and Vietnam, where demographic dividends are fading. And at the other end are younger economies, such as Nepal and the Philippines, where labor forces continue to expand. It's a window of opportunity that must be seized.

This divergence has important implications. For aging economies, boosting productivity and leveraging AI and other technologies will be critical to offset labor shortages. Younger economies need enough high-quality jobs to absorb growing labor forces and avoid a missed demographic dividend.

Without policy action, aging will slow labor force growth while raising fiscal pressures through pensions and health care spending. Targeted policies can help mitigate these effects by raising labor participation among women and older people, investing in skills, and facilitating mobility. Migration, both within and across borders, can also help if well managed.

Trade fragmentation

Trade integration fueled Asia's growth, embedding the region deeply into global value chains. Asia now accounts for roughly a third of global trade, with increasing intraregional linkages. But the global trade environment is changing.

Geoeconomic fragmentation is reshaping trade patterns, supply chains, and investment flows while raising uncertainty in manufacturing employment and economic growth. Governments are responding with more active industrial policies, but our analysis points to significant challenges in achieving durable competitiveness and resilience through these interventions without distorting incentives or further fragmenting markets.

As global integration becomes increasingly difficult, intraregional ties offer a vital opportunity to harness untapped potential. Less than 30 percent of final goods exports is traded within the region, half the share in Europe and North America.

The Association of Southeast Asian Nations, a group of 11 countries that would rank as the world's fourth-largest economy, is a case in point. The bloc is highly open to global trade, with volumes exceeding its economic output. Yet trade within ASEAN accounts for less than a quarter of total trade—far below other regional blocs.

This disconnect reflects structural constraints, including limited logistics infrastructure, uneven human capital development, and nontariff barriers. The question, then, is how to close this gap and better tap the region's potential.

More comprehensive, enforceable regional agreements—covering services, digital trade, competition policy, and standards—can lower trade costs and improve access, thereby boosting productivity. Evidence suggests that deeper integration could raise regional real GDP by about 1.8 percent in the long run—equivalent to adding an economy larger than Thailand's today. Gains would be even larger if reforms were coordinated across countries (Chart 3).

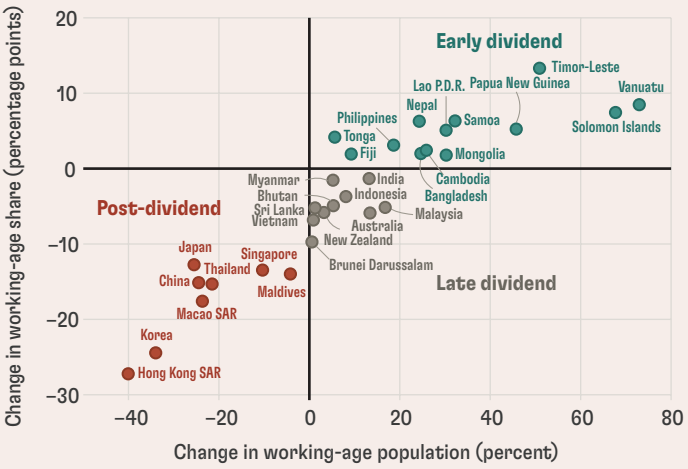
Unlocking the full potential of these reforms calls for fiscal space to manage transition costs, offset revenue losses from tariff reductions, and support needed investment in complementing reforms. Tax revenue in much of Asia, notably in many ASEAN economies, is low relative to peers. Raising more domestic revenue will be critical to

CHART 2

Demographic shift

Asia's economies are at different demographic stages and face different trade-offs.

(Asia and the Pacific, 2025–50)



SOURCES: UN, *World Population Prospects 2024*; and IMF staff calculations.
NOTE: Working-age = 15–64; dividend stages reflect the path of the working-age population and its share of the total.

finance the investments needed for deeper regional integration and sustained growth.

Looking ahead, services will define the next phase of integration and structural transformation. In many economies, manufacturing has already peaked as a share of output, while services—particularly finance, information technology, and business process outsourcing—increasingly drive growth.

In India, for example, modern services account for about a quarter of exports, driven by software engineers in Bengaluru who design and manage digital systems worldwide. In the Philippines, millions work in business process outsourcing that provides customer service, tech support, and data analytics.

The expansion of services is further underpinned by rising incomes and shifting demographics. In this context, rebalancing toward domestic demand should be part of the broader shift toward balanced growth, supporting resilience in an increasingly fragmented global economy with mounting challenges for export-led growth.

Technology and growth

As traditional growth drivers weaken, new technologies—especially AI and digitalization—can be a powerful way to reinvigorate growth. Asia already leads in digital adoption, with about 90 percent of the population online. And it accounts for more than two-thirds of global innovation in digital technologies.

"As global integration becomes increasingly difficult, intraregional ties offer a vital opportunity to harness untapped potential."

AI has particular potential to transform production of goods and services. By enabling sophisticated automation and augmenting human capabilities, it can boost productivity even in aging societies with shrinking workforces. Better prepared economies, like Japan and Korea, are already using AI in manufacturing, robotics, and services, while others are rapidly expanding digital infrastructure and skills.

Yet the benefits of AI are unlikely to be evenly distributed. Early adopters—typically economies with higher-skilled workers, greater capital intensity, and better institutional capacity—stand to gain the most. In Asian countries with such strong fundamentals, AI could raise growth by up to 1 percentage point per year relative to a no-AI baseline, our model-based analysis suggests. This is particularly important for aging advanced economies such as Japan and Korea, where AI can offset the drag from shrinking workforces. Later adoption in lower-income countries could widen regional disparities, especially if global investment demand raises financing costs.

Within countries, AI may intensify wage and opportunity gaps, benefiting high-skilled workers in complementary roles with wage gains through higher productivity. Others may be displaced.

Policymakers will shape outcomes. Investment in education, digital infrastructure, and innovation can accelerate adoption. Labor policies, such as retraining and support for worker mobility, can ease the transition. And redistributive policies can help ensure that AI's gains are widely shared and support workers who lose jobs.

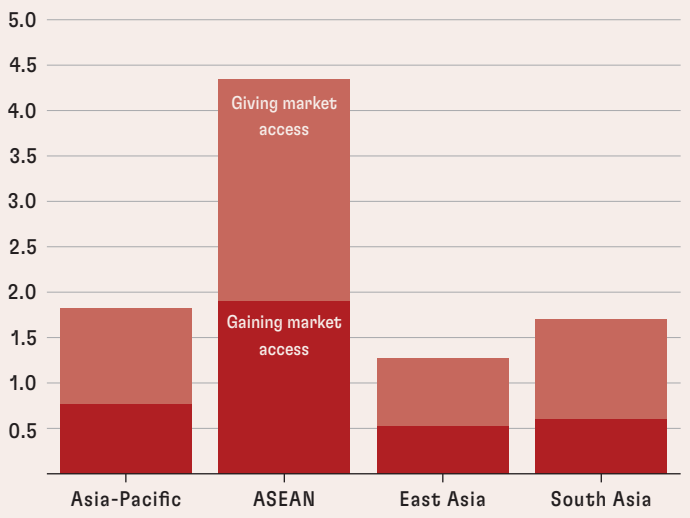
Digitalization complements this transformation by increasing the efficiency of financial transactions. India is a good example: Its digital payments move trillions of dollars each year, transforming transactions society-wide. Digitalizing tax and payment systems can raise government revenues while improving the efficiency and transparency

CHART 3

Growth gains

Southeast Asia stands to gain the most from deeper regional integration.

(real GDP gains from deepening regional integration, percent)



SOURCE: IMF staff calculations.

of public spending. Yet significant digital divides remain, particularly across lower-income countries and within nations.

This requires a comprehensive policy framework. Governments need to invest in digital infrastructure, build digital platforms such as identity and payment systems, strengthen regulation to ensure trust, and expand digital literacy.

Defining fault line

Meanwhile, energy security is no longer a long-term concern—it is a near-term macroeconomic challenge, nowhere more so than in Southeast Asia.

Continued reliance on imported fossil fuels is colliding with rapidly rising energy demand, driven by Vietnam's industrial expansion, Singapore's data centers, and Indonesia's urbanization. Recent price shocks have clearly exposed vulnerabilities.

At the same time, countries are beginning to pivot. Vietnam is scaling up renewables to support manufacturing, Indonesia is exploring a shift away from coal, the Philippines is diversifying to depend less on imported energy, and Thailand has made the energy transition a policy priority. Falling renewables costs and advances in storage are easing this transition even as digitalization and AI sharply raise electricity demand.

The challenge is to move fast without compromising affordability or reliability. Done right, the payoff is large: greater energy security, less exposure to external shocks, and a new engine of resilient growth for the region.

Sustaining Asia's growth

Asia's extraordinary achievements lay a powerful foundation for success, though that's not guaranteed. The region now faces a defining decade.

A shrinking population is expected to subtract about 0.3 percentage point from growth annually by 2050, while productivity gains from AI and related technologies could add 0.2 to 1 percentage point. Together, these forces suggest that growth in Asia could remain close to or even exceed recent historical averages if productivity gains are fully realized. Additional gains from trade integration could lift growth further by about 0.1 to 0.3 percentage point.

This underscores the need to sustain growth through the right policies to ensure a continued shift toward productivity, inclusion, and sustainability. This requires strengthening skills, institutions, and how technology is used.

Some countries are leading the way. Efforts to digitalize economies—from India's digital public infrastructure to ASEAN's expanding fintech—are improving efficiency, inclusion, and tax revenues. AI adoption is reshaping production, spanning advanced manufacturing in Korea and Japan to services and logistics across emerging Asia.

From Korea then to Vietnam now, Asia has driven the world's growth. If it falters, the global economy will feel the costs. And if it thrives, the world will benefit. F&D

KRISHNA SRINIVASAN *is director of the IMF's Asia and Pacific Department.*

A COOPERATIVE ADVANTAGE

Danny Quah

Southeast Asia, a major beneficiary of the rules-based system, has a strong incentive to repair it

Asia's economic progress since the end of the Cold War has been nothing short of breathtaking. In little more than a generation, per capita GDP has increased more than fivefold, and total GDP has expanded eightfold. Extreme poverty, measured as the fraction of the population living on less than one international dollar a day, has fallen from more than half to one-sixteenth. Life expectancy at birth rose a full decade. Adult literacy increased by 20 percentage points.

Such accomplishments have extended across diverse economies and populations, from giants like China and India to city-states like Singapore. The common denominator has been gainful engagement with a postwar rules-based multilateral world order that increased trade and openness and integrated the global economy.

Asia as a whole has prospered, but Southeast Asia—11 countries with a combined population of more than 700 million—has benefited the most. Without the rules-based order, the region's relatively small and isolated economies might have suffered the consequences of having larger, more powerful neighbors. Now, as rules-based multilateralism gives way to geoeconomics and strategic interdependence, Southeast Asia will be hit hard. But that also means the region is strongly motivated to find ways to deal with the fracturing global economy.

A return to the old rules-based multilateral order is unlikely. Southeast Asian states don't have the economic or strategic heft to force change unilaterally, and larger, more powerful stakeholders no longer see the benefit of an order that, paradoxically, they themselves built. An alternative approach—more likely to succeed—is a system that is "multilateral enough." What does this mean, and how might such a system work for Southeast Asia?

Southeast Asia's success

To answer that question, we must first look at how the rules-based multilateral order and its accompanying globalization fueled the region's success. Three pivotal features of the system were a level playing field, peaceful dispute resolution, and coop-

eration in the face of shared challenges. These features allowed Southeast Asian nations to overcome their inherent disadvantages: small domestic markets, capable but not obviously superior militaries, and lack of advanced technology.

A level playing field flattens the distribution of geopolitical power: When everyone is treated equally, scarce resources need not be wasted on inefficient and costly displays of power. Peaceful dispute resolution lifts substantive issues above zero-sum exercises of might and aggression. Collaboration to address shared challenges makes the system more efficient and avoids duplication as each state contributes what it does best.

In different circumstances, Southeast Asia could easily have been left geopolitically vulnerable, isolated from technological advances and unable to benefit from economies of scale. But world markets were receptive to export-oriented and manufacturing-focused small economies whose established supply capacity and transportation infrastructure were able to expand rapidly. "Factory Asia" emerged from Southeast Asia, together with Japan and Korea, and—beginning in the late 1990s—China.

International accords were critical to this process. In 1996, the Information Technology Agreement, mediated by the World Trade Organization (WTO), eliminated tariffs on IT components and products. This allowed Indonesia, Malaysia, the Philippines, Singapore, and Thailand to emerge as the world's manufacturing and assembly hub for mass-produced semiconductors, hard drives, and consumer electronics. Starting in 2005, after a 10-year phaseout of advanced-economy protectionist import quotas on textiles and apparel, Cambodia, Vietnam, and Indonesia attracted considerable foreign direct investment for those industries.

By embracing open regionalism—the idea that regional trade deals can be building blocks for global integration rather than barriers to it—Southeast Asia acknowledged the advantages of deep engagement with the international system. Today, trade within the Association of Southeast Asian Nations, which

Illustration by Tùng Nâm

forms an integrated economic community, amounts to 25 percent of GDP, while trade with the rest of the world fluctuates between 80 and 90 percent. By contrast, trade among European Union members exceeds 60 percent of the bloc's GDP, more than its external trade of 40 percent.

These achievements are now at risk as the international system shifts toward strategic interdependence and geoeconomics, with economic tools serving geopolitical goals. Three cascading shocks have driven the change.

The China shock

China's 2001 entry into the WTO exposed the US market to a surge of inexpensive manufactured imports. In the decades that followed, prices of goods imported from China remained low even as quality rose. American consumers and downstream businesses benefited, but firms exposed to import competition struggled. Factory closures and job losses, with no clear route for resource reallocation, devastated middle-class communities. And the effects of the China shock have now spread beyond the United States.

It is important to note that the China shock is consistent with the principle of comparative advantage: The China shock speaks to the distribution of gains within an importing nation. Comparative advantage describes how trade delivers net aggregate gains to all trading nations but is silent on the distribution of gains and losses within those economies.

This characterization of the China shock, moreover, is agnostic about trade balances. Even regions or countries running a bilateral surplus with China can experience the China shock. What matters is the variation in relative prices brought about by trade, not whether the trade balance is in surplus or deficit. Every change in relative prices as a result of trade harms some production factor somewhere in the importing economy. The resulting economic pain spawns policies that lash out not just against China but the broader international economic system.

Of course, industrial policy is also at play. Other East Asian economies, notably South Korea, Japan, and Singapore, have used industrial policy to avoid being locked into low-quality manufacturing. But China's practice of state-guided industry reallocation is so large, and has grown so fast, that it contributes to significant global imbalances and fuels concern about anticompetitive behavior.

For a country experiencing it, the China shock is a supply shock. At any given price, imports from China increase in quantity and quality; that is, the supply curve shifts out. Instead of trying to counter the shock with tariffs, import quotas, or geostrategic actions, the importing country would do better to redistribute some of the gains of the sectors that benefit from trade to the workers and communities hurt by it.

"The disruption of rules-based multilateralism poses a profound threat to Southeast Asia's continued development."

The US shock

The US shock, unlike the China shock, is a demand shock. It refers to the raft of tariffs, sanctions, export restrictions, and investment controls directed not at a single adversary but at all other economies. One example is Vietnam, which had been sending a third of its goods exports to the US and was initially hit with a 46 percent tariff (later changed to a baseline of 20 percent, with 40 percent for some products). Even Singapore and South Korea, which had free trade agreements with the US, suffered tariff actions.

The US shock goes beyond the actions of a single administration. Indeed, most recently, US trade policy has shifted toward fundamental skepticism about trade itself and is no longer using trade restrictions simply as temporary tools to advance wider objectives, such as national development or alliance management.

The US has other grievances. It has accused China of following the letter of WTO rules while violating their spirit. For instance, in 2012–14 China initially justified its rare earth export restrictions on environmental grounds, but it eventually accepted the WTO ruling that the restrictions reserved resources for China's downstream industries, putting foreign competitors at a disadvantage.

The more serious charge is that China has used its status as a developing economy to exploit gaps and ambiguities in WTO regulations. Thus, concerns about its export prowess have fueled suspicion that China, instead of viewing the rules-based system as an incentive-compatible mechanism, practices what might be called rules-compatible mercantilism.

The multilateralism shock

The multilateralism shock is a system-wide shock. As the US began to repudiate the multilateral order, other advanced economies saw a playing field that was no longer level and began to wield industrial policies to recover their positions. As a geoeconomic mindset settled into national policymaking, gainful economic interdependence turned into

threat-laden strategic leverage, and trade morphed from competition over productivity into disputes over chokepoints and the balance of payments.

Rules-based multilateralism came to be seen by many as a costly global public good whose benefits accrue more to others than to their own countries. The US and other developed economies, which initially benefited disproportionately, began to see the cost-benefit ratio deteriorate (Gaspar, Hagan, and Obstfeld 2018). With costs increasingly outweighing benefits, a significant share of countries began to retreat from full support for the system.

As each country seeks to gain an edge over its rivals, the collective effect is a breakdown of the multilateral order, which hurts everyone. Even though more than 70 percent of cross-border trade still follows WTO rules, disruptions to trade by individual nations have risen more than threefold since 2019, IMF Managing Director Kristalina Georgieva notes in a 2023 article in the June issue of *Finance & Development*. Thus the multilateralism shock looks alarmingly like a classic prisoner's dilemma or, as Shiro Armstrong and I call it in a 2026 paper, an "epic fail" outcome.

Multilateral enough

The disruption of rules-based multilateralism poses a profound threat to Southeast Asia's continued development. Research by international relations scholars (for example, Khong and Liow 2025) shows how geopolitical disruption has unsettled trade, diplomatic, and power relations across ASEAN's member states, which prompts the question: How can the core functions of the old order be rebuilt by non-hegemonic, if strongly incentivized, states? The answer lies in what the IMF and others call "pragmatic multilateralism": like-minded states forming a coalition to pursue a particular goal, even in the absence of universal consensus.

To succeed, any such coalition must be built around the same three principles we identified earlier as the bedrock of the old system: a level playing field, peaceful dispute resolution, and cooperation in the face of shared challenges. A coalition that meets these conditions is *multilateral enough*; the larger environment can remain loosely organized.

In other words, the collection of all nations is a flexible topology. Groups can come together to seek treaties and explicit agreements, but no one is forced to do so. A coalition of states with aligned incentives, which leads to unintentional cooperation, is better than a coalition holding on in vain to a binding contract. But either pathway works, as long as the coalition that emerges considers itself multilateral enough.

ASEAN is one such coalition. Not a full multilateral system, it is focused on specific challenges of concern to its members. But it has also been open to new members (it recently accepted Timor-Leste as its newest member). Two other multilateral-enough coalitions are the Regional Comprehensive Economic Partnership, which includes ASEAN plus China, Japan, and South Korea, and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, a more eclectic group that recently added the UK.

Flexible, multilateral-enough coalitions can extend beyond a region or a geographic area. An example is the WTO's Multi-Party Interim Appeal Arbitration Agreement. Set up in 2020 to settle trade disputes after the WTO Appellate Body ceased to function, it began with 16 signatories and has grown to more than twice that number across six continents.

Core principles

These examples illustrate how, even with the loss of global consensus, Southeast Asia can continue to deploy—and apply in new ways—the principles of a multilateral-enough, flexible topology to advance the best of cooperation and multilateralism. International institutions such as the IMF can play a critical, independent role by keeping new flexible topologies open and inclusive. The world need not ossify into competing spheres of influence; it can be flexibly multilateral.

In the past half-century, Southeast Asia has reaped significant gains from the rules-based multilateral world order: faster growth, more jobs, improved well-being. In return, Factory Asia has provided affordable mass-produced electronics and textiles to the rest of the world.

But today, the world order is shifting toward geoeconomics and strategic interdependence. The China, US, and multilateralism shocks are planet-scale trends not likely to be undone by a single US election or by other personality-based changes in international leadership and policymaking. The core principles of the multilateral system can nevertheless survive in a flexible topology that relies on aligned incentives rather than rigid rules. F&D

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THRIVING IN A FRAGMENTED WORLD

Ben Bland

Southeast Asia must adapt to geopolitical shocks by strengthening ASEAN, balancing openness, and building new partnerships

Southeast Asia's economies thrived during the two decades of peace, stability, and global integration that followed the end of the Cold War and the Asian financial crisis. The region's GDP has grown nearly ninefold since 1998, to $4.5 trillion, faster than that of most other emerging and developed markets. At the same time, the 11 countries of Southeast Asia, home to nearly 700 million people and together the world's fourth-largest economy, built their regional organization, the Association of Southeast Asian Nations, into the most cohesive and effective in the world next to the European Union.

ASEAN has intensified regional integration, given a shared identity to a diverse group of countries, and boosted the bloc's status as the anchor for much of Asia's diplomatic, security, and economic architecture. This success was underlined by the accession of Timor-Leste last year, 23 years after its independence following a protracted, deadly conflict with Indonesia.

But times are getting tougher. The war in the Persian Gulf, a key source of energy and fertilizer imports, exposed Southeast Asia's vulnerability to external shocks. Rather than a one-off, the conflict is a harbinger of the shift to a more contested, fragmented world, where protectionism is on the rise, the multilateral system is strained, and established rules and norms are breaking down.

Political leaders are mistaken if they believe they can wait out the current instability until there is a snapback to the old world. We are now moving onto a new path. But regional blocs such as Southeast Asia can, and should, take on the strain. After all, smaller groups of countries that share geography, economic linkages, and culture will find it easier to coordinate and cooperate.

ASEAN's opportunity

The mounting threats present an opportunity for ASEAN. In their formal response to the Middle East crisis in May, regional leaders committed to seizing the moment and becoming more "resilient, responsive, and forward looking." But, for an organization often dubbed a "talking shop," with more meetings than days of the year, what will turn these

Illustration by Jun Cen

ambitions into action? To capitalize on the opportunities of the current global transition, Southeast Asian nations must do at least four things.

First, they must balance protectionism and openness. Despite the region's stated ambition to pursue economic integration—and external pressures for liberalization—economic nationalism has been an enduring force in Southeast Asia, especially in resource-rich nations with large domestic markets, such as Indonesia and the Philippines. Formal trade integration measures have been undermined by nontariff barriers, weak governance, and limited complementarity. Intra-ASEAN trade has been only about 20 percent of the bloc's total trading value over the past two decades, and intra-regional direct investment has also failed to accelerate in line with ASEAN ambitions.

Economists and development partners often view this as a technocratic failure to adopt efficient free-market policies. But the drivers of protectionism are more often structural—from a sense of historical grievance about resource exploitation by imperial powers to the dominance of the region's tycoons and family businesses.

In a world in which the US and Europe are pivoting to their own industrial policies and protectionist measures, and China has pioneered a successful state-led economic model, it is not realistic to expect Southeast Asian nations to abandon their economic nationalism.

However, as global capital seeks stability amid the global storm, Southeast Asia must find a more lasting balance between its protectionist instincts and the need for openness. Southeast Asian governments, particularly in Indonesia and the Philippines, must craft clearer industrial policies that embrace their national ambitions. These policies must also offer investors the long-term certainty they expect if they are to finance the greenfield projects needed for growth, job creation, and technological upgrading. Countries will then have to work through ASEAN and their own relationships to harmonize and synergize their industrial policies.

This won't be easy—consider the EU's struggles over its "Made in Europe" push. But moving in the direction of a shared ASEAN industrial approach will be more effective than preaching integration and openness while simultaneously putting up barriers.

Powerful technologies

Second, they must cooperate more closely on the adoption and regulation of new technologies such as AI. Southeast Asia knows the power of leapfrogging ahead with new technology. Rapid smartphone adoption facilitated the dramatic growth of the digital economy across the region—it grew more than 11 times over in the previous decade to reach revenues of $135 billion in 2025, according to a report by Google, Temasek, and Bain & Company. The e-commerce, logistics, and financial services sectors are forecast to continue expanding at a steady clip, on the strength of digitalization. But even as it banks these gains, Southeast Asia must move quickly to experiment with and adopt frontier technology, such as artificial intelligence. There are already more than 700 AI start-ups in the region, according to the same report, and venture capitalists from the region and elsewhere are looking for new investment opportunities.

But, with China and the US surging ahead of everyone else when it comes to AI, this race will unfold at breakneck speed, demanding levels of financing and energy that most cannot match. The challenge for Southeast Asia will be to scale up AI development through regional cooperation and to take advantage of technology built by others.

AI is moving fast and its potential is much hyped, but no one knows exactly how it will alter the shape of the global economy and how many jobs it will eat. And so, like other middle and smaller powers, Southeast Asian nations must become smart, fast, and flexible in deploying new technology and must regulate it with their significant market power. They should learn from India's broadly successful deployment of digital public infrastructure.

Collective action problem

Third, Southeast Asia must build a nimbler ASEAN. Every multilateral institution faces a collective action problem: The self-interest of individual members stands in the way of shared progress. ASEAN has chosen to tackle this problem through consensus building and cooperation rather than overt confrontation within the bloc.

This approach was necessary to bind together such a disparate group of countries—from tiny Brunei Darussalam to giant Indonesia, wealthy Singapore to struggling Lao P.D.R. and Myanmar—incorporating many different ethnic groups, religions, and political systems. And this approach was sufficient in an era of growing globalization and predictable geopolitics. But it won't work in the fracturing world ahead.

If ASEAN continues to move at the pace of its slowest-moving members, the whole region risks being held back and left unable to rise to the challenges of these times. In the words of Thitinan Pongsudhirak, a Thai political scientist, "reform may be uncomfortable, but irrelevance is worse."

Member states do not want to pool sovereignty, as in the EU. But they do need to increase funding for the ASEAN Secretariat in Jakarta and give it the power

"Political leaders are mistaken if they believe they can wait out the current instability until there is a snapback to the old world. We are now moving onto a new path."

to coordinate the organization, rather than relying on leadership by the chairing nation, which changes every year. They should also deepen informal channels of communication between members to ensure that differences can be aired and triaged in confidence—not ignored and left to fester. A multispeed ASEAN is needed, one that maintains unity while accounting for the vast gap in development and size across Southeast Asia. ASEAN is already considering a differentiated rollout of its Digital Economy Framework Agreement, which could augur a more flexible and realistic approach to integration.

Geopolitical front line

And fourth, the countries of Southeast Asia must expand economic, diplomatic, and security partnerships with other middle powers in Asia and Europe. By dint of geography and history, the region finds itself on the front line of the geopolitical contest between China and the US. The current US administration may prefer a more stable relationship with Beijing, but this rivalry is likely to shape the options for the world in general, and Southeast Asia in particular, in coming decades.

Southeast Asian nations often object to being forced to choose between Washington and Beijing. But neither the US nor China is asking them to join a bloc against the other. What the superpowers are doing is leaning on Southeast Asian nations to align on specific issues, from the infrastructure they build to the technology platforms they use and their partners in defense procurement and exercises. So Southeast Asian governments face many choices, with incentives and retaliation on the table.

Other middle powers in Asia and Europe are in a similar position, fearing a "G2" world, even though they are all in different spots along the spectrum of their relationship with China and the US.

Middle-power coalitions

Backed by the scale of their shared regional endeavor, Southeast Asian nations should capitalize on this desire to build new middle-power coalitions. Australia, Japan, and South Korea are already expanding their cooperation with Southeast Asia. European governments and the EU have also tried to step up their regional engagement, albeit from a lower base. With resources strained across all these nations, cooperation is moving from nice-to-have to must-have.

From supporting the global trading system and boosting supply-chain resilience to energy security and tackling climate change, there are many shared interests between ASEAN members and middle powers in Europe and Asia. An entrepreneurial and experimental mindset can test out which partnerships are worth investing in and which risk becoming distractions. The intensifying but still nascent talks between the EU and the members of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, a trade agreement including four ASEAN members and with three more hoping to join, are an example of this new spirit of middle-power collective action.

Ambitious agenda

This is an ambitious and tough-to-achieve agenda for Southeast Asia, and the risks of inaction are substantial. But the opportunity is huge, if Southeast Asia can focus and reenergize its regional organization, pursue more careful long-term industrial policy, thoughtfully embrace new technologies, and accelerate its partnerships with other middle powers in Asia and Europe. ASEAN can also set an example for other groups, such as the African Union, the Pacific Islands Forum, and the South Asian Association for Regional Cooperation.

As the global order shakes, regions like Southeast Asia must step up to shape their own destiny. F&D

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ASIA'S PRAGMATIC CURRENCY PIVOT

Dong He

Diversification and digitalization are reshaping finance's future

Strictly speaking, it is far from a divorce, or even a serious breakup. But Asia's leading economies are edging away from their eight-decade relationship with the US dollar for international trade.

Two forces are driving this evolution of the international monetary system. Amid rising geopolitical and geoeconomic fragmentation, policymakers are weighing economic efficiency against national security and strategic resilience. And digital innovation is lowering the cost of conducting transactions directly across currencies and financial networks.

Although the dollar still dominates trade in Asia, the region's currency diversification promises to help shape the future of the world economy. The ASEAN+3 countries consist of 10 members of the Association of Southeast Asian Nations—Brunei Darussalam, Cambodia, Indonesia, Lao P.D.R., Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam—plus China, Japan, and Korea. Together, they encompass more than a quarter of the world's population and generate a quarter of global economic output.

Since World War II, the dollar has been Asia's dominant international currency. It still accounts for more than 80 percent of trade invoicing and nearly 85 percent of foreign exchange settlement in the ASEAN+3 bloc. More than half of regional banks' cross-border assets and liabilities are denominated in dollars, as are roughly two-thirds of official reserves.

Asia's unfolding currency pivot is not an ideological campaign against the dollar. Policymakers are simply pursuing a pragmatic strategy of diversification. Their objective is to create alternative pathways of clearing and settlement for trade and finance that can operate alongside existing global systems. In doing so, they are building resilience.

What will emerge is a more layered financial architecture. The dollar is likely to remain the region's dominant reserve asset and the ultimate liquidity backstop for financial markets. At the same time, local currency settlement arrangements and digital payment platforms will assume a larger role in trade and supply-chain integration.

The dollar's advantage

The dollar's historically dominant position in Asia is no accident. It is rooted in the postwar global order and reflects not only the weight of the US as the world's largest economy but also the credibility of its institutions over time.

Illustration by Jasu Hu

For central banks across the region, holding dollar reserves has ultimately been an expression of confidence in the Federal Reserve, the rule of law, and the transparency and predictability of the US monetary framework.

Yet this cannot be taken for granted. The dollar's central role depends on continued confidence in the US as an open economy and in America's ability to provide stable and predictable policy frameworks. To retain the dollar's central role, the US must continue to offer the world's largest and most dynamic economy, the deepest financial markets, and an independent central bank.

Recent strains in US institutions are testing that foundation. Market reactions over the past year—to events ranging from the tariffs imposed by the US administration to conflict in the Middle East—underscored a simple reality. When uncertainty originates elsewhere, investors seek safety in dollar-denominated assets. But when questions arise about the stability or predictability of US policies and institutions, concerns inevitably emerge about the dollar's reliability as the anchor of the international monetary system.

Asia's regional turn

Over the past two decades, Asia's economic structure has changed dramatically. The region is no longer just the world's factory, producing largely for Western consumption. Two decades ago, nearly a third of value-added exports from the ASEAN+3 group were destined for the US. Today, that share is down to a fifth. Meanwhile, China and ASEAN are each now absorbing a tenth of the region's production, up markedly from about 6 percent each two decades ago. Production networks across "Factory Asia" are now denser, more interconnected, and more firmly rooted within the region.

This structural transformation also changed the way economic shocks propagate. Analytical modeling by AMRO—the ASEAN+3 cooperation framework's macroeconomic research office—suggests that shifts in regional domestic demand now affect neighboring economies more strongly than demand shocks originating in the US.

Asia has traditionally been highly sensitive to global financial cycles driven by American monetary policy. When the Fed tightened policy, financial conditions across the region tightened as well. Capital flowed out, local currencies came under pressure, and domestic borrowing costs rose.

As the region's business cycles and production networks become more regionally anchored, monetary policy in Asia will respond more directly to domestic and regional conditions. While global factors remain important, there are early signs that financial conditions in ASEAN+3 economies are increasingly domestically driven.

To consolidate this growing financial autonomy, the region needs to expand the use of regional currencies in trade. Invoicing and settling intra-regional trade in those currencies will help loosen the link between domestic credit conditions and US monetary policy. Greater use of local currencies will gradually reduce structural currency mismatches and allow central banks to calibrate monetary policy more closely to domestic conditions rather than reacting defensively to dollar shocks.

As Asia aligns its financial architecture more closely with changing economic structures, the region will be better positioned to safeguard macroeconomic stability and strengthen its resilience to external shocks, such as the debt-driven 1997 Asian financial crisis. In that case, the IMF stepped in with a $40 billion program to stabilize the region's collapsing currencies.

DATA

80%

The dollar accounts for more than 80 percent of trade invoicing in Southeast Asia.

Rewiring international payments

In the aftermath of that crisis, some policymakers and academics advocated a European-style monetary union. Asia did not pursue that idea. The region is simply too diverse. Political systems, economic structures, income levels, and financial market development vary widely across the region, making a common currency impractical.

Instead, regional cooperation evolved in a more pragmatic direction, focusing on financial integration and stronger safety nets. Modernizing cross-border payment infrastructure became a central pillar of this strategy.

In the past decade, Asian central banks have pioneered local currency settlement frameworks. These are bilateral arrangements between two countries that use local currencies for cross-border settlement via financial institutions authorized by central banks. Although still modest in scale, such arrangements now operate between many ASEAN+3 economies.

At the same time, the region has become a leader in retail cross-border payment linkages. Central banks have integrated interoperable, QR code–based fast payment systems, enabling consumers, tourists, and businesses to transfer funds across borders quickly and cheaply using their domestic currencies. One prominent example is the linkage between Singapore's PayNow and Thailand's PromptPay. Such efforts are also expanding through various multilateral initiatives, including Project Nexus.

These developments reflect a broader structural shift. As production networks become increasingly regional and supply chains deepen across Factory Asia, there is a growing economic rationale for

regional currencies to take on a larger role in trade invoicing and settlement. As Asia's economic geography becomes more regional, its payment infrastructure is gradually adapting to support that reality.

China's renminbi is at the forefront of this shift, reflecting the country's critical role in regional trade and investment. Investments by China in cross-border financial infrastructure have supported the renminbi's growing international use. These include the expansion of the Chinese central bank's Cross-Border Interbank Payment System and the rollout of the digital yuan. China has also increased foreign access to its government bond market, providing a deeper pool of sovereign assets for use in diversifying regional central banks' reserve portfolios.

Digital finance's promise

The next frontier calls for the extension of gains in retail payment systems to the wholesale financial system, supporting large-scale trade and investment.

Several initiatives are underway. Project mBridge connects the central banks of China, Hong Kong SAR, Thailand, and the United Arab Emirates through a shared distributed ledger platform for wholesale transactions with central bank digital currencies. Project Guardian, coordinated by the Monetary Authority of Singapore, is exploring the potential of tokenized assets and open digital infrastructure.

These projects take advantage of progress in digital technology such as tokenization. This process converts diverse assets—such as gold, dollars, and stocks—into digital "tokens" that computers can recognize and transfer. It amounts to labeling everything using a common language.

Under the traditional model, transactions between two currencies often require conversion through the dollar. Tokenization may eliminate the need for such an intermediary currency. Just as Google Translate enables people to communicate directly without a common language, tokenized financial infrastructure could facilitate direct interaction between different currencies.

Tokenization thus has the potential to enhance direct liquidity on shared digital platforms. Liquidity pools on these platforms can broaden participation and eliminate the need for long chains of dealer banks operating across different time zones.

The benefits extend beyond efficiency. The risk of one party delivering payment and the other failing to do so has long been a challenge in global foreign exchange markets. Existing arrangements, such as the 24-year-old Continuous Linked Settlement System, have helped reduce these risks for major currencies, but many emerging market and developing economy currencies are still excluded.

Tokenized foreign exchange transactions could help address this gap through something known as "atomic settlement," in which both sides of a transaction are completed simultaneously. By reducing settlement risk, such arrangements could improve liquidity in foreign exchange markets.

Much work remains before these innovations become part of the financial mainstream. Interoperable digital financial infrastructures must be built and regulatory standards and cross-border compliance rules harmonized.

Through digital platforms, Asian policymakers are opening up additional channels for trade and finance. If traditional financial systems become disrupted, alternative digital networks could help ensure that economic activity continues uninterrupted.

Building resilience

Asia's evolving financial architecture is taking the form of a sophisticated, multilayered system. It seeks to balance technological innovation with institutional realities, promoting economic efficiency while enhancing resilience in an increasingly uncertain world.

The dollar continues to anchor one track. The currency serves as the indispensable liquidity backstop for global financial markets and large-scale international transactions. The depth of US financial markets and the unparalleled availability of dollar-denominated safe assets underpin this role. For the foreseeable future, no alternative is likely to match these advantages.

Alongside this dollar-based system, regional platforms are assuming a larger role in facilitating trade and investment in Asian supply chains. These platforms draw on advances in cross-border payment connectivity, tokenization, and the growing use of regional currencies, including China's renminbi and Japan's yen.

This emerging architecture offers a practical framework for managing risk in a fragmented world while creating a more balanced and resilient monetary ecosystem.

Over time, these developments should bring Asia's financial architecture more closely in line with the region's growing economic weight. Success will depend not only on technological innovation but also on maintaining the institutional trust, policy credibility, and international cooperation that underpin a stable monetary system. F&D

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RESILIENCE THROUGH OPENNESS

Malaysia's Second Finance Minister **Amir Hamzah Azizan** discusses fostering economic growth amid global uncertainty and preparing for the AI era

In the past half century, Malaysia has transformed itself from a producer of commodities such as tin, rubber, and palm oil to a diversified upper-middle-income economy spanning services, manufacturing, and trade. The IMF projects the $516 billion economy will grow 4.7 percent this year, boosted by an influx of investment in artificial intelligence, data centers, and semiconductors.

Amir Hamzah Azizan, 59, was appointed finance minister II in December 2023 following a career across industries including oil, shipping, and electricity. Most recently, he was chief executive officer of the Employees Provident Fund, which manages $315 billion in retirement savings for private sector workers.

In an interview with F&D's Gita Bhatt and Jeff Kearns, the minister discusses how Southeast Asia's fifth-largest economy is navigating global geopolitical turbulence and how it can benefit from the boom in AI investment.

F&D: How do you see Malaysia's economy performing over the next five years, and where is the greatest growth opportunity?

AHA: Our Thirteenth Plan indicates that annual growth will average 4.5 to 5.5 percent between 2026 and 2030, effectively repeating what we've achieved over the past three years or so.

Resilience has been a key feature of the economy. We've identified key drivers for the economy and put enough policy focus behind them so that when investment comes to the country, it aligns with our national plans.

Our electrical and electronics sector and our semiconductor sector have been vibrant for more than 50 years. But we lacked the deeper supply-chain ecosystem. Today we are focused on attracting new investment at the higher end of the value chain. We're developing data centers, including AI-layered data centers.

F&D: Malaysia's economy withstood several shocks, including the sharp increase in energy prices caused by the Middle East war. What explains this resilience?

AHA: A lot of it comes down to policy consistency. You must be clear about where you want to go. You must be clear about government policy, both in the planning and the execution, and make it transparent so that it inspires investors with confidence.

When investors put money into Malaysia, they trust the system. They are confident that if they put money in they can get it out. The law and policy don't change overnight, so people can take long-term investment decisions.

F&D: How can Malaysia and other midsize emerging economies navigate geoeconomic fragmentation?

AHA: I go back to our open economy. We have an export base that is diversified in

IMF PHOTO/NICHOLAS KARLIN

manufacturing, services, mining, and so on. The export markets we sell these products to are also diversified. Multilateralism may be under threat, but it's still possible to strike free trade deals with many places. Those deals can give you certainty about what practices are permitted, and they build a base from which to build prosperity through trade.

We are making a great effort to create better jobs that pay higher wages and to strengthen our social protection networks. This will give us a much stronger domestic market.

The more money we put into the hands of the people, the stronger and more vibrant our domestic market will become, and this will make our country more resilient.

We are also focused on "high-grading" the economy. If you look at changes like the advent of AI and the expansion of data centers, this is driving new markets around the world. For countries like Malaysia, which is a high-middle-income nation, we need to reinvent ourselves. We must innovate and focus on efficiency so that we build relevance from a global perspective. And with the connectivity we build through trade arrangements, we don't get left behind as changes happen. We secure our future.

F&D: You have reduced the deficit substantially by curbing subsidies and increasing sales tax. How do you get public buy-in for such potentially unpopular measures?

AHA: We laid out our response with the Fiscal Responsibility Act. We said that we could not continue to sustain years of high deficits, especially after COVID, because the less fiscal space the government has the less it is able to stimulate other forms of economic activity.

When we introduced taxes, we moderated the impact on more vulnerable groups. When we increased the sales and service tax, for example, we mitigated the impact of price increases for necessities like food and water on the poorest in society.

As we created fiscal space, we not only reduced government debt but also gave back some of the savings to society. We provided better social protection, better talent management, and better training so those at lower levels of society could improve their skills.

Communication was important, tailoring intervention so that the poorest in society could manage as we carried out these reforms. And if better jobs are created, wages go up, and people's livelihoods improve, this compensates for the difficult decisions that we must take.

We were lucky that we started the fuel price reform about two and a half years ago, when prices were much more manageable. When the Middle East crisis hit and oil prices went up, our subsidy bill went up, but only moderately.

F&D: With the advent of AI, young people are increasingly worried about job prospects. What are you doing to assuage those concerns?

AHA: We need to make sure that our people are ready to participate in terms of skilling our society and by incentivizing businesses to use AI responsibly. Tax reforms can create a lot of incentives. So can government programs that train people and partner with new investors so that job creation moves hand in hand with the redesigned economy we want to create.

Malaysia has made a strategic bet on becoming a major data-center hub. By attracting investment and building the supporting ecosystem, we can create better jobs and new opportunities for our people.

"Malaysia has made a strategic bet on becoming a major data-center hub."

F&D: How do you see Asia's future?

AHA: Asia has a big pool of people and still has a fairly positive demographic dividend. Its ambition drives a lot of innovation and experimentation. I think the future looks decent.

But in today's geopolitically fragmented world, Asia needs to partially insulate itself by doing more within the region. Take ASEAN as an example. Trade between ASEAN countries is probably 32 percent of its potential. The more that ASEAN can do together through alliances, the more resilient it will become in the face of the economic shocks we see from trade wars, supply-chain disruptions, and so on. Then you just expand that from an ASEAN play to an Asian play.

F&D: What keeps you up at night?

AHA: In today's world a lot of things keep everybody up at night, right? The key is to deal with the things that you can control, fix those, and worry less about things that you cannot control. Sometimes people think too much, or look too far down the road, and so get lost.

Climate change is going to be a big thing. Let's deal with it in a measured way. If geopolitical fragmentation is a big thing, then let's build resilience with new friends, new relationships, and new partnerships. These things I can fix, but I can't fix wars that are beyond our control. F&D

This interview has been edited for length and clarity.

WHY DEVELOPMENT FEELS HARDER

Muhamad Chatib Basri

Precarious employment and rising expectations are fueling frustration across emerging economies

Affan Kurniawan was completing a food delivery order in Jakarta on the night of August 28, 2025, when he got caught up in protests outside Parliament. An armored police vehicle ran him down and did not stop. By morning, video of the 21-year-old's death was everywhere, sparking violent protests across Indonesia.

Discontent had been building ever since legislators voted themselves a lavish housing allowance and videos spread of them dancing as it passed. But it was Kurniawan's death—and the viral footage of it—that turned grievance into a mass movement.

Kurniawan was not poor. Drivers for Jakarta's super-app companies earn about $272 a month, nine times the $30 poverty line, according to a University of Indonesia study. Yet the streets filled with students and gig workers, a "precariat" anxious about jobs and justice, not the next meal.

To outsiders, this may seem puzzling. Indonesia's macroeconomic performance has been relatively strong: two decades of 5 percent growth, low inflation, fiscal deficits below 3 percent of GDP. Yet in Indonesia and across emerging Asia, prosperity on the dashboard coexists with anger on the street. Why does development feel harder even where countries grow?

My argument is simple. Growth changes the composition of jobs. When growth stops creating secure employment and upward mobility, insecurity spreads beyond the poor into the aspiring middle. Expectations outrun opportunities, and politics becomes the binding constraint.

Development is harder

Growth across emerging Asia has slowed since COVID, most visibly in Sri Lanka, Bangladesh, and Nepal. But the malaise is not only about slower growth. Thailand reached middle-income status, yet political turmoil has stalled its structural transformation. The Philippines leapt from agriculture to services—call centers and remittances—without building factories to carry workers into the middle class; its industrial output share peaked at far lower income than its neighbors'. The pattern rhymes: growth that no longer reliably means secure work.

Indonesia is an outlier, growth holding at its pre-COVID 5 percent—yet still it was rocked by protests. The issue is not slower growth but growth that no longer generates enough secure jobs.

Thirty years ago, 5 percent growth translated almost mechanically into formal manufacturing jobs. That conveyor belt has stalled. Value chains are dominated by a few incumbents, and automation and reshoring shrink the labor-intensive work that once absorbed school leavers. Growth now flows through capital-intensive resources—nickel smelting and other mineral processing, which spur output and exports but employ few workers—and through services.

The Harvard economist Dani Rodrik calls this premature deindustrialization: Countries shed manufacturing jobs before the income point at which advanced economies did. The mechanism is debated, but the pattern is clear—growth continues but absorbs less labor. The common thread is a middle class large enough to have expectations but not secure enough to feel safe.

The shrinking middle

Indonesia's experience sheds light on this paradox. Poverty declined, stability held, the nation reached middle-income status. But what kind of growth lay beneath?

There was an important shift after 2019. The middle class had shrunk from 21 percent of the population in that year to 16.6 percent by 2025, while the aspiring middle expanded to nearly half the country—about 137 million people in 2024. Indonesia's statistics office defines this group as households spending at between 1.5 and 3.5 times the national poverty line: families, in other words, that are no longer poor but far from secure, with almost nothing between them and the next shock. Even as the poorest were cushioned by social protection, households between the 50th and 80th percentiles saw their real consumption fall from 2019 to 2022, University of Indonesia economists Teguh Dartanto and Keanu Can show. Spending is equally cautious: Across emerging Asia, consumption runs lower relative to income than in peer economies, a hedge against thin safety nets that itself depresses welfare and feeds grievance.

The pattern echoes across emerging economies: The middle class is also shrinking in India, Thailand, Vietnam, and Brazil, where job losses and rising living costs, especially for housing, have reshaped the income distribution, according to IMF research. And it's not just in Indonesia that discontent has led to violence. In Chile, a 30 peso (US 4 cent) rise in Santiago subway fares triggered the country's worst unrest in a generation in 2019, spearheaded by a middle class squeezed by stagnant wages despite years of growth.

Open unemployment, as Aris Ananta, of the University of Indonesia, once observed, is a luxury

A demonstrator holds a portrait of Affan Kurniawan, who was run over by a police vehicle on August 28, 2025.

JUNI KRISWANTO/AFP VIA GETTY IMAGES

reserved for those with savings or family. The rest end up in the shadow economy. In Indonesia, 80 percent of new jobs in 2019–24 were informal, paying about $114 a month, below the $181 minimum wage. The educated young would rather wait for a job matching their aspirations than take informal work. The result is a middle class with credentials beyond employment options.

When reform gets harder

When the middle class feels insecure, governments grow cautious about policies that impose visible costs. Reform becomes hardest precisely when it is most needed.

A decade ago, Indonesia's fuel subsidies were shown to benefit mostly upper-income households that had cars and motorcycles. The rich gained most from the subsidies and could afford to lose them, while the poor could be compensated with cash payments. That logic carried important cuts in 2013–14. But as incomes rose, vehicle ownership spread further down the distribution. Removing subsidies no longer hits only the wealthy; it hits the anxious aspiring middle too.

With manufacturing thinned out, the natural place to look for jobs is services. But the old manufacturing-services dichotomy no longer describes how economies grow. Production has become "servicified": Design, software, logistics, and R&D add more value in a manufactured product than the parts and labor that go into assembly. The real divide is no longer between making things and providing services but between what can be traded across borders and what cannot. Still, services run into two limits.

The first is polarization, related to Baumol's "cost disease," named after the US economist who first described it in the 1960s. High-skill tradable services raise productivity but absorb few workers. Meanwhile, labor-absorbing services—care, education, hospitality—offer little productivity yet must pay wages that rise with the economy. As these labor-intensive services grow as a share of jobs, their relative cost climbs, while output per worker stagnates, raising prices for the very services the middle class depends on.

The second limit is that most services are not tradable. Barbers, nurses, food-stall owners cannot export their work, so services-led growth is capped by domestic purchasing power, itself bounded by the productivity of the rest of the economy. Manufacturing can outgrow the home market by selling to the world; services cannot, which is why deindustrialization at low income is corrosive: It removes the one sector that can lift the wage floor for everyone else.

"When the middle class feels insecure, governments grow cautious about policies that impose visible costs. Reform becomes hardest precisely when it is most needed."

Political economy of the possible

The temptation is always the grand solution: a sweeping industrial policy with an impressive title and a flash launch. But reform works only when it fits the politics of the moment. As a former finance minister, I have seen this firsthand: There is always less room to maneuver than the plan requires. Resources, time, and political capital are limited, so you prioritize the feasible—and some of the most powerful reforms are nearly free.

Top priority is to protect the aspiring middle. The fix is not new spending but recalibration. Take electricity. Indonesia's state-owned electricity company holds data by name and address, including each customer's usage. Combined with social protection data, this can identify the poor and aspiring middle more accurately and direct subsidies to them while others pay full price. Targeting isn't perfect, but refining it reduces leakage. Conditional cash transfers can be recalibrated the same way. Compensate first, then reform.

Protection alone is not enough. The greater challenge is to restore labor absorption. The 2000s commodity boom produced mild Dutch disease: Favorable terms of trade pulled capital into resources, and a large home market gave manufacturers little reason to compete abroad. Today, less than 10 percent of export growth comes from new products in new markets, and capital keeps flowing into trading and resources, not manufacturing.

The real challenge is faster scalable, productive employment. Export-oriented investment in global value chains has done it before, bringing capital, markets, and training; tradable services may do it next. The constraint is scarce skills. High-skill activities such as advanced software design and specialized engineering absorb few workers and soon hit a skill ceiling. A better path is to absorb mid-skilled labor while raising capa-

bilities on the job: electronics and components assembly, garment and footwear production for export, food processing, and digitally enabled work such as logistics and back-office services. The urgency is sharpened by AI—which threatens to cap how much labor even these activities absorb—and drives home more clearly the need to upgrade skills so that workers complement rather than compete with automation.

This argues for lean industrial policy, capability focused and fiscally disciplined, whose strongest lever is not state-run training but incentives for firms to train workers themselves, since they know their needs best.

But the real binding constraint is political economy. Over time, red tape generates income for those who administer it. Cutting it is not just about simplifying procedures; it takes away some bureaucrats' income, and they will resist. Good arguments won't win them over; the private sector must do more of the work. Indonesia has stayed relatively closed in trade, leaning on its home market until it approached that market's limits; lower barriers to trade in goods and services would pull firms into export-oriented value chains that bring capital, markets, and training. A cleaner business climate, broader financial inclusion, and lighter regulation will let private firms, not the state, create the jobs educated young Indonesians want. No new money needed. Letting go and taking on the interests that profit from the status quo are what it takes.

This is why institutions matter more than any single reform. A policy that rests on one minister's conviction can be undone by the next. The task is to write reform into law and institutions so that it outlives the person who originated it.

A long conversation

Across emerging Asia and beyond, economic policy alone is not enough. As incomes rise, middle-class demands shift from public goods that exist to public goods that work, from fairness as slogan to fairness as habit. People want and deserve honest explanations and transparent rules. This thread runs from Santiago to Jakarta to Manila. Even honesty is not always enough. Indonesia's 2013 fuel subsidy cuts were sound: The poor were compensated, the case was made openly—yet still people resisted. Being right is not the same as being accepted.

Kurniawan was not heard while he lived, only when he died. The work ahead is not only economic; it is the slower task of rebuilding trust that efforts will be rewarded. Indonesia shares this challenge with every economy whose dashboard prosperity has outrun confidence on the street. F&D

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DIMAS ARDIAN/BLOOMBERG VIA GETTY IMAGES

App-based motorcycle taxi riders cruise a street in Jakarta.

GRADUATING INTO UNCERTAINTY

Harry Jacques

A record youth cohort enters developing economy job markets amid daunting technological change

On a quiet overcast May afternoon in the student council office, Saharat Chuaikaew is troubleshooting the database for King Mongkut University of Technology Thonburi's societies and sports teams.

When not studying for his engineering degree here at one of Thailand's leading technology universities, Chuaikaew works as an intern at an energy drink factory—producing the burst of sugar and caffeine that can help sustain a full-time science, technology, engineering, and mathematics (STEM) degree, manufacturing internship, and 15-hour-a-week volunteer IT commitment.

A decade ago, the 21-year-old might have expected to begin his career at the drinks producer, working under the wing of an experienced engineer, learning the trade through the kinds of responsibilities traditionally delegated to recent graduates. Today, Chuaikaew is not so sure.

Increasingly, he says, complex tasks can be farmed out to artificial intelligence models for free, reducing the need for many entry-level technical roles on company payrolls.

"I think it's more difficult than before because you have AI together with a senior engineer—and you don't need the junior engineer to do the work," he told *Finance & Development*. "It's hard to find a job."

Thailand's Technology Act of 1971 merged a clutch of colleges into King Mongkut University of Technology Thonburi, better known as KMUTT, to produce highly skilled graduates amid a technological shift. At the time of the merger, more than half a century ago, there were about 500 million young adults set to enter the workforce across the world's emerging market and developing economies.

In May this year, Chuaikaew was just weeks away from graduating into the most crowded job hunt ever recorded. About 1.2 billion people will join

IMF PHOTO/KIM HAUGHTON

Young people gather in a shopping district of Bangkok.

the labor market in developing economies over the next decade.

"These young women and men will likely represent the largest youth cohort ever: more than over any previous decade, and more than projected for any decade over the rest of this century," the World Bank notes in *The Global Jobs Challenge*, a report published in June.

But Gen Z graduates in Southeast Asia, like Chuaikaew, are entering a weaker economy than their parents encountered around the turn of the century, with global growth roughly a third lower and governments able to pull fewer policy levers amid far greater uncertainty.

A succession of global shocks—from pandemic-era inflation and Russia's invasion of Ukraine to more recent volatility in energy markets—have squeezed spending and contributed to exorbitant living costs.

The pressure is especially acute in Asia, where many economies depend heavily on imported energy shipped through the Strait of Hormuz. About 60 percent of Thailand's oil imports, for example, come from the Persian Gulf.

As Chuaikaew prepared to graduate earlier this year, many other young people—in Sri Lanka, for example—worked four-day weeks and lined up for fuel under emergency restrictions. In Indonesia students protested rising fuel prices and falling purchasing power.

In India, the chief justice of the country's Supreme Court likened unemployed graduates to "cockroaches." This crystallized frustration over youth unemployment and helped fuel a protest movement that culminated two months later in the education minister's resignation.

At a presentation last year, the chair of the Philippines Commission on Higher Education, Shir-

ley Castañeda Agrupis, noted that the percentage of college graduates among the country's unemployed was growing.

"The problem goes beyond unemployment numbers," Agrupis said. "Even when job opportunities exist, there is a persistent mismatch between available and graduate skills."

Record youth cohort

Youth unemployment is elevated across Asia but is often highest among those with the most advanced education, according to IMF research.

"Highly educated young workers are struggling to find positions that match their qualifications," Krishna Srinivasan, the director of the IMF's Asia and Pacific Department, said at a press conference in April.

In Thailand, for example, 3.9 percent of people ages 15–24 were unemployed last year. But the rate among Thais of the same age with postsecondary education was three times higher, at 13.2 percent.

There's a similar patten across most Southeast Asian economies, but the situation is worse in South Asia, with joblessness among the most educated young people ranging from about 36 percent in Bangladesh to 43 percent in Sri Lanka (see Chart 1).

AI has the potential to deliver gains in growth and productivity, but the technology could also intensify labor market pressures for young workers if adoption moves faster than skills develop, Srinivasan said.

"This strengthens the case for rethinking education and reskilling more broadly, making universities and technical programs more responsive to employer demand and equipping graduates with skills that firms actually need."

Concern about technological change and what it will mean for young people's place in society runs through conversations with students across the KMUTT campus.

"I don't know about my future yet," says one animation student currently relying on a part-time job. "I think that I'm not going to be an animator."

Many here worry that the growing integration of AI into labor markets across Southeast Asia could reduce job opportunities for highly skilled workers in the years ahead, from studios in Bangkok's creative economy to the factory production lines where Chuaikaew works.

"For me, I'm so anxious about my career path because AI can replace me for sure if I don't have some soft skills—and hard skills, like another language," he says.

Chuaikaew feels that his situation reflects tension that has accompanied past technological leaps, from printing to the internal combustion engine: whether societies can harness productivity gains while continuing to create well-paid jobs for the next generation. But for many young people this moment feels particularly urgent.

A university representative said students at KMUTT expressed concern in surveys about the impact of technology on their future employment prospects. In response, the university acquired licenses for 1,000 students to be trained in how to use AI to further their careers.

"I think some students are worried about it," said one university officer, adding that the prospect of AI reshaping the labor market felt remote when she graduated from this same university a decade ago.

Changing economic landscape

The university stands on the Thonburi side of the Chao Phraya River, an area that was once the capital of Siam—a patchwork of canals and orchards growing tropical fruits such as mangosteens and rambutans.

Named for King Mongkut, also known as Rama IV, a 19th century monarch who championed science and modern education, the university embodies a commitment to scientific advancement and technological change dating back more than 150 years. Mongkut, a former monk, famously calculated the timing of a solar eclipse in 1868.

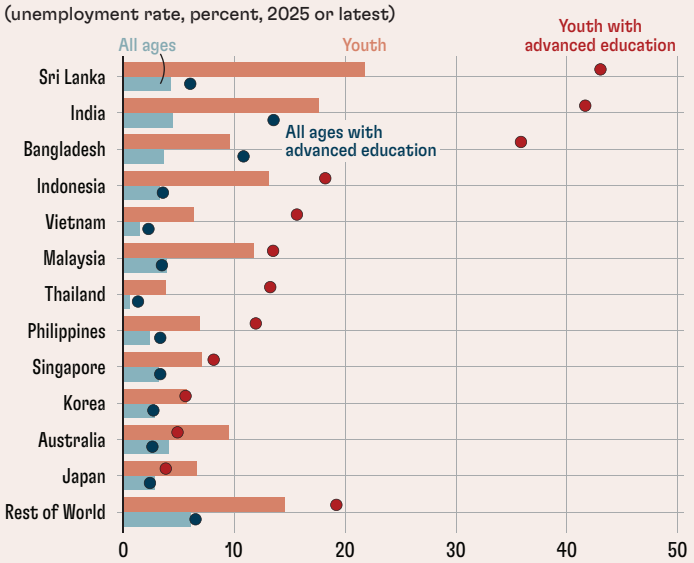
Mongkut ruled as printing reshaped administra-

CHART 1

Graduate glut

Asia's most educated young people often face the highest unemployment.

(unemployment rate, percent, 2025 or latest)



SOURCE: IMF, 2026, press briefing on the *Regional Outlook for Asia and the Pacific* (April).
NOTE: Advanced education = postsecondary education; Youth = people ages 15–24.

IMF PHOTO/KIM HAUGHTON

Student chefs at Chulalongkorn University prepare food for an entrepreneurship celebration.

tion in Siam, steamships plied the Chao Phraya River, and the economy was gradually opening to free trade.

These shifts formed part of a broader transition at the time as adoption of new technologies and shifts in the global economy began to transform systems of commerce and government.

Photographs of the university's construction in 1974, preserved by archivists, show the first buildings rising from muddy fields lined with palm trees.

Today, Bangkok's expansion has paved over those fields. The roads leading from the university increasingly pass logistics parks and industrial clusters where global technology firms are building data centers to support Thailand's ambition to be a regional hub.

For the first quarter of this year Thailand's investment board says it recorded applications worth 873,741 million Thai baht ($27.3 billion) across 48 digital projects, mostly in data centers and cloud services, in Bangkok and nearby provinces.

At conferences this year on Thailand's emergence as a regional data hub, industry executives warned that the more immediate challenge was not a coming dearth of jobs, but a pressing shortage of workers with the skills necessary to support the industry's rapid expansion.

Studies of emerging market economies suggest that productivity-enhancing technologies have mixed effects on employment. Although automation can depress the demand for labor in some tasks, productivity gains may also stimulate investment, expand businesses, and create new forms of work.

An International Labour Organization study published in July found that generative AI could affect the work of nearly 80 million people across Southeast Asia, but the Geneva-based organization sees little evidence yet of widespread job losses.

When Chuaikaew goes home to Chonburi, where his father manages a logistics company, they sometimes talk about the future. His father urges him to keep an open mind about where to work and where he can use his engineering skills, even suggesting the public sector.

Chuaikaew occupies an unusual place in this transition. By day, he helps build automated systems for one of Thailand's largest beverage companies. But at other times, he worries that those same technologies could mean less need for young engineers—and that this is the only the beginning.

"I am very sure of it," he said. F&D

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CHINA'S EMERGING ECONOMIC ENGINE

Yanliang Miao

Many outside observers think China's economy is in a rut. The engines that powered growth for decades—investment in property and infrastructure—are sputtering. Domestic demand, real estate, and consumer confidence are weak and show scant signs of recovery. Measured by traditional, top-line data such as nominal GDP growth, China's economic vigor is flagging.

Yet a myopic focus on the old investment-driven economy misses the emergence of one led by new technology, green industries, and digitalization. Consider what China's statistics bureau calls the "three new" economies—evolving industries, business formats, and business models, whose combined value added surged by about 10 percent a year between 2016 and 2024.

DeepSeek's low-cost artificial intelligence breakthrough in 2025 is an example of the new economy. Others include advances in electric vehicles, commercial aircraft, innovative drugs, and robotics. Seen through the prism of these new industries, China's industrial competitiveness continues to strengthen and is now emerging as the main engine of growth.

This shift has largely escaped the notice of outside observers because the old engine is weakening faster than the new one can support the whole economy. This explains why aggregate demand and confidence remain soft even as competitiveness strengthens in the new industries.

The success of a technology-led model requires more balanced growth

Economic policy is adjusting to the shift. In the past, the government responded to slowing growth by stepping up spending and cutting borrowing costs to stimulate investment. But now, policymakers are seeking to stabilize the old economy without the old engines of property and debt-financed investment. The economic transition is already visible; its sustainability depends on whether China can turn stronger production capability into a more balanced growth model—supported by household income, services consumption, and domestic demand.

A large testing ground

How can China make this transition? It starts with scale, on both the demand and supply sides.

On the demand side, China is an unusually large testing ground. Once surplus farm labor was fully absorbed by factories around 2010, tighter rural labor supply lifted wages and incomes, helping raise consumption from about 49 percent of GDP to roughly 57 percent by 2025.

China's demand-side advantage also reflects consumers' willingness to embrace new technologies after seeing the country leapfrog from an agrarian to an industrial and digital society in only four decades. This combination of market size and rapid adoption allows firms to test products on a large scale, gather feedback, and commercialize innovations quickly. In 2025, electric vehicles accounted for nearly half of new car sales, and generative AI attracted more than 600 million users of all ages.

On the supply side, scalability is possible thanks to industrial depth and innovation capacity. Dense industrial clusters allow firms to specialize while working closely with nearby suppliers. In the Yangtze River Delta, an EV maker can source all the components it needs from suppliers within a four-hour drive, which means lower coordination costs and a shorter loop between design and production.

Supply-side competitiveness benefits from China's ability to innovate. Spending on research and development rose from RMB 2.4 trillion in 2020 to RMB 3.9 trillion in 2025, up about 10 percent a year on average. It is now No. 2 globally in R&D spending, and its full-time-equivalent R&D workforce has been No. 1 for 13 consecutive years. Firms can spread out research costs, draw on a large pool of engineers, and quickly turn new technologies into commercial products.

Intense competition

China's support for green industry, particularly for EVs, has drawn sharp international criticism. The prevailing narrative attributes the country's suc-

A visitor controls a robot at the Digital China Summit in Fuzhou, Fujian Province.

cess largely to subsidies. This is a narrow reading that misses the bigger picture. Public support in the early stages of a technology with clear positive externalities is neither unusual nor unreasonable: It's how emerging industries can compete with incumbents and scale up to drive costs down.

The United States and Europe have done the same through the Inflation Reduction Act and the Green Deal Industrial Plan. China's programs, moreover, were designed to let the market pick winners: Subsidies went to consumers, with payments tied to vehicle sales regardless of brand. Tesla, producing at its Shanghai "gigafactory," was among the largest recipients of these subsidies from 2016 to 2022.

If subsidies had driven China's EV success, the market would have the telltale fingerprint of government protection: a crowd of mediocre firms kept alive by government support. Instead, China's EV industry is brutally competitive. Private firms such as BYD, NIO, XPeng, and Li Auto competed against each other, longtime domestic and foreign automakers, and hundreds of new entrants—all chasing the same pool of subsidized demand. Of 487 EV makers in 2018, only about 1 in 10 was still selling passenger cars by 2023. The survivors stayed alive through economies of scale, rapid technological iteration, and intensely competitive engineering. Policy helped create the market; competition selected the winners.

Geopolitical pressure

China's advantages are long-standing. Then why have they translated into faster industrial upgrading only recently? Because of the interaction between internal and external drivers. Internally, the green and digital revolutions have led to greater returns from scalability, dense supply chains, and rapid adoption. And resilience is at a premium in a fragmented world.

The first internal driver is the green transition. Fossil fuels are finite and often face rising marginal extraction costs. Wind and sun are unlimited, and the technologies they power—solar panels, wind turbines, batteries, electric vehicles—are manufactured products by nature. They therefore benefit from economies of scale: Expanded production spreads out fixed costs, speeds learning, lowers unit costs, and encourages further innovation. The green transition has amplified China's advantages in market size and industrial depth.

The second internal driver is the AI transition. If the green transition strengthens economies of scale in production, the AI transition does so through learning. The more widely models are deployed, the more data, feedback, and engineering experience they generate. This improves applications, lowers adoption costs, and encourages further use, creating a self-reinforcing cycle between deployment and innovation.

China is well placed to capture these gains because it combines a deep talent pool with unusually broad opportunities for deployment. Thirty-eight percent of researchers publishing at leading AI conferences received their undergraduate education in China, compared with 24 percent in the United States, according to the MacroPolo Archive. Many later moved to the United States, but the flow is increasingly two-way.

This pool of talent spans a dense industrial base: Applications in manufacturing, logistics, e-commerce, finance, health care, and smart vehicles allow firms to move quickly from models to use cases—and from use cases back to better models. Little wonder, then, that Stanford University's *2026 AI Index Report* found that the gap between the leading US and Chinese models had narrowed to 2.7 percent by March 2026.

Finding new markets

The external driver is geopolitical fragmentation. The global economy has suffered, but China has responded with a more self-reliant growth model. Chinese firms have found new routes to global demand, reducing dependence on any single market. The US share of China's trade fell from 12.6 percent in 2020 to 8.8 percent in 2025 while the trade shares of Southeast Asia, Africa, and Latin America all rose. Export controls and technology restrictions have accelerated domestic innovation and industrial upgrading. In 2025, China's imports and exports of high-tech products grew by 11.4 percent and contributed nearly 60 percent of overall trade growth.

Geopolitical and energy shocks have weakened supply capacity elsewhere. In 2025, for example, EU imports from China reached €558.8 billion, 54 percent above 2019, while EU exports to China fell to €199.5 billion, 14 percent below their 2022 peak. Meanwhile, China's share of EU imports rose from 18.7 percent in 2019 to 22.3 percent in 2025; electric vehicles, batteries, solar products, and chemicals accounted for about 70 percent of that increase.

Some of this shift reflects China's upgrading. Some reflects conditions in Europe: Higher energy costs weakened chemical and other energy-intensive industries, but the green transition raised demand for equipment that China could supply on a large scale. This suggests that trade outcomes reflect, at least in part, what other economies can or cannot produce competitively.

Recycling the surplus

Some interpret China's trade surplus as evidence that excess production is displacing output elsewhere. But trade arithmetic alone cannot establish that direction of causality. By definition, a country's current account balance equals national savings minus domestic investment. Yet the same accounting identity can support two opposite stories: China's excess production may displace output abroad, or weak production and excess spending abroad may create demand for Chinese goods. In practice, both mechanisms can operate at the same time.

Even so, policymakers cannot ignore the geopolitical backlash, in the form of tariffs and other restrictions, that China's growing surplus has provoked among its trading partners. The country's very success poses risks to its growth model.

How can this tension be resolved? One way is to recycle more of the surplus into productive investment abroad. In the early 2000s, much of the surplus was invested in US Treasurys and other dollar assets. But increasingly, Chinese surplus savings are being invested in factories and infrastructure, creating jobs, strengthening local supply chains, and supporting industrial upgrades. In 2025, Alibaba Cloud opened a third data center in Malaysia, BYD moved ahead with its first European passenger car plant in Hungary, and Haier-owned GE Appliances announced a $3 billion expansion of its US manufacturing footprint.

An industrial pipeline robot is displayed at the Digital China Summit.

"Policymakers cannot ignore the geopolitical backlash, in the form of tariffs and other restrictions, that China's growing surplus has provoked among its trading partners."

Rebalancing at home

External recycling can ease pressure, but it cannot substitute for rebalancing at home. Alongside the green and digital transitions, a more durable growth model requires a third transition—to higher household incomes and services-led consumption. Without this shift, China's transformation risks becoming increasingly K-shaped: Richer households will capture a larger share of wealth than poorer ones.

New domestic growth drivers have not grown enough to fully replace property as a source of income, employment, and aggregate demand. In 2025, China's automobile industry generated more than RMB 11 trillion—exceeding property sales, which fell to about RMB 8 trillion from RMB 18 trillion in 2021.

But revenue is not the same as GDP value added. Revenue measures gross sales; GDP counts only the value added minus intermediate inputs. Automobile sales include substantial spending on components and other inputs, and margins are relatively thin. Property development, however, transforms low-value land into high-value buildings. Automobile manufacturing contributed only about 1.6 percent of GDP, far less than real estate's 6 percent. More important, the property downturn since mid-2021 has weighed on domestic demand through weaker local finances, negative wealth effects, and lower employment.

The digital transition may deepen income inequality and labor displacement. AI can raise productivity, but if its gains outpace job and wage growth, income inequality will rise even more. This problem is not unique to China but is especially important for it: If productivity gains do not translate into stronger household incomes and consumption, more output must be absorbed abroad, widening an already large external surplus just as trading partners become less willing to accommodate it.

Macroeconomic policy will therefore play an essential part in the transition. Stronger social protection and public services are central to the third transition and would help avoid a more K-shaped economy. Higher spending on pensions, health care, childcare, education, and unemployment insurance would reduce precautionary saving and make consumption a more reliable source of demand.

Policy must also repair balance sheets to reduce the debt overhang. When households, local governments, and property-related firms deleverage, lower interest rates alone do not easily translate into new borrowing or spending. Debt restructuring, especially at the level of local governments and firms across the property value chain, would help restore credit availability.

Deeper reform

China's advantages in both demand and supply mean it's well placed for the transition to a new model driven by green and digital technologies. Those strengths matter more today because the green and digital revolutions reward high volume, and resilience is at a premium amid geopolitical fragmentation. This—not subsidies—explains China's record trade surplus.

But only deeper reform will sustain the transition and the surplus. Household consumption in China rose from about 35 percent of GDP in 2010 to 40 percent in 2024, but it is still well below the 53 percent average for middle-income countries. Stronger household incomes, better social protection, more services consumption, and more productive investment abroad will rebalance growth. If China can match industrial upgrading with domestic rebalancing, the benefits will extend beyond its borders: a more durable Chinese economy and a more reliable supply of affordable technologies in an increasingly uncertain world. F&D

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CAN INDIA SUSTAIN ITS RISE?

Duvvuri Subbarao

A promising growth story confronts structural constraints in jobs, productivity, and innovation

How quickly the narrative shifts. Only a year ago, India was in a celebratory mood. Growth was robust. Inflation was benign. The current account deficit was modest. Bank and corporate balance sheets were at their healthiest in over a decade. India had overtaken the United Kingdom to become the world's fifth-largest economy and seemed poised to surpass Japan. Armed with the tailwind from China+1, under which multinational companies diversify production beyond China, an Indian growth miracle appeared to be a tantalizing possibility.

Today, that buoyant confidence faces a stark reality check. A steep rise in oil prices triggered by conflict in the Middle East has exposed India's structural energy vulnerabilities. Growth momentum is cooling, inflationary pressures are reemerging, and the rupee faces persistent downward pressure. Capital outflows have weakened the external sector, private investment remains stubbornly stalled, and India has slipped to sixth place in the global GDP ranking.

Is this turbulence the result of a temporary external shock that will blow over once geopolitical tensions ease? Or is it a warning sign that India's celebrated Goldilocks moment was built on a shallower foundation than many assumed?

The answer carries global consequences. As multinational firms actively seek structural alternatives to China and advanced economies hunt for new growth engines, India remains uniquely positioned. It is the world's most populous nation, boasts an unmatched demographic profile, and represents the latest large emerging market capable of sustaining rapid growth for decades.

Goldilocks narrative

For sure, the Goldilocks narrative was not built on hype. During the postpandemic era, India achieved a rare trifecta: high growth, fiscal consolidation, and macroeconomic stability. Annual real GDP growth averaged roughly 7 percent, outpacing almost all major peers. Meanwhile, consumer price inflation was successfully anchored near the 5 percent mark—well within the Reserve Bank of India's target band—despite severe global supply shocks.

At the same time, the banking sector successfully resolved the twin balance sheet problem of the previous decade. Gross nonperforming assets plummeted from a peak of more than 11 percent to a multiyear low of less than 3 percent, and corporate leverage dropped significantly, restoring profitability. Concurrently, the government executed one of the most ambitious infrastructure drives in modern history. Capital expenditure as a share of GDP expanded rapidly across roads, railways, and logistics networks. Simultaneously, India's digital public infrastructure—anchored by Aadhaar, the Unified Payments Interface, and Direct Benefit Transfer—became a global model for scalable, low-cost digital finance.

For optimists, the conclusion seemed clear: India had discovered the holy grail of rapid growth without running into balance of payments or inflationary walls. Yet the current headwinds challenge that view. The question is not whether India has achieved monumental successes—it undeniably has. The real question is whether those successes are structurally sufficient to lift the economy onto a permanently higher, self-sustaining growth trajectory.

Three structural vulnerabilities stand out.

Missing private investment

The first is the missing private investment engine. Historically, every significant growth acceleration in modern India has been powered by a private investment boom. The high-growth era of the mid-2000s was driven largely by a massive surge in private corporate capital expenditure. Today, that vital ingredient is conspicuously absent. While India's overall investment rate has hovered around 33 percent of GDP—a level theoretically consistent with strong growth—the composition tells a different story. The bulk of recent growth is coming from public capital expenditure, while private corporate investment remains stuck at about 11 percent of GDP, far below its historical peak of nearly 17 percent in 2008.

This imbalance matters, because public spending can kick-start an economy, but it cannot sustain it indefinitely. Long-term noninflationary expansions depend on private businesses to

SHAMMI MEHRA/AFP VIA GETTY IMAGES

deploy capital to factories, proprietary technologies, and new supply chains.

The current gridlock represents a paradox: Corporate cash reserves are high, bank balance sheets are primed to lend, and physical infrastructure is vastly improved. Yet corporate boardrooms remain cautious.

The weakness is not uniform across the entire corporate sector. Investment has been concentrated in a handful of large business groups, renewable energy projects, telecommunications services, data centers, electronics assembly projects, and other sectors benefiting from government incentives. Much of the broader corporate sector, especially medium-sized manufacturing firms, remains hesitant.

Part of the problem is uncertainty about future demand and expected returns, and part of it is regulatory friction. Despite improvements in the ease of doing business, domestic firms still must navigate unpredictable policy shifts, compliance complexities, and an uneven playing field.

Capital investment is a long-term bet on the future; businesses will place those bets only when they have deep confidence in both long-term demand and the stability of the regulatory environment. Without a robust private investment cycle, sustaining growth rates above 7 percent over the next decade will be an uphill battle.

Jobs and productivity

The second concern is the jobs and productivity mismatch. The ultimate test of India's economic model is not the headline GDP growth rate, but whether that growth generates productive employment for its massive workforce.

A worker inspects photovoltaic cells used in solar panels at a factory in Gujarat's port city of Mundra.

The structural disconnect between output and employment is widening. Agriculture contributes just about 15 percent of GDP, but it accounts for nearly half the total workforce. Meanwhile, manufacturing, responsible for about 13 percent of GDP, absorbs only about 11 percent of workers. At the other end of the spectrum, the high-value modern sector, including information technology, finance, and business services, generates roughly 15 percent of GDP while directly employing a minuscule 3 percent of the workforce.

This massive productivity gap between agriculture and the rest of the economy is one of the highest globally. Standard economic transitions—like those seen across East Asia—rely on migrating surplus low-productivity agricultural labor into labor-intensive manufacturing and modern services. This structural process elsewhere has created a broad-based middle class able to generate sustainable consumption-led domestic wealth.

India's trajectory has defied this norm. Although the country has produced globally dominant and highly productive service sectors, including IT and global capability centers, and has made strides in high-tech niches such as electronics assembly, mass manufacturing remains stagnant. Consequently, growth is heavily skewed toward high-productivity, capital-intensive sectors that require specialized skills but absorb relatively little raw labor. Output is expanding, but the creation of formal high-quality jobs is not keeping pace. For the millions of young people entering the labor market each year, the country's aggregate GDP growth rate matters far less than their access to a secure, upwardly mobile livelihood.

Where will jobs come from? India's answer increasingly points to manufacturing, backed by initiatives like "Make in India" and production-linked incentive programs. Skeptics argue that today's global environment—marked by protectionism, reshoring, and automation—makes it harder to replicate past export-led success stories such as those of East Asia, and notably China.

Nevertheless, manufacturing still holds unique potential. It is the only sector capable of absorbing labor at the scale India needs. With over $100 billion in annual imports from China, even partial substitution through domestic production could generate millions of jobs. At the same time, global demand for labor-intensive goods remains strong, suggesting that even modest gains in export share could significantly expand output and employment, provided firms can scale up and integrate into global value chains.

Fragmented market

Which leads to the third concern. Because growth is concentrated in capital- and skill-intensive sectors, the aggregate wealth generated over the past decade is distributed unevenly. On one side of the ledger, India's formal urban economy is thriving. A world-class entrepreneurial ecosystem has produced more than a hundred "unicorns"—tech start-ups valued at more than a billion dollars each. Financial markets have hit historic highs, and luxury consumption—from premium real estate to high-end automobiles—is booming. On the other side, a large portion of the population faces a far more stagnant reality. Real rural wage growth has remained flat or negative when adjusted for persistent food inflation, and over 85 percent of the workforce is in informal employment, lacking social security benefits or predictable income.

This K-shaped cleavage between people who are prospering and those who are not has created a highly fragmented consumer market, where growth in demand for premium goods vastly outpaces that for entry-level mass-market consumer staples. This divergence is not just a moral or social issue; it is a structural economic bottleneck. Broadly shared prosperity is the primary fuel for mass domestic consumption, which in turn triggers private corporate investment. When a small segment of the population drives the bulk of discretionary spending, the domestic market size remains structurally capped, making long-term economic momentum harder to sustain.

Innovation deficit

Together, these three vulnerabilities point to a deeper structural challenge as India attempts to escape the middle-income trap. Countries routinely transition from low- to middle-income status via basic industrialization, urbanization, and the adoption of frontier technologies. However, moving from middle-income to advanced economy status requires an entirely different playbook. At this stage, growth can no longer rely on cheap labor, capital accumulation, or favorable demographics alone. It must be powered by domestic innovation, total factor productivity, and deep investment in human capital.

India has not yet hit this trap, but its long-term ambitions demand that it build defensive capabilities now. First, there is a research and development deficit. India possesses an elite pool of engineering talent and a vibrant software ecosystem, yet its total spending on R&D remains stuck at roughly 0.7 percent of GDP. Advanced innovation economies, however, routinely spend 3 percent of GDP or more. India is currently a prolific user of frontier technology, but it remains a marginal producer of core intellectual property in semiconductors, artificial intelligence, biotech, and advanced manufacturing.

This innovation deficit complicates India's most celebrated asset: its demographics. With a median age of roughly 28—compared with nearly 40 in China and over 44 in Europe—India has entered a historic demographic window. But a demographic dividend is not inevitable. It must be earned by educating and upskilling the workforce for jobs in high-productivity sectors. A youthful population without adequate economic opportunity could turn a demographic dividend into a demographic liability. India faces an urgent race between job creation and labor-force growth.

Unleashing potential

The Goldilocks narrative was not an illusion. India's macromanagement, infrastructure expansion, and digital transformations remain institutional breakthroughs. Few large economies are as strategically well positioned to capture the realignment of global manufacturing and supply chains.

The true metric of success for India over the next decade is not whether it can mechanically clock 6 or 7 percent GDP growth. The true metric is structural translation: Can India convert that macroeconomic growth into a self-sustaining private investment cycle, abundant formal jobs, domestic technological sovereignty, and a broad-based rise in household incomes?

That outcome rests on three priorities. First, the government must revive private investment through a more predictable regulatory environment, lower compliance burdens, and conditions that raise expectations for returns on long-term capital. Second, India must accelerate the shift of labor from low-productivity agriculture to labor-intensive manufacturing and modern services through investment in skills, logistics, and urban infrastructure. Third, limited fiscal resources should increasingly prioritize human capital—including education, health, and R&D—alongside physical infrastructure.

India has already shown that rapid growth can coexist with macroeconomic stability. That was a hard-fought victory. The next phase—ensuring that growth is structurally deep, inclusive, and innovation driven—is significantly more challenging. F&D

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FALL FEATURED TITLE

NEW FROM THE IMF

INTERNATIONAL MONETARY FUND

TOWARD A NEW ECONOMIC GROWTH MODEL FOR CHINA

Editors

THOMAS HELBLING
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KRISHNA SRINIVASAN

Rethinking Development

Gordon Hanson, Dani Rodrik, and Rohan Sandhu

THE FUTURE OF ECONOMIC DEVELOPMENT WILL BE VERY DIFFERENT FROM ITS PAST

The world economy is entering a new stage in which national security and geopolitical goals loom much larger in government policy agendas. Even leaving aside the decline in multilateralism and rise in trade protection in advanced economies, export-oriented industrialization has lost its luster as a trusted vehicle for economic growth and job creation. Climate change remains an ever-present threat, while the renewables revolution offers both hope and new possibilities for structural change.

Adjusting to these disruptions requires a substantial rethinking of growth strategies in both low- and middle-income countries. The focus must shift from export-oriented industries toward the vast majority of people in low- and middle-income countries who work in traditional, untraded service sectors. Improving the lot of the world's street vendors, gig workers, micro-entrepreneurs, and others untouched by global markets will do more for developing national economies than, say, assembling smartphones. Policymakers would be wise to adapt sooner rather than later.

The goal of economic development hasn't changed: greater worker productivity and the opportunity for a decent income. In the past, successful growth strategies emphasized fundamental capabilities alongside structural change (Rodrik 2014). The fundamentals focused on governance, institutions, integrated markets, and human capital. Structural change was achieved through industrialization—turning rural subsistence farmers into urban factory workers. The more rapid the industrialization, the more rapid the resulting economic growth. And the greater the investment in fundamentals, the higher the likelihood of sustainable growth.

Patterns of employment

That model has gone only so far and may be essentially played out for many developing economies. Consider future patterns of employment in the developing world. Based on current demographic, schooling, trade, and industrialization trends, we can make some rough projections of occupational composition. Table 1 classifies occupations based on educational requirements (college/no college) and exposure to international trade (exposed/sheltered) a decade hence for all developing economies,

SIMONA BORTIS-SCHULTZ

excluding China (which requires separate treatment in view of its head start in manufacturing). We list examples of jobs in each cell.

The numbers have some striking implications. Note first that most workers will not have a college education. Second, more than three-quarters will be in occupations that are not directly exposed to the international economy, either through trade or "offshorability." Most important, about two-thirds of the developing world's labor force will be in occupations that do not require a college education and are not tradable. These are currently very low productivity, predominantly informal jobs such as street vending, domestic and food service work, and subsistence farming.

The inescapable conclusion is that the standard modes of productive transformation—namely, investment in conventional education and export-oriented industrialization—can no longer generate large numbers of good jobs. These strategies will therefore not contribute much to income opportunities for most workers in developing economies. Instead, the central challenge of economic development today is how to increase productivity in nontraded activity jobs, mostly in services, that do not require a standard college education. That question should frame all discussions on the future of development strategy.

Nontraded services

Earlier this year, we launched Harvard Kennedy School's Global Economic Transformation Initiative to help policymakers come up with answers to this economic development challenge. Our initial conference highlighted new research on the importance of services to economic growth and, especially, recent evidence by the scholars Tianyu Fan, Michael Peters, Youdan Zhang, and Fabrizio Zilibotti suggesting that there is significant productivity growth in many nontraded services traditionally considered stagnant. At the same time, our discussions revealed that many developing economy leaders remain adamant about industrialization as a vehicle for economic diversification, the green transition, exports, and growth. After all, services largely denote low-skill, low-productivity, and survivalist activities in most countries.

Manufacturing is important for several reasons (productivity and learning spillovers, investment attraction, national security), but it is no longer the employment generator it once was. It has become substantially more capital intensive in most countries and sectors. Productivity growth in industrial enclaves is not meaningful for economic development if it does not also create jobs for the rest of the population. And focusing on sectors like semiconductors or the assembly of smartphones or electric vehicles will not in itself drive much growth. The focus must be on generating productivity growth in activities where the bulk of the jobs are and will remain. We need an updated version of the industrial policies that worked well to foster industrialization—but this time mostly for nontraded services.

There are two legs to that strategy. One focuses on the supply side of labor, on vocational training and workforce development. The other focuses on the demand for labor, on enhancing the productivity of local firms. These two sides of the coin must be coordinated for maximum impact on productive employment.

Our projections indicate that for most workers in developing economies, and for the foreseeable future, the transition into the labor market will be a direct move from secondary school to the world of work. A successful transition means rethinking our approach to workforce development. Secondary education in many countries today does little to raise individual earning power. Classes are not oriented toward the occupational skills employers want nor do they teach people the soft skills they need to find good jobs and advance professionally.

TABLE 1

Tomorrow's workers

In a decade's time about two-thirds of developing economy workers will be in occupations that don't require a college education and aren't tradable.

(projected occupational composition of developing economies' labor force, 2036)

Education	Trade exposed	Sheltered	Total
College	3.3%	9.8%	13.2%
	Software developers, IT engineers, offshore business process outsourcing staff, engineers, pharma/biotech researchers in exporting firms	Schoolteachers, doctors, nurses, civil servants, public administrators, lawyers and accountants serving home market	
No college	20.6%	66.3%	86.8%
	Garment and footwear workers, electronics assembly workers, cash crop workers, call center agents	Street vendors, shopkeepers, domestic workers, drivers, food service workers, subsistence farmers	
Total	**23.9%**	**76.1%**	**100.0%**

SOURCE: Authors. **NOTE:** Excludes China. Total may not add up due to rounding.

Opportunities for change

Yet opportunities for change abound. Many developing economies have recently made or are considering making upper secondary education (ages 15–18) mandatory. This opens a window for career and technical training in educational systems to replace the failed models of the past. There is credible evidence that such training can be effective across a wide variety of settings. The ongoing digitization of education and employment data, even in low-income countries, makes it possible to design, test, and implement programs that meet distinct regional labor market needs in a way that was previously unimaginable. In high-income and some middle-income countries, sub-baccalaureate career and technical programs train workers for good jobs in health care, construction, personal services, and IT support and infrastructure. Suitably modified, such approaches are readily applicable across the developing world (Hanson 2026).

On the demand side, we need industrial policies better suited for the smaller firms that dominate services. One strategy aims to encourage large firms to invest in the capabilities of their suppliers or other small enterprises. For example, platform companies can assist retail and food service firms and gig workers that use their systems with marketing and technical assistance. Government can nudge these companies to do even more and can work with established exporters, mining operators, and large retailers to expand and productively upgrade their network of local suppliers. Many large employers have proprietary training programs that can be adapted to serve a broader range of firms.

Another strategy would provide micro and small enterprises with direct productivity-enhancing public resources. Many governments already provide such services, ranging from loans to management training. But these programs do not typically target productivity and rarely take into account constraints small businesses face. Evidence from interventions in developing economies suggests that carefully targeted management training, marketing assistance, and provision of technology can boost productivity and employment in smaller informal enterprises (Rodrik and Sandhu 2025).

Learning and experimentation

Several key messages emerge from these new policies, whether focused on workers or firms. First, productive jobs hold the key to economic development, and the more there are, the better. Technology, innovation, exports, and even growth itself are inadequate if they benefit only a narrow segment of the workforce. Second, success on the development front will depend largely on the fate of nontraded services. These activities are dominated by smaller firms but generate the bulk of jobs. Without a substantial increase in their productivity, development will stall.

> "The central challenge of economic development today is how to increase productivity in nontraded activity jobs, mostly in services, that do not require a standard college education."

Success depends on a culture of learning and experimentation. Governments cannot pick winners; they do not know in advance what will work. This uncertainty needs to be factored into government programs. Collaborative, iterative approaches that are open to revision and focus on removing constraints through public support must replace top-down programs with fiscal subsidies and fixed program parameters.

Generals, it is said, always prepare to fight the last war. Development practitioners should avoid that mistake and embrace the new approaches changed circumstances require. F&D

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The Rewards of Rebalancing

Sony Kapoor

INVESTORS CAN GAIN FROM EMBRACING MORE OF OUR WORLD

Global investors were poised for a long-overdue great rebalancing even before the turbulent start to 2025. But things are now speeding up as geopolitics reshapes the global economy and capital markets.

The catalyst was the concentrated risk associated with rising political and policy uncertainty in the United States. But the deeper drivers are older, structural, and more consequential.

These include fading tailwinds behind US asset outperformance, growing misalignment between where capital is concentrated and where global growth is happening, stronger policies in several emerging market and developing economies, and converging risk profiles for advanced and emerging market economies.

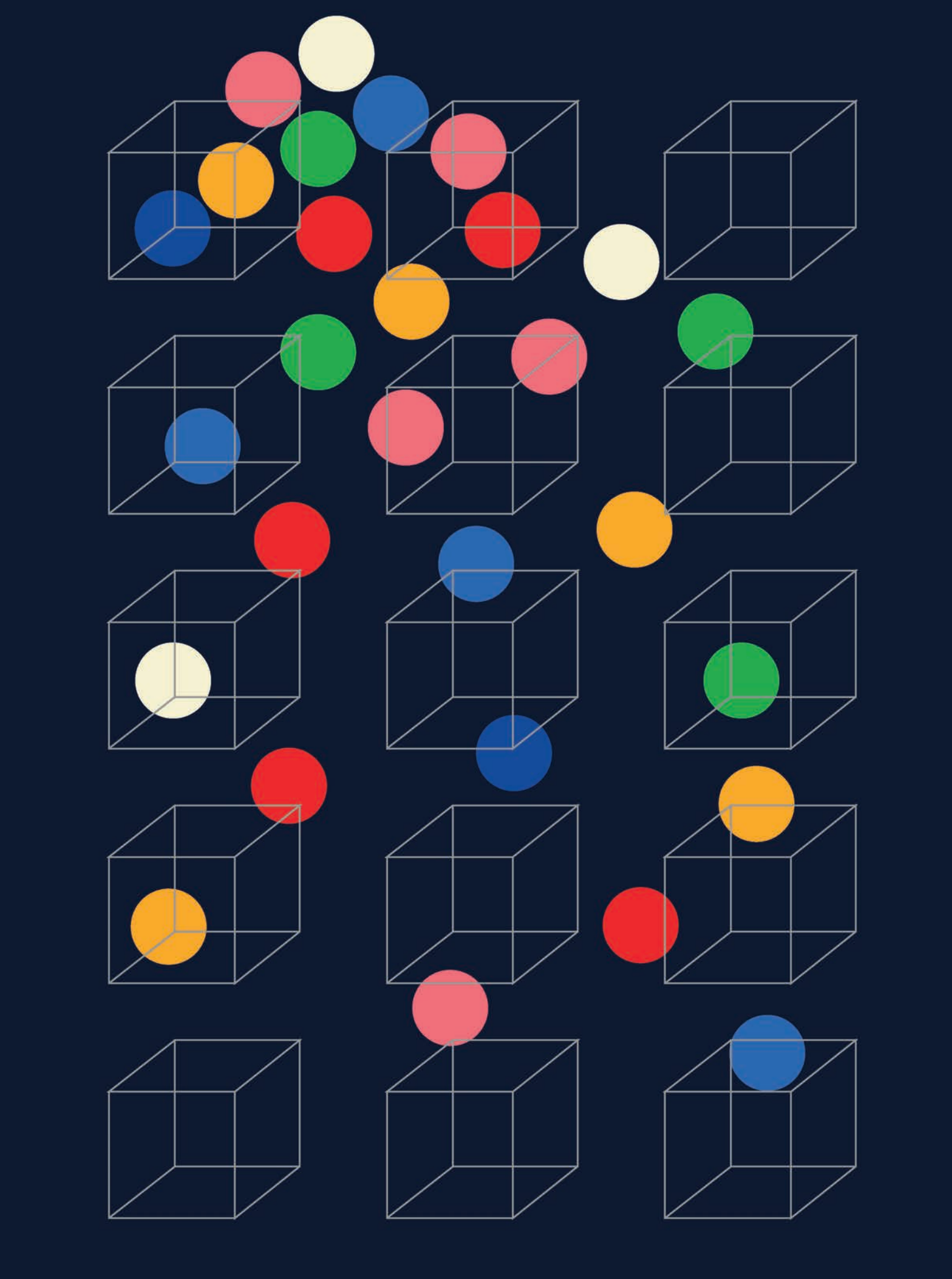
Distorted capital map

With just 4 percent of the world's population, the US accounts for about two-thirds of global stock market capitalization and nearly 40 percent of bond markets. It may be the world's largest economy, but it accounts for only 9 percent of global growth, 13 percent of trade, and 15 percent of global economic output on a purchasing-power-parity basis. Such concentration is financially risky, economically inefficient, and ultimately unsustainable.

Theory dictates that capital should flow to places where risk-adjusted returns are greatest and investment opportunities strongest. But, as the Nobel Prize–winning economist Robert Lucas Jr. observed in a 1990 paper, global savings have instead flowed from younger, faster-growing economies to slowing, aging ones—a phenomenon known as the "Lucas paradox."

This movement has inflated US asset prices, increased correlations across global portfolios, and kept capital scarce in places where it would do the most to diversify risk and raise productivity. But with the world's deepest capital markets, a formidable innovation ecosystem, powerful companies, and the dominant currency, the US exerts a mighty pull.

Illustration by Pierre Buttin



Diminishing tailwinds

The forces that have amplified US asset returns for decades are now fading. American financial dominance benefited from a rare combination: declining interest rates, lower corporate taxes, quantitative easing, a strong dollar, fiscal indulgence, and a growing share of income flowing to capital over labor.

These attributes boosted foreign demand for US financial assets. Outsize stock market returns drove foreign investors to triple their exposure to US equities to more than $20 trillion over the past decade. That further raised valuations and strengthened the dollar—which in turn further compounded gains, particularly for international investors.

Such tailwinds, already largely diminished, are now more likely to reverse.

Evidence increasingly points to a turn in the strong dollar cycle—an important tailwind for the past decade and a half. Expectations of further weakening have driven up the demand for, and the price of, hedging dollar exposures, making the tailwind a headwind. A weaker dollar also increases the relative attractiveness of emerging market and developing economies and has been a strong driver of their significant outperformance since early last year.

Room for further cuts to US taxes and interest rates—major tailwinds for profitability and valuation—is limited. In fact, both are as likely to go up as down given the ballooning deficit and persistent inflation. Even if tax and interest rate cuts do materialize, they will not match the halving of tax rates and several percentage point decline in real interest rates that boosted US equities in the past. And the Federal Reserve is well on its way toward quantitative tightening—a far cry from the days of $9 trillion in peak asset purchases that turbocharged gains. The record share of GDP corporate profits now command is also likely to reverse.

Lower interest expenses and lower corporate taxes alone explain more than 40 percent of the real growth in US corporate profits between 1989 and 2019, and lower risk-free rates explain the expansion in price-earnings multiples over that period. A large chunk of the golden age of US asset returns was one-off repricing.

As these tailwinds fade, profit growth and equity returns are likely to be materially lower than in the recent past.

At the same time, concentration risk has surged. In the past three years, just seven companies accounted for 55 percent of total S&P 500 returns, mostly on the back of the AI boom. The top 10 companies now make up 40 percent of the index. This is not broad-based growth, but a narrow and increasingly fragile bet on a single sector in a single economy. In fixed income, there has been gradual erosion of the traditional safe haven status of US Treasurys, the largest component of the US bond market.

This does not mean a sudden rush for the exit or even a "sell America" trade. The sensible question is not whether investors should own US assets, but how much they should own. When expected returns fall and risks rise, the logic of reallocation becomes inevitable for institutional investors bound by a fiduciary duty to invest money wisely—aiming for the highest possible return without taking unnecessary risk.

Capital shifts

Rebalancing starts at the margin, shifting investment away from the United States, but its gradual pace does not diminish its macroeconomic impact.

Allocation to the US is so large now that even modest changes matter. Norway's $2.2 trillion oil fund, for example, allocates 53 percent of holdings to US assets. Trimming that share to 40 percent—still a sizably overweight position given the country's shrinking economic footprint—would free up about $250 billion for investment elsewhere.

The same reasoning applies for pension funds, insurers, and other sovereign wealth funds, with trillions of dollars likely to seek other opportunities in coming years. Some of that capital will be redeployed in developed economies, especially in the United Kingdom, the euro area, and Japan, where valuation multiples remain more modest and index concentration is far less pronounced.

But emerging market and developing economies offer the most opportunity by far. They have driven three-quarters of global growth in recent decades, and the latest IMF data show that China and India alone accounted for nearly half of global growth last year, three times the combined contribution of the US and the European Union.

Even as advanced economies face a steep demographic decline, further depressing their growth prospects, India and sub-Saharan Africa will each gain more than 12 million workers every year. Labor productivity growth in emerging market and developing economies, at about 3 percent, is more than three times the average for advanced economies. And on other measures of economic contribution and potential, such as trade and innovation, emerging economies' share continues to rise. The world's center of gravity has shifted: Emerging economies are now the key drivers of global growth.

The risk-return case

Financial markets have been much slower to reflect this shift. Emerging market and developing economies accounted for only about 11 percent of global equity market capitalization and 26 percent of bond

markets at the end of 2025, a fraction of their much larger share of global GDP.

That gap captures the heart of the misallocation and should be closed. It also explains why even modest reweighting by the largest asset owners will be macroeconomically significant: It would both plug the annual financing gap of more than $4 trillion and lower financing costs for these economies. The high cost of capital particularly hinders climate mitigation and adaptation investments, since the high up-front costs of these make project viability hypersensitive to financing costs.

Investors traditionally demand much higher returns in emerging market and developing economies because of a long-standing assumption that advanced economies are inherently safe and emerging markets inherently risky. This no longer holds, at least in the aggregate. Some emerging economies may still be more risky than individual advanced economies, but at the portfolio level the gap in currency, political, fiscal, and policy risks between advanced and emerging economies has narrowed, even disappeared.

The burden of public debt, for example, is now far heavier across advanced economies than in emerging market and developing economies, at 108 percent of GDP compared with 75 percent, according to the IMF. The gap in currency volatility has also converged, as have sovereign default rates. In fact, several emerging economies now have lower public debt ratios, more orthodox monetary policy, stronger reserve buffers, and greater policy predictability than many developed economies, including the US.

Political risk appears to be converging too. It's harder to argue that rising polarization and growing instability in the politics of many advanced economies pose less policy risk than in several emerging economies. Further evidence of this convergence lies in the sound economic performance of many emerging economies faced with new global shocks, which in the past would have triggered a crisis. This means investors no longer need significantly higher returns from their emerging economy portfolios.

As outsize returns in the US moderate, even as risk and concentration rise, the robust returns, limited riskiness, and large diversification potential of emerging economy investments offer the perfect opportunity for rebalancing.

Portfolio optimization

Emerging market and developing economies offer more than higher growth and profit potential. They generate structurally different returns since their demographics, currencies, politics, policy regimes, and sectoral composition differ from those of the US and of one another. In general, correlations between markets are lower than between developed markets, for example in the euro area—smaller, less integrated emerging economies offer additional diversification benefits. This enhances emerging economies' value both for returns and for portfolio resilience.

DATA

67%

The US accounts for about two-thirds of global stock market capitalization.

Modern portfolio theory posits that assets should be judged not only by expected return but by their contribution to whole-portfolio risk and return. Yet many "global" portfolios are simply concentrated bets on US equities, Treasurys, the dollar, and a small group of tech companies. This matters because lower interest expenses and corporate taxes and large fiscal deficits have enhanced US corporate profits and equity valuations in a manner that cannot be sustained. Meanwhile, elevated valuations, market concentration, and rising correlations make these portfolios vulnerable.

The case for rebalancing follows directly from institutional investors' fiduciary obligations to maximize long-term risk-adjusted returns. As this rebalancing moves emerging market and developing economy allocations closer to their weight in the world economy, it will lower financing costs, in turn boosting investment, jobs, and growth and supporting a more resilient, low-carbon economy.

Rebalancing is inevitable, but the timeline is uncertain. Weak project pipelines, misaligned incentives, perverse regulations, and investors' general unfamiliarity with these markets could all slow the pace. Removing these barriers should be a top policy priority. Doing so will unlock stronger, more balanced growth for the global economy and reward investors with higher risk-adjusted returns. With some luck, it may even spell the beginning of the end of the Lucas paradox. **F&D**

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The Innovation Blindspot

Mehran Gul

LOOKING BEYOND CHINA-US RIVALRY REVEALS ALTERNATIVE MODELS OF TECHNOLOGICAL DEVELOPMENT

The global technology narrative is overly binary. Discussions often frame progress—especially in artificial intelligence—as zero-sum competition between the United States and China. But focusing too much on those two countries' contest for supremacy across technological domains—from AI foundation models and electric vehicles to biotechnology and renewable energy—obscures important models of innovation elsewhere.

There are better reasons to look at other places than simply an egalitarian desire to democratize technology or include everyone. Alternative approaches can expand our knowledge of what technological progress can look like and show how to improve it.

Ignoring other geographies means ignoring other approaches. There is value in reframing technology competition as a contest between different systems rather than different countries. The Cold War framed global competition as capitalism versus communism, allowing observers to test the relative merits of different approaches. Today's discussion about innovation lacks this systemic angle and focuses entirely on tribal competition between only two principal antagonists.

Some see contrasting models: market oriented and state led. But that distinction does not hold for the rivals' tech industries. The role of Chinese central planning is often overstated. Alibaba, Tencent, and ByteDance are not creations of the state. These companies are as likely to suffer from government intervention as benefit from it. Their success is explained less by state control and more by their use of Silicon Valley's playbook.

China's tech sector took off with the arrival of American-style risk capital, which transplanted Silicon Valley's legal infrastructure wholesale to the Chinese context, as Sebastian Mallaby chronicled in his 2022 book, *The Power Law*. Investments were often structured by US lawyers, with disputes settled under New York state law, and these com-

panies grew by issuing Silicon Valley–style stock options to early employees.

The contest between China and the US in the tech sector is not between different models but different intensities of the same model. China is different politically, but in its tech industry it can be even more market driven than the US. The buzz of a place like Shenzhen can make it feel like Silicon Valley on steroids. The relentless competition among new firms, characterized by Kai-Fu Lee's 2018 book *AI Superpowers* as a "gladiatorial contest" to the death, has made "involution" a dominant theme in Chinese national discourse. Involution can only be described as an intense form of hypercapitalism that would be considered too extreme even in its Western cradle.

Most technological development occurs within similar frameworks. Venture capital, staged funding rounds, rapid scaling, and winner-take-all economics are defining technological change. But many of the most revolutionary ideas in technology—the internet, email, Bitcoin—emerged apart from commercial companies and monetized products. This is where looking for a variety of innovation models beyond the US and China is helpful.

Innovator's dilemma

Take South Korea. The country transformed from one of the world's poorest nations at the end of World War II to one of the richest, largely because of its technology conglomerates like Samsung, Hyundai, and LG. These sprawling companies, known as chaebol, are often discussed in the context of how technology companies aid national development. But an often-overlooked aspect of their success is their unusual longevity amid relentless technological change.

Management students learn of the innovator's dilemma, a term coined by the late Clayton Christensen, a Harvard Business School scholar, to describe the way one era's tech giants are completely blindsided by the next wave in a consistent pattern. Kodak, BlackBerry, and Nokia are often cited as examples. The incumbents, the argument goes, are so invested in protecting the technologies at the core of their business that they see the next big thing as a threat rather than an opportunity.

The natural corollary is that technological progress happens not when existing players innovate but through what the political economist Joseph Schumpeter called creative destruction—when revolutionary new pioneers destroy old industries and occupations and create new ones to take their place. Creative destruction and the innovator's dilemma are rarely questioned and often accepted as economic orthodoxy; they're just a reflection of the way things are.

"As reservations increase about letting commercial motives determine the trajectory of powerful new technologies like AI, the case for exploring alternatives rises."

Korean companies are an exception. Samsung and Hyundai trace their origins to the early 20th century, like US peers such as General Motors and IBM. But while their US counterparts are well past their prime, the Korean conglomerates remain globally competitive and are entering new frontier industries.

Samsung trailed Nordic and Japanese companies for years after making its first handheld devices in the 1970s, then rose to be the second-largest producer in 2007, when Steve Jobs announced the iPhone. And Samsung went on to thrive as Nokia, Ericsson, Motorola, and BlackBerry stumbled. Within five years it topped Apple as the No. 1 smartphone maker.

Samsung's dominance is more comprehensive than its sales figures suggest. It is also Apple's largest supplier. The Korean company's unusual way of doing business with its rivals helps it make money not just when it sells a product but also when its main competitor sells one.

Cooperative competition

Samsung's longevity may look like an exceptional stroke of good fortune—except it has endured across several markets, from televisions to semiconductors and appliances. This shows that the company's competence at staying one step ahead of the innovator's dilemma is systematic, an attribute it shares with its Korean peers.

Hyundai, founded as a construction company in 1947, now competes in many industries, including robotics and batteries, and is one of the largest makers of electric vehicles. It and other chaebol have long outgrown state direction, and successive Korean governments have tried to curb the conglomerates' economic influence. It's largely because of these efforts that Korea's internet-era platforms, like Kakao, Naver, and Coupang, sprang up outside chaebol control. And yet despite a

three-decade push to shift the economy's center of gravity away from the old conglomerates, these firms have aggressively entered new sectors and are now the core of the country's AI and semiconductor strategy.

Korea offers a useful counterpoint to Silicon Valley's celebrated disruption. Disruption is so associated with technological progress that its negative connotations are often overlooked. Creative destruction can drive industries, but its costs are often borne by workers and communities in the form of job losses and deindustrialization.

Korea's model also has drawbacks. The expansive role that its conglomerates play in national affairs is a central political theme. But they underscore that evolution can be as powerful as revolution, and that large companies can offer stability and maintain relevance while adapting to technological change.

Alternative innovation

Singapore also provides an interesting case study for alternative innovation—specifically, that it does not occur only in start-ups or even the private sector. Singapore, as founding Prime Minister Lee Kuan Yew put it, became "a first world oasis in a third world region" within a generation. But unlike in South Korea, its growth was propelled and shepherded by its government.

Singapore is perceived to be technologically capable, yet it has fewer globally dominant tech platforms than its peers. It does enjoy more private equity and venture capital assets under management than all Southeast Asia's other major economies combined. Much of this lead is the consequence of long-term planning by the government, which built the industry from scratch in the 1990s through the Technopreneurship Investment Fund.

The fund allocated $1 billion as a limited partner in foreign venture capital funds to attract them to Singapore, allowing the government to rapidly build its own expertise. Singapore's government-linked venture funds then became early investors in Alibaba, Baidu, and BYD.

GovTech

Singapore is also recognized as a model for government use of new technologies to improve the efficiency of their operations and services. Unlike in the US and China, where discussion of the most exciting tech innovation often begins and ends with fast-growing start-ups, it's important to look at what happens in the city-state's offices.

The government's digital capabilities are housed in an agency called GovTech, which attracts the country's best of brightest technical talent, like an in-house Google. GovTech operates very differently from a traditional government outfit, with the culture of a tech start-up.

Singapore, unlike most governments that outsource, built GovTech to foster deep tech capabilities in-house. The agency employs more than a thousand developers. Notable initiatives include Singpass, a digital ID citizens use to access thousands of services, from health care to housing. It's one of the world's most widely adopted digital ID systems.

The Singapore example challenges the assumption that meaningful innovation emerges only from private enterprise. The public sector can also drive technological change if appropriately structured and directed.

More possibilities

Innovation need not follow a single model. Some of the most consequential technologies of the past 50 years were not built by companies at all. They emerged as protocols and open standards but reshaped the world as much as any commercial product, which presents the strongest evidence that the dominant frame—venture-capital-backed companies racing to monetize a new product—is a choice, not necessity.

There have been small steps in this direction. DeepMind, an AI laboratory owned by Google, explored becoming a public interest company, a corporate structure without shareholders sometimes used by nonprofits. Twitter cofounder Jack Dorsey has argued that the company should have been built as a protocol, something more like email than a commercial social network. And OpenAI began as a nonprofit before becoming a more conventional company. But there is little evidence that a radical alternative, acting as a foil for the current model of doing tech, is emerging in either of the two main markets.

As reservations increase about letting commercial motives determine the trajectory of powerful new technologies like AI, the case for exploring alternatives rises. The goal should not be more technology from more places but fundamentally different approaches to how society develops and deploys technology. Only by examining alternative approaches can we appreciate what the current ones miss and what other possibilities there are. Looking beyond the US-China rivalry reveals how technology can evolve differently. It's time we paid attention. F&D

MEHRAN GUL *is the author of* The New Geography of Innovation, *which the* Financial Times *selected as one of the best books of 2025.*

ROHIT CHAWLA

People in Economics

Change Architect

Prakash Loungani profiles veteran Indian policymaker **Montek Singh Ahluwalia**

IN 1991, India stood on the brink. Export earnings were no longer enough to pay for imports, triggering a full-blown balance of payments crisis. Countries caught in such turmoil often endure years of weak growth. India escaped that fate.

Two men were central to India's escape: Manmohan Singh, the finance minister, and Montek Singh Ahluwalia, a veteran policymaker known to all as Montek. Rather than treat the crisis solely as a disaster to be managed, they used it as an opportunity to remake the economy. Their long-term aim was to loosen the grip of the state's socialist-era controls, encourage private enterprise and foreign investment, and open India to global trade. But with foreign exchange reserves depleted, India first had to avert default. The country turned to the IMF for support and, in one of the crisis's most enduring images, shipped part of its gold reserves abroad to raise cash.

Montek recalls one final drama. As the truck carrying India's gold reserves rumbled toward the airport, it got a flat tire. Policymakers listened anxiously to radio reports, unsure whether the shipment would arrive in time. "Fortunately, they were able to change the tire and the precious cargo was soon on its way to London," Montek told *Finance & Development* in an interview.

Even before that crisis, Montek had sketched out a more ambitious vision for India's future. In 1990 he produced a blueprint for transforming India from a heavily regulated command-and-control economy into a globally integrated market economy. Leaked anonymously, the document quickly became known as "Project M." As the journalist Swaminathan Aiyar observed, only one policymaker combined the experience and intellectual confidence to have written it.

Many of the reforms enacted after the 1991 crisis bore Project M's imprint. Montek later described them as a "decisive shift away from the control mindset," though he noted that progress was necessarily gradual in a democracy. "There is a good case for gradualism," he

Many of the reforms that put India on a higher growth path can be traced to Montek Singh Ahluwalia's vision for a more open economy.

reflected, "but I think we should have moved much faster."

Martin Wolf of the *Financial Times* described Project M as the blueprint for reforms that "shifted India onto a higher growth path." When *TIME* magazine profiled India's most influential figures in 2007, it referred to Montek as the government's "brain," noting that his fingerprints were visible across virtually every major reform initiative. Four years later, India awarded him the Padma Vibhushan, the country's second-highest civilian honor, in recognition of his contribution to public policy.

Montek was never India's most famous reformer nor its most powerful politician. Yet for much of the period during which India transformed itself from a tightly controlled economy into one of the world's fastest-growing major economies, he was involved in almost every important moment—usually behind the scenes and nearly always making the case for change.

"Economic reform is a team effort," says economist Surjit Bhalla, "but it was Montek's persistence and vision that helped us pull it off."

Anne Krueger, a US economist, remembers working with Montek during the reform period. "He is one of the best economists I know who's also been one of the best bureaucrats," she says. Many economists understood what needed to be done but were easily defeated by daunting political obstacles. Montek, by contrast, had a sense of what was possible and could deflect opposition. "He persuaded rather than annoyed," she says.

A scholar's path

Born in Rawalpindi, in what is now Pakistan, in 1943, Montek grew up in a modest household: His father was a government accounts clerk and his mother a homemaker. The family later moved to Delhi, where he spent most of his life.

Education was the family's obsession. His father shunned financial speculation to ensure that money was always available for his children's schooling. When Montek skipped a grade after excelling in class, his father worried that it might leave gaps in his knowledge. He attended some of the missed lessons himself, taking notes for his son. Years later, he turned down a major promotion because it would have required the family to leave Delhi and risk disrupting the children's education.

The investment paid off. Through talent and hard work, Montek won admission to St. Stephen's College, one of India's most prestigious institutions. Strong results there earned him a Rhodes Scholarship—one of only two awarded to Indians that year—and a place at Oxford. Going to Oxford was his first trip abroad. Rather than fly, he traveled by ship through the Suez Canal to Italy, crossed the Alps by train, and reached England by ferry—a journey that took about 10 days. He graduated with a "congratulatory first," a rare accolade. Beyond the classroom, he immersed himself in Oxford Union debates, sharpening skills of argument and persuasion that would later help him build support for economic reform.

Out into the world

Montek had little interest in a lucrative private sector career. His ambition was to shape policy in India. Yet when the World Bank came calling in 1968, he accepted. It was a sensible detour. Studying how different countries designed economic policy—and why some flourished while others faltered—would provide useful training for a future policymaker.

As a World Bank Young Professional, Montek was dispatched in quick succession to Peru, Ethiopia, Indonesia, North Yemen, Yugoslavia, Turkey, and Malaysia. The experience gave him a firsthand view of development's many paths and pitfalls. It also introduced him to Isher Judge, then a summer intern at the IMF, who would become his wife and an economist of considerable distinction in her own right, later leading one of India's foremost think tanks.

Montek chose the World Bank's executive dining room for their first date. According to Isher, it was not the venue but his wit and conversational ease that impressed. Those qualities, she would later joke, were gradually worn down by decades in the Indian bureaucracy.

The World Bank itself was changing under Robert McNamara. Growth remained central to its mission, but the institution increasingly turned its attention to poverty and inequality. A new division was created to advance that agenda and, at just 28, Montek was appointed its first chief—the youngest division chief in the institution's history at the time. The experience left a lasting mark. Throughout his later career, he argued that growth had to be inclusive. He often recalled a saying that growth should be like rain, nourishing the valleys below, not like snow, resting only on the mountaintops.

In government

Montek returned to India in 1979 and embarked on the phase of his career that would define his reputation. He joined the Ministry of Finance, determined, as he later wrote, to "influence policymaking from the inside."

Yet he understood that returning from Washington carried its own challenges. "In a place like India, when you come in from the outside you have to spend some time fitting in." Even so, he remained convinced that change was best achieved from within. Years later, when Raghuram Rajan, then the IMF's chief economist, was considering how best to serve his homeland, Montek offered simple advice: "The best thing you can do to help is to come back and work in India."

That same belief in working patiently within the system also shaped Montek's approach to reform.

In 1980, Indira Gandhi returned as prime minister and began cautiously moving India away from the more rigid aspects of the socialist model inherited from her father. Industrial controls were eased, competition was encouraged, and a greater role was carved out for the private sector. The changes were modest, but they marked the start of a long shift in thinking. Montek later described much of this period as "reform by stealth"—incremental changes that gradually loosened the command-and-control system without openly repudiating it. Rajan describes him as a "reform opportunist" in the

best sense of the term, adept at finding politically feasible openings for change and getting "the camel's nose under the tent," or doing something that starts the reform process and letting it gather its own momentum.

For Montek, reform by stealth was not just a slogan but a practical program. One priority was reducing the bureaucratic obstacles facing businesses. He often illustrated the problem with the experience of Infosys, then a fledgling technology firm. After applying for permission to import a computer, the company endured such a lengthy approval process that a superior and cheaper model became available before the license was granted. To import the new machine, however, it would have had to begin the process again from scratch. It was precisely this sort of absurdity that reformers such as Montek sought to eliminate. He also played a role in making the exchange rate regime more flexible and drew on his World Bank experience during negotiations with the IMF over India's 1981–84 program.

His influence grew further after Rajiv Gandhi became prime minister in 1985. Montek relished the opportunity to work for a leader who was, as he put it, "almost the same age" as himself, technologically minded, enthusiastic about the private sector, and determined to prepare India for the 21st century. By then Montek had moved to the Prime Minister's Office, where his access—and the chances of his ideas being implemented—increased considerably. He later recalled Rajiv personally introducing cabinet ministers to spreadsheet software such as Lotus 1-2-3, then at the frontier of office technology.

Telecommunications became one of the new government's signature reforms. Rajiv argued that telephones should not be a luxury reserved for the wealthy. At the time, India had just 4 million telephone lines for a population of about 800 million. The gradual opening of the sector to private participation, in place of a state monopoly, helped lay the foundation for the communications revolution that followed.

Other reforms were slower to bear fruit. Fiscal reform, an issue Montek championed throughout his career, began in earnest during this period but would remain a work in progress for decades. More broadly, the changes of the 1980s helped ease many structural constraints, yet they were not sufficient to avert the balance of payments crisis of 1991.

> "For Montek, reform by stealth was not just a slogan but a practical program."

Independent evaluation

By 2001, with India on a higher growth trajectory and the reform process firmly underway, Montek accepted an offer to establish the IMF's Independent Evaluation Office (IEO). The IMF created the IEO to provide an objective assessment of the institution's performance after its handling of the Asian financial crisis came under scrutiny.

Montek proved an inspired founding director. The IEO tackled difficult subjects, produced analytically rigorous reports, and, crucially, found ways to translate recommendations into action. The economist Krueger, then IMF first deputy managing director, says it's astonishing that Montek was able to come to such a complex organization—with its fair share of thin-skinned officials—and set up an evaluation office without causing widespread offense. "He combined discretion and diplomacy," she says.

Montek and Krueger were regular golfing buddies. The Bretton Woods club imposes a four-hour limit per round. Krueger remembers waiting anxiously for Montek to arrive so they could tee off. "He never once was late, and he never once was early. His demeanor was always calm and possessed. It was just-in-time delivery, I suppose."

The long view

In 2004, Montek's mentor, Manmohan Singh, unexpectedly became prime minister. Singh persuaded him to return to public service as deputy chairman of the planning commission, a position with cabinet rank. In the years that followed, India recorded some of the fastest growth in its modern history, with annual expansion briefly exceeding 9 percent.

Since stepping away from official roles in 2014, Montek has continued to shape discussion of the country's economic future. In his assessment, growth over the past decade has been "reasonably good," though he argues that even faster expansion will be needed to achieve the government's ambition of attaining advanced-economy status. He is encouraged by what he sees as growing dynamism in several states, where experimentation and competition are driving reform from below.

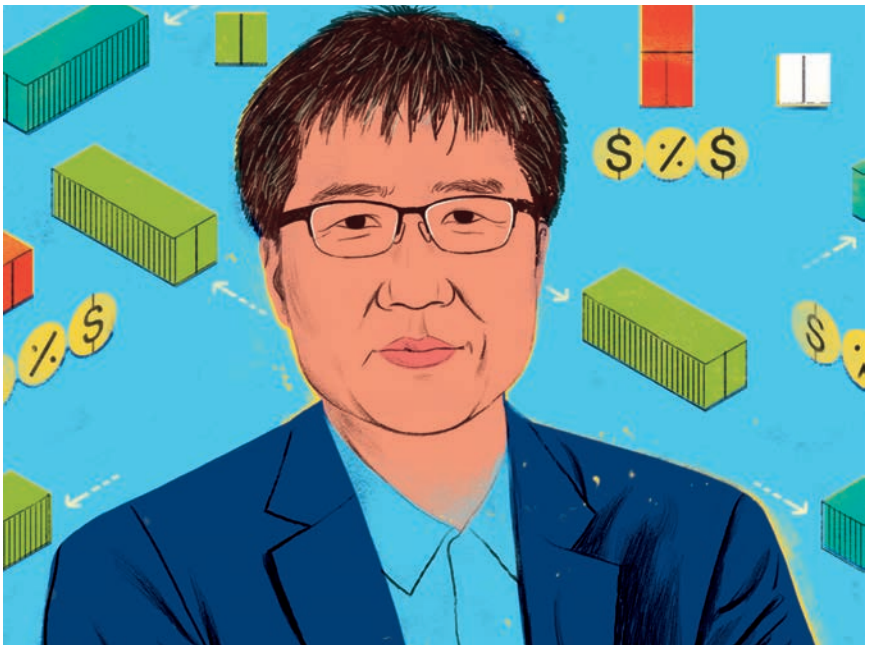
The challenge today, he argues, is to sustain rapid growth while creating enough high-quality jobs and ensuring that prosperity is broadly shared. On that score, he remains cautious. "Evidence on this is not conclusive," he says, "but there are many who feel the growth we are seeing is K-shaped." If so, the gains from growth are accruing disproportionately to the rich. Such an outcome, he warns, risks undermining public support for markets by associating capitalism with cronyism rather than opportunity. He is also exploring the policy implications of managing climate change.

For Montek, the question is more than an economic one. As the father of two children and grandfather of five, he has a personal stake in whether India can sustain the growth story he helped to build. F&D

PRAKASH LOUNGANI *is director of the applied economics master's program at Johns Hopkins University.*

Café Economics

Nurture, Then Prosper



Living through South Korea's "economic miracle" taught **Ha-Joon Chang** a few things about infant industry protection

When the economist Ha-Joon Chang was born in 1963, South Korea was in turmoil. "Life expectancy was 53," the best-selling author told F&D's Bruce Edwards in a recent interview. "Statistically speaking, I should have been dead for the past 10 years." The country was very poor, surviving on exports of rice, fish, and vegetables.

But the early 1960s marked the launch of Korea's economic development drive, with five-year plans focused on industrial policy and nationalization of its banking system. The strategy pushed growth rates into double digits and ultimately improved lives, but the country was under a military dictatorship, and with growth came exploitation and political repression.

Growing up, Chang saw it all play out. "I wanted to make sense of it. How is it possible that all these good things and bad things are happening at once? So I decided to study economics to understand it."

In today's world, where everything is expected to justify its existence in terms of its economic contribution, everyone must know some economics to sustain a healthy democracy, Chang says.

Chang went on to earn a PhD at the University of Cambridge, where he taught for 30-plus years before moving to SOAS University of London in 2022. He is the author of 17 books that have been translated into 46 languages and sold over 3 million copies globally. His latest title is *Edible Economics: A Hungry Economist Explains the World*.

F&D: What was it like to witness South Korea's dramatic transformation firsthand?

HJC: Like riding a time machine. When I wrote my first mass-market book, *Bad Samaritans,* back in 2006, I did a back-of-the-envelope calculation. The material transformation I had seen in the first 43 years of my life was equivalent to what happened in America in the 150 years or so between the time of Abraham Lincoln and the early 21st century. These were huge economic transformations. A country that only grew rice and vegetables was suddenly producing cars and ships and steel. But at the same time repression was all around.

My father, who originally trained as a lawyer but later studied economics while working at the finance ministry, told me, "If you want to understand these things, you need to study economics." Initially I was disappointed because the economics we were taught at university was mostly neoclassical general equilibrium theory. I couldn't take it seriously because the professors were talking about equilibrium while outside was all this violent turmoil. So a lot of us students started studying what might be called "alternative economics," inspired by Marx, Hirschman, Kuznets, and other early development economists.

F&D: Would capitalism work better if more people were familiar with basic economic principles?

HJC: Yes, it's essential that ordinary citizens know at least some economics because, in a capitalist society—espe-

Illustration by Sonia Pulido

cially today's more market-oriented neoliberal variety—everything is supposed to justify its existence in terms of its economic contribution. And almost all public policies today are made, or at least filtered, by economists. And in that kind of society, unless you know at least some economics, your vote is meaningless. Everyone must know at least some economics to sustain a healthy democracy.

F&D: Much of your early writing was about the benefits of tariffs, especially for developing economies. Do you still believe that?

HJC: That's been the constant theme of my work and still is today. Tariffs, like all other policy tools, can be misused. So the fact that some countries messed up with excessive protection doesn't mean that they're necessarily a bad thing. After studying the economic history of rich countries and the recent record of developing nations, I've concluded that developing countries need a period of protectionism in the beginning to help develop the economy. This is actually an American idea. It was invented by Alexander Hamilton, the first treasury secretary and now the star of a hip-hop musical.

In a 1791 report to Congress on manufactures, Hamilton said that governments in economically backward countries, like the US in the late 18th century, need to protect industries in their infancy from competition from more mature industries from abroad, just as we protect and nurture our kids until they grow up and can compete in the labor market. And the biggest tool that he came up with was tariffs.

But Hamilton went well beyond tariffs. He was a visionary. He talks about government subsidies, infrastructure investment, development of the banking system and government bond market—even the patent system. I call the report history's first ever economic development plan.

If you follow the logic of infant industry protection, you need this first period of protection and nurturing. It happened in all successful economies throughout history. The US for nearly a hundred years was the world's most protected economy. My native South Korea and several other East Asian economies used heavy tariff protection to provide the initial breathing space for new industries to invest and raise productivity. It worked best in countries where the recipients of state support were well disciplined.

F&D: We're seeing more industrial policy today, in advanced economies generally but especially the US. What do you make of this?

HJC: Throughout most of capitalism's history, industrial policy was a normal government tool. It's only in the past 40 years or so, between 1980 and 2020, that industrial policy became taboo. In fact, two IMF economists published a famous working paper in 2019 called "The Return of the Policy That Shall Not Be Named." But now it's back in fashion.

Industrial policy didn't disappear completely during the neoliberal period. My friend Mariana Mazzucato, of University College London, has pointed out that virtually every piece of technology in the iPhone originated from US government–funded research. The semiconductor was initially funded by the US Navy. The computer and the internet were developed by the Pentagon—and so on. These policies continued, but people did it on the quiet.

The new popularity of industrial policy stems from the fact that many rich countries, especially the US, have experienced deindustrialization. They worry that China is rapidly catching up and have realized that they cannot maintain their position without pulling further ahead in areas where they still have superiority. However, I worry that most of the new industrial policy, especially in the US, is poorly designed and won't work. I call it the geriatric version of infant industry protection.

F&D: I've heard you say that you're not a free-trade economist, but do you see any virtue in trade and capitalism as a means to improve lives?

HJC: Absolutely! There are different types of capitalism. What was the top income tax rate in the US between the late 1940s and mid-1960s? Ninety-one percent. A 19th century American looking at the US might think it resembles a communist society. You cannot own slaves. You cannot hire children. There's a state currency monopoly called the Federal Reserve. There are all sorts of environmental and labor regulations. The point is there are many ways of managing capitalism. Deciding which is best depends on your values and politics.

Capitalism, to paraphrase what Winston Churchill said about democracy, is the worst economic system except for all the others. There's no credible alternative. That's bad news for some people who want to abolish capitalism. But the good news is that there are ways to make capitalism more efficient, more humane, and more sustainable.

Take trade. In my view, there's no economic development without trade. But free-trade economists' biggest sleight of hand is to tell people that the best form is free trade. It's not! The best form is what some people have called "managed trade."

As well as protection for new industries, developing economies need to build export capabilities. Countries like Korea and Taiwan heavily subsidized their export industries because they knew that they needed foreign exchange to import the latest machines and technologies.

F&D: Sticking with the theme of your latest book, *Edible Economics*, what is your recipe for sustainable development?

HJC: Sustainability should not only be about the environment. It should have an economic dimension. It also needs political sustainability because even good growth rates aren't sustainable if they are built on exploitative labor practices, precarious jobs, or rapidly rising inequality, which can all make many people unhappy. And you need social consensus. You can't create that without mass economic literacy and people with some idea of how the economy works. F&D

This interview has been edited for length and clarity. Visit www.imf.org/podcasts to hear the full interview.

Book Reviews

When Globalization Unravels

Harold James

A vivid history shows how financial crises, deflation, and populism disrupted globalization's first age.

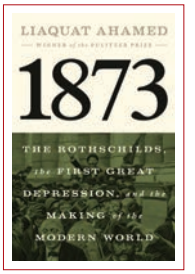
LIAQUAT AHAMED'S thought-provoking history starts with two 1873 financial crises that shook the world and set off the great depression in the book's title. Ahamed, a Pulitzer Prize winner for his history of the 1929 depression, *Lords of Finance: The Bankers Who Broke the World*, traces the global repercussions from Vienna to New York to the crumbling Ottoman Empire in a beautiful narrative with a compelling cast of characters.

After a great expansion of worldwide commerce, driven by the steam engine in railroads and transoceanic shipping and coordinated by the telegraph, the twin crashes stoked political and economic discontent and led to an upsurge in populism, nationalism, racism, trade tariffs, and political corruption—all very familiar to readers today.

The first crash came as the Habsburg monarchy was launching the Vienna Universal Exhibition, a magnificent spectacle to celebrate the 25th anniversary of Francis Joseph's reign as emperor and showcase Austria-Hungary's economic and political success in the newly interconnected world. His reign, which began inauspiciously amid the great revolutionary wave of 1848, saw a surge in real estate and railroad speculation, similar to that unfolding in the post–Civil War United States. "It does not actually take enormous prescience to spot when a market has entered bubble territory," Ahamed remarks; "what is difficult is predicting when, exactly, it will burst." It's hard not to read this also as commentary on the AI-centered stock market surge as the US marks its 250th birthday.

The second crash was set off by the abandonment of the bimetallic silver and gold monetary order and the adoption of the pure gold standard. The economic chaos that followed this monetary mistake, often characterized as the "Crime of '73," brought back protectionism and so altered the course of globalization's first age. In Ahamed's telling, two figures played a starring role.

John Sherman, chairman of the Senate Finance Committee (and younger brother of William Tecumseh, who torched Atlanta during the Civil War), was in Paris for the 1867 International Monetary Conference, a proto–Bretton Woods conference convened by French Emperor Napoleon III. The meeting debated a plan to rationalize money in the same way France had imposed a metric system of weights and measures. The plan went nowhere, but Sherman returned home convinced that he should demonetize silver.



1873
The Rothschilds, the First Great Depression, and the Making of the Modern World

Liaquat Ahamed

Penguin Press

New York, NY, 2026, 346 pp., $32

The second figure was President Ulysses S. Grant, who saw the misery caused by a lack of money but who, according to Ahamed, "lacked confidence in his own economic judgment and was unwilling to challenge the conventional wisdom of the financial establishment." This "loss of nerve" meant he vetoed a Senate bill that would have increased the money supply.

Perhaps this argument is too contingent. The true cause of the deflation and misery for farmers on both sides of the Atlantic was a (positive) supply shock from globalization. The steamship lowered agricultural prices, made life better for urban consumers and factory workers, and drove industrial development.

Contemporaries, Ahamed reminds us, found it convenient to blame the Rothschild bankers, and Jews in general. The 19th century debates were a pre-echo of today's discussion of deflation brought about by the global extension of industrial manufacturing. Disruption can produce new prosperity, but also new demands—including for scapegoats. **F&D**

HAROLD JAMES *is a professor of history and international affairs at Princeton University and an IMF historian.*

The dollar's enduring appeal may owe less to Washington than to decades of worldwide use.

More Than America's Money

James Boughton

IS THE DOLLAR REALLY five centuries old? It became the official currency of the United States through an act of the Continental Congress in July 1785, which makes the age of the "almighty" dollar just 241 years. In this engaging new study, however, Brendan Greeley gives us a timeline that starts in 1518, when a silver mine in Bohemia began minting silver coins called *thalers*.

Use of the coins spread organically as traders sought to overcome the chaos of multiple currencies, often of questionable value, when buying goods from distant markets. In Spain, the *thaler* became the *dólar*. Even in parts of British North America, the Spanish silver dollar circulated alongside versions of the pound sterling. The American revolution overthrew not only British rule, but also its system of coinage. At the urging of Thomas Jefferson, the US established a decimal system with the dollar as its unit of measurement.

Greeley, a columnist at the *Financial Times* who is currently completing a PhD in financial history at Princeton University, uses this history to argue that the dollar is a natural being beyond the control of any nation. "The dollar is not America's currency," he states boldly. "It works for the world—for now." His point is valid: Anyone in the world can create US dollars simply by engaging in a contract with payment committed in this currency. When a German bank, say, makes a loan to a European customer with the amount of repayment denominated in dollars instead of euros, that loan becomes a dollar-denominated asset identical in nature to a loan by a US bank. Contracts denominated in this way—in what were once called "Eurodollars"—underpin the bulk of international trade and finance. In total they far exceed the domestic US money stock, and they are beyond the control of the US government and the Federal Reserve.

This insight changes the thinking about a big question in international finance: Will the US dollar continue to be the world's dominant currency, or is it set to be unseated by...by what? The euro? The renminbi? The SDR? Crypto? So far, no currency has such worldwide acceptance as to credibly challenge the widespread demand for the dollar. No one knows whether it will happen, but the prevailing view among financial historians and analysts is that this is a game the US will lose only if it fails to keep its own financial house in order.

THE ALMIGHTY DOLLAR
500 Years of the World's Most Powerful Money

Brendan Greeley

Penguin Random House

New York, NY, 2026, 432 pp., $32

Persistent large federal budget deficits and questions about whether the US government can and will preserve its financial soundness generally underlie doubts about continued global dollar dominance. Other recent histories of the dollar, such as Paul Blustein's *King Dollar* and Barry Eichengreen's *Money Beyond Borders,* come to different conclusions about the likelihood of the dollar's fall from grace, but they all base their projections on the strength of US economic policies.

Greeley sees it differently: "The dollar isn't a global currency because people are in awe of the United States," he concludes. It is because of "a series of habits built up over the past fifty years," and the continuation of those habits is beyond the control of US institutions.

Is it that simple? Perhaps the best lesson to take from this story is not that the conventional view is wrong but that it is not quite complete. **F&D**

JAMES BOUGHTON *is a senior fellow at the Centre for International Governance Innovation and a former IMF historian.*

The Rise of 'Emerged' Markets

Mahmood Pradhan

Emerging markets' growing economic clout is not matched by their influence in global governance.

ARE THE WORLD'S emerging market economies still emerging? Some commentators and credit-rating agencies reckon so, pointing to their underperformance as an asset class, with returns consistently below those of advanced economies and per capita incomes that are still far from those of richer economies.

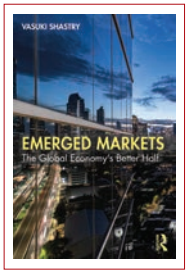
Yet this is not the whole story. It glosses over very real progress in emerging markets, which now account for more than a third of global GDP. Hence the "Emerged" label in the title of Vasuki Shastry's new book, which is a call both to recognize the progress these economies have made and to give them greater representation and fairer treatment in global policy institutions.

China and India, the world's largest emerging market economies, have pursued their own development paths. Yet from Brazil to South Africa to Southeast Asia, midsize emerging markets have liberalized trade and capital flows, embraced free-floating currencies, established credible monetary frameworks, and broadly lived within their fiscal means. All of this is part of the Washington Consensus prescription. Nevertheless, these reforms have not fully inoculated them from the vagaries of global business cycles that often reverberate from advanced economies.

Private capital flows to middle-income emerging market economies have dwarfed official flows since at least the 1990s, an important market signal of progress. But, as Shastry notes, capital flows between emerging economies have also exploded. China has pursued its Belt and Road Initiative for more than a decade despite criticism surrounding its motivation, transparency, and the debt burdens it imposes on recipient countries.

Other emerging economies are also important sources of capital. The United Arab Emirates, for example, is now the largest investor in Africa—a reminder that emerging economy surpluses are no longer just recycled into US debt and equity markets. From India to Singapore and Türkiye, emerging economies are now significant official contributors to disaster relief and other development initiatives.

Shastry, a former journalist who has also worked at the IMF, the Monetary Authority of Singapore, and the British multinational bank Standard Chartered, tells the story of emerging market progress through the development of China's electric vehicle, India's digital technology, and Nigeria's oil refining industries. He makes a convincing case that these countries are global leaders in these sectors and that their progress is secular, or largely immune to macroeconomic cycles.



EMERGED MARKETS
The Global Economy's Better Half

Vasuki Shastry

Routledge

New York, NY, 2026, 170 pp., $44.99

A core part of the business of investing in emerging market economies is picking potential winners and steering clear of losers. Investors are still heavily influenced by macroeconomic cycles—capital flows, domestic policy, the credibility of institutions, for example. Shastry's book makes a strong argument for looking beyond macro, as investors do in advanced markets.

Such an approach might help unleash more winners—and more recognition from investors. It's possible to imagine real progress over the next decade in closing the gap between emerging markets' weight in global equity indices and their weight in global output. Shastry's call for better representation of emerging market economies in global policy institutions is likely to take longer, not least because of increasing rifts between advanced and emerging market economies. **F&D**

MAHMOOD PRADHAN *is a nonresident fellow at the European economic think tank Bruegel.*

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Making Waves

Melinda Weir

Curaçao and Sint Maarten's award-winning banknotes celebrate the vibrancy of the Caribbean

A pair of longsnout seahorses appear on the front of the new 200 Caribbean guilder banknote.

COURTESY CRANE CURRENCY/ANNA MASES

"IT COSTS TWO SEAHORSES," a resident of Curaçao joked recently, referring to the images gracing the new 200 Caribbean guilder note. Launched last year, and shared with Sint Maarten, an island about 560 miles to the northeast, the colorful new banknote series has received numerous awards, including Banknote of the Year from the International Bank Note Society.

Depicting a "world under the sea" theme on the front and local landmarks on the back, the banknote series went into circulation in March 2025, following a public awareness campaign for the two Caribbean nations, which are part of the Kingdom of the Netherlands. The Caribbean guilder replaces the Netherlands Antillean guilder, the two countries' long-standing shared currency.

The stakes were high for the Central Bank of Curaçao and Sint Maarten (CBCS). After all, even minor redesigns of banknotes can be a years-long undertaking. Launching an entirely new currency is another matter—a rare experience for countries in recent decades, apart from those adopting the euro—as the CBCS's Nancy Guttenberg-van der Wal noted. The work paid off. The public took an immediate liking to the new banknotes, she told *Finance & Development*, lining up at ATMs and even sharing songs inspired by the new currency on social media.

Curaçao and Sint Maarten's banknotes celebrate a Caribbean teeming with life, highlighting marine species native to both countries, from a gray angelfish and giant tun snail shell to a spotted eagle ray, green sea turtle, stoplight parrotfish, and of course, longsnout seahorse. Known for their morning dance rituals, these rare seahorses appear on the front of the highest-denominated note, the 200 Caribbean guilder bill. The reverse shows Curaçao's Queen Emma Bridge in historic Willemstad.

Eleanore Reynaert, of the CBCS, said that the underwater world helped demonstrate the connection between the two countries' distinct identities and cultures. "We saw it as a metaphor. Fish swim freely, they see no borders, and that was something that we thought stood for the unity between the countries and of being together in a monetary union."

Security features on the banknotes are "a major upgrade" from the previous banknotes, according to Tod Niedeck, of Crane Currency, the US-based firm working with the CBCS on the banknotes' design. Features include a 3D moving stripe, security threads, high-relief printing, transparent features, and iridescent ink.

Speaking about the design of the Caribbean guilder, Reynaert said, "It has to be nice, it has to be beautiful, but most importantly, it has to be secure." F&D

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Curaçao's Queen Emma Bridge in Willemstad features on the reverse of the note.

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