#### The global forces inspiring a new narrative of progress

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Growth is shifting, disruption is accelerating, and societal tensions are rising. Confronting these dynamics will help you craft a better strategy, and forge a brighter future.

The trend is your friend." It's the oldest adage in investing, and it applies to corporate performance, too. We've found through our work on the empirics of strategy that capturing tailwinds created by industry and geographic trends is a pivotal contributor to business results: a company benefiting from such tailwinds is four to eight times more likely to rise to the top of the economic-profit performance charts than one that is facing headwinds.



It's easy, however, to lose sight of long-term trends amid short-term gyrations, and there are moments when the nature and direction of those trends become less clear. Today, for example, technology is delivering astounding advances, and more people are healthy, reading, and entering the global middle class than at any period in human history. At the same time, the post–Cold War narrative of progress fueled by competitive markets, globalization, and innovation has lost some luster.



Those contradictions are showing up in politics, and the long-term trends underlying them are reshaping the business environment. Corporate leaders today need to rethink where and how they compete, and also must cooperate in the crafting of a new societal deal that helps individuals cope with disruptive technological change.

That broad narrative of intensifying competition, as well as the growing need for cooperation, contains challenges, but also great opportunity. We hear about the challenges every day in our conversations with global business leaders: How long can their traditional sources of competitive advantage survive in the face of technological shifts? How will changing consumer and societal expectations affect their business models? What does it mean to be a global company when the benefits of international integration are under intense scrutiny?



All good questions. But they should not distract from the extraordinary opportunities available to leaders who understand the changes under way and who convert them into positive momentum for their businesses. Our hope in this article is to help leaders spot those opportunities by clarifying nine major global forces and their interactions. Significant tension runs through each of them, so much that we'd characterize them as "crucibles," or spaces in which concentrated forces interact and where the direction of the reactions under way is unclear.

These crucibles, therefore, are spaces to watch, in which innovation "temperature" is high.

- The first three crucibles reflect today's **global growth shifts**. The globalization of digital products and services is surging, but traditional trade and financial flows have stalled, moving us *beyond globalization*. We're also seeing new growth dynamics, with the mental model of BRIC (Brazil, Russia, India, and China) countries giving way to a regional emphasis on *ICASA* (India, China, Africa, and Southeast Asia). Finally, the world's natural-resource equation is changing as technology boosts resource productivity, new bottlenecks emerge, and fresh questions arise about "resources (un)limited?"
- disruption. Digitization, machine learning, and the life sciences are advancing and combining with one another to redefine what companies do and where industry boundaries lie. We're not just being invaded by a few technologies, in other words, but rather are experiencing a combinatorial technology explosion. Customers are reaping some of the rewards, and our notions of value delivery are changing. In the words of Alibaba's Jack Ma, B2C is becoming "C2B," as customers enjoy "free" goods and services, personalization, and variety. And the terms of competition are changing: as interconnected networks of partners, platforms, customers, and suppliers become more important, we are experiencing a business ecosystem revolution.
- The final three forces underscore the need for cooperation to strike a **new societal deal** in many countries. We must cooperate to safeguard ourselves against a "dark side" of malevolent actors, including cybercriminals and terrorists. Collaboration between business and government also will be critical to spur middle-class progress and to undertake the economic experiments needed to accelerate growth. This is not just a developed-market issue; many countries must strive for a "next deal" to sustain progress.



These tensions seem acute today because of fast-moving political events and social unease. But earlier times of transition provide encouraging precedents: the Industrial Revolution gave rise to social-insurance programs in Western Europe and the Progressive movement in the United States, for example. Progress has won out over most of the past two centuries—indeed, at an accelerating rate since World War II, which has seen global growth rates more than double the average of the preceding 125 years. As business leaders strive to compete and cooperate in new ways, they should take heart: if history is any guide, we're operating in crucibles of progress that can help create an exciting tomorrow.

# Global growth shifts

No developed country has recaptured the growth momentum we expected before the financial crisis of 2008–09. World GDP as a whole, while ahead of some long-term historical trends, remains below what we had thought to be our economic potential. Moderated growth has challenged individuals, and it has also made it more important for companies to take a granular approach to identifying opportunities, placing bets, and backing them with sufficient resources. The opportunities are large, particularly for leaders who understand how the dynamics of global growth are shifting as the nature of globalization changes, the largest emerging markets grow in importance, and technology reshapes our resource trade-offs.

# **Beyond globalization**

Globalization is still progressing, but also facing powerful headwinds. "Anti-globalization" sentiments are growing, and governments are responding: the United Kingdom is moving ahead with Brexit implementation; the United States has already stepped back from the Trans-Pacific Partnership (TPP) and may now have changes to the North American Free Trade Agreement (NAFTA) in its sights. Meanwhile, traditional globalization metrics are slowing. The growth of trade compared with the growth of GDP in this decade has been half of that in the late 1990s and early 2000s, while global capital flows as a percentage of GDP have

dropped precipitously since the 2008–09 financial crisis and have not returned to pre-crisis levels.

At the same time, there is evidence that other facets of globalization continue to advance, rapidly and at scale. Cross-border data flows are increasing at rates approaching 50 times those of last decade. Almost a billion social-networking users have at least one foreign connection, while 2.5 billion people have email accounts, and 200 billion emails are exchanged every day. About 250 million people are currently living outside of their home country, and more than 350 million people are cross-border e-commerce shoppers—expanding opportunities for small and medium-sized enterprises to become "micro-multinationals."



Operating in tandem with these crosscurrents are calls for localization and recognition of pronounced differences in local tastes, which are making it more costly and complicated to compete globally. Multinational companies need, in the words of GE's Jeff Immelt, "a local capability inside a global footprint." Many companies are trying to compete with the increasing number of world-class local players by carefully recognizing subtle differences in local taste and custom. Some fast-food chains, for example have global, iconic brands but also local menu options that are distinct. Estée Lauder in 2012 introduced Osiao, its first Chinaspecific beauty brand, which it developed at the company's Shanghai R&D center. At the end of 2016, Hyundai announced it would be producing several new models in China to compete with local brands.

Globalization was never an unstoppable, monolithic force, as Pankaj Ghemawat of NYU has long said. As globalization's complexities have become increasingly evident, the importance of competing with local precision at international scale continues to grow.

### **ICASA:** The force of billion-person markets

It was more than 15 years ago that Goldman Sachs economist Jim O'Neil popularized the term "BRIC" in reference to the growth prospects of Brazil, Russia, India, and China. Since then, Brazil and Russia have sometimes faltered, while other emerging markets, particularly in Africa and Southeast Asia, have grown in importance. Although there will be more ups and downs in the years ahead, it's important not to get distracted and lose sight of the numbers. There are three geographic entities—India, China, and Africa—in which urbanization is empowering populations that exceed one billion people, and a fourth, Southeast Asia, with more than half a billion. Together, these enormous "ICASA" (India, China, Africa, and Southeast Asia) markets hold the potential for significant continued expansion (Exhibit 2). They also pose some of the biggest risks to global growth as they confront internal obstacles:

- In India, challenges include transitioning to more sustainable urbanization; building a manufacturing base in India, for India; substantially increasing women's participation in the general economy; and fully exploiting the country's technical brainpower to move up the value chain.
- China's growth rate has begun to taper, and despite substantial institutional changes over the past decade, the country needs to do more to complete its transition from an investment-led growth model to a productivity-led one. The demographic headwinds China will soon be facing amplify the need for this transition.
- Africa, whose working-age population is projected to top that of China and India before 2040, has the most unfilled potential. It also faces the greatest challenges: mobilizing its domestic resources, aggressively diversifying individual state economies, increasing sustainable urbanization, accelerating cross-border infrastructure development, and deepening regional integration. Failing to achieve any one of these could stall growth.

• Southeast Asia's impressive past growth has been driven by an expanding labor force and a shift of workers from agriculture to manufacturing. To continue growing as these factors fade, the region needs substantial investment in infrastructure that supports digitization and urbanization.



Economic power generates geopolitical power, as China's success has most recently confirmed. The more these markets overcome their unique challenges, the more central their role will be on the global stage. How these players assert that new power may not conform to approaches followed by OECD countries. Institutions reflecting these markets' new clout, such as the Asian Infrastructure Investment Bank, are already emerging So are economic arrangements that align with their interests, such as China's One Belt, One Road initiative, which seeks to connect, through maritime links and physical roads, more than half the world's population and roughly a quarter of the goods and services that move around the globe.

The opportunity remains enormous: we expect more than roughly half of global growth over the next ten years to come from these geographies. Whether a company is from one of these markets and already capturing regional growth or is seeking to enter one or more of them, its ability to reallocate resources, realign its footprint, and react to unexpected dips will shape whether it can successfully compete in the rebalancing global economy.

### **Resources (un)limited?**

A modern-day Malthus might wring his hands at our world's ability to sustain billions more people emerging from poverty, eating more protein, driving carbonemitting automobiles, and enjoying a fuller basket of other consumer goods. There is, however, a counterforce at work today, as technological advances change the resource equation in a variety of ways:

- Advances in analytics, automation, and the Internet of Things, along with innovations in areas such as materials science, are already showing great promise at reducing resource consumption. Cement-grinding plants can cut energy consumption by 5 percent or more with customized controls that predict peak demand. Algorithms that optimize robotic movements can reduce a manufacturing plant's energy consumption by as much as 30 percent. And smart lighting and intuitive thermostats are significantly reducing electricity consumption in businesses as well as homes.
- Technology is transforming resource production. Gas and oil output has increased significantly because of advances in fracking, deepwater drilling, and enhanced oil recovery. Seawater desalination currently contributes hundreds of millions of cubic meters per year to Israel's water supply (up from less than 50 million in 2005), and the country now gets 55 percent of its domestic water from desalination.
- Technologies are combining in new ways, with the potential to reduce resource intensity dramatically (Exhibit 3). Vehicle electrification, ride sharing, driverless cars, vehicle-to-vehicle communications, and the use of new materials are rapidly coming together to reduce automobile weight, change driving patterns, and improve the utilization of cars and of road capacity. In fact, analysis by our colleagues suggests that global demand for oil could flatten by around 2025 under plausible scenarios regarding the adoption of light-vehicle technologies and slowing plastics consumption.

Technology isn't a panacea, of course; technological solutions come with external consequences. Fertilizers, for example, helped trigger a boom in agriculture, but fertilizer runoff polluted many water supplies. Fossil fuels lifted the standard of living for billions of people but have led to deteriorating air quality, oil spills, and carbon dangers that are ecologically existential and drivers of investment to meet regulations and arrangements (such as the Paris Agreement) aimed at slowing the impact of climate change.

But there is also opportunity. While companies are working through the implications of resource constraints for their business models, they will generate new ideas—creating less resource-intensive processes, turning waste into raw materials, and building a more <u>circular economy</u>. We can expect an accelerating resource-innovation cycle: growth will strain supplies, technology will yield solutions, externalities will arise, and further ideas will emerge in response.

As technology continues to progress and data flows reveal efficiency opportunities across operations, companies should have more influence over their cost structure, and resource prices should be less correlated to one another and to macroeconomic growth than they were in the past.

Iron-ore demand could decline over the next two decades as a result of softening demand for steel and increased recycling, but copper demand could jump, given its role in a wide range of electronics and consumer goods. Resource-related business opportunities will turn up in unexpected places, and there's room for a multitude of new products and services. An example is new carbon-based materials that are lighter, cheaper, and conduct electricity with limited heat loss. They could transform entire industries, including automobiles, aviation, and electronics. Business leaders will have more opportunities to seize the initiative as they stretch their thinking about the changing nature of resource constraints.

## **Accelerating industry disruption**

"Disruption" isn't just one of the most overused words in management writing; it's also one of the most imprecisely used. When we say industry disruption is accelerating, we mean that in many sectors, critical foundations of industry structure—the economic fundamentals, the power balance between buyers and sellers, the role of assets, the types of competitors, even the borders of industries—

are rapidly shifting. While that degree of change can be uncomfortable or even destructive, it can also contain the seeds of opportunity.



## Combinatorial-technology explosion

The most radical technological advances have not come from linear improvements within a single subject or expertise, but from the combination of seemingly disparate inventions and disciplines. As <u>W. Brian Arthur</u> has noted, "The overall collection of technologies bootstraps itself upward from the few to the many and from the simple to the complex."<sup>2</sup>

For example, consider how increased online connectivity, cryptography, and advanced analytics have combined to create a distributed, global database for transactions called blockchain. It's potentially a game changer, because transaction costs represent a substantial share of the world's commercial costs. In fact, the desire to avoid transaction costs such as the negotiating and writing of contracts helps explain why firms exist, according to Nobel laureate Ronald Coase. Since blockchains can process transactions without intermediaries, their potential impact on costs and competition is profound.

#### C2B: Customer in the driver's seat

Digitization has brought consumers an ever-expanding menu of goods and services to choose from, some of which are free. Many goods and services consumers once paid for are now available online at a swipe or a click. Wikipedia's English-language pages alone would fill the equivalent of more than 2,300 encyclopedias if printed. Skype, which allows users to make free video and audio calls to other Skype users, provides over two billion minutes of calls every day. And infinite variety means that just about any taste or preference is being catered to. Think of detergents on Amazon, where customers can find a selection of strawberry-scented washing powders exclusively meant for black clothes.



In an environment where so much costs so little and proliferating variety fragments markets, customers are capturing more of the surplus. In the United States alone, the Internet provides consumers with an estimated unpaid annual welfare gain of \$100 billion. Take, for example, global mobile-data traffic and revenues: from 2008 to 2020, mobile data are expected to expand by more than 900-fold, while revenues from the data are forecast to grow by a factor of only 3.25.

The lines of demarcation between categories are beginning to blur as value chains, platforms, and ecosystems open, expand, and combine. Linear value chains aren't

immune: Under Armour, a leader in sports apparel and accessories, has announced plans to build the biggest connected fitness platform in the world.

In today's rapidly evolving landscape, leaders face a continuum of possibilities: build an ecosystem, use someone else's platform, stick to one's linear-value-chain knitting, or fashion some combination of the above. Navigating this crucible ultimately comes down to asking hard questions about a company's sources of differentiation and positional advantage, and placing all options on the table, even if that means disrupting or cannibalizing one's own business.

#### A new societal deal

The biggest opportunity of all—and arguably the biggest need—transcends companies and competition. If private-, public-, and social-sector leaders can cooperate to create a new societal deal, they will forge a brighter future for individuals and for a wide range of institutions. Collaboration will be critical to overcome forces undermining openness, to drive middle-class progress, and to encourage experimentation that recharges growth and redresses income inequality.

Business leaders typically spend about 30 percent of their time on external engagement, but by their own assessment, few do so effectively. For more business leaders to "step up to the plate" and "play a key role in driving solutions," as Unilever CEO <a href="Paul Polman">Paul Polman</a> says, they will need to do more to embed society's concerns in their business priorities, to make <a href="external engagement">external engagement</a> an integral part of their strategy, and to adopt a long-term mind-set.

#### The dark side

Progress thrives on openness, and openness almost by definition means exposure. The Internet, for example, has brought critical dangers even as it has unleashed a business and social miracle. Everyday acts, such as connecting your phone to your car via Bluetooth, create vulnerabilities most of us do not yet consciously consider.

The costs of fighting cyberthreats are rising into the trillions. Meanwhile, rogue states continue to frustrate the global community, and the strains from combating terrorism are reverberating worldwide. The number of terrorist incidents and casualties remains relatively small but has been rising; global terrorism death levels by the end of 2015 were more than five times higher than they were in 2001.

Sometimes, international cooperation can counteract destructive power that is concentrated in the hands of a few. Consider how multiple states came together to beat back pirates in the Somali basin beginning in 2010, saving the world economy about \$18 billion per year.

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