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PLAYING TO WIN: THE NEW GLOBAL COMPETITION FOR CORPORATE PROFITS

SEPTEMBER 2015

HIGHLIGHTS



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Fast-moving technology firms



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Growing volatility, leaner profits



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PLAYING TO WIN: THE NEW GLOBAL COMPETITION FOR CORPORATE PROFITS

SEPTEMBER 2015



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PREFACE

Industry competition has always been a fact of life, but today's dynamics are unlike anything else in the annals of corporate history. Global competition has become an entirely new game, with a more crowded playing field and a faster clock. In the past, executives knew their competitors and how they operated. But now companies in all industries have to look over their shoulders for new challengers that are arriving with surprising speed from any corner of the globe and, increasingly, from the technology sector.

We set out to explore how competitive forces are affecting industry dynamics and corporate performance—and how these shifts might continue to play out in the decade ahead. These are central issues for executives and investors, but the implications will be felt far beyond the corporate sector. For better or for worse, the prospects of national economies, consumers, and workers alike are inextricably tied to corporate activity. Multinational firms account for 40 percent of productivity growth, 75 percent of private-sector research and development, and more than 80 percent of trade. Large companies have an outsized impact on their home economies and on markets around the world where their operations are based and their products are sold. Policy makers need to grasp how changes in the competitive landscape are affecting corporate decisions to expand, invest, and hire. Governments and business leaders alike will have to grapple with new questions about what it means to develop a lasting comparative advantage in this fast-moving environment.

This research was led by Richard Dobbs, a director of the McKinsey Global Institute (MGI) based in London; Sree Ramaswamy, an MGI senior fellow based in Washington, DC; and Tim Koller, a McKinsey expert partner based in New York. The project team, led by Rohit Krishnan and Nicolás Andreula, included Paul van der Boor, Ritesh Jain, Raj Juneja, Matt Linderman, Georgy Moloshchenkov, Nathan Rosenstock, Christian Schitter, Sophia Shao, Sheeba Soin, Elis Steiniger, Raditya Wibowo, and Amber Yang. MGI directors Jonathan Woetzel and James Manyika contributed valuable insights. We also acknowledge the contributions made by Gur Aminadav, a PhD candidate at the London Business School. Lisa Renaud provided editorial support. Many thanks go to our MGI colleagues, including Marisa Carder, Matt Cooke, Peter Gumbel, Deadra Henderson, Julie Philpot, Rebeca Robboy, Margo Shimasaki, and Patrick White.

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This report contributes to MGI's mission to help business and policy leaders understand the forces transforming the global economy, identify strategic locations, and prepare for the next wave of growth. As with all MGI research, this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution. We welcome your comments on the research at MGI@mckinsey.com.

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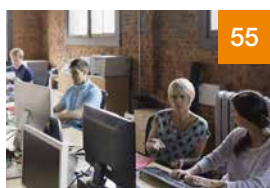
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IN BRIEF

PLAYING TO WIN: THE NEW GLOBAL COMPETITION FOR CORPORATE PROFITS

For the past three decades, corporations have enjoyed record profit growth, new market opportunities, and declining costs. But this unprecedented run may be coming to an end. New rivals are putting industry leaders on notice as the business environment turns more uncertain and hypercompetitive.

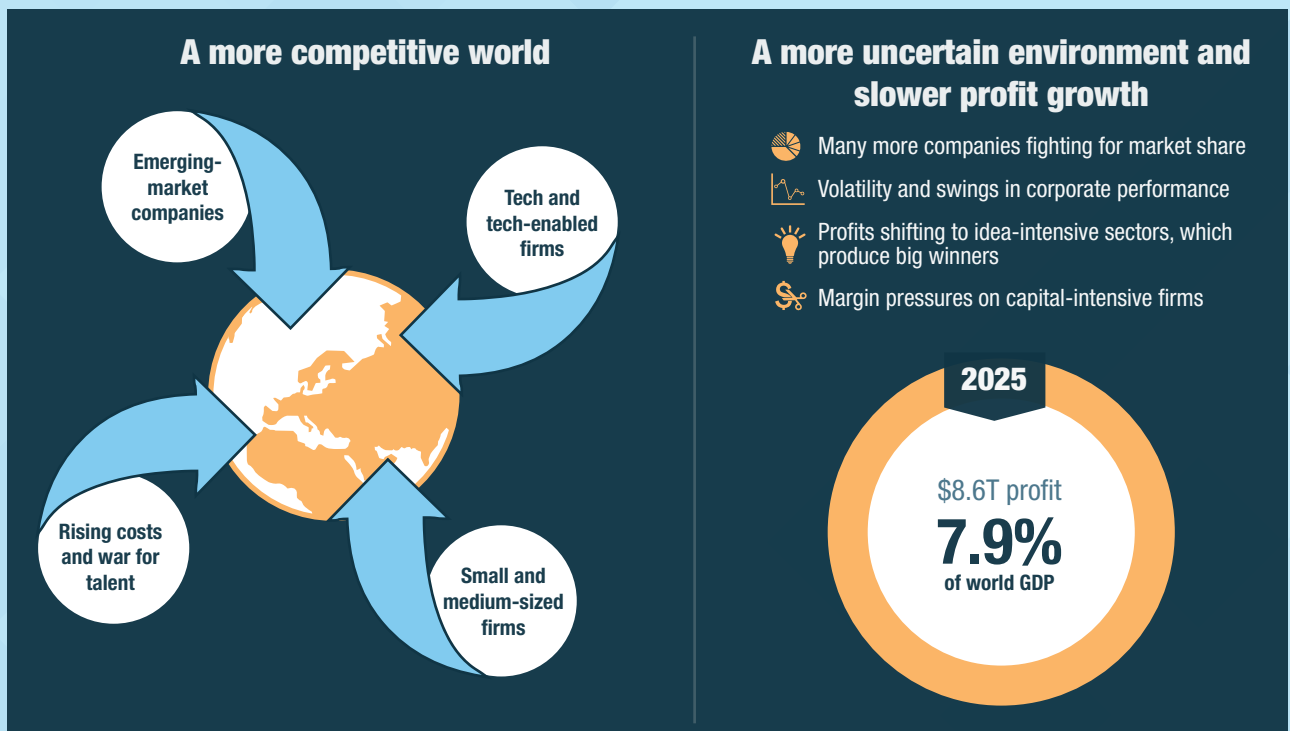
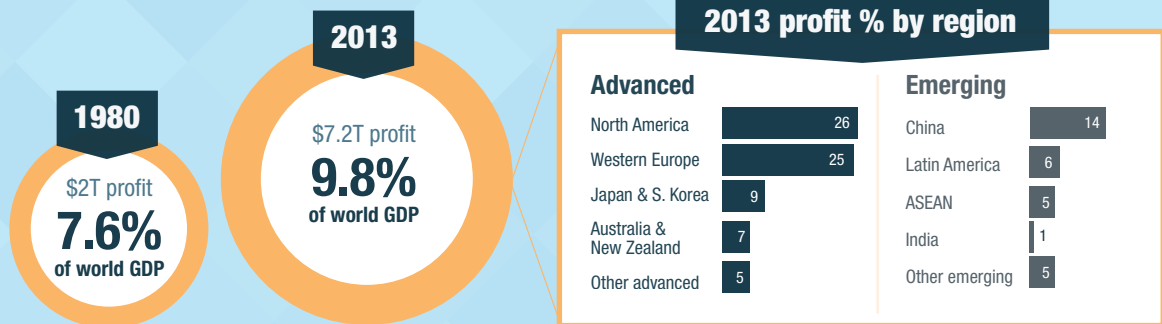
- Across all global corporations, earnings before interest and taxes more than tripled in real terms from 1980 to 2013; net income after interest and taxes rose fivefold. Companies from advanced economies earn more than two-thirds of global profits, and Western firms are the world's most profitable. Multinationals have benefited from rising consumption and industrial investment, the availability of low-cost labor, and more globalized supply chains.
- The benefits of this corporate boom have not been shared evenly. Profits are increasingly shifting from heavy industry to idea-intensive sectors that revolve around R&D, brands, software, and algorithms. Sectors such as pharmaceuticals, media, finance, and information technology have the highest margins. They are developing a winner-take-all dynamic, with a wide gap between the most profitable firms and everyone else. Meanwhile, margins are being squeezed in capital-intensive industries, where operational efficiency has become critical.
- Emerging economies now account for 40 percent of global revenue, but their growth has also fueled the rise of hard-charging competitors, particularly in capital-intensive sectors. Now these firms are expanding globally, in part through aggressive M&A strategies, and they are proving to be hardy, risk-taking, and lean competitors. Many are state- or family-owned, and unlike widely held public companies whose shareholders typically focus on quarterly earnings, they can pursue longer-term strategies to build leading positions, such as prioritizing revenue growth over short-term profits and engaging in fierce price competition. Chinese firms, for example, have grown four to five times faster than Western firms in the past decade, yet their margins fell by more than 5 percentage points on average.
- Technology and tech-enabled firms represent another huge—and even more unpredictable—source of competition. Some have disrupted long-standing business models by diverting huge amounts of industry value to consumer surplus. By building powerful digital platforms and networks, the biggest technology and tech-enabled giants have reached never-before-seen scale in users, customers, revenue, and profits. These platforms can drive marginal costs to almost zero, enabling technology and tech-enabled firms to make rapid moves into new sectors. They can also serve as launching pads that give thousands of small and medium-sized firms immediate global reach.
- While competition from emerging-market companies and technology and tech-enabled firms is heating up, falling costs may have bottomed out. Although global revenue could reach \$185 trillion by 2025, these pressures could slow profit growth and produce an after-tax profit pool of \$8.6 trillion. Corporate profits, currently almost 10 percent of world GDP, could shrink to less than 8 percent—undoing in a single decade nearly all the corporate gains achieved relative to the world economy over the past three decades. Real growth in corporate net income could fall from 5 percent to 1 percent per year.

As profit growth slows, there will be more companies fighting for a smaller slice of the pie. Incumbent industry leaders cannot focus simply on defending their current market niche. Firms with vision, optimism, and agility can realize enormous opportunities—if they are willing to disrupt their own operations before some new challenger does it for them.

PLAYING TO WIN

PREPARING FOR THE NEXT PHASE OF CORPORATE COMPETITION

A three-decade trend of rising profits



How companies can compete and win in this new landscape



Play offense, not defense

Go after fast-growing markets

Focus externally to spot disruption before it hits

Learn the nuances of emerging markets down to the city level



Be lean and agile

Winning firms are more productive

An asset-light footprint can minimize disruptions

Avoid strategic inertia

Plan ahead for resilience



Focus on the intangibles

Intellectual assets matter in all industries

The new weapons are software, data, algorithms, brands, and R&D

Fight for the best talent and consider M&A to gain capabilities



Play the long game

Many new competitors prioritize sales and scale over margin

Seek out institutional investors with long horizons

Create incentives for long-term value creation over short-term returns



EXECUTIVE SUMMARY

The past three decades have been uncertain times but also the best of times for global corporations—and especially so for large Western multinationals. Vast markets have opened up around the world even as corporate tax rates, borrowing costs, and the price of labor, equipment, and technology have fallen. Our analysis shows that corporate earnings before interest and taxes more than tripled from 1980 to 2013, rising from 7.6 percent of world GDP to almost 10 percent.¹ Corporate net incomes after taxes and interest payments rose even more sharply over this period, increasing as a share of global GDP by some 70 percent.

But this remarkable era may be coming to a close as profit growth slows. Between now and 2025, the corporate profit pool could decrease from 10 percent of global GDP to about 7.9 percent—practically reverting to its level in 1980, before the boom began.²

Global profit pool:

7.6%
of world GDP
in 1980,
9.8%
in 2013, and
7.9%
in 2025

Part of this decline will stem from the competitive forces unleashed by two groups of hard-charging competitors. On one side is an enormous wave of companies based in emerging markets. The most prominent have been operating as industrial giants for decades, but over the past ten to 15 years, they have reached massive scale in their home markets. Now they are expanding globally, just as their predecessors from Japan and South Korea did before them. On the other side, high-tech firms are introducing new business models and striking into new sectors. And the tech (and tech-enabled) firms giants themselves are not the only threat. Powerful digital platforms such as Alibaba and Amazon serve as launching pads for thousands of small and medium-sized enterprises, giving them the reach and resources to challenge larger companies.

New competitors are becoming more numerous, more formidable, and more global—and some destroy more value for incumbents than they create for themselves. Meanwhile, some of the external factors that helped to drive profit growth in the past three decades, such as global labor arbitrage and falling interest rates, are reaching their limits.

Companies that adapt quickly to these new realities can capture enormous opportunities. Over the next decade, rising consumption in the emerging world will create new markets. Technology will spur new products and services. Startups will be able to tap global investors, suppliers, and customers with little up-front investment. But companies will face intense pressure to grow, innovate, and become more productive—not only to seize these opportunities but merely to survive.

CORPORATE PROFITS HAVE SURGED TO RECORD HIGHS, WITH WESTERN FIRMS CAPTURING THE LION'S SHARE

The world's large companies, and particularly the biggest Western firms, have had an extraordinary three decades. By any measure, pre- or post-tax, profits are up sharply (Exhibit E1). In real terms, post-tax net profits, for instance, grew from \$2 trillion in 1980 to \$7.2 trillion in 2013, rising from 7.6 percent of world GDP to almost 10 percent.³ Measured as a share of world GDP, they grew by some 30 percent. Corporate net incomes (after interest payments) rose even faster, increasing their share of GDP by more than 70 percent.

¹ We analyzed more than 28,000 firms around the world, each with more than \$200 million in annual revenue. The sample includes nearly 17,000 publicly listed firms and 11,400 privately held firms across 42 countries and 18 sectors. For more details on the sample, please see the technical appendix.

² For a companion article, see "The future and how to survive it," *Harvard Business Review*, September 2015.

³ Profit and revenue comparisons over time are given in real 2013 US dollars.

Exhibit E1

The global corporate profit pool has risen to a 30-year high

1980 2013

Gross pre-tax

Earnings before interest, taxes, depreciation, and amortization (EBITDA)

Net pre-tax
Earnings before interest and taxes (EBIT)

Net post-tax

Net operating profit less adjusted taxes (NOPLAT)

Net income

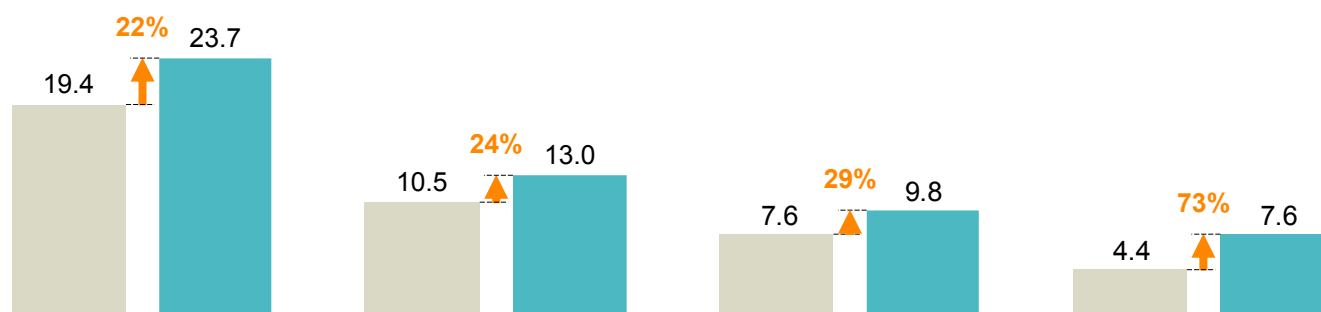
Total size of profit pool¹

\$ trillion, 2013 dollars



Corporate profit pool

% of world GDP



¹ Calculated using macroeconomic data combined with financial data for 28,250 companies (16,850 publicly listed firms and 11,400 privately held firms) with more than \$200 million in annual revenue.

SOURCE: World Bank; OECD; Bureau van Dijk; European Commission AMECO database; US Bureau of Economic Analysis; IHS; Oxford Economics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

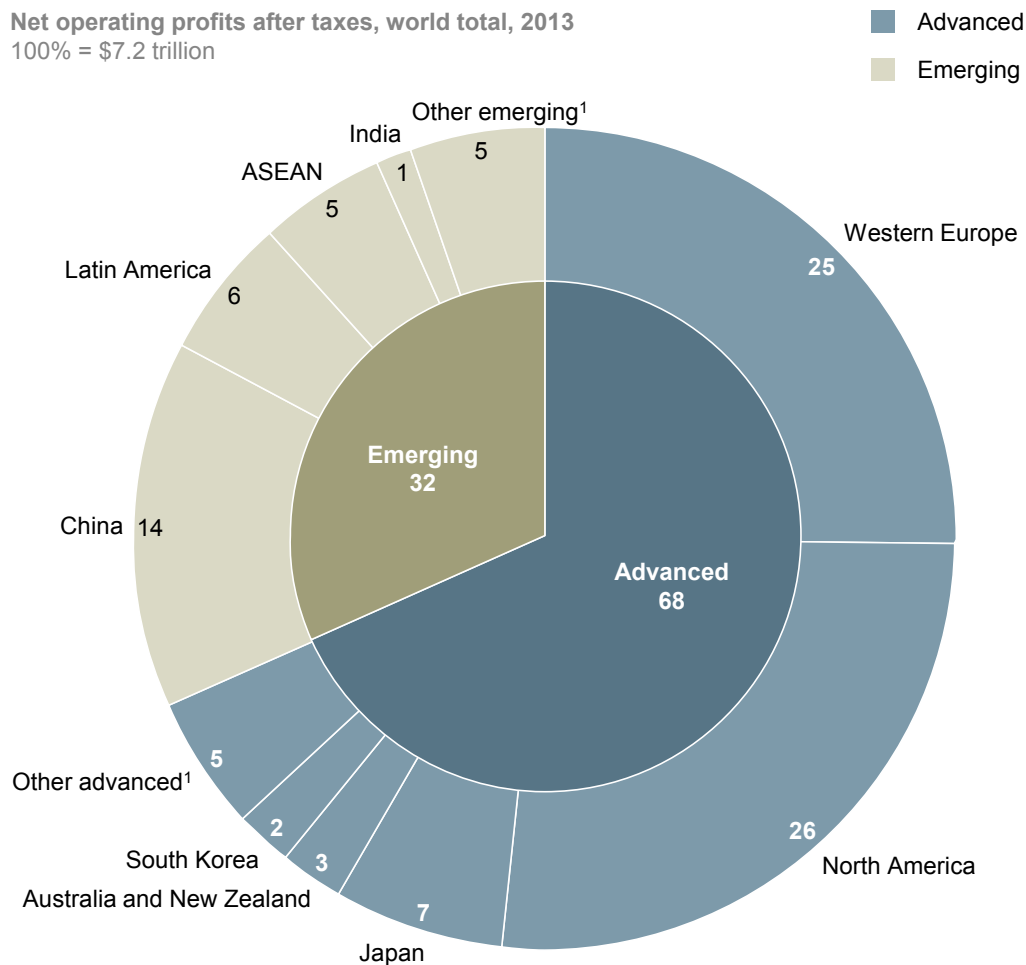
Companies from advanced economies still capture more than two-thirds of global profits (Exhibit E2). On average, publicly listed North American corporations, for example, increased their profit margins from 5.6 percent of sales in 1980 to 9 percent in 2013. In fact, the after-tax profits of US firms are at their highest level as a share of national income since 1929. European firms have been on a similar trajectory since the 1980s, though their performance has been dampened since 2008. Companies from China, India, and Southeast Asia have also experienced a remarkable rise in fortunes, though with a greater focus on growing revenue than on profit margins.

The most successful companies have grown as large as entire nations. Walmart’s workforce is larger than the population of Latvia or Slovenia. ExxonMobil’s profits are equivalent to the GDP of Bolivia or Jordan. When Apple’s market valuation hit some \$750 billion in early 2015, it approached the size of the entire stock market in Russia or Spain.

Exhibit E2

Firms from advanced economies capture more than two-thirds of the global profit pool

Net operating profits after taxes, world total, 2013
100% = \$7.2 trillion



1 "Other advanced" refers to Hong Kong, Taiwan, and Middle Eastern countries such as Israel and the UAE; "other emerging" refers mainly to Russia, Eastern Europe, and Africa.
NOTE: Numbers may not sum due to rounding.

SOURCE: World Bank; OECD; Bureau van Dijk; European Commission AMECO database; US Bureau of Economic Analysis; IHS; Oxford Economics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

10%
of publicly held
companies
account for
80%
of profits

Size matters, because large firms (those with more than \$1 billion in annual revenue) have an outsized economic impact—and they have been the biggest beneficiaries of this extended bull run. They account for nearly 60 percent of global revenue and 65 percent of market capitalization. Moreover, relatively few firms drive the majority of value creation: among the world's public companies, just 10 percent of firms account for 80 percent of profits, and the top quintile earns 90 percent.

Companies once reinvested most of their earnings, but they are increasingly holding on to their profits. Since 1980 corporate cash holdings have ballooned to 10 percent of GDP in the United States, 22 percent in Western Europe, 34 percent in South Korea, and 47 percent in Japan. With low borrowing costs and plenty of available cash on hand, companies in some industries have engaged in a massive wave of mergers and acquisitions. The biggest names are getting even bigger.

The revenue pool has expanded rapidly, with growth shifting to emerging markets

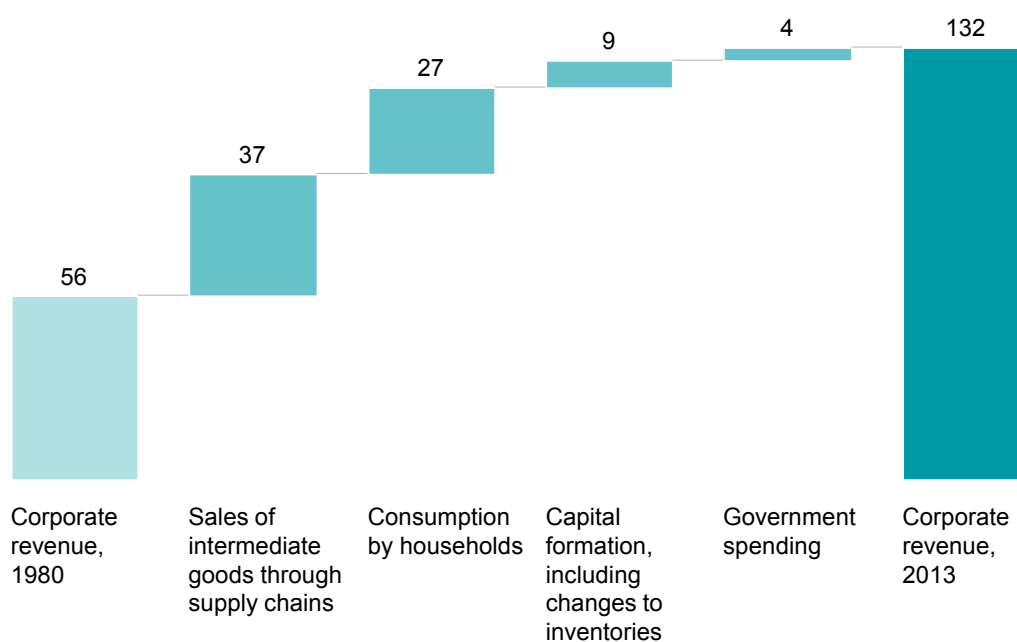
A remarkable rise in global revenue paved the way for this record profit growth. In real terms, the global revenue pool increased from \$56 trillion in 1980 to more than \$130 trillion in 2013, thanks to growth in consumption, investment, and international supply chains (Exhibit E3). Emerging economies are driving much of this momentum. In 1980, only 20 percent of global revenue came from the emerging world, but by 2013, that share had doubled to 40 percent.

Exhibit E3

New consumers, the globalization of supply chains, and a wave of industrial and infrastructure investment have driven up corporate revenue

Global corporate revenue, 1980–2013

\$ trillion, real



NOTE: Numbers may not sum due to rounding.

SOURCE: World Input-Output database; World Bank; IHS; McKinsey Global Institute analysis

The biggest contributor to corporate revenue growth has been the expansion of trade. Multinationals drive 80 percent of global trade, and cross-border supply chains account for 60 percent of it, creating a competitive battleground for suppliers of intermediate goods and services.⁴ Global consumers have been another engine of revenue growth. From 1990 to 2010, the world added some 1.2 billion consumers, and 1.8 billion more are expected to join their ranks by 2025, with nearly all of the growth coming from emerging economies.⁵

⁴ *Global flows in a digital age: How trade, finance, people, and data connect the world economy*, McKinsey Global Institute, April 2014. Also see *World investment report 2014*, United Nations Conference on Trade and Development (UNCTAD), June 2014.

⁵ Defined as those with incomes exceeding \$10 per day. See *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012.

Capital-intensive industries have also benefited from industrial and infrastructure investment. Even as their investment has declined closer to home, listed firms from advanced economies have poured nearly \$4.5 trillion into build-outs around the world since 2000, with much of it directed toward projects in emerging economies. These countries are building massive oil refineries, power plants, steel mills, and factories. Waves of deregulation and privatization have opened more of these sectors to global competition, including telecom, transportation, and utilities, which have strong legacies of state ownership and regulation. Government spending has also driven corporate revenue growth, though to a much smaller extent. More than 60 percent of revenue growth related to public spending is in advanced economies. Companies in the public and quasi-public sectors of health care, education, and infrastructure have been the major beneficiaries.

40%
emerging
economies' share
of global revenue

Emerging economies may be a large factor behind revenue growth, but firms from advanced economies have a head start in establishing the kind of global reach needed to penetrate fast-growing markets. North American and Western European firms post a higher share of foreign revenue than those from other regions and generate 56 percent of global outbound foreign direct investment.⁶ Nearly 60 percent of companies from these regions report having suppliers or facilities in more than ten countries.

Corporations have benefited from a shrinking cost base and rising productivity

While new markets were opening around the world, large companies gained another boost from a remarkable convergence of external factors. Statutory corporate tax rates have declined in most OECD countries since 1980, in some cases by up to 50 percent; effective tax rates are even lower. An ultralow interest rate environment has reduced the cost of borrowing to near zero in real terms today.

Many companies created production bases in the emerging world to take advantage of low-cost labor. Between 1980 and 2010, the global labor pool gained 1.2 billion people, most of them in emerging markets that have become better connected to global supply chains. Meanwhile, technology has grown cheaper even as it has become immensely more powerful. The gap between the cost of industrial robots and the cost of labor shrank by 50 percent over the same period, for instance. Productivity growth in advanced economies has been steady, but while revenue and profits have been climbing, employment and wages have lagged. Across advanced economies, labor's share of national income has fallen from 76 percent to 66 percent since 1980.

For corporations, though, this period of record profit growth has come at a price: turbulence.

INTELLECTUAL ASSETS AND INORGANIC GROWTH HAVE ASSUMED NEW IMPORTANCE IN A MORE UNCERTAIN CORPORATE LANDSCAPE

Even as corporations have posted record growth, the competitive landscape has grown more complex and dynamic. Some of these trends have been building for a decade and are accelerating. There are twice as many multinational firms active today as in 1990, and the majority of that growth has occurred since 2000. The average variance in returns on capital for North American firms has been more than 60 percent higher than the levels that prevailed from 1965 to 1980 (Exhibit E4). Not only are profits rising, but in some industries, the leading firms are winning bigger than ever before.

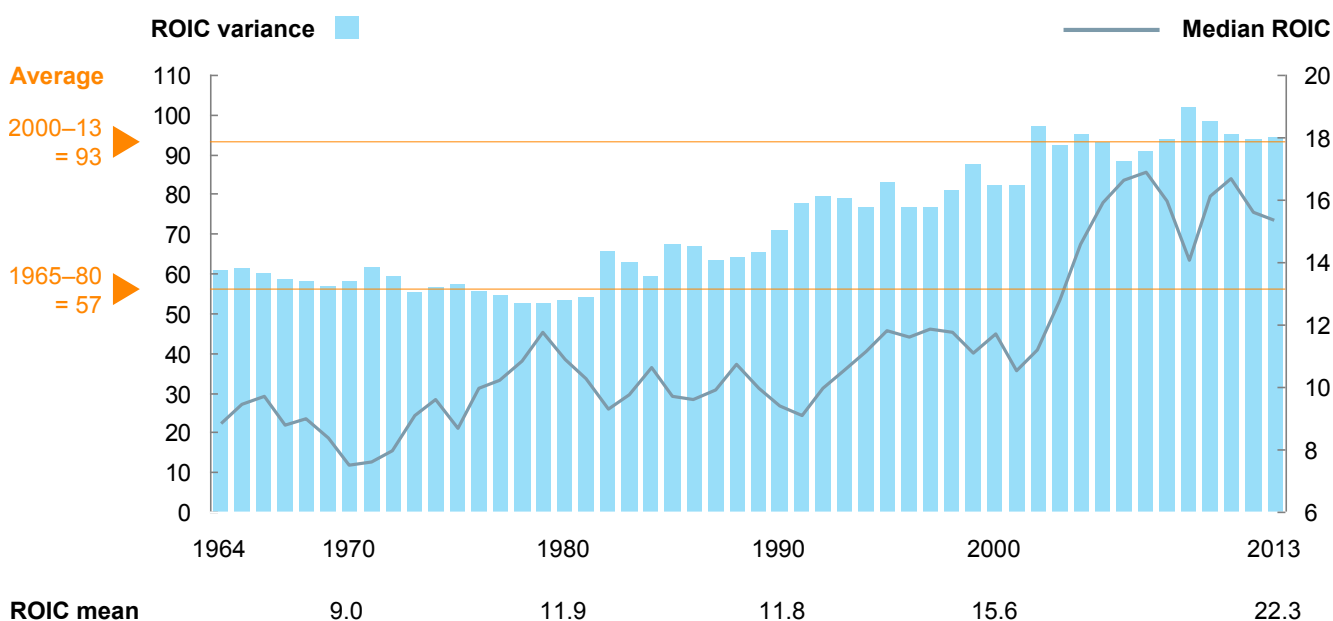
⁶ Estimate based on 2011–2014 data from World Bank and UNCTAD.

Exhibit E4

Variability in corporate earnings has nearly doubled

Variance in return on invested capital (ROIC) for North American firms, 1964–2013¹

%



¹ Firms included in this analysis had more than \$200 million in revenue in at least one year during this period as well as ROIC between zero and the 95th percentile. "Variance" is defined as the ratio of standard deviation to mean.

SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Profits are shifting to idea-intensive sectors

This trend toward greater variability in corporate performance is playing out at the sector level as well. Today sectors such as pharmaceuticals, media, finance, and information technology have the highest profit margins, and Western firms remain the dominant players within these industries. Asset-light, idea-intensive sectors accounted for 17 percent of the profits generated by Western companies in 1999. Today that share is 31 percent. Value is increasingly created from patents, brands, trademarks, and copyrights rather than industrial machinery or factories.

Many of these industries have developed a winner-take-all dynamic. The gap between the most profitable firms and everyone else is growing—and the top performers are significantly more R&D- or brand-intensive than median firms.

They are also much bigger. The most profitable firms in pharmaceuticals, medical devices, IT services, and technology hardware, for instance, are 40 to 110 percent larger than the median firm in these industries. Size does not guarantee market position for long, however, particularly in fast-moving fields such as technology. Over the past 15 years, the list of top tech firms by revenue share has continued to turn over.

While profits are flowing to idea-intensive sectors, a very different story is playing out in capital- and labor-intensive sectors. Margins are being squeezed in industries such as automobiles, machinery, and retail (Exhibit E5). Emerging-market firms with massive scale have intensified price competition, driving down marginal costs throughout whole industries. In 1990, Chinese aluminium producers made up only 4 percent of global production; by 2014, their share had increased to 52 percent. As this unfolded, marginal costs fell by 32 percent, driving more than half of Western producers out of business.

Exhibit E5

Idea-intensive sectors see higher margins and spreads than most sectors

■ Top quartile ■ Second quartile ■ Third quartile ■ Bottom quartile

Group	Sector archetype	Selected sectors	Know- ledge intensity	Labor intensity	Capital intensity	Profitability	
						Average profit margin NOPLAT over sales, %	Profit margin spread ¹ Percentage points
Idea- intensive goods and services	Intellectual property-intensive	Pharma/medical devices	Top quartile	Bottom quartile	Third quartile	19.8	32
		Technology hardware	Top quartile	Second quartile	Third quartile	7.8	33
	Technology- intensive	IT and business services	Top quartile	Bottom quartile	Third quartile	11.7	29
		Media	Second quartile	Bottom quartile	Third quartile	12.4	36
Labor- intensive consumer goods and services	Local consumer- facing	Consumer discre- tionary products	Second quartile	Top quartile	Bottom quartile	5.0	23
		Consumer staples	Bottom quartile	Second quartile	Third quartile	9.3	22
		Hospitality services	Bottom quartile	Top quartile	Third quartile	8.5	23
		Health-care services	Bottom quartile	Top quartile	Bottom quartile	3.9	19
		Retail	Bottom quartile	Second quartile	Third quartile	3.5	14
Capital- intensive goods and services	Capital goods	Construction	Bottom quartile	Top quartile	Second quartile	4.4	17
		Automobiles	Bottom quartile	Second quartile	Third quartile	5.4	12
		Machinery	Second quartile	Bottom quartile	Third quartile	6.8	17
		Processing	Bottom quartile	Bottom quartile	Third quartile	6.6	20
	Infrastructure	Transportation	Bottom quartile	Top quartile	Second quartile	6.0	42
		Telecom	Second quartile	Bottom quartile	Third quartile	13.4	35
		Utilities	Bottom quartile	Bottom quartile	Top quartile	8.5	36
		Extraction	Bottom quartile	Bottom quartile	Top quartile	5.8	42

1 The profit margin spread refers to the percentage-point different in NOPLAT margins between firms in the 5th percentile and firms in the 95th percentile of performance.

SOURCE: McKinsey Corporate Performance Analysis Tool; IHS; US Bureau of Economic Analysis; US Bureau of Labor Statistics; McKinsey Global Institute analysis

Companies are using M&A to achieve growth and scale

Faced with the need to muscle out competitors, companies are increasingly pursuing M&A strategies to capture new markets and add new business lines. The corporate world has experienced spikes of mergers and acquisitions in the past, but nothing like the recent wave of deal-making. In 1990, there were 11,500 M&A deals whose combined value was equivalent to 2 percent of world GDP. Since 2008, there have been some 30,000 deals a year totaling roughly 3 percent of world GDP. The total value of worldwide deals in 2014 was \$3.5 trillion, up 47 percent from the previous year. Ninety-five deals exceeding \$5 billion were announced in that year alone.⁷

⁷ *Mergers & acquisitions review: Financial advisors: Full year 2014*, Thomson Reuters, December 2014.

Emerging-market companies have been major players in this trend as they seek to expand globally. They accounted for less than 10 percent of M&A deal value in 2008 in consumer products such as food, beverages, and household durables; by 2014, their share was almost 30 percent.

Idea-intensive industries also account for a large share of M&A activity. And the bigger firms get in these industries, the more they tend to use M&A to grow.⁸ The deals in these industries tend to be larger, and the giants driving them have higher EBIT (earnings before interest and taxes) margins than smaller firms.⁹ These trends are mutually reinforcing, and valuations have risen dramatically as a result.

The tech sector, in particular, has seen a wave of M&A activity as larger players use acquisitions to expand their portfolios and stay on the cutting edge. When Facebook acquired Instagram in 2012, for instance, it paid \$1 billion—or \$30 for each of the service's 33 million users. Just two years later, the company acquired WhatsApp for \$19 billion. While the valuation caught many by surprise, it came to \$42 for each of the messaging app's 450 million users, many of whom were located in markets where Facebook hoped to expand. The acquisition gave the company immediate capabilities and scale in the messaging market.

NEW COMPETITORS POSE A MOUNTING THREAT TO INDUSTRY INCUMBENTS

Industry incumbents, already grappling with growing variability and shifts in profits, are being hit with competitive challenges on two major fronts. Formidable emerging-market companies and fast-moving high-tech and tech-enabled firms both bring an agility and aggressiveness to the game that many long-established names will struggle to match.

Many emerging-market giants are gaining global scale

Many companies with their roots in emerging economies now rank among the world's largest. Their track record is uneven, but their presence—in sheer size and numbers—is game-changing. Chinese firms already make up some 20 percent of the Fortune Global 500, while the share of US and Western European companies dropped from 76 percent in 1980 to 54 percent in 2013.

Ownership structures directly influence the growth strategies and operating style of these emerging-market companies. Half of the world's largest state-owned firms are in China, and another quarter are in other emerging economies. In contrast, most of the world's widely held public companies are found in North America and Northeast Asia. Emerging markets are also home to many large family-controlled firms in which the founders' influence remains strong. A firm with a controlling shareholder—whether family, founder, or state—is more likely to focus on building a leading position and is able to take a longer-term view about the growth and investment needed to accomplish that goal. In contrast, widely held public firms must answer to shareholders every quarter and are more focused on maximizing earnings in the immediate term. Controlling shareholders in China also tend to hold twice as much share in their own companies as shareholders in Western Europe, which may contribute to more aggressive pursuit of growth. Family-controlled firms from emerging economies are also quickly expanding their M&A activity.

These new emerging-market competitors tend to put revenue growth and scale ahead of maximizing returns on invested capital (Exhibit E6). Some of these firms are national champions that benefit from government support in their expansion. Many others are family-owned, diversified conglomerates that enter new businesses at a rapid pace, taking advantage of access to talent and capital while allocating family assets across several

⁸ Werner Rehm, Robert Uhlener, and Andy West, "Taking a longer-term look at M&A value creation," *McKinsey Quarterly*, January 2012.

⁹ *M&A 2014: Return of the big deal*, McKinsey & Company, April 2015.

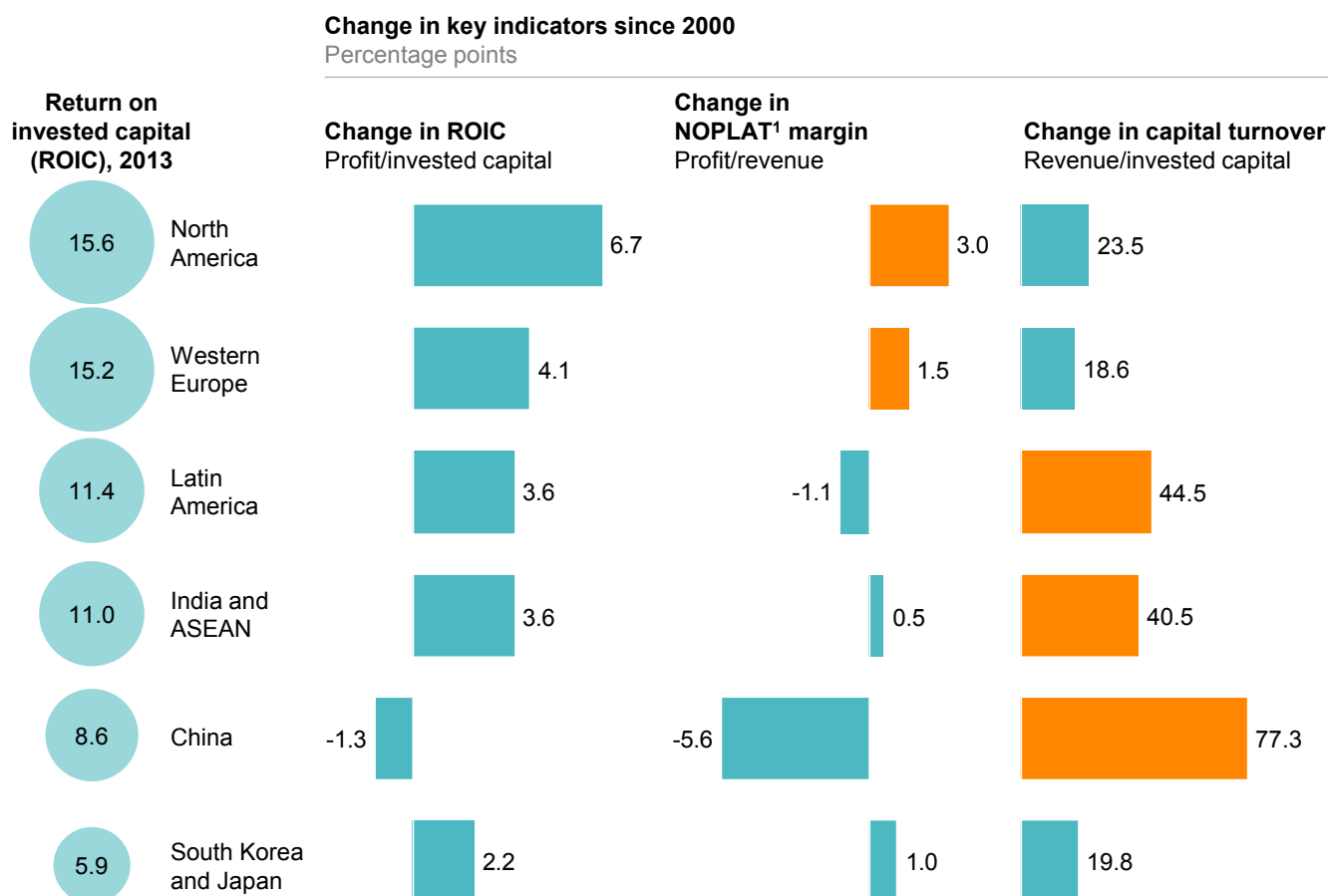
industries.¹⁰ Chinese firms, regardless of their ownership structure, have grown at four to five times the rate of Western firms in the past decade, particularly in steel, chemicals, and other capital-intensive industries. Yet their margins fell by more than 5 percentage points on average from 2000 to 2013.

Exhibit E6

Profitability improvements stem from margin growth for firms in advanced economies and from revenue growth for emerging-market companies

■ Highlighted for emphasis

Key indicators, 3-year averages



1 Net operating profit less adjusted taxes.

SOURCE: McKinsey Corporate Performance Analysis Tool; IHS; World Bank; McKinsey Global Institute analysis

The most globally competitive of these emerging-market firms might be giants, but they have managed to stay lean and agile. Newer competitors, even in durable goods manufacturing, tend to operate with greater capital efficiency and a higher asset turnover ratio than industry incumbents in advanced economies. A relatively young company such as Hyundai has larger average plant sizes and fewer legacy factories than longer-established names such as Volkswagen and Toyota—and it produces more vehicles per worker than they do. Some emerging-market firms are more adept at rebalancing their portfolios to capture new growth opportunities.¹¹ Many newer competitors focus on the value segment,

¹⁰ Asa Bjornberg, Heinz-Peter Elstrodt, and Vivek Pandit, "The family business factor in emerging markets," *McKinsey Quarterly*, December 2014. Also see Martin Hirt, Sven Smit, and Wonsik Yoo, "Understanding Asia's conglomerates," *McKinsey Quarterly*, February 2013.

¹¹ Yuval Atsmon, Michael Kloss, and Sven Smit, "Parsing the growth advantage of emerging-market companies," *McKinsey Quarterly*, May 2012.

and their innovation efforts are focused on responding rapidly to the market, recombining technologies, and squeezing out costs.

This new breed of company takes a hardy, risk-taking, and hard-nosed approach to competition. Having cut their teeth in difficult operating climates, these companies value agility and have a natural advantage in other, fast-growing emerging markets. In the past decade, the 50 largest firms from emerging economies have doubled their share of revenue from overseas activity from 19 percent to 40 percent.

Many emerging-market competitors are vertically or horizontally integrated, and they bring different cost structures or even entirely new business models to the game. Brazil's Vale and India's Reliance Group, for example, have developed competencies beyond their core sectors (metals and petrochemicals, respectively) to activities such as power generation and distribution, construction, railroads, and logistics.

It would be a mistake to think of "emerging-market companies" as a monolithic group. Companies tend to reflect their home country's business climate, market structure, corporate culture, and endowments. Some clear regional patterns have emerged from our research. Emerging Asian firms, for instance, have been the most aggressive in expanding beyond their home country, while Latin American firms tend to be significantly less outward-looking. The Chinese corporate sector has a capital-intensive sector mix that resembles that of Japan and South Korea, reflecting a similar legacy of using massive investments to drive growth; the falling margins of Chinese firms appear to be heading toward the 3–4 percent range of their Northeast Asian counterparts in most industries.

New tech players are blurring sector boundaries and disrupting business models

Technology firms represent another huge—and more unpredictable—source of competition. The biggest tech players have reached "hyper" scale in revenue, assets, customers, workers, and profits (Exhibit E7). Indian telecommunications firm Bharti Airtel has around 310 million subscribers worldwide, a number that approaches the population of the United States. Facebook's monthly active user base is on a par with the population of China, and Google processes some four billion searches a day. Alibaba recorded more than \$9 billion in sales on its platform in just 24 hours during its 2014 "Singles Day" promotion. Xiaomi has grown at triple-digit rates to become the world's third-largest smartphone vendor—even though it does not sell phones in Europe or the United States.

For tech giants, achieving massive scale goes hand in hand with building and operating a platform or network. In many cases, strong communities of users and developers reinforce the attraction of the platform.

This phenomenon poses two distinct types of competitive threats. The first is from the platform operator itself. Digital platforms can drive down the marginal cost of storing, transporting, and replicating data, giving the operator the ability to add new interactions and business lines quickly. As tech and tech-enabled firms look for expansion opportunities, they can make rapid moves into adjacent sectors. Chinese e-commerce giants Alibaba, Tencent, and JD.com have moved into financial services, including small business lending, consumer finance, and money market funds.

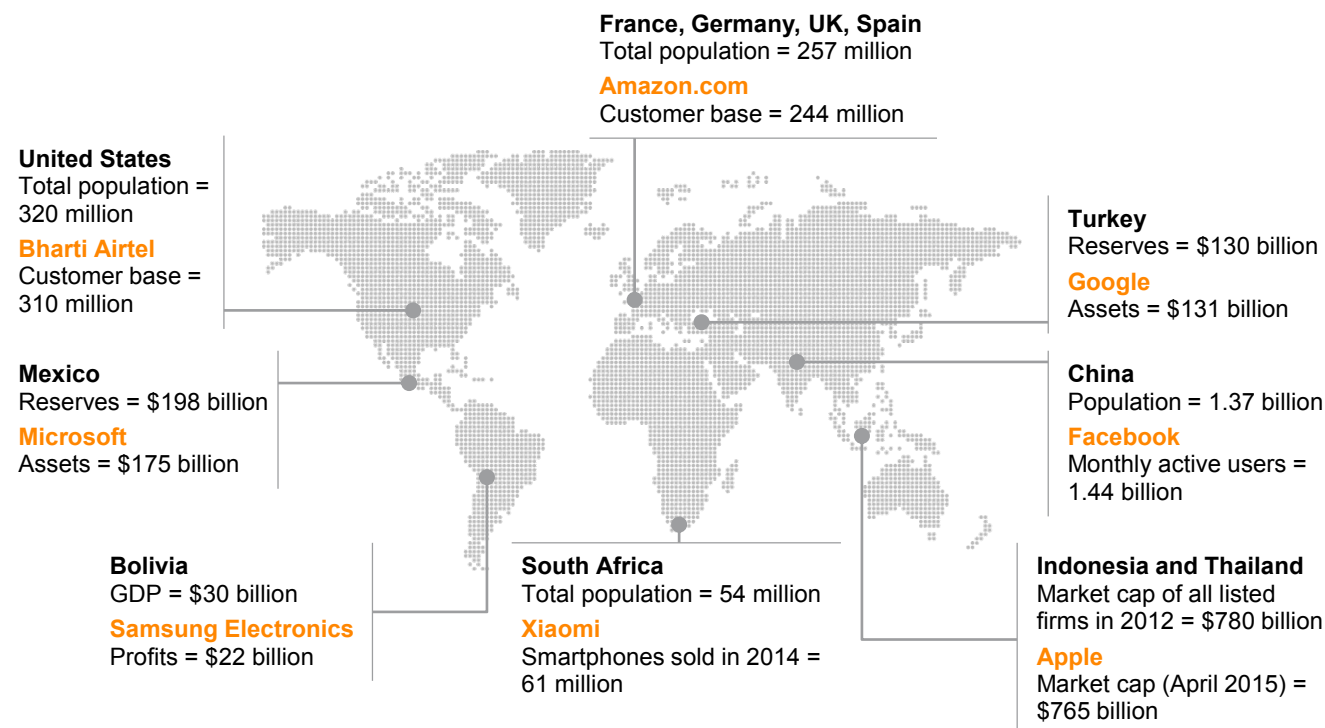
The second challenge for incumbents stems from the hundreds of thousands of smaller enterprises that are empowered by these platforms. The largest e-commerce marketplaces—such as Alibaba, Amazon, eBay, Flipkart, and Rakuten—can host an entire universe of vendors, giving them the kind of payment infrastructure, logistics support, and global visibility once reserved for large firms. Thousands of small and medium-sized

Chinese manufacturers and wholesalers, for example, now sell to overseas customers on B2B marketplaces that have millions of registered buyers.

Exhibit E7

The largest tech firms rival the size of nations

2014 or latest data



SOURCE: Forbes; Fortune 500; World Bank; company websites, annual reports, and press releases; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

The pooling of small players on these platforms constitutes a competitive threat in itself. But in some cases, tech-enabled firms go beyond the traditional intermediary role by creating marketplaces that unlock entirely new capacity in the economy, as Uber has done with private vehicles. The US hospitality industry owns \$340 billion in fixed assets such as hotels, for example, but platforms such as Airbnb can create digital trade in more than \$17 trillion of residential assets currently in the hands of private owners.

The disruption unleashed by tech and tech-enabled firms often plays out in the consumer's favor. Using their cost structure advantages, tech firms are upending established business models. In many cases, they go after a market-leading position by creating consumer surplus, providing free or low-cost products or services where other businesses charge fees. Skype, for example, saved consumers around the world \$150 billion in international phone charges from 2005 to 2013, and about \$37 billion in 2013 alone. In some consumer-facing industries, traditional intermediaries have come under pressure or have been completely put out of business by digital platforms offering lower prices, more variety, or more convenience. Consider the bookstores shuttered by Amazon, the video stores wiped out by Netflix, and the travel agents rendered obsolete by Expedia.

Tech firms tend to be brutal competitors. Many are privately held by founders or by venture capital investors who often prioritize market share and scale at the expense of profits. Sometimes this mindset—and the control of founders—persists even after companies go public. Among NASDAQ-listed software and Internet companies, founder-controlled

firms have 60 percent faster revenue growth and 35 to 40 percent lower profit margins and returns on invested capital than widely held firms. Amazon, Twitter, Spotify, Pinterest, Yelp, and other major players all have focused on growing revenue or large user networks even while losing money over extended periods of time.

THE OPERATING ENVIRONMENT IS TURNING TOUGHER

As today's industry leaders scramble to respond to these fast-moving competitors, another challenge looms: falling costs may have bottomed out. The combined effect of intensifying competition and new headwinds could bring the age of record profits to an end.

The global war for talent is heating up

Human capital is a critical source of competitive advantage. But 38 percent of the 41,000 global employers surveyed by Manpower in 2015 reported that they could not find the talent they needed. The aging trend will only exacerbate these shortages. In advanced economies, one-third of today's workforce could retire in the next two decades, taking valuable skills and experience with them. In Germany, Japan, and South Korea, nearly half of today's workforce will be over the age of 55 ten years from now. As these workers retire, replacing them with younger workers will not be easy. Corporations are still learning how to manage a new and more mobile generation of millennial workers and draw the best out of them.

With the spread of online platforms such as LinkedIn and Glassdoor, workers have more information about potential employers, job openings, and the wages they could command. Talented workers have many more options and greater mobility—and competitors have new digital tools for poaching top performers (or even entire teams).

This war for talent is playing out globally. The most coveted jobs in emerging economies were once positions with Western multinationals, but that is changing rapidly. As emerging-market companies become global firms themselves, they are closing the gap with foreign multinationals in remuneration and career opportunities. Increasingly, the most sought-after talent in these countries prefers to work for large companies with local roots.

Even in industries that do not rely on highly skilled workers, labor costs could be on the rise. Opportunities for global labor arbitrage will become more limited as the Chinese workforce ages and offshoring activities come under renewed scrutiny. Income inequality has become a heated topic of debate, spurring new movements to raise the minimum wage.

Other tailwinds that propelled profit growth may be reaching their limits

Some of the forces that boosted corporate growth are reaching their limits. With benchmark rates set practically at zero in major advanced economies, interest rates cannot fall any further. Balance sheets will become more difficult to manage when "easy money" policies eventually come to an end. Corporate tax policies, too, are subject to change as governments face growing fiscal concerns. Governments, the social sector, and even consumers are paying greater attention to the wider societal impact that companies create. The trend toward deregulation is being rolled back in some industries.

While consumption will continue to climb in emerging economies over the next decade, demographics could dampen revenue growth over the longer term. Over the next 50 years, an aging population will significantly reduce labor force growth, creating a major drag on the global economy. If productivity growth merely stays constant and does not accelerate enough to compensate, global GDP growth could slow by 40 percent to just 2.1 percent annually.¹²

1/3

of the workforce
in advanced
economies could
retire within a
decade

¹² *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015.

Companies will face slower profit growth and many more competitors in the decade ahead

The outlook for corporations is not all doom and gloom. Overall, the global revenue pool could rise by more than 40 percent in real terms over the next ten years. While this reflects slightly slower growth than in the past decade—consistent with various projections for the slowing Chinese economy, for instance—it is still a remarkable opening for corporations.

40%

projected rise in global revenue pool in real terms by 2025

But as global revenue continues to rise, the outlook for profit growth is less promising. Companies will face a pitched battle to claim their slice of the pie. More than half of the revenue growth expected over the next decade will come from emerging markets, and nearly two-thirds of that will be fueled by capital-intensive sectors. Traded industries within this group (such as cars and machinery) are already under enormous competitive pressure. Large emerging-market firms in industries such as extraction, telecom, and transportation have been relatively protected so far, but that is changing rapidly. These firms currently hold large shares of global profits—primarily by virtue of their size—but their margins are declining, due in part to deregulation and technology disruption.

Much has been written about Uber, Lyft, and similar providers shaking up the transportation sector, and this is unlikely to be an isolated case. In the past few years, digital platforms have shown an ability to bring down the price of everything from hotel rooms to hip replacements. No sector is safe, but companies that rely on large physical investments to provide services, or those that act as intermediaries in a services value chain, are particularly at risk.

Several forces could compress corporate profits in the years ahead. First, emerging-market competitors—and Chinese firms especially—will account for a greater proportion of the corporate universe in infrastructure industries such as utilities, telecom, transportation, construction, and extraction. Based on current trends in profitability, their increased presence could lower the overall ratio of profitability, shrinking future corporate profits by \$800 billion to \$900 billion below the trend growth line over the next decade. Second, the impact of technology disruption and resulting consumer surplus could reduce profits by an additional \$600 billion to \$700 billion in sectors such as retail, health care, and utilities. Third, the end of declining labor costs could reduce profits by a further \$800 billion. This includes rising productivity-adjusted labor costs in emerging economies. Finally, interest rates and tax rates are also subject to potential increases.

\$8.6T

projected after-tax profit pool in 2025

After weighing various scenarios affecting future profitability, we project that while global revenue could reach \$185 trillion by 2025, the after-tax profit pool could amount to \$8.6 trillion.¹³ Corporate profits, currently almost 10 percent of world GDP, could shrink to less than 8 percent (Exhibit E8)—undoing in a single decade nearly all the corporate gains achieved relative to world GDP over the past three decades. Real growth in corporate net income could fall from 5 percent to 1 percent per year. Profit growth could decelerate even more sharply if China experiences a more pronounced slowdown that reverberates through capital-intensive sectors.

Consumers around the world, as well as workers in emerging markets, could be the big winners from these shifts. Meanwhile, companies from advanced economies may have to settle for a smaller piece of the global profit pool; their share could decline from 68 percent today to roughly 62 percent in 2025. The swing in profits to emerging economies could even accelerate if Chinese, Indian, and other emerging-market firms make inroads in idea-intensive industries, either through M&A activity to acquire foreign intellectual property and brands or through their own innovation efforts.

¹³ Note that all figures in this projection are in real 2013 US dollars.

Exhibit E8

The global corporate profit pool will continue to grow, but by 2025, they could lose the relative gains of the past three decades

1980 2013 2025

Gross pre-tax

Earnings before interest, taxes, depreciation, and amortization (EBITDA)

Net pre-tax

Earnings before interest and taxes (EBIT)

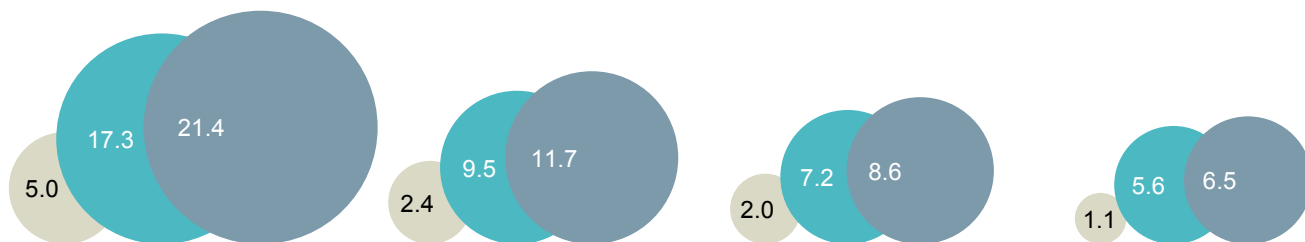
Net post-tax

Net operating profit less adjusted taxes (NOPLAT)

Net income

Total size of profit pool

\$ trillion, 2013 dollars

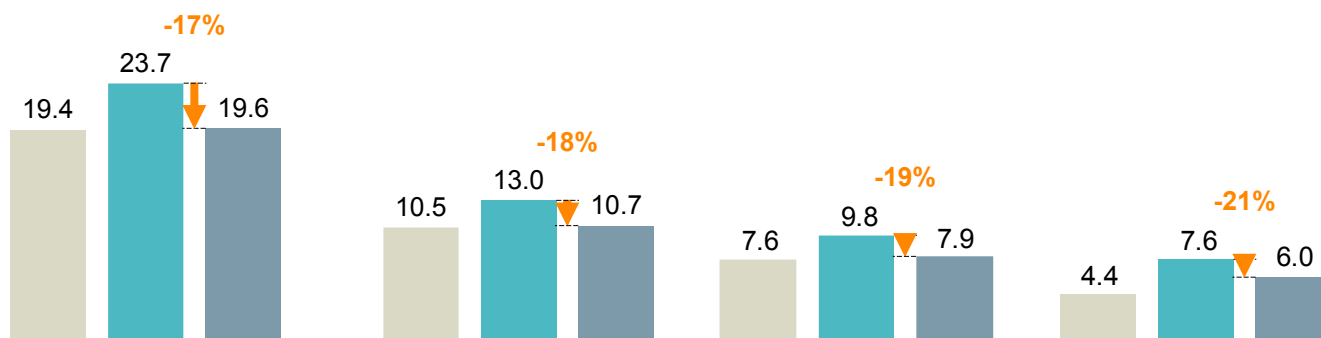


Compound annual growth rate (%)

Category	1980–2013	2013–25
Gross pre-tax	3.8	1.8
Net pre-tax	4.3	1.8
Net post-tax	4.0	1.5
Net income	5.1	1.2

Corporate profit pool

% of world GDP



SOURCE: World Bank; OECD; Bureau van Dijk; European Commission AMECO database; US Bureau of Economic Analysis; IHS; Oxford Economics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

PREPARING FOR THE NEXT PHASE OF CORPORATE COMPETITION

In the decade ahead, technology and globalization will reshape additional industries, and change will continue at a fast and furious pace. But even in an era of leaner profits, there will be no shortage of opportunities for growth. Successful firms—in every industry—are already demonstrating how to flourish in this new environment.

Three characteristics of winning firms

An analysis of nearly 20,000 companies across a range of sectors finds that the most profitable firms stand apart from their competitors in one of three ways.¹⁴ These strategies determine which companies come out on top, regardless of the sector in which they operate.

First, the most profitable firms are active in fast-growing markets. As revenue growth has shifted to emerging markets, profits are following—slowly at first, but accelerating in the past

¹⁴ We analyzed the top decile in each subsector, as measured by after-tax profits.

decade. Among the most profitable infrastructure companies in the Fortune Global 2000, for instance, are China's Anhui Conch Cement and China State Construction Engineering Corporation, Nigeria's Dangote Cement, and India's Larsen & Toubro and Grasim Industries. Success is not limited to local firms; the foreign profits of US firms have grown twice as fast as their domestic profits since 1980 and today make up one-third of their total profits.

Second, profitable firms, regardless of their sector, build intellectual assets. Over the past decade, the payoff from investing in research and development has grown. The most profitable firms in industries such as pharmaceuticals, semiconductors, and application software tend to significantly outperform their competitors; they tend to spend more on R&D and have higher margins. In other areas, companies enjoy pricing power because of a strong brand (such as those created by Apple and Disney) or intellectual property regulation (such as that enjoyed by Western pharmaceutical firms). Even within capital-intensive industries, highly profitable product segments such as advanced industrial machinery and premium automobiles are more idea-intensive.

Finally, the most profitable firms have notably more efficient operations than the median firm in their industry, with lower production costs for every dollar of sales. This is particularly evident in capital-intensive traded industries such as specialty chemicals, heavy electrical equipment, and tires and rubber, which are heavily exposed to competition. Efficiency is critical, since many innovations are quickly competed away as consumer surplus. Car prices, for example, have remained flat in real terms since 1985, even as their performance, safety, and reliability have improved dramatically. In 2000, the typical base model of a mid-size passenger car had a retail price of \$25,000 (in today's dollars). The 2015 version of the same car has \$3,000 worth of additional components, yet its retail price is only \$23,000.

Business leaders need to be externally focused, agile, and optimistic

Merely playing defense will not insulate companies from the pressures of global competition. It will take optimism, vision, and agility to spot new opportunities and outmaneuver an increasingly crowded field. Successful firms have shown that it is possible to preserve profit margins while pursuing an aggressive growth strategy—and they do this by precisely targeting the fastest-growing market segments where they have the capabilities and assets to compete.¹⁵

- **Understand and monitor the new landscape.** Large firms cannot afford to be so absorbed in their internal operations and current customers that they are blindsided by new competitive threats. Beyond merely identifying emerging-market challengers, business leaders need to understand the nuances of their home environments to gain insight into how these firms operate, invest, and innovate. This requires more than just an “emerging-markets perspective” or even a “China view.” It requires a better focus on the up-and-coming (but often little-known) cities of the emerging world that will be home to future consumers and competitors. Cultivating intelligence is crucial, because the new competitors spend considerable time studying industry leaders for weaknesses they can exploit.
- **Prepare for tech disruption.** It can be hard to place bets on a specific technology before the dust has settled, but waiting increases the risk of falling behind. Some large firms attempt to stay on the cutting edge by holding competitions and “hackathons,” or by partnering with venture capital firms to be their eyes and ears. Others have established their own accelerators and VC funds to carve out a role in the entrepreneurial ecosystem, although this is a challenging proposition to get right. Companies need

¹⁵ Sven Smit, Caroline M. Thompson, and S. Patrick Viguerie, “The do-or-die struggle for growth,” *McKinsey Quarterly*, August 2005. Also see Mehrdad Baghai, Sven Smit, and S. Patrick Viguerie, “The granularity of growth,” *McKinsey Quarterly*, May 2007.

to be willing to disrupt themselves before tech and tech-enabled firms do it to them. Appointing a chief digital officer can help to institutionalize a high-tech mindset.

- **Seek out patient capital.** Widely held public companies are often hamstrung by the demands of shareholders who want to maximize the current quarter's earnings. But many of the new competitors have the flexibility to play the long game. Eighty-six percent of executives who responded to a McKinsey survey believe that making business decisions in the context of a longer-term strategy would improve corporate performance and innovation.¹⁶ CEOs and boards could begin to move in this direction by seeking out institutional investors that have longer investment horizons. They can also design compensation packages that reward executives for delivering longer-term value rather than boosting the company's stock price in the short term.
- **Stay agile in the face of volatility.** To be resilient, firms have to game out multiple worst-case scenarios; these planning exercises can often reveal ways to make day-to-day operations more efficient. Some companies have created multidisciplinary risk teams, diversified their supply chains, and implemented more flexible procurement contracts and manufacturing systems. Lean footprints and rapid innovation capabilities will be increasingly vital. Yet many companies struggle with legacy assets and productivity gaps; some have a 40 percent gap between their most and least productive sites. Firms cannot afford to be bogged down by strategic inertia or complacency. A McKinsey study tracked the capital allocation of more than 1,600 firms over a 15-year period and found more than 90 percent correlation between capital allocation across business units from year to year. But the companies that reallocated capital more fluidly in response to changing conditions achieved substantially higher growth rates and returns.¹⁷
- **Build new intellectual assets.** Companies need new clarity about all the assets at their disposal, such as customer relationships and data. Putting unstructured data to use can sharpen existing processes and shape strategies—or yield entirely new products and services. Some firms have found success by creating external communities of users, suppliers, and innovators, from Apple's universe of app developers to AstraZeneca's Open Innovation platform. Acquisitions can be a key part of an innovation strategy, but winning with M&A requires being selective and purposeful. Even without making an acquisition, companies can form smart alliances with firms in other sectors for quick access to new capabilities and markets.
- **Go to war for talent.** Finding and nurturing creative talent is already hard, and will get harder. Offering bold new incentives and maintaining a reputation as a good employer can help companies hire and retain the right talent, especially in emerging markets. Most firms agree on the need for their executives to develop global leadership capabilities, but few do so effectively. HR operations at many firms have traditionally been viewed in terms of compliance and support. But as talent shortages grow, especially in idea-intensive sectors, the management of human capital must become a higher strategic priority. In the global war for talent, the growing sophistication and prevalence of digital platforms gives companies a new set of tools to acquire, retain, and develop human capital. Companies that move quickly to integrate such technologies can increase revenue and productivity by up to 9 percent, while lowering HR costs by up to 7 percent.¹⁸

¹⁶ Dominic Barton and Mark Wiseman, "Focusing capital on the long term," *Harvard Business Review*, January–February 2014.

¹⁷ Stephen Hall, Dan Lovallo, and Reinier Musters, "How to put your money where your strategy is," *McKinsey Quarterly*, March 2012.

¹⁸ *A labor market that works: Connecting talent and opportunity in the digital age*, McKinsey Global Institute, June 2015.

Policy makers must acknowledge the realities of a new competitive world

This period of disruption and churn will allow countries and regions to carve out new market niches and new roles in global value chains.

- **Prepare for more pressure on employment and wages.** As the fortunes of idea-intensive and capital-intensive sectors diverge, the labor market has become polarized. Companies in capital-intensive industries have responded to margin pressures by cutting costs—often at the expense of workers. Idea-intensive industries have produced strong wage growth, but they have relatively small workforces. Labor imbalances will lead to a shortage of nearly 80 million high- and medium-skilled workers and a surplus of about 95 million low-skilled ones by 2020. Employment and wages have become a political flashpoint, particularly as technology eliminates some roles and changes others. Companies cannot fend off these trends, and neither can countries. Instead, policy makers should focus on ways to ease the dislocations associated with a period of disruption and adjustment. Not only do more young people need to complete both secondary and postsecondary education, but education and training systems have to become more responsive to changing trends in the demand for skills.
- **Support the disruptions that create consumer surplus and public good.** Competition makes a wider variety of better and more affordable products and services available to consumers. In addition, tech firms and their digital platforms are increasingly empowering individuals to monetize their own assets—everything from their homes and cars to their skills and creativity. Competition can also be channeled toward social goals such as health and safety, environmental sustainability, and higher living standards. Policy makers can exploit the competitive environment by mandating desired outcomes and letting companies compete to meet the mandate. But regulators will have to adapt continuously to keep up with new tech-enabled innovations.
- **Support diversification in the corporate sector.** Rather than protecting one outsized national champion, a safer approach would be ensuring that a country's corporate sector is diversified, with competitive firms in several industries and of all sizes. Young, fast-growing companies are net job creators; small and medium-sized firms employ the most people; and large firms tend to be better at promoting R&D and productivity growth. It takes corporate diversity to capture all of these benefits, and that hinges on creating a competitive environment. Innovation thrives where there is competition, so helping incumbents might not always be the right strategy. Sometimes society may derive more benefit from the entry and growth of new players, even if they come at the expense of the status quo.

...

Companies all over the world will find ample opportunities for growth over the next decade as new consumers with high aspirations and money to spend give the global economy a jolt of momentum. Yet there should be no illusions: the coming era is shaping up to be much tougher—and less profitable—than the past three decades. Never before has there been corporate competition on today's scale, emanating from every corner of the globe and from any industry and sector. Profits will shift to emerging markets, to intellectual assets, and to the most productive companies. The rules of the game are changing, and incumbents need a radically updated playbook to remain on top.



1. A GOLDEN AGE FOR CORPORATIONS HITS TURBULENCE

Over the past 30 years, powerful forces have fundamentally reshaped the global economy. Developing nations have industrialized and urbanized at an unprecedented pace. China and India, each with a population of more than one billion people, doubled their per capita income in roughly a decade. Cross-border flows of trade and finance have grown tenfold since 1980, creating a more deeply intertwined global economy. Disruptive technologies, from advanced materials to mobile communications, have fostered an explosion of new products and services, with whole new industries rising around them. Corporations have been in the midst of these trends, shaping them as much as they are affected by them.

This backdrop of rapid change and market expansion has produced a new crop of corporate giants. Some emerging-market firms that serve hugely populous local markets already rank among the world's biggest companies. Large firms from emerging economies now account for more than 15 percent of global revenue and more than a quarter of the Fortune Global 500. This shift has coincided with the remarkable growth of the technology sector, where brash young players are upending the business models of established incumbents in multiple industries.

While emerging economies are powering revenue growth, Western firms still capture the greatest share of the profits — at least for now.

Given this more crowded and dynamic playing field, it may seem counterintuitive to say that the corporate world has been enjoying its glory days. But for the past three decades, the biggest global companies have been on a record run. Emerging economies have added billions of new consumers, a huge labor pool, and a major injection of industrial and infrastructure investment to the global economy. Corporations have expanded their footprints and transformed themselves into true multinationals in response.

The gross corporate revenue pool has doubled in real terms since 1980, surpassing \$130 trillion. The companies that have been able to tap into these new opportunities most effectively are winning bigger than at any point in corporate history. While emerging economies are powering revenue growth, Western firms still capture the greatest share of the profits—at least for now.

CORPORATE PROFITS HAVE SURGED TO RECORD HIGHS, WITH WESTERN FIRMS RETAINING THE LION'S SHARE

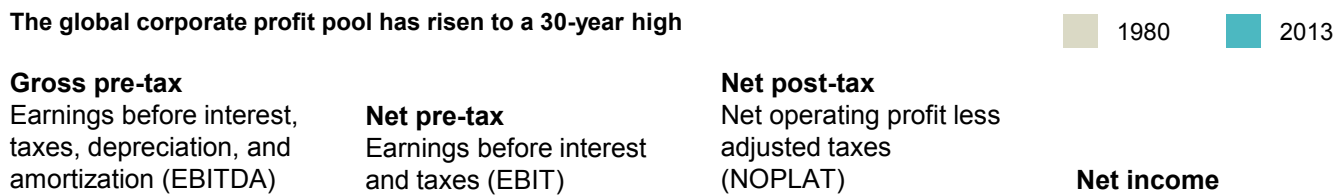
For much of the postwar period, corporate profits remained relatively stable as a share of GDP. In the United States, for instance, after-tax profits hovered around 7 percent of GDP between 1950 and 1970. But in recent decades, corporations worldwide have enjoyed an unprecedented bull run, with profit growth outpacing the growth of the global economy.

Fueled by rapid global revenue growth, declining costs, and steady gains in productivity, corporate profits have surged to 30-year highs (Exhibit 1). We found that post-tax net profits grew from \$2.0 trillion in 1980 to \$7.2 trillion in 2013, rising from 7.6 percent to 9.8 percent

of world GDP.¹⁹ Corporate net incomes (after interest payments) rose fivefold, increasing by some 70 percent when measured as a share of global GDP. Lower depreciation costs, lower effective tax rates, and lower interest rates in many countries have enabled corporations to transform the sharp revenue growth of the past three decades into even larger profit growth.

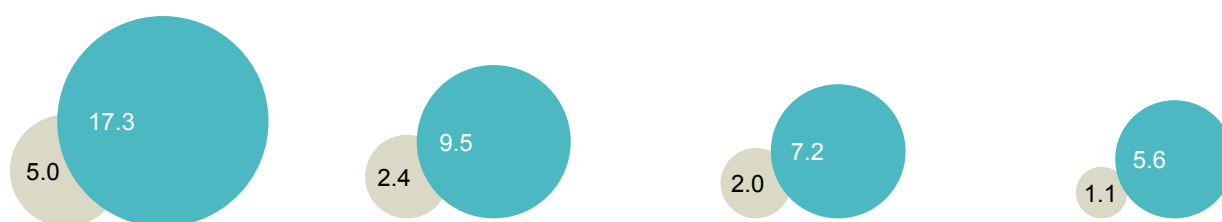
Exhibit 1

The global corporate profit pool has risen to a 30-year high



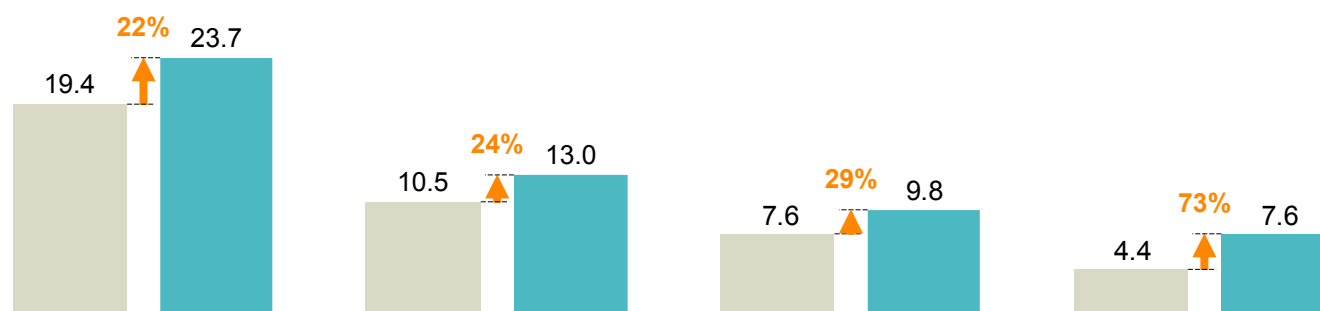
Total size of profit pool¹

\$ trillion, 2013 dollars



Corporate profit pool

% of world GDP



¹ Calculated using macroeconomic data combined with financial data for 28,250 companies (16,850 publicly listed firms and 11,400 privately held firms) with more than \$200 million in annual revenue.

SOURCE: World Bank; OECD; Bureau van Dijk; European Commission AMECO database; US Bureau of Economic Analysis; IHS; Oxford Economics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

In the United States, Western Europe, Japan, and South Korea, the corporate sector's share of national income has increased by 1.5 to 2 times since 1980. In fact, the after-tax profits of US firms are at their highest level as a share of national income since 1929. Globally, market capitalization has increased tenfold since 1980, soaring to \$43 trillion in 2014, again benefiting primarily firms from North America, Western Europe, and Northeast Asia. But companies from emerging economies have also participated in this corporate boom. These fast-growing firms have capitalized on strong revenue growth in their home markets to claim a larger share of the global profit pool.

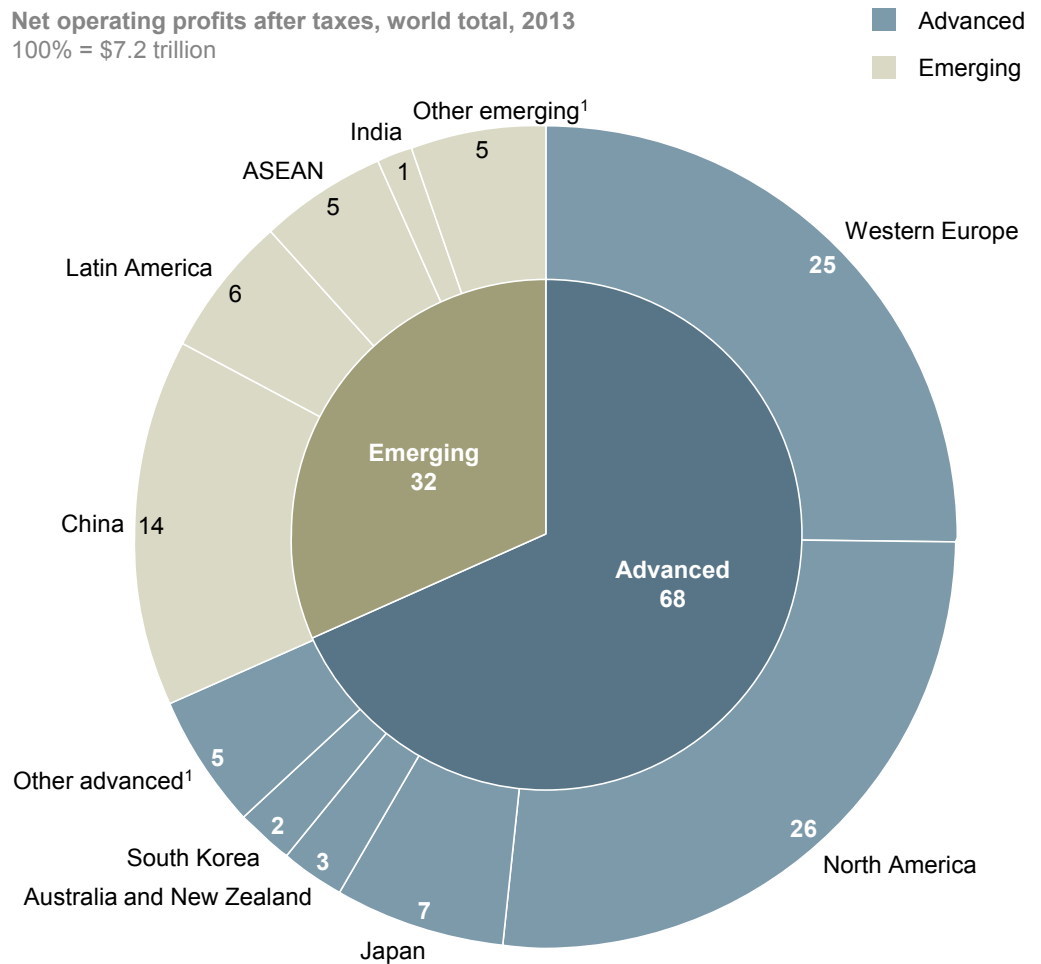
¹⁹ Profit and revenue comparisons over time are given in real 2013 US dollars. Analysis based on a sample of 28,250 public and private companies with more than \$200 million in annual revenue. The sample includes 16,850 publicly listed firms and 11,400 privately held firms across 42 countries and 18 sectors.

Companies from advanced economies still capture more than two-thirds of global profits (Exhibit 2). Western companies remain the world's most profitable. North American corporations, for example, sharply increased their after-tax profit margins (that is, profits as a share of revenue) from 5.6 percent in 1980 to 9.0 percent in 2013. European firms have been on a similar trajectory since the 1980s, though their performance has been dampened since 2008.

Exhibit 2

Firms from advanced economies capture more than two-thirds of the global profit pool

Net operating profits after taxes, world total, 2013
100% = \$7.2 trillion



1 "Other advanced" refers to Hong Kong, Taiwan, and Middle Eastern countries such as Israel and the UAE; "other emerging" refers mainly to Russia, Eastern Europe, and Africa.
NOTE: Numbers may not sum due to rounding.

SOURCE: World Bank; OECD; Bureau van Dijk; European Commission AMECO database; US Bureau of Economic Analysis; IHS; Oxford Economics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

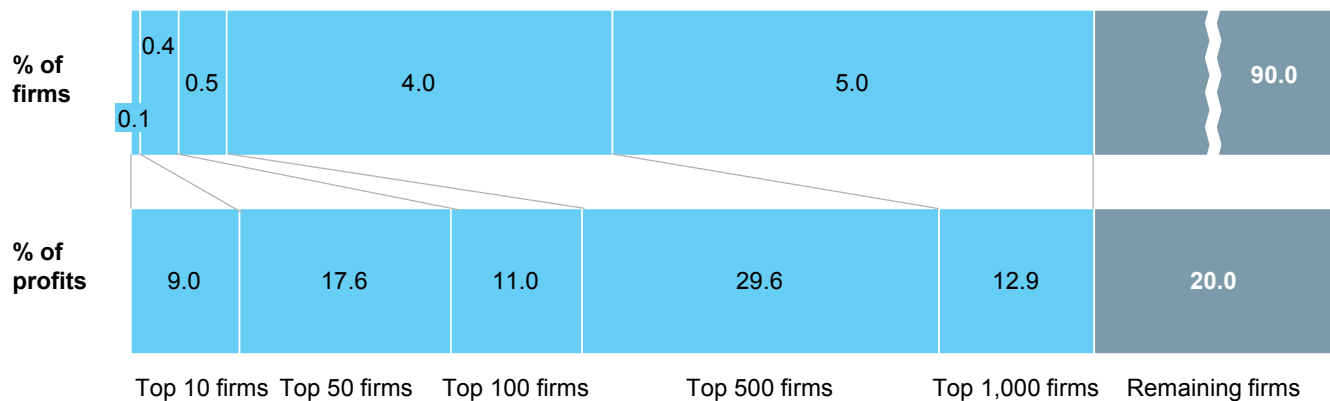
In contrast, South Korean and Japanese firms have low and flat profit margins (3 to 4 percent) despite capturing a growing share of national income. Chinese companies have experienced a remarkable rise, but their profit margins are declining steadily. They have fallen by half in the past decade—a trend that is not due simply to China's capital-intensive industry mix but one that can be seen across multiple sectors.

The world's largest companies (those topping \$1 billion in annual sales) have been the biggest beneficiaries of the profit boom. They account for roughly 60 percent of revenue, 65 percent of market capitalization, and 75 percent of profits. (See Box 1, "Size matters.")

And the share of the profit pool captured by the largest firms has continued to grow. Among North American public companies, for instance, firms with \$10 billion or more in annual sales (adjusted for inflation) accounted for 55 percent of profits in 1990 and 70 percent in 2013. Moreover, relatively few firms drive the majority of value creation. Among the world's publicly listed companies, just 10 percent of firms account for 80 percent of corporate profits, and the top quintile earns 90 percent (Exhibit 3).

Exhibit 3

The top 10 percent of firms account for 80 percent of all profits



1 Sample set includes all publicly listed companies with \$200 million or more in annual revenue in any year between 1990 and 2013.
NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Box 1. Size matters

Companies that have successfully tapped into the biggest market growth and cost reduction opportunities are achieving historically unprecedented size and scale. The profits posted by ExxonMobil (\$32.5 billion) in 2014 were roughly equivalent to the GDP of Bahrain or Jordan. The combined market capitalization of the world's three most valuable technology firms—Google, Apple, and Microsoft—approached \$1.5 trillion as we went to press. Apple alone has a market cap approaching that of all listed companies in Indonesia and Thailand combined. Volkswagen has total assets of \$447 billion, comparable to the foreign reserves of the United States. Walmart's workforce, at two million strong, is equivalent to the entire population of Botswana.

Some of the biggest giants are emerging-market companies with their roots in hugely populous local markets. State Grid Corporation of China and Indian Railways, both state-owned firms, employ 1.5 million and 1.3 million people, respectively. India's Bharti Airtel has

around 310 million subscribers, a number almost on a par with the population of the United States.

Companies of this scale exert an outsized impact on their home economies and on markets around the world where their operations are based and their products are sold. Previous MGI research has found, for example, that US multinationals contribute disproportionately to GDP growth and labor productivity.¹ Globally, multinationals now account for 80 percent of global trade.² They represent a fundamental building block of the global economy, fueling a significant share of growth, job creation, and technological innovation. For better or for worse, the economic prospects of national economies and workers alike are inextricably tied to corporate activity.

¹ *Growth and competitiveness in the United States: The role of its multinational companies*, McKinsey Global Institute, June 2010.

² *Global value chains and development: Investment and value added trade in the global economy*, UNCTAD, 2013.

This period has also seen a change in the way companies deal with their profits. Companies once reinvested most of their earnings, but they are increasingly holding on to their profits. This trend is most notable in countries that have gone through recent financial crises or where domestic demand has been weak. Corporate cash holdings have ballooned to 10 percent of GDP in the United States and 22 percent in Western Europe—and they are even higher in Korea (34 percent) and Japan (47 percent). With low borrowing costs and plenty of available cash on hand, companies have engaged in a massive wave of mergers and acquisitions (a topic discussed in greater detail in Chapter 2). The biggest names are getting bigger.

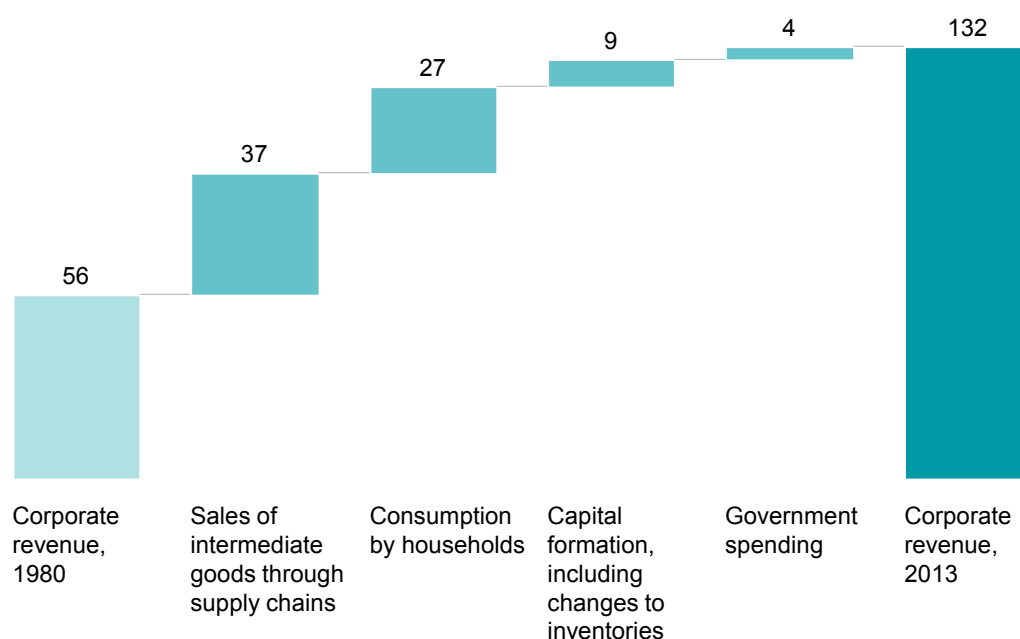
THE REVENUE POOL HAS EXPANDED RAPIDLY, WITH EMERGING MARKETS DRIVING GROWTH

The global revenue pool expanded from \$56 trillion in 1980 (in real terms) to more than \$130 trillion in 2013, driven by growth in supply chains, consumption, and investment (Exhibit 4).

Exhibit 4

New consumers, the globalization of supply chains, and a wave of industrial and infrastructure investment have driven up corporate revenue

Global corporate revenue, 1980–2013
\$ trillion, real



NOTE: Numbers may not sum due to rounding.

SOURCE: World Input-Output database; World Bank; IHS; McKinsey Global Institute analysis

Growth in supply chains accounts for almost half of the increase in the global revenue pool since 1980. Global trade in goods has increased nearly tenfold since 1980, and today multinationals account for 80 percent of all global trade, creating a competitive battleground for suppliers of intermediate goods and services.²⁰ Multinationals have created new production bases to tap into the enormous pools of low-cost labor in the emerging world. Industries in which activities can be more easily separated, such as electronics, automobile,

²⁰ *Global flows in a digital age: How trade, finance, people, and data connect the world economy*, McKinsey Global Institute, April 2014. Also see *World investment report 2014*, UNCTAD, June 2014.

or garment manufacturing, have the most global supply chains, but this trend increasingly involves all sectors, including services. Intermediate inputs through supply chains make up more than 50 percent of all goods imported by OECD countries; for some emerging countries such as China and Brazil, the figure is closer to 75 percent of all imports.²¹ The globalization of supply chains has allowed companies—and their host countries—to generate more income through exports over time. Value-added exports increased from 15 percent of global GDP in 1995 to 22 percent in 2008.²²

1.8B

consumers will be added to the world economy by 2025

Three decades of rising consumer demand have also fed the corporate revenue pool. Rapid economic growth in emerging regions has lifted huge populations out of poverty and propelled them into the ranks of the world's "consuming class." From 1990 to 2010, the world added some 1.2 billion consumers (defined as those with disposable income exceeding \$10 per day). By 2025, an additional 1.8 billion are projected to join the consuming class. Global consumption is expected to nearly double in real terms to \$64 trillion by 2025—with nearly all of the growth coming from emerging markets.²³

Companies are evolving quickly as they race to keep up with these new demand trends. In 1980, emerging markets accounted for 21 percent of sales of food and beverages, 14 percent of electronics, and 11 percent of motor vehicles. By 2013, those figures were up to 53 percent, 56 percent, and 42 percent, respectively. China became the largest automobile market in 2009 and has been widening the gap with other markets ever since.

Industrial and infrastructure investment has also bolstered global revenue. Foreign direct investment is at record levels, and a new wave of FDI is being unleashed as emerging-market corporations spread their wings. At a global level, fixed capital formation has nearly tripled in real terms since 1990, with sharp growth in the emerging world more than offsetting a downward capital investment trend in advanced economies.

Corporations drive much of this investment; in 2013, the private sector was responsible for 75 percent of fixed capital formation in India, 80 percent in Japan, and 85 percent in the United States. Western and Northeast Asian firms have played a major role in the enormous build-out taking place across the emerging world, even as their investment has declined closer to home. Since 2000, publicly listed companies from advanced economies have poured \$4.5 trillion into oil and gas development, capital goods, utilities, and other capital-intensive industries around the world, with much of it directed toward projects in emerging economies.

Government spending has also driven corporate revenue growth, though to a much smaller extent. More than 60 percent of revenue growth related to public spending is in advanced economies. Companies in the public and quasi-public sectors of health care, education, and infrastructure have been the major beneficiaries.

Emerging markets have been the engine of revenue growth in recent decades (Exhibit 5). In 1980, only 21 percent of global revenue came from the emerging world, but by 2013, that share had roughly doubled to 41 percent. China accounted for 20 percent of the 2013 world total, while 7 percent came from Latin America and 6 percent from emerging Asia.

²¹ Based on OECD statistics; also see Sébastien Miroudot, Rainer Lanz, and Alexandros Ragoussis, *Trade in intermediate goods and services*, OECD trade policy working paper number 93, November 2009.

²² *Trade interconnectedness: The world with global value chains*, International Monetary Fund, August 2013.

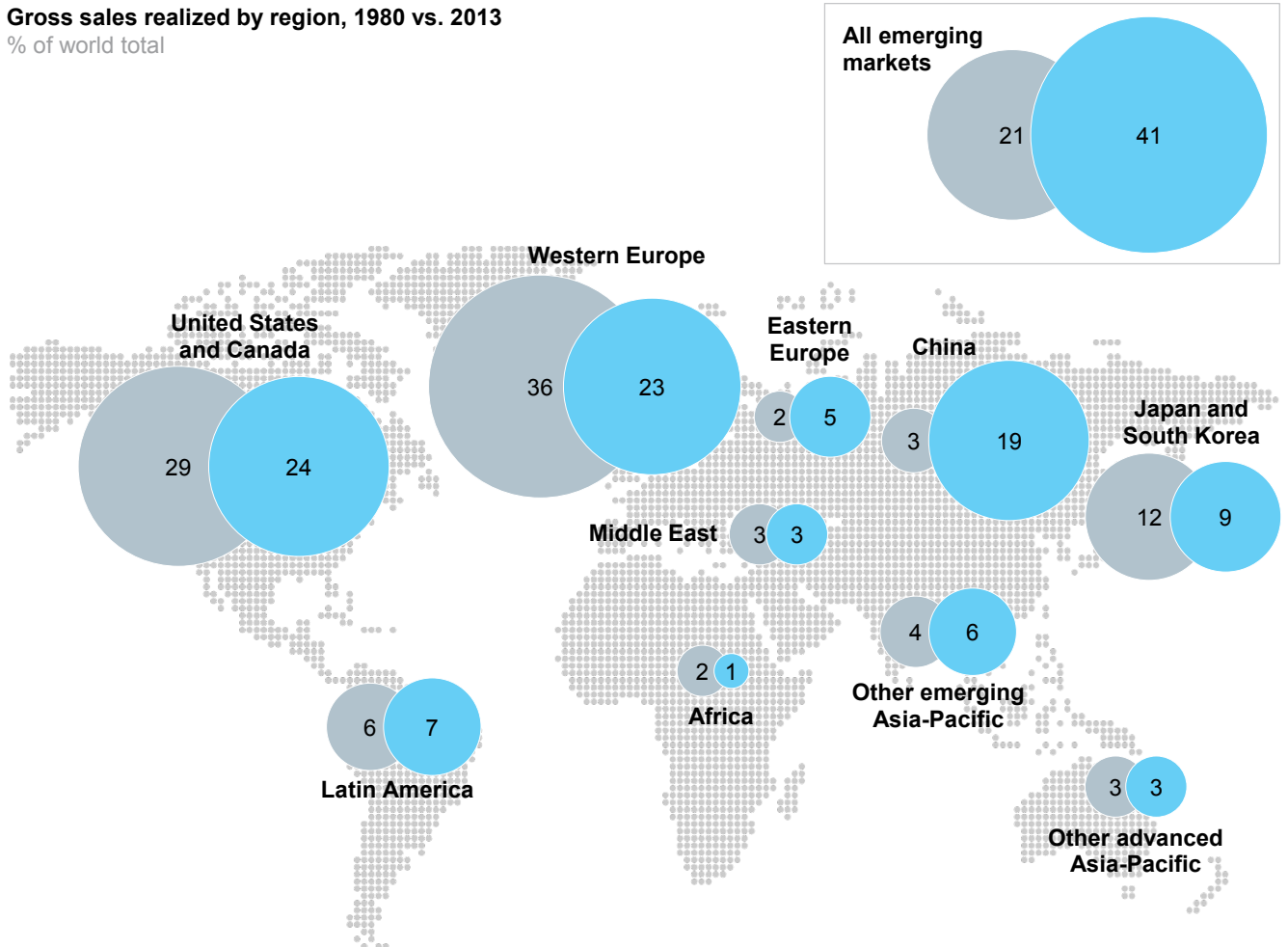
²³ *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012. Also see *Winning the \$30 trillion decathlon: Going for gold in emerging markets*, McKinsey & Company, November 2012.

Exhibit 5

Revenue growth is shifting to emerging markets



Gross sales realized by region, 1980 vs. 2013
% of world total



1 Excludes revenue related to public administration expenses or private household services.

SOURCE: World Input-Output database; World Bank; IHS; McKinsey Global Institute analysis

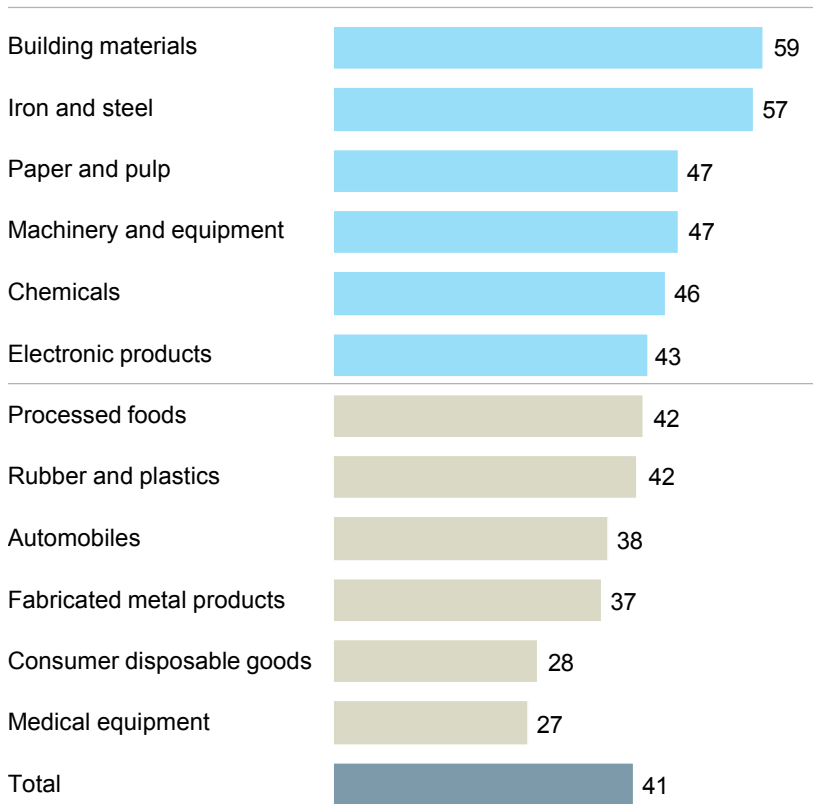
This regional shift is especially pronounced in capital-intensive industries such as steel, machinery, and chemicals. Today 55 to 60 percent of the global revenue generated by iron, steel, cement, and other building products is realized in fast-growing emerging markets. Over the next decade, infrastructure-related products will make up 55 percent of demand growth in emerging economies (Exhibit 6).

Exhibit 6

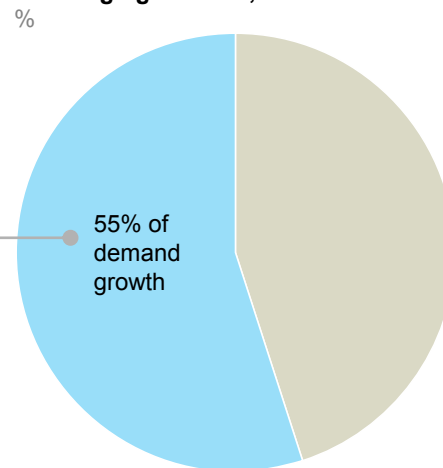
As emerging economies industrialize, they are generating an increasing share of revenue in capital-intensive sectors

Emerging markets' share of global demand, 2013

% of global consumption of selected goods



Sector contribution to demand growth in emerging markets, 2013–25



SOURCE: McKinsey Corporate Performance Analysis Tool; US Bureau of Economic analysis; Eurostat; IHS; McKinsey Global Institute analysis

This speaks to an unprecedented wave of industrial and infrastructure investment across the emerging world. Since 1980, fixed capital formation has grown by 18 percentage points of GDP in China, 12 percentage points in India, and 10 percentage points in Indonesia. Emerging economies are undertaking some of the most ambitious capital projects on earth today, including the world’s largest oil refinery, solar power plant, steel mill, cement and paint factories, aluminum and copper smelters, and plants to produce rubber tires and plastic resins.

As the revenue pool has expanded, it has simultaneously become more open to the private sector. Since 1980, waves of deregulation and privatization have opened up new sectors in countries around the world, benefiting both incumbents and new entrants. In the 1980s, the United Kingdom privatized companies in a range of industries from infrastructure to manufacturing. This trend spread to France, Sweden, the United States, and other advanced economies and continued through the 1990s. In the early 1990s, India, China, and Brazil all undertook varying degrees of privatization as well.

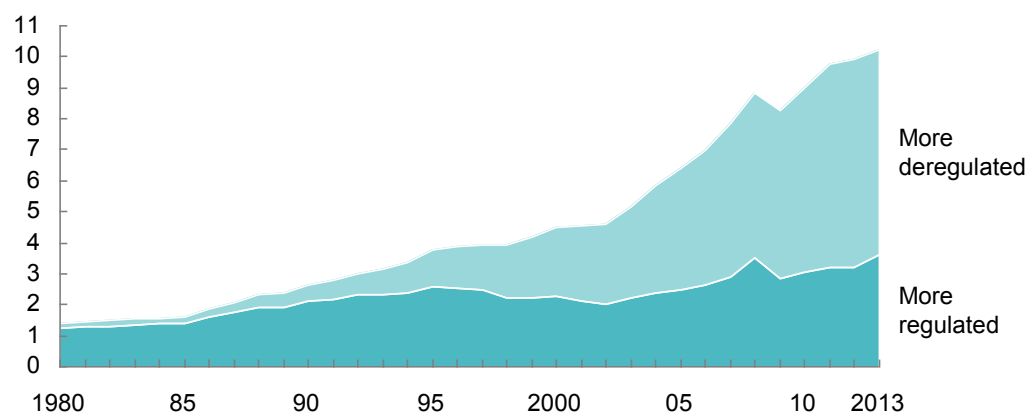
Most parts of the global economy are now exposed in some form to private-sector competition, including large industries such as automobiles, basic materials, and electronics. Even infrastructure industries such as telecom, transportation, and utilities, with strong legacies of state ownership and regulation, have opened up in many countries. The playing field is not always level in these sectors; incumbents often have location privileges in the form of access to oil fields, wireless spectrum, rail networks, and other key assets.

But even in these areas, competition is growing. In 1980, the revenue pool for infrastructure industries exceeded \$1 trillion, but most of these areas were tightly regulated. By 2013, these industries were generating more than \$10 trillion in revenue, with two-thirds of the pool open to private-sector competition (Exhibit 7).

Exhibit 7

Once tightly regulated, infrastructure sectors are becoming more competitive markets

Revenue pool in infrastructure industries,¹ deregulated vs. regulated²
\$ trillion



¹ Includes energy, transportation, and telecommunications.

² Revenue pool open to competition is calculated based on OECD indicators of regulation in non-manufacturing sectors, 1980 to 2013.

SOURCE: OECD; IHS; McKinsey Global Institute analysis

Telecom, for instance, has become deregulated in many advanced economies and in India, Southeast Asia, and several African nations. In 1990, before the passage of the Telecommunications Act of 1996, the US telecom market had only five million mobile subscribers served by a handful of firms such as Verizon Wireless and Alltel. By 2013 there were 350 million subscribers and more competitors in the market.²⁴ The largest players are still US companies, but they are being challenged by T-Mobile USA, a subsidiary of German firm Deutsche Telekom AG.

The Indian mobile sector, another market that has experienced explosive growth and competition in recent years, shows a similar trend in corporate makeup. In 1995 there were only half a million mobile subscribers, served mainly by three firms: Bharti, Loop Mobile, and Vodafone India, a local subsidiary of the UK-based Vodafone Group. Today more than a dozen competitors are fighting to win a bigger share of roughly 900 million subscribers. Most of the new entrants are local companies backed by Indian conglomerates, such as Reliance Communications, Tata Teleservices, and Idea Cellular (backed by the Birla Group).

While emerging economies are driving global revenue growth, Western multinationals have a head start in establishing the kind of global reach needed to penetrate fast-growing markets. GE, for example, generated \$4.8 billion in revenue outside the United States in 1980; by 2014, that figure had climbed to about \$80 billion, or more than half the company's total.²⁵

²⁴ Based on data from Euromonitor International and other local market sources.

²⁵ Jeffrey Immelt, Vijay Govindarajan, and Chris Trimble, "How GE is disrupting itself," *Harvard Business Review*, October 2009; General Electric 2014 annual report.

In 2010, nearly half of the revenue of the S&P 500 came from outside the United States.²⁶ Companies from North America, Western Europe, Japan, and South Korea account for 70 percent of outward FDI and 52 percent of global exports of goods and services. In a recent McKinsey survey of more than 1,500 global companies, North American, European, and Japanese firms were more likely than firms in other regions to maintain international supply chains and operations (including R&D centers, sales offices, and production facilities) beyond the borders of their home market. Nearly 60 percent of companies from these regions reported having supply chains or facilities in more than ten countries.

Emerging-economy competitors are globalizing at a rapid clip, however. McKinsey research suggests that they are growing more than twice as quickly as their counterparts in advanced economies, both in their home markets and beyond.²⁷ The 100 largest publicly listed firms from emerging economies now derive 40 percent of their revenue from overseas activity.²⁸ There are differences within the group as well. The same survey of global companies showed that emerging Asian firms are the most focused on global expansion, while Latin American firms are the least globalized.

CORPORATIONS HAVE BENEFITED FROM A SHRINKING COST BASE AND RISING PRODUCTIVITY

While new markets were opening around the world, large companies gained another boost from a remarkable convergence of external forces. As the world has become a global marketplace with a vastly expanded revenue pool, it has also become a more seamless operating environment. Multinationals have increasingly engaged in global arbitrage, and the result has been a rapidly declining cost base in terms of taxes, interest payments, and labor. Some firms and industries have done so more aggressively than others, and the most effective among them have generated large profits.

Statutory corporate tax rates have declined in most OECD countries since 1980, in some cases by up to 50 percent.²⁹ Rates are strikingly low in countries that have set out to create the world's most business-friendly tax regimes, such as Ireland (13 percent), Singapore (17 percent), and Switzerland (18 percent). But statutory tax rates have also fallen in other large advanced and emerging economies. Corporate tax rates ranged from 45 to 60 percent in Australia, Canada, Germany, and the United Kingdom in 1980, but today all of these countries have lowered their tax rates to the 20 to 30 percent range.

Effective tax rates have fallen as well. The rate for publicly listed companies in advanced economies dropped from nearly 43 percent in 1993 to roughly 31 percent today. Some industries have benefited more than others. An analysis of publicly listed companies in the media and IT industries, for example, shows that effective tax rates have fallen from 45 to 50 percent in 1990 to 25 percent today.³⁰ Over the same period, the rate for pharmaceutical firms has declined from 34 percent to 21 percent, and for companies in the health-care and transportation industries, it has dropped from more than 55 percent to less than 40 percent. For many emerging-market firms, effective tax rates were already around 30 percent a decade ago, and they have fallen even further for some industries. Companies in IT, pharmaceuticals, and consumer goods now pay 20 to 25 percent.

Up to
50%
decline in statutory
corporate income
tax rates in OECD
countries

²⁶ Howard Silverblatt and Dave Guarino, *S&P 500: 2010 global sales*, Standard & Poor's research report, July 2011.

²⁷ *Winning the \$30 trillion decathlon: Going for gold in emerging markets*, McKinsey & Company, November 2012.

²⁸ Jacques Bughin, Susan Lund, and James Manyika, "Harnessing the power of shifting global flows," *McKinsey Quarterly*, February 2015.

²⁹ OECD tax database.

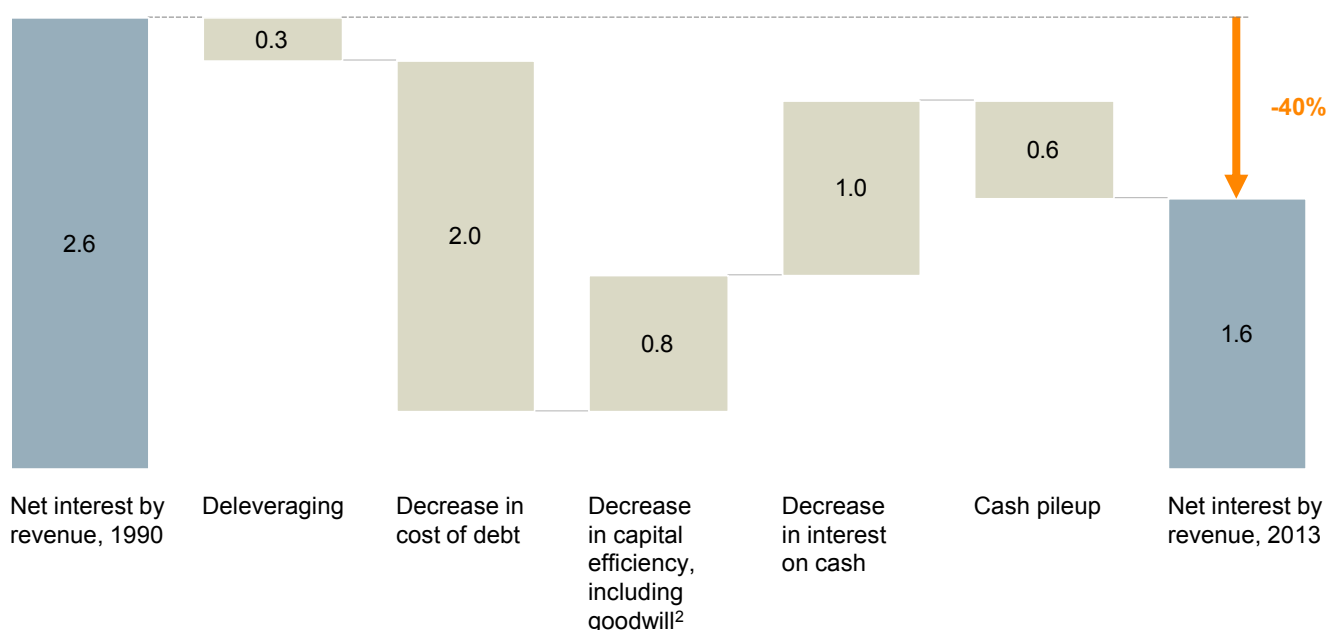
³⁰ McKinsey Corporate Performance Analysis Tool; effective tax rate is estimated on operating income, based on the following equation: (EBITA, earnings before interest, taxes, and amortization, minus NOPLAT, or net operating profit less adjusted taxes) / revenue.

Meanwhile, the cost of borrowing has fallen progressively over the past 30 years, thanks to the actions of central banks, deflationary pressures, and a rise in savings. Between 1982 and 2015, the yield on ten-year US Treasuries fell from 14.6 percent to 1.9 percent. As interest rates have fallen, companies have been able to take advantage of low-cost financing as they have sought to expand capacity and exploit new market growth. Interestingly, lower capital costs have also hurt companies that are not investing since they are generating lower returns on their substantial cash holdings. But overall, interest expenses for US firms declined by a full percentage point relative to revenue from 1990 to 2013 (Exhibit 8). Similar dynamics are at work in Europe and Japan, where benchmark interest rates are even closer to zero than in the United States.

Exhibit 8

Net interest expenses have declined by 40 percent for US firms, driven primarily by the lower cost of debt

Change in corporate net interest expenses¹ % of revenue



¹ Sample includes 129 non-financial constituents from S&P 500 with consistent interest income and expense data from 1990 to 2013.

² The US economy experienced a decline in capital efficiency including goodwill but an increase in efficiency excluding goodwill from 1990 to 2013.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

While a favorable tax environment and historically low costs of capital have certainly boosted the bottom line, these factors have not been the major drivers of rising corporate profits. Together, reduced tax and interest payments account for roughly 15 percent of the total gain in net income for Western firms. The rest is an actual improvement in profitability and performance, driven in part by productivity gains and a declining cost base.

Companies have benefited from lower costs, notably for labor and equipment. The pool of available labor has dramatically expanded in recent decades as emerging markets have become more connected to global supply chains. The labor forces in these countries have become a significant resource for multinationals—not only for offshoring activities in traded industries, but also to establish local bases of production for goods to be sold in these fast-growing markets. Between 1980 and 2010, some 1.2 billion people came of working age

and joined the world's labor force.³¹ Across the globe, employers were generally able to find the workers they needed. The rise of a large and low-cost labor pool was of greatest benefit to companies that were able to separate out their most labor-intensive activities, and this trend further propelled the growth of cross-border supply chains.

Companies have also been able to deploy ever-cheaper technology. The gap between the cost of industrial robots and the cost of labor has shrunk by 50 percent since 1990. Information and communication technology (ICT) has become steadily more powerful even as costs have declined. Since 1980, the price of durable goods such as industrial machinery has risen by 1.9 percent annually in the United States, while the price of ICT equipment has fallen by 2.4 percent. In contrast, consumer price inflation has clocked annual growth of 4.1 percent in this period. Companies are better able to afford the equipment and technology that can make their operations more productive.

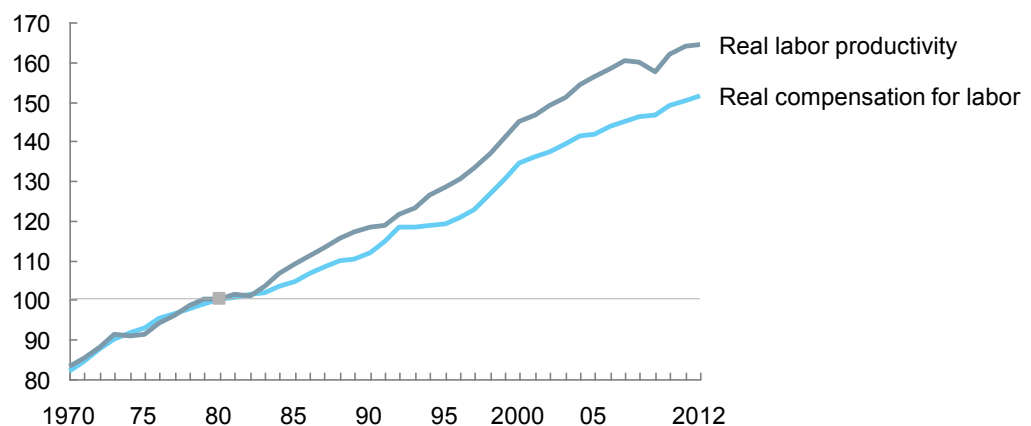
Productivity growth in advanced economies has been steady during this period, outpacing gains in emerging economies. But while revenue and profits have been climbing, employment and wages have lagged (Exhibit 9). Between 1990 and 2007, for instance, US multinationals contributed 31 percent of real GDP growth and 41 percent of productivity growth—but only 11 percent of employment growth.³² The availability of low-cost labor in emerging markets, the trend toward automation, and the shrinking of labor unions have all combined to put a squeeze on workers—one that has not been alleviated by a weak recovery from the 2008 recession. Since 1980, labor productivity growth has outpaced growth in real wages for workers in many advanced economies by 20 percent annually. Across major advanced economies, labor's share of national income has fallen from 76 percent to 66 percent since 1980.

Exhibit 9

Wages have lagged behind productivity gains since the early 1980s in most Western economies

Real labor compensation per employee and real GDP per employee in major Western countries, 1970–2012¹

Index: 100 = 1980



1 Weighted average of Canada, Germany, France, Italy, United Kingdom, and United States.

SOURCE: AMECO database, European Commission; International Labour Organisation; McKinsey Global Institute analysis

³¹ *The world at work: Jobs, pay, and skills for 3.5 billion people*, McKinsey Global Institute, June 2012.

³² *Growth and competitiveness in the United States: The role of its multinational companies*, McKinsey Global Institute, June 2010.

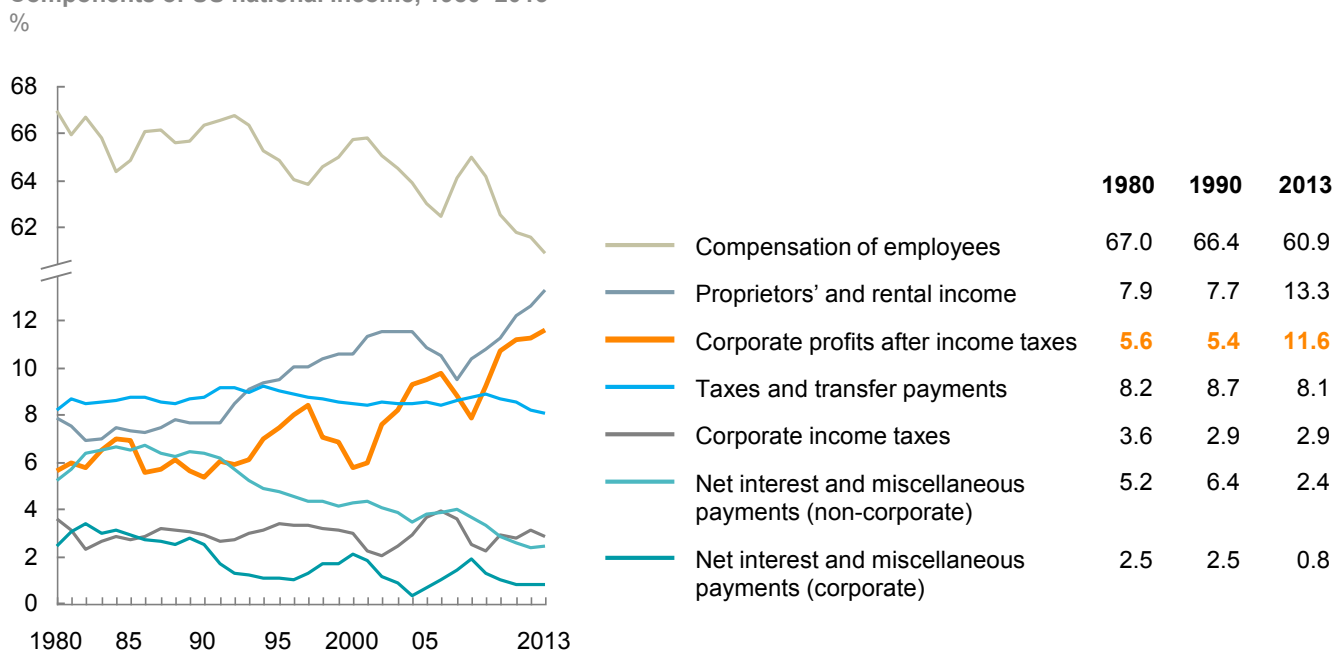
Firms have been increasingly substituting labor with capital.³³ Some of the most highly valued tech firms can generate enormous profits with smaller workforces. In 1990, the Big Three US car companies (GM, Ford, and Chrysler) generated \$22 billion (in 2013 dollars) in profits while employing more than 1.2 million people among them. Today, the three largest US high-tech firms—Apple, Google, and Facebook—capture over twice as much in profits (\$52 billion) and have a combined market cap that stood at almost \$1.4 trillion as of August 2015, but they employ only 138,500 workers directly.³⁴

Declining interest payments, tax rates, and costs have contributed to soaring corporate profits. Exhibit 10 maps all of these trends for US corporations. As mentioned at the beginning of this chapter, the corporate sector’s share of US national income has more than doubled since 1980. But its growth accelerated after 1990 and has hit new heights since the Great Recession ended. In the meantime, labor’s share of US national income has steadily dropped from a high of 66 percent in 1990 to 61 percent today, with an especially steep decline since 2000.

Exhibit 10

US after-tax corporate profits have more than doubled to 11.6 percent of national income since 1990

Components of US national income, 1980–2013



SOURCE: US Bureau of Economic Analysis; McKinsey Global Institute analysis

³³ Loukas Karabarbounis and Brent Neiman, *The global decline of the labor share*, National Bureau of Economic Research working paper number 19136, June 2013.

³⁴ Michael Chui and James Manyika, “Competition at the digital edge: ‘Hyperscale’ businesses,” *McKinsey Quarterly*, March 2015.

IN A MORE UNCERTAIN ENVIRONMENT, PROFITS ARE SHIFTING TO IDEA-INTENSIVE SECTORS THAT PRODUCE BIG WINNERS

The recent period of record profit growth has come at a price: turbulence. The competitive landscape has grown more complex and more dynamic—and corporate performance is steadily becoming more subject to sharp swings. In July 2015, for example, Google gained \$65 billion in market capitalization in a single day, and the very next week, Apple lost some \$32 billion in value.

Even as idea-intensive industries run away with the profits, capital-intensive firms face growing pressures on profit margins.

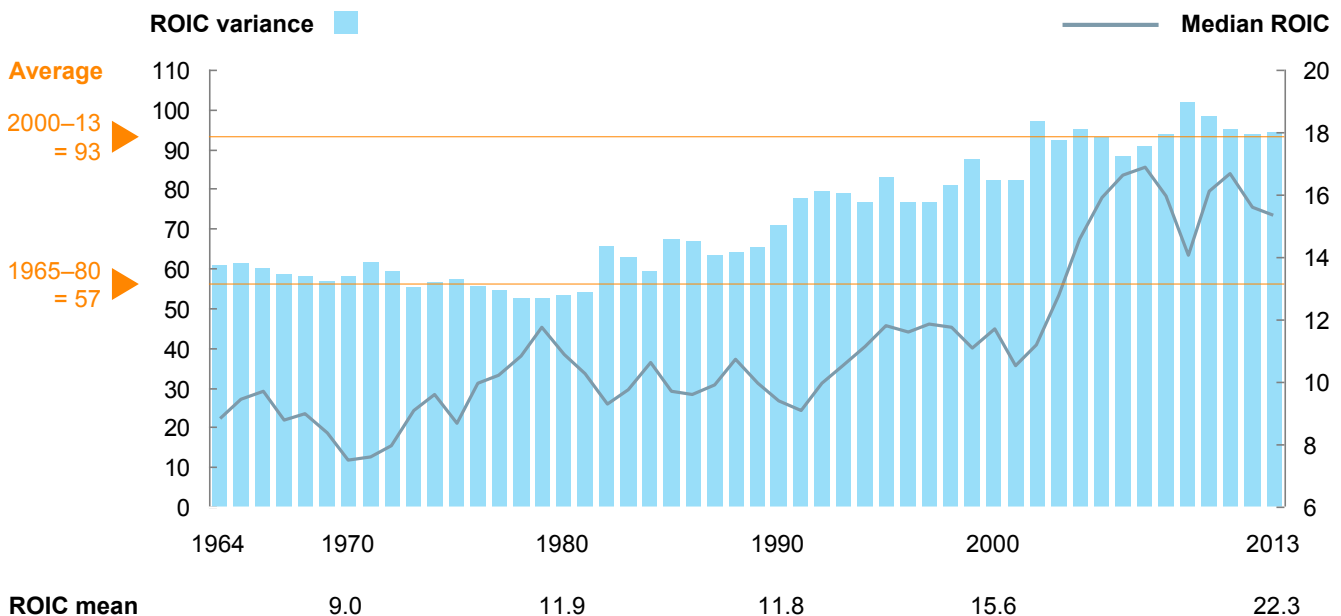
Returns grew steadily more variable in the 1980s and 1990s, a particularly striking trend since it took place against a backdrop of what some have called the “Great Moderation.” Since then, it has spiked even higher, driven by turbulence in the corporate sector as well as instability in the macroeconomic environment. Since 2000, the average variance in returns on capital for North American firms has been more than 60 percent higher than the levels that prevailed from 1965 to 1980 (Exhibit 11). Not only are profits rising, but in some industries, the leading firms are winning bigger than ever before.

Exhibit 11

Variability in corporate earnings has nearly doubled

Variance in return on invested capital (ROIC) for North American firms, 1964–2013¹

%



¹ Firms included in this analysis had more than \$200 million in revenue in at least one year during this period as well as ROIC between zero and the 95th percentile. “Variance” is defined as the ratio of standard deviation to mean.

SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Idea-intensive sectors have become the most profitable, while capital-intensive sectors are increasingly squeezed

This trend toward greater variability in corporate performance is playing out at the sector level as well. The gradual shift of profits to idea-intensive sectors has accelerated in the past decade. In contrast, capital-intensive industries are feeling the squeeze from emerging-market giants with massive scale. Value is increasingly created from patents, brands, trademarks, and copyrights rather than industrial machinery or factories.

Many idea-intensive industries have developed a winner-take-all dynamic, with a wide and growing gap between the most profitable firms and everyone else (see Box 2, “Profit dynamics within sectors”). In pharmaceuticals, for instance, profit margins were 38 percentage points higher for publicly held pharmaceutical firms in the fifth percentile of the industry than for firms in the 95th percentile.³⁵ In IT industries, the spread is 35 percentage points; in media, 38 points.³⁶ The margin gap between the top quintile firms (by profit margin) and median firms in idea-intensive industries has widened by 20 percent in the past decade, more than in any other group of industries. In return on invested capital, the gap between top performers and the median has grown by 25 percent.

In idea-intensive sectors, fast-moving change is a constant. Robust M&A activity has contributed to rising industry concentration in sectors such as technology hardware. But scale and market dominance do not protect the winning companies in these industries from volatility. The biggest firms may benefit from strong network effects, but they are also vulnerable to being disrupted themselves by the next wave of innovation. Many leading tech names have been unable to hold on to their market share for a long period of time. In 2008, for instance, the top two smartphone vendors were Nokia and Research In Motion; by 2013, Samsung and Apple were market leaders by a substantial margin. Other markets for tech hardware, such as laptops and tablets, have seen similar churn.

While idea-intensive firms run away with the profits, companies in capital-intensive industries are feeling a growing squeeze. The average after-tax profit margin in industries producing capital goods is roughly half the average of IT firms and roughly a quarter of the average margin for pharmaceutical firms. For automobiles and machinery, for example, the figures are 5.4 and 6.8 percent, respectively; margins in the IT services and pharmaceutical industry are 11.7 and 19.8 percent, respectively. In addition, the margin spread between capital-intensive firms at the fifth and 95th percentile of profitability is much smaller than the spread in idea-intensive industries. For automobile firms, the spread between fifth and 95th percentile firms is 12 percentage points, roughly a third of the spread for firms in pharmaceuticals or media.

In these industries, it is much harder for winning firms to pull away from the pack. In some capital-intensive industries, margin pressures are worsened by overcapacity. The dramatic expansion of capital stock in emerging economies, especially in China, has led several industries to overbuild. (See Chapter 2 for a full discussion of the impact of new emerging-market competitors.) In some industries, such as automobiles, this is part of a natural evolution; companies make anticipatory investments based on market growth potential, and demand growth eventually catches up. All of the major automakers may suffer from lower utilization in emerging markets as they invest today for growth tomorrow. But in other industries such as steel or chemicals, overcapacity can result in local productivity declines or falling prices, creating a significant drag on company performance.

³⁵ A similar trend applies when comparing firms at the 25th and 75th percentile of profit margin.

³⁶ A sizable profit margin gap also exists in infrastructure industries (resource extraction, transportation, utilities, and telecom)—but these industries also have large interregional differences in price regulation, captive local markets, state ownership, and preferential access to resources. In these industries, the gap between firms at the fifth percentile of profit margin and 95th percentile is 35 to 40 percentage points.

Box 2. Profit dynamics within sectors

The most profitable industries, as measured by after-tax profit margin, include pharmaceuticals, information technology, media, and finance. These industries are asset-light in terms of physical capital. Instead, they amass patents, brands, trademarks, software, or other forms of intellectual assets. Idea-intensive industries tend to produce big winners; they have the highest profit margin spread between successful firms and the industry median (Exhibit 12). They are also generally open to competition, with a significant amount of cross-border trade and investment. In addition to posting the highest profit margins, these sectors are generating the most rapid profit growth.

By contrast, industries that are highly localized and capital-intensive are more shielded from competition. Infrastructure-related industries such as utilities, telecom, transportation, and extraction tend to have high profit margins and high margin spreads. There is a strong state presence in these industries, and some are tightly regulated markets. They generate relatively low trade and demand heavy investments in physical capital.

Between these two ends of the spectrum lies a range of other industries, most of which are relatively open to competition. They include capital-intensive sectors marked by a high degree of international trade, such as automobiles, machinery, chemicals, and other processing industries. Their profit margins are less than half those in idea-intensive sectors, and their margin spreads are low as well. It is harder for firms in these industries to pull away from the pack. Similarly, local service industries such as retail, hospitality, health care, consumer staples, and construction also have relatively low profit margins and margin spreads; these industries tend to be labor-intensive as well.

Western firms are the world's most profitable in part because of their dominance in idea-intensive industries, which account for only 22 percent of global revenue but 41 percent of the profits. By contrast, many of the largest and fastest-growing firms from emerging economies belong to localized capital-intensive industries. Each region has a distinct sector mix, but its overall profit trends are not determined by how that mix changes over time. Instead, firms from a given region tend to reflect a set of common corporate behaviors, priorities, and market pressures. Chapter 2 will explore the nature of the new emerging-market contenders in greater detail.

Exhibit 12

Idea-intensive sectors see higher margins and spreads than most sectors

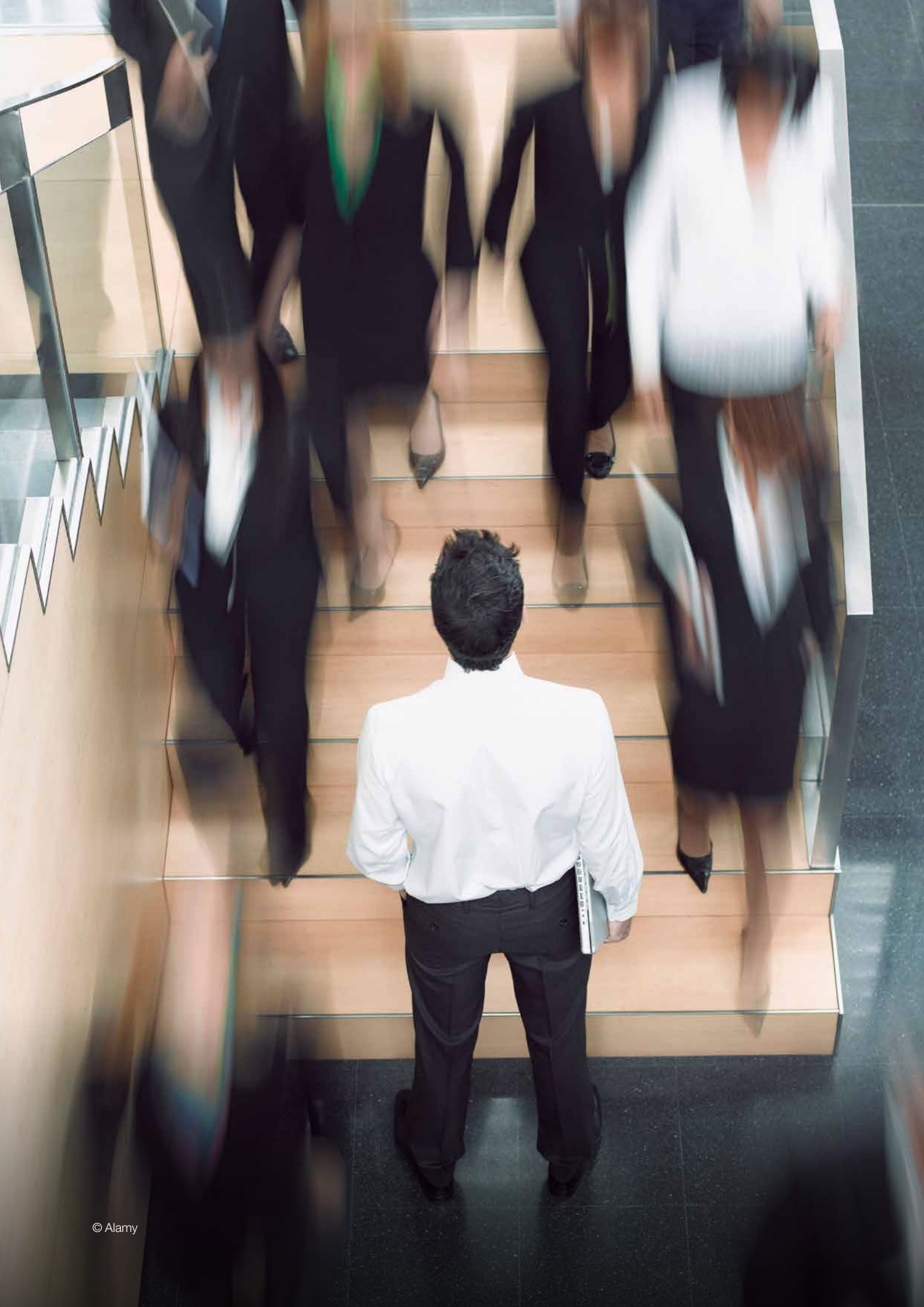
■ Top quartile ■ Second quartile ■ Third quartile ■ Bottom quartile

Group	Sector archetype	Selected sectors	Knowledge			Labor	Capital	Profitability		
			R&D intensity	Brand intensity	Skill intensity	Labor intensity	Capital intensity	Average profit margin	Profit spread	
			R&D over sales, %	SG&A over sales, %	Share of high-skill workers, %	Payroll share of output, %	PP&E over sales, %	Invested capital \$ billion	NOPLAT over sales, %	95th – 5th percentile, percentage points
Idea-intensive goods and services	Intellectual property-intensive	Pharma/medical devices	Top quartile	Top quartile	Second quartile	Bottom quartile	Bottom quartile	Bottom quartile	19.8	32
		Technology hardware	Top quartile	Second quartile	Top quartile	Second quartile	Bottom quartile	Bottom quartile	7.8	33
	Technology-intensive	IT and business services	Top quartile	Top quartile	Second quartile	Bottom quartile	Bottom quartile	Bottom quartile	11.7	29
		Media	Bottom quartile	Top quartile	Top quartile	Bottom quartile	Second quartile	Bottom quartile	12.4	36
Labor-intensive consumer goods and services	Local consumer-facing	Consumer discretionary products	Second quartile	Top quartile	Bottom quartile	Top quartile	Bottom quartile	Bottom quartile	5.0	23
		Consumer staples	Bottom quartile	Second quartile	Bottom quartile	Second quartile	Bottom quartile	Second quartile	9.3	22
		Hospitality services	Bottom quartile	Bottom quartile	Bottom quartile	Top quartile	Top quartile	Bottom quartile	8.5	23
		Health-care services	Bottom quartile	Bottom quartile	Top quartile	Top quartile	Bottom quartile	Bottom quartile	3.9	19
		Retail	Bottom quartile	Second quartile	Bottom quartile	Second quartile	Bottom quartile	Second quartile	3.5	14
Capital-intensive goods and services	Capital goods	Construction	Second quartile	Bottom quartile	Bottom quartile	Top quartile	Bottom quartile	Second quartile	4.4	17
		Automobiles	Second quartile	Bottom quartile	Bottom quartile	Second quartile	Second quartile	Top quartile	5.4	12
		Machinery	Second quartile	Second quartile	Second quartile	Bottom quartile	Second quartile	Top quartile	6.8	17
		Processing	Second quartile	Bottom quartile	Bottom quartile	Bottom quartile	Second quartile	Top quartile	6.6	20
	Infrastructure	Transportation	Bottom quartile	Bottom quartile	Bottom quartile	Top quartile	Top quartile	Second quartile	6.0	42
		Telecom	Bottom quartile	Top quartile	Top quartile	Bottom quartile	Top quartile	Second quartile	13.4	35
		Utilities	Bottom quartile	Bottom quartile	Top quartile	Bottom quartile	Top quartile	Top quartile	8.5	36
		Extraction	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile	Top quartile	Top quartile	5.8	42

SOURCE: McKinsey Corporate Performance Analysis Tool; IHS; US Bureau of Economic Analysis; US Bureau of Labor Statistics; McKinsey Global Institute analysis



Over the past three decades, a rare confluence of conditions has unleashed a boom in corporate growth. Corporations based in advanced economies have transformed themselves into true multinationals with complex supply chains and broad footprints, and they have been the biggest winners in terms of profits. But the pace of change has accelerated in the past decade, with profits shifting to idea-intensive sectors and margin pressure mounting in capital-intensive industries. Chapter 2 examines the new competitive threats being unleashed by lean, fast-moving emerging-market companies and innovative high-tech and tech-enabled firms.





2. UNDERSTANDING THE NEW COMPETITORS

While many companies continue to post record profits, a fundamental change has begun to transform the corporate landscape. In the past decade, the wave of competition has become a sustained tsunami. There are twice as many multinational firms active today as in 1990, and the majority of that growth has occurred since 2000. Corporate performance is becoming steadily more subject to sharp swings, and M&A deals are rapidly changing the roster of top players in many industries. The business environment has grown more complex and more turbulent than at any other point in corporate history—and these trends are still accelerating.

Some of the largest giants in the corporate world now have their roots in emerging economies. Their track record for profit and performance is uneven, but their presence—in sheer size and numbers—is game-changing. Multinationals from advanced economies face a tough battle on all fronts. Not only do they have to outcompete local players whenever they enter a new international market, but they are increasingly being challenged in their own backyards by companies with their roots in emerging economies. Companies from the emerging world are attaining the scale and global reach necessary to take on industry-leading firms that may have held comfortable market positions for decades.

The business environment has grown more complex and more turbulent than at any other point in corporate history—and these trends are still accelerating.

The arrival of corporate giants from emerging economies has coincided with the explosive growth of the technology sector. Tech firms consider volatility and market churn to be facts of life. They tend to be brutal competitors—and they are increasingly challenging business models in industries that stretch well beyond the confines of the tech sector itself. The biggest tech and tech-enabled firms have reached “hyper” scale in revenue, assets, customers, workers, and profits—and for tech giants, massive scale goes hand in hand with the ability to build and operate a platform or network. Once companies in the technology domain build out digital platforms, their marginal costs of expansion drop dramatically, allowing them to add new interactions and business lines quickly and at low cost. Some tech and tech-enabled firms destroy more value for incumbents than they create for themselves, and many gains are competed away in the form of consumer surplus.

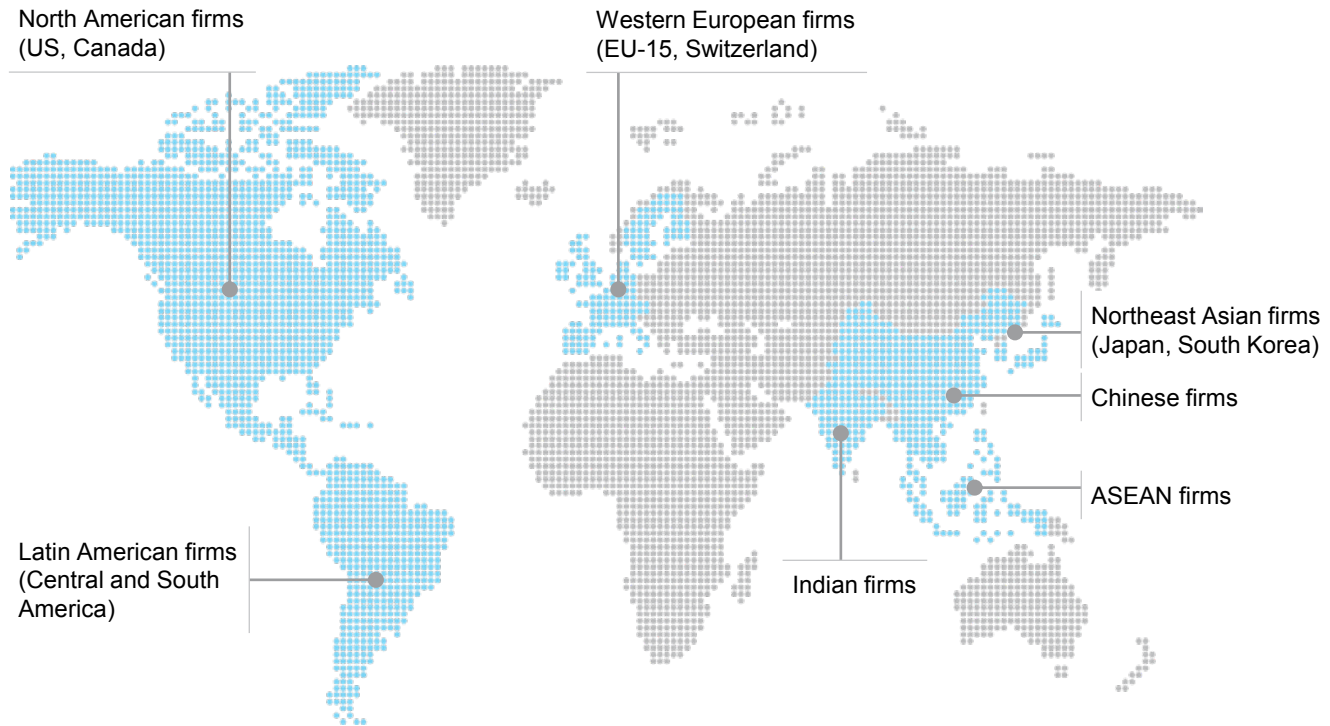
Both types of new competitors bring an agility and aggressiveness to the game that many long-established names will struggle to match.

THE NUMBER OF MULTINATIONALS HAS DOUBLED SINCE 1990, AND EMERGING MARKETS ARE GENERATING MUCH OF THE GROWTH

The corporate landscape is dominated by firms from seven key regions (Exhibit 13). But their relative weight and market dominance has been shifting dramatically. While two-thirds of the world's multinational corporations are still headquartered in advanced economies, the global balance is changing.

Exhibit 13

Companies from seven regions account for 80 to 95 percent of corporate activity



These firms together make up

- 95% of Fortune Global 500
- 87% of global market cap
- 87% of outbound FDI flows
- 80% of global multinationals

Their home regions make up

- 82% of world GDP
- 81% of all private-sector jobs
- 77% of world exports

SOURCE: UNCTAD; *Fortune*; IMF; Comtrade; World Bank; ILO; IHS; McKinsey Global Institute analysis

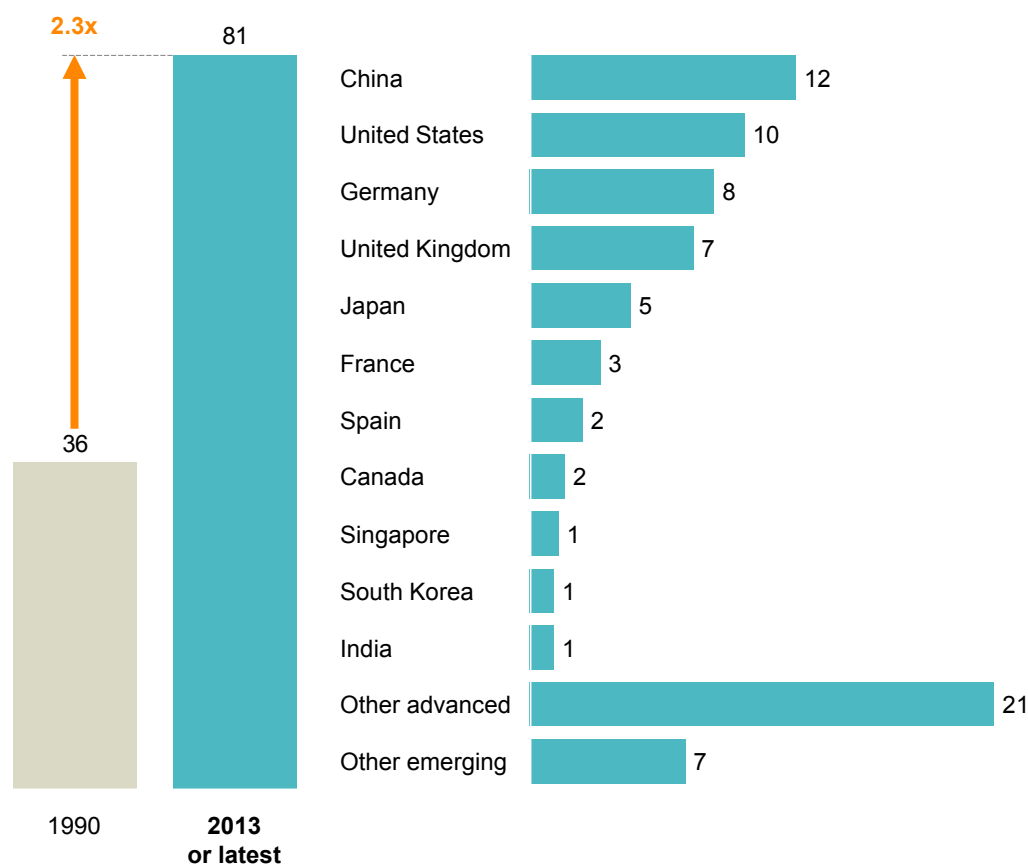
Twice as many multinational corporations are active today as in 1990—more than 80,000 of them, in fact (Exhibit 14). This is a conservative estimate, as we exclude those with headquarters in low-tax jurisdictions such as Ireland, Luxembourg, the Netherlands, and the Caribbean islands. The sheer number of companies vying for market share is one factor behind growing variability in corporate performance and the new hypercompetitive dynamics in many industries.

Exhibit 14

The number of global corporations has more than doubled since 1990

Growth in multinational corporations¹

Number of parent firms, thousand



¹ Excludes multinational corporations headquartered in Ireland, Luxembourg, the Netherlands, Hong Kong; and in Caribbean countries.

SOURCE: UNCTAD; World Bank; McKinsey Global Institute analysis

Emerging economies have launched more than 17,000 large companies since 1990, with China driving the bulk of that growth. The makeup of the Fortune Global 500 illustrates this shift in corporate geography. Between 1980 and 2000, emerging-market companies accounted for roughly 5 percent of the Fortune 500; by 2013, their share had risen to 26 percent. The share of US and Western European companies dropped from 76 percent in 1980 to 54 percent in 2013. Based on projected growth by region, previous MGI research has estimated that the emerging world will account for more than 45 percent of the Fortune Global 500 by 2025.³⁷ Among the world's billion-dollar firms, approximately 900 are from the Greater China region, 600 are from South and Southeast Asia, and another 600 are from Latin America. The rise of these corporate powerhouses is changing the nature of global competition.

³⁷ *Urban world: The shifting global business landscape*, McKinsey Global Institute, October 2013.

MANY EMERGING-MARKET GIANTS NOW HAVE GLOBAL REACH— AND THEY PLAY BY DIFFERENT RULES

Many prominent emerging-market companies have been operating as industrial giants for decades. But over the past ten to 15 years, they have reached massive scale in their home markets, and many have expanded globally, just as generations of companies have done before them. In the past decade, the 50 largest firms from emerging economies have doubled their share of revenue from overseas activity from 19 percent to 40 percent. This is an especially striking statistic given how rapidly their home markets were growing during this period.

Some emerging-market companies are now comparable in size to industry leaders from advanced economies—or even larger. Among public companies, the three largest domestic appliance makers in the world, measured by profits, are Chinese (Gree Electric Appliances, Midea Group, and Qingdao Haier, with combined revenue of \$60 billion and profits of \$4.5 billion).³⁸ China is also home to the three largest banks in the world (the Industrial and Commercial Bank of China, China Construction Bank, and the Agricultural Bank of China, with combined revenue of \$400 billion and profits of \$100 billion). China National Petroleum Corporation, State Grid Corporation of China, and Indian Railways—all state-owned firms—each employ 1.4 million to 1.6 million people, while electronics giant Hon Hai Precision Industry (better known as Foxconn) employs 1.2 million.

Family-, founder-, and state-controlled firms are able to take a long view of the investment and strategies needed to build a leading position.

It would be a mistake to think of “emerging-market companies” as a monolithic group. Companies tend to reflect the business climate, market structure, corporate culture, and endowments of their home country rather than its broader income group. Understanding these differences is crucial to understanding how these firms compete.

Some clear regional patterns have emerged from our research. Emerging Asian firms, for instance, have been the most aggressive in expanding beyond their home country, while Latin American firms tend to be significantly less outward-looking. China’s corporate sector has a capital-intensive sector mix that resembles that of Japan and South Korea, reflecting a similar legacy of using massive investments to drive growth. Four of the world’s ten most profitable iron and steel companies are from these three countries, for instance. Even the overall corporate performance of firms from China, Japan, and South Korea is similar. The falling margins of Chinese firms appear to be heading toward 3 to 4 percent, the range of their Northeast Asian counterparts in most industries.

The ownership profile of emerging-market firms influences how they compete

Ownership structure affects priorities and overall performance. A firm with a controlling shareholder—whether family, founder, or state—tends to focus on building a leading position and is able to take a long-term view about the growth and investment needed to accomplish that goal. In the case of state-owned enterprises (SOEs), those objectives may be national priorities such as boosting employment, ensuring food security, or securing natural resources. Some SOEs are considered national champions by domestic policy makers, and their rapid growth reflects strong government support. In contrast, widely held public firms

³⁸ “The world’s biggest public companies,” *Forbes*, May 2015.

must answer to shareholders every quarter and are more focused on maximizing earnings in the immediate term.³⁹

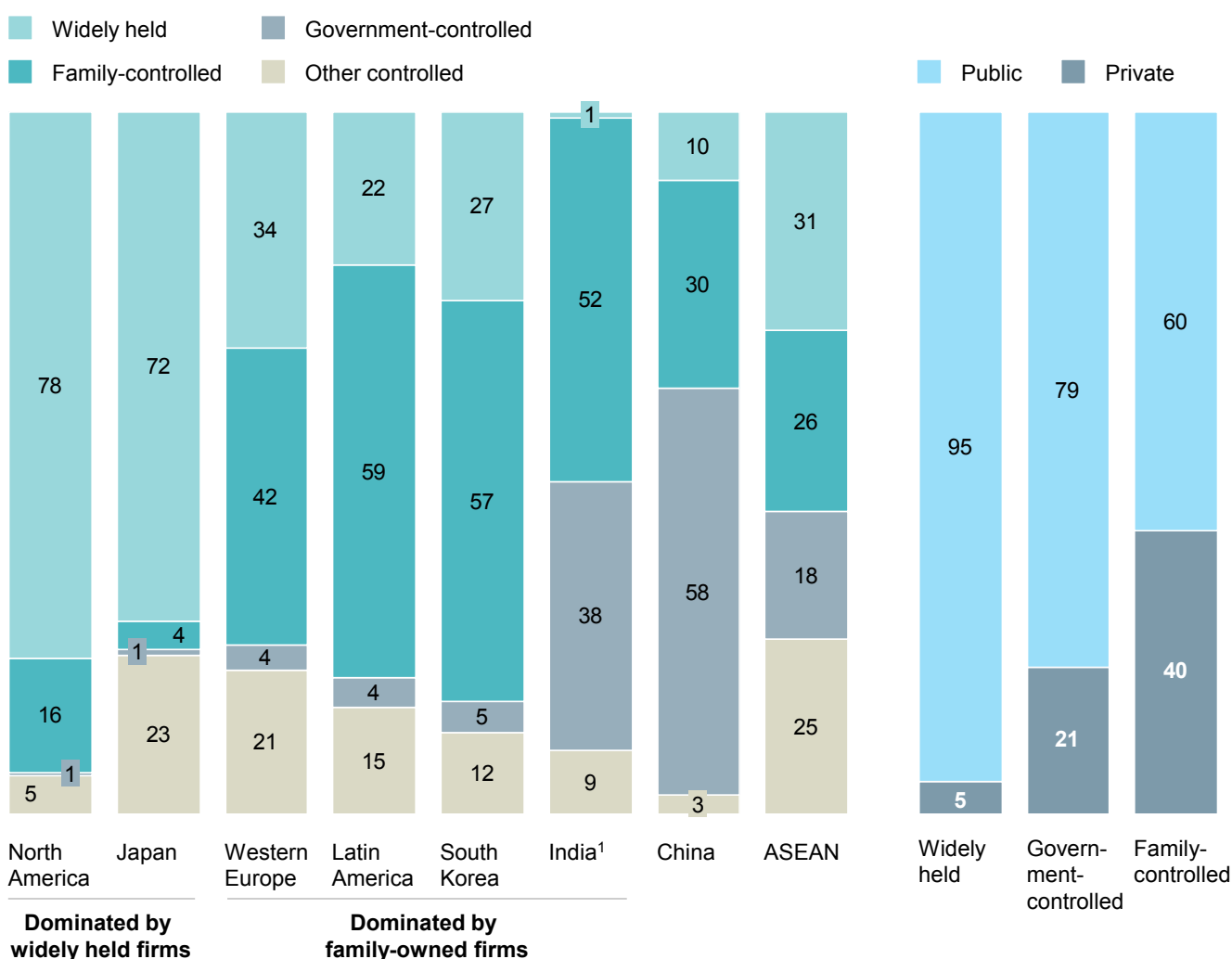
Roughly half of the world's largest SOEs are in China, and another quarter are in other emerging economies. The Association of Southeast Asian Nations (ASEAN), in particular, has a large concentration of SOEs. South Korea, Western Europe, and Latin America are home to many large family-controlled firms. In contrast, most of the world's widely held public companies are found in North America and Japan (Exhibit 15). In general, privately owned firms have a larger presence in emerging economies than in advanced economies (the exception being Western Europe). Widely held public firms are more likely to focus on profit margins; privately held firms tend to focus on asset productivity.

Exhibit 15

Many of the new competitors are family- or state-owned

Share of total revenue pool, 2006–11

%



¹ Based on 500 largest firms by sales in 2014.
NOTE: Numbers may not sum due to rounding.

SOURCE: Bureau van Dijk; Fortune India 500; McKinsey Global Institute analysis

³⁹ *Perspectives on the long term: Building a stronger foundation for tomorrow*, Focusing Capital on the Long Term initiative, Canada Pension Plan Advisory Board and McKinsey & Company, March 2015.

Family and government owners of emerging-economy firms tend to have higher controlling stakes than their counterparts hold in advanced-economy firms. Controlling shareholders in China, for example, tend to hold twice as much share in their own companies as shareholders in Western Europe. This may contribute to more aggressive pursuit of growth.⁴⁰ Family-controlled firms from emerging economies frequently have higher asset and revenue growth than their counterparts in advanced economies, and they are quickly expanding their M&A activity (see Box 3, “Using M&A as a competitive strategy,” later in this chapter).

Firm ownership patterns vary widely by sector (Exhibit 16). Family-owned firms are more likely to be found in consumer-facing sectors such as retail, hospitality, and consumer discretionary products. Walmart, the largest retailer in the world by revenue and profits, is ultimately controlled by Walton Enterprises, a holding firm owned by the descendants of founder Sam Walton. State-owned enterprises tend to dominate infrastructure sectors, such as telecom, utilities, and resource extraction, in emerging markets. Ranking among the ten largest companies in the world by revenue are three Chinese state-owned infrastructure firms: Sinopec, China National Petroleum, and State Grid Corporation of China.

Studies have shown that family owners, in particular, tend to view their firms as assets to pass on to succeeding generations.⁴¹ Because the fortunes of the founding family are closely tied to firm performance, incentives are naturally aligned for efficiency.⁴² Their continuing presence can increase institutional knowledge and create a sense of trust and stability that leads to a lower cost of debt financing.⁴³

The returns on assets achieved by family-owned firms are comparable to those achieved by widely held firms within the same industry and region. But family firms tend to have higher asset turnover, while widely held firms tend to have higher profit margins. One reason for higher asset productivity is the premium associated with top brands. Many of the strongest luxury fashion brands (including Louis Vuitton, Hermès, and Prada), for instance, share a long heritage of family ownership. Family-owned firms in consumer products account for a larger proportion of the total brand value than they do of the sector’s total revenue.

⁴⁰ Åsa Björnberg, Heinz-Peter Elstrodt, and Vivek Pandit, “The family-business factor in emerging markets,” *McKinsey Quarterly*, December 2014.

⁴¹ Ronald C. Anderson and David M. Reeb, “Founding-family ownership and firm performance: Evidence from the S&P 500,” *Journal of Finance*, volume 58, number 3, June 2003.

⁴² Eugene F. Fama and Michael C. Jensen, “Separation of ownership and control,” *Journal of Law and Economics*, volume 26, number 2, June 1983.

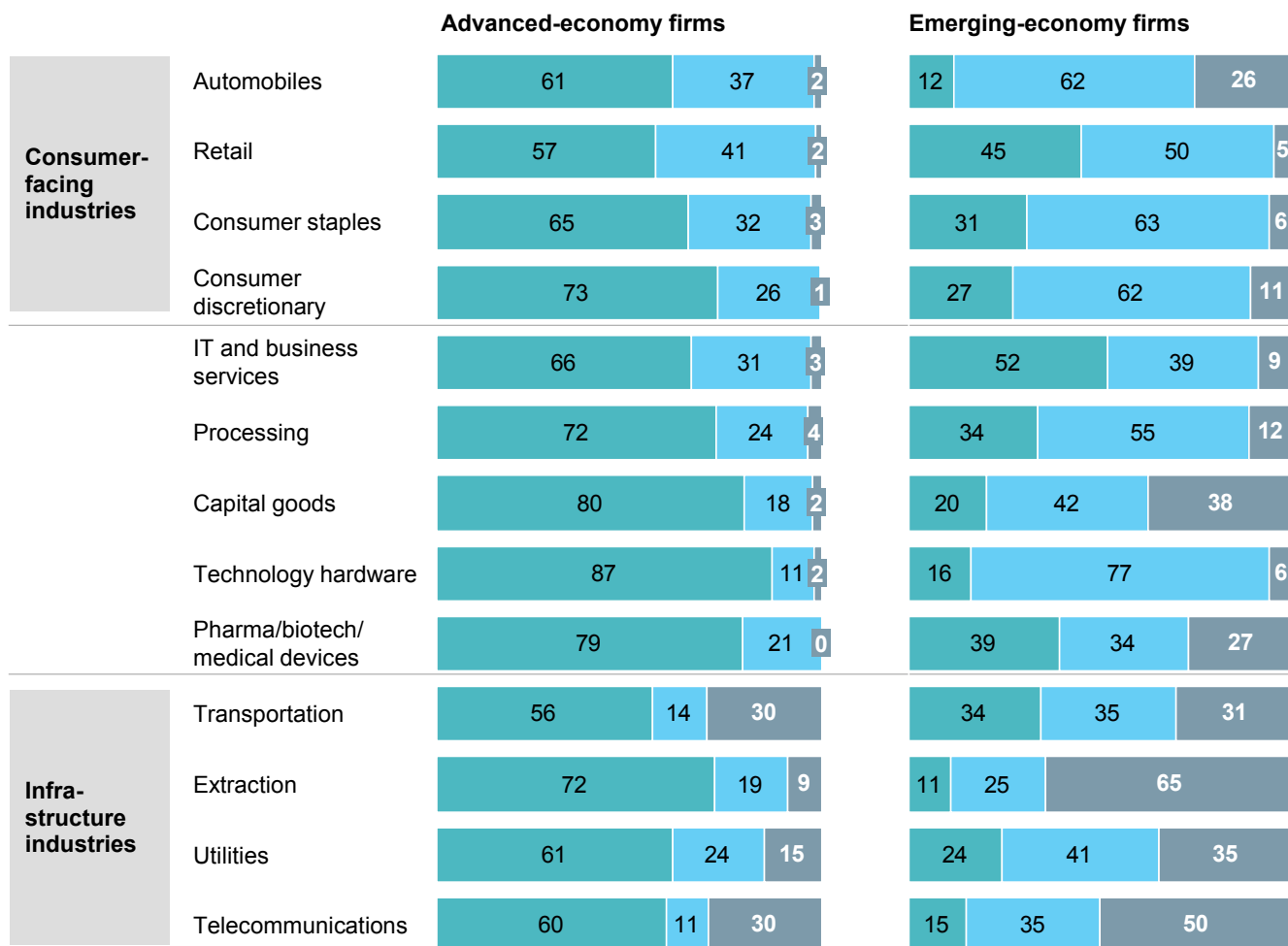
⁴³ See, for example, Isabelle Le Breton-Miller and Danny Miller, “Why do some family businesses out-compete? Governance, long-term orientations, and sustainable capability,” *Entrepreneurship Theory and Practice*, volume 30, issue 6, November 2006, and Daniel L. McConaughy, Charles H. Matthews, and Anne S. Fialko, “Founding family controlled firms: Performance, risk, and value,” *Journal of Small Business Management*, volume 39, issue 1, January 2001.

Exhibit 16

Family-controlled firms have a higher presence in consumer-facing industries, while infrastructure industries have many state-controlled firms

Average share of total revenue pool, 2006–11
%

■ Widely held ■ Family-controlled ■ Government-controlled



NOTE: Sample of 19,300 public and private companies with \$200 million or more in annual revenue. Numbers may not sum due to rounding.

SOURCE: Bureau van Dijk; McKinsey Global Institute analysis

Emerging-market competitors tend to use revenue growth instead of profit margin growth to maximize returns on invested capital

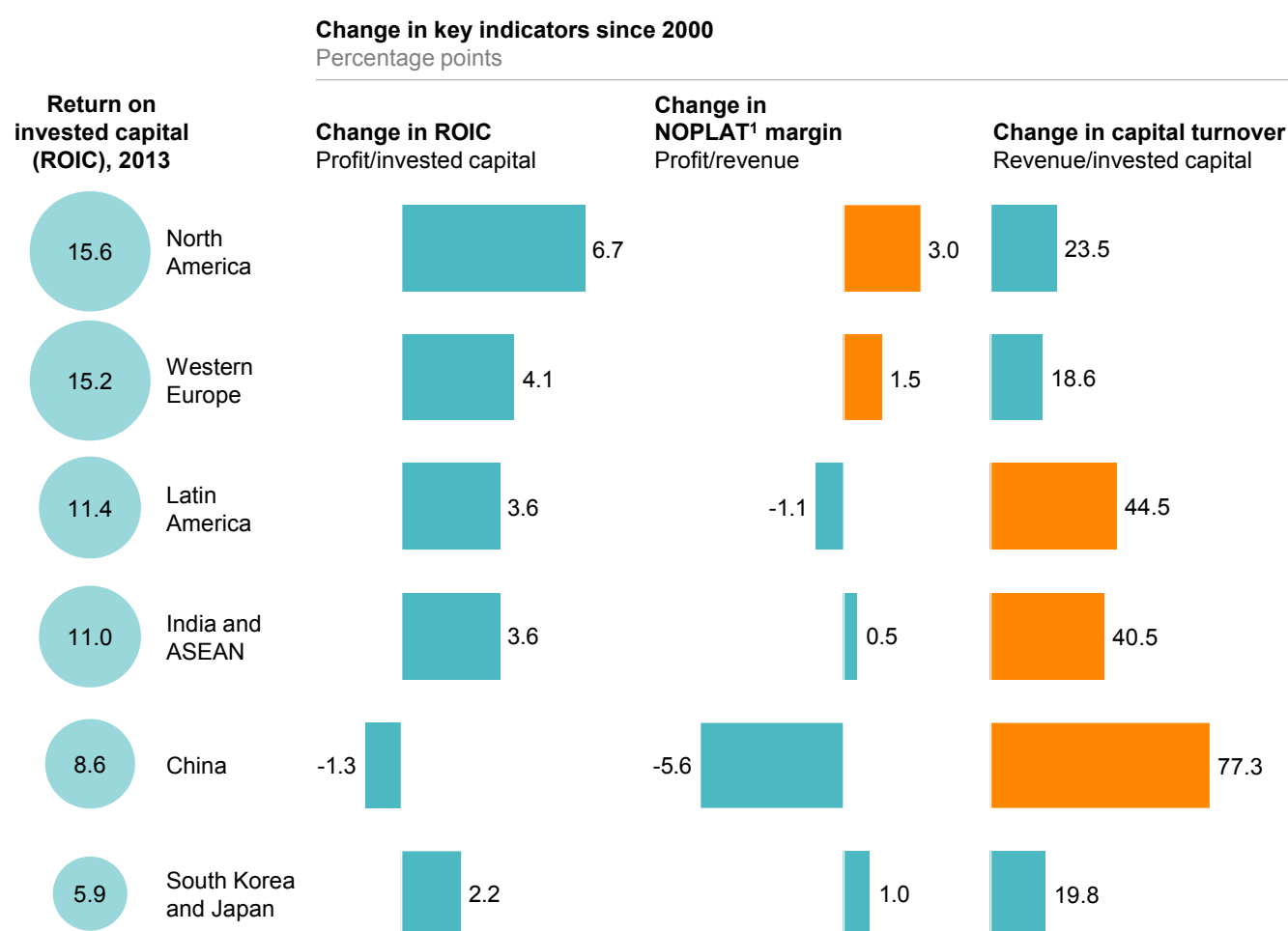
Harnessing the rapid growth of their home markets, many emerging-market firms are increasing their revenue by double-digit rates annually. Chinese firms, regardless of their ownership structure, have grown four to five times faster than Western firms in the past decade, particularly in capital-intensive industries such as steel and chemicals. Yet their margins fell by more than 5 percentage points on average from 2000 to 2013 (Exhibit 17). In extractive industries, emerging-market companies generated 11 percent of global revenue in 2000, a share that climbed to 29 percent in 2013. In capital goods, their share of global revenue rose from just 4 percent to 16 percent over the same period. At a regional level, Western firms maintain the highest profit margins, while Chinese and other emerging-market companies are willing to forgo profits in pursuit of growth.

Exhibit 17

Emerging-market firms use revenue growth, not profit margin growth, to maximize their return on capital

■ Highlighted for emphasis

Key indicators, 3-year averages



¹ Net operating profit less adjusted taxes.
NOTE: Not to scale.

SOURCE: McKinsey Corporate Performance Analysis Tool; IHS; World Bank; McKinsey Global Institute analysis

To support their rapid growth, emerging-market companies are reinvesting in fixed assets at higher rates than companies from advanced economies. From 1999 to 2008, they returned only 39 percent of earnings to shareholders in the form of dividends, compared with payout rates of almost 80 percent among companies from advanced economies.⁴⁴ Between 2000 and 2013, publicly listed companies from emerging economies invested roughly \$6 trillion in fixed assets in industries ranging from resource extraction to utilities and capital goods.

Despite their scale, the new emerging-market challengers are nimble and lean

The most globally competitive emerging-market companies might be giants, but they have managed to stay lean and agile. Newer competitors, even in durable goods manufacturing, tend to operate with greater capital efficiency and a higher asset turnover ratio than industry incumbents in advanced economies.

A relatively young company for its industry, such as Hyundai, for example, has larger average plant sizes and fewer legacy factories than longer-established names. It has fewer than half as many plants as Volkswagen, and about one-third as many as Toyota. But it has the largest single plant, the highest output per plant, and the highest improvement in output per plant since 2008 among automotive manufacturers (Exhibit 18). Hyundai's industry-leading productivity has helped the company become the world's fifth-largest carmaker by volume and establish the most profitable operations of any manufacturer in its market segment.

This agility also applies to how companies reallocate capital in response to changing market opportunities. McKinsey research has shown that Indian companies, for instance, consistently redeployed investments across business units more dynamically than US companies.⁴⁵ In some cases, emerging-market companies shifted their investment focus from infrastructure-oriented industries such as cement and chemicals to consumer-oriented industries such as automobiles—transforming their approach as better roads and highways were followed by higher car sales. Reallocation of capital across business units is closely linked to corporate performance; companies with higher levels of capital reallocation can see up to 30 percent higher shareholder returns.⁴⁶

Private-sector firms in emerging markets are also rapidly improving their labor productivity. Emerging economies have outpaced advanced economies in labor productivity since the mid-1990s (although they began from a lower starting point).⁴⁷ Growth has accelerated in the past decade, averaging 5.6 percent annually among large emerging economies (versus 0.8 percent for advanced economies).

The hardest-charging emerging-market companies tend to have younger, skilled, and highly motivated workers. As with workers anywhere in the world, their attitudes and work ethic are highly influenced by local cultural norms. In some regions these may include a willingness to follow centralized or paternalistic authority without challenging directives and a sense of collective responsibility and duty to the organization. These new corporate giants now offer salaries and career opportunities that would have been out of reach just a generation ago

⁴⁴ Yuval Atsmon, Michael Kloss, and Sven Smit, "Parsing the growth advantage of emerging-market companies," *McKinsey Quarterly*, May 2012.

⁴⁵ Ibid.

⁴⁶ Stephen Hall, Dan Lovallo, and Reinier Musters, "How to put your money where your strategy is," *McKinsey Quarterly*, March 2012.

⁴⁷ *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015.

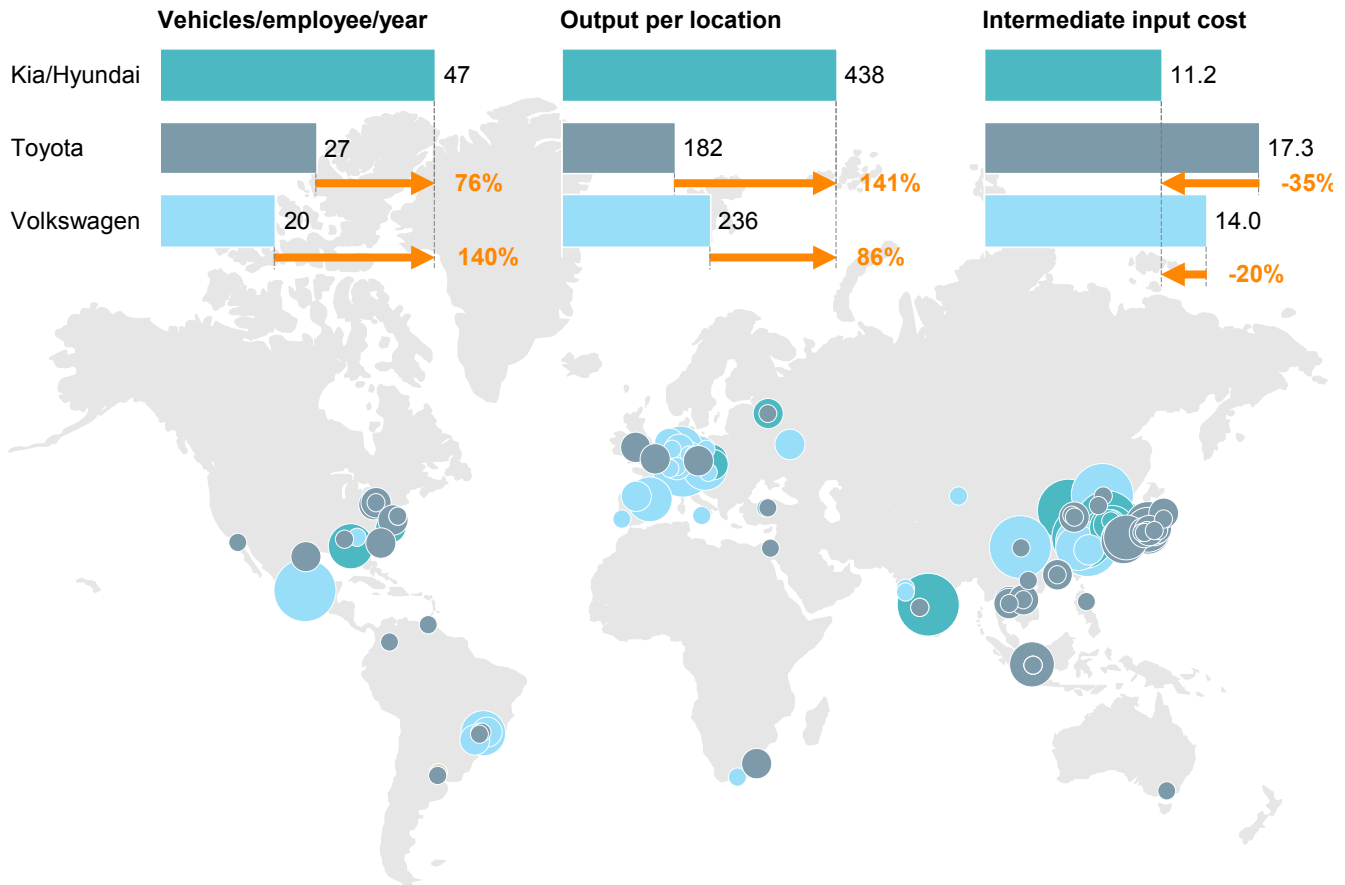
in many emerging regions. These factors allow these companies to deploy their workforces with agility and turn on a dime if necessary.⁴⁸

Exhibit 18

Hyundai has fewer than half of Volkswagen’s locations and about one-third of Toyota’s— but its plants are more productive

Light vehicle production, 2013
Average, thousand units

Maximum capacity



NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey & Company; IHS; McKinsey Global Institute analysis

Emerging-market competitors employ a hardy, risk-taking, and aggressive approach to open up underserved markets

Emerging-market firms have cut their teeth in difficult operating climates (Exhibit 19). China ranks 90th in the world for ease of doing business, Indonesia ranks 114th, Brazil ranks 120th, India ranks 142nd, and Nigeria ranks 170th.⁴⁹ Firms in these countries have had to navigate challenges in securing permits, enforcing contracts, tapping reliable infrastructure, raising capital, and hiring talent. Having overcome such hurdles, these companies have a natural advantage in other, fast-growing emerging markets. Indonesia’s Indofood, for

⁴⁸ For more on the cultural factors that influence employer-employee relationships around the world, see Geert Hofstede, *Culture’s consequences: Comparing values, behaviors, institutions, and organizations across nations*, 2nd ed., Sage Publications, 2001, and Geert Hofstede, Gert Jan Hofstede, and Michael Minkov, *Cultures and organizations: Software of the mind*, 3rd ed., McGraw-Hill USA, 2010. Geert Hofstede’s cultural dimensions theory explores five dimensions across countries: power distance, individualism, uncertainty avoidance, masculinity, and long-term orientation.

⁴⁹ *Doing business 2015: Going beyond efficiency*, World Bank, October 2014.

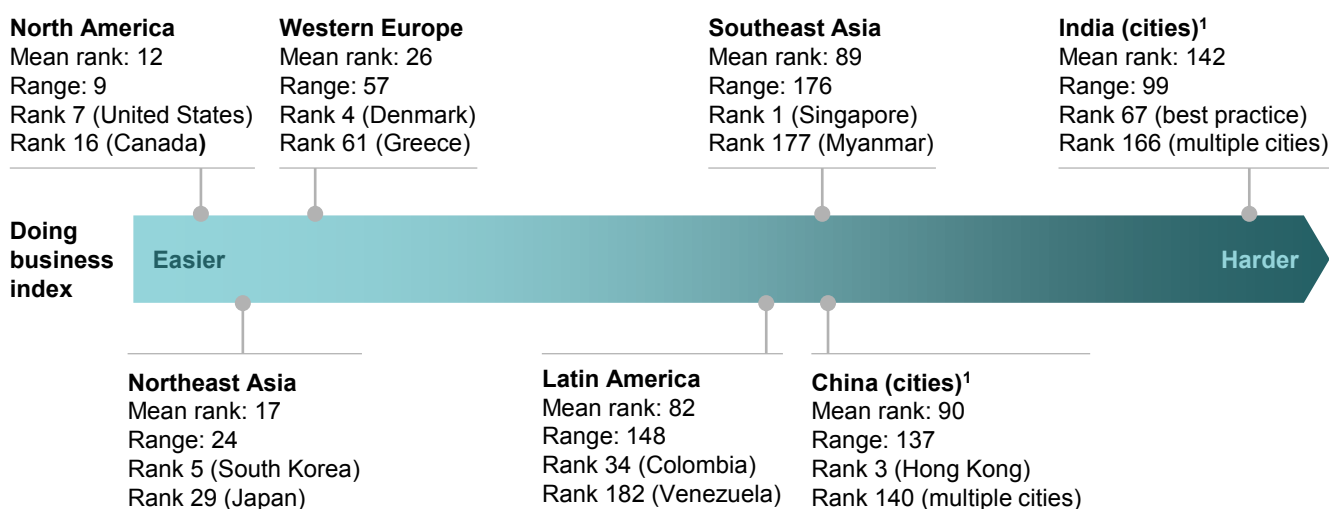
example, has successfully introduced its Indomie noodles across Africa, becoming the most popular brand in the huge Nigerian market.

Exhibit 19

New competitors from emerging markets have cut their teeth in home markets with challenging business environments

Ease of doing business

World Bank ranking of 189 countries



¹ For China and India, mean rank indicates country position in the latest ease of doing business ranking. Lower rank is from recent World Bank subnational reports (2008 for China, 2009 for India) highlighting the lowest international ranking of a specific activity (opening a business in China, paying taxes in India). For India, higher rank is based on composite "best practice" across multiple cities as specified in subnational ease of doing business report for India.

SOURCE: World Bank; IMF; World Economic Forum; McKinsey Global Institute analysis

Many newer competitors focus on the value segment, directing their innovation efforts toward responding rapidly to the market, recombining technologies, and squeezing out costs. Tata Chemicals, for example, has value-engineered the Swachh water purifier, keeping its price low so it will be affordable for even the lowest-income consumers, many of whom lack access to clean drinking water.

The mobile wallet was first launched in the Philippines and subsequently spread to many other emerging economies, where it spawned a plethora of mobile financial services. Within a few years, hundreds of mobile operators and banks were offering peer-to-peer money transfers, bill payments, merchant payments, mobile insurance, and many other services to previously unbanked populations.⁵⁰ In Africa, telecom firms such as South Africa's MTN and Kenya's Safaricom have managed to provide mobile financial services to millions of customers who lack access to bank accounts as well as credit card histories or social security numbers. Asian banks are successfully expanding to serve the millions of micro, small, and medium-sized enterprises that have traditionally lacked access to formal banking services and lending. One Asian bank has focused on this market, setting up specialized branches and staffing relationship officers from within local communities. This microbusiness banking subsidiary has produced nearly twice the average return on equity as the bank's other business units.

⁵⁰ Paul Van der Boor, Pedro Oliveira, and Francisco M. Veloso, "Users as innovators in developing countries: The global sources of innovation and diffusion in mobile banking services," *Research Policy*, volume 43, issue 9, November 2014.

These firms bring different cost structures or even entirely new business models to the game

Many emerging-market companies are vertically or horizontally integrated conglomerates. These structures came about for various historical reasons. Some countries made deliberate state investments to build diverse and complementary industries as part of their economic development strategies.⁵¹ But others either did not or could not, and consequently, the private sector developed its own mechanisms for ensuring the presence of mutually reinforcing services and suppliers by building large, extensively diversified pyramidal business groups. In other cases, companies were simply responding to the difficulties of contract enforcement, infrastructure gaps, unreliable supply chains, and underdeveloped capital markets. Where institutions are missing or inadequate, large conglomerates rely on their own resources for as many functions as possible.⁵² India's Infosys, for example, generates much of its own electricity and built Le Terrace, a four-star hotel with 500 rooms for its employees and overseas clients in Bangalore's Electronic City.⁵³

While large conglomerates linking holding companies and subsidiaries are nothing new in corporate history, the combination of this structure with strong centralized control can produce a formidable entity. South Korea's *chaebols*, for example, are large, family-controlled diversified business conglomerates with complex cross-holding structures, close ties to the government, and multiple business lines. Such cross-industry links have helped these firms expand quickly into new markets, knowing they can count on reliable domestic suppliers. These types of structures also allow companies to diversify their risk, respond more quickly to market needs, and keep more profits in-house (especially in industries such as automobiles, where suppliers capture an increasing share of value added). Latin America similarly has many family-controlled *grupos*, or conglomerates, whose structure has given them a measure of protection against market instability and other competitive advantages.⁵⁴

In the decade through 2013, conglomerates in South Korea accounted for about 80 percent of the largest 50 companies by revenue; in India, they accounted for a remarkable 90 percent. China's conglomerates (excluding state-owned enterprises) represented about 40 percent of its largest 50 companies in 2010, up from less than 20 percent a decade before. All of these firms have generated remarkable topline growth for companies of such large size.⁵⁵

Emerging-market conglomerates may encompass a remarkably wide array of business lines. Brazil's Vale and India's Reliance Group, for example, specialize in metals and petrochemicals, respectively, but their activities span such industries as power generation and distribution, construction, railroads, and logistics. To tap the Chinese infrastructure boom, Vale moved early to establish an efficient logistics network; it built new railroads and ports as well as Valemax ships, a fleet whose capacity is more than double that of regular iron ore vessels.

⁵¹ This is the "big push" described by Paul N. Rosenstein-Rodan in "Problems of industrialization of Eastern and South-Eastern Europe," *Economic Journal*, volume 53, issue 210/211, June-September 1943.

⁵² Tarun Khanna and Krishna G. Palepu, "Why focused strategies may be wrong for emerging markets," *Harvard Business Review*, July-August 1997.

⁵³ K. R. Balasubramanyam, "Infosys becomes first Indian IT company to generate own power," *Times of India*, June 17, 2014.

⁵⁴ Fernando Robles, Nila Wiese, Gladys Torres-Baumgarten, *Business in emerging Latin America*, Routledge, 2014.

⁵⁵ Martin Hirt, Sven Smit, and Wonsik Yoo, "Understanding Asia's conglomerates," *McKinsey Quarterly*, February 2013.

Chinese companies have expanded aggressively in Africa, often with offers to build turnkey infrastructure projects, including hydroelectric plants and railways (Exhibit 20). In 2013 alone, foreign firms pumped more than \$30 billion into African infrastructure, according to the African Development Bank; nearly half of that came from Chinese firms. One example is Sicomin, a consortium of companies involved in a full-service infrastructure development in the Democratic Republic of Congo. It is spearheaded by Chinese state-owned firms Sinohydro and China Railway Group, working in partnership with other Chinese firms, including Zhejiang Huayou Cobalt, China Machinery Engineering Corporation, and the Export-Import Bank of China.

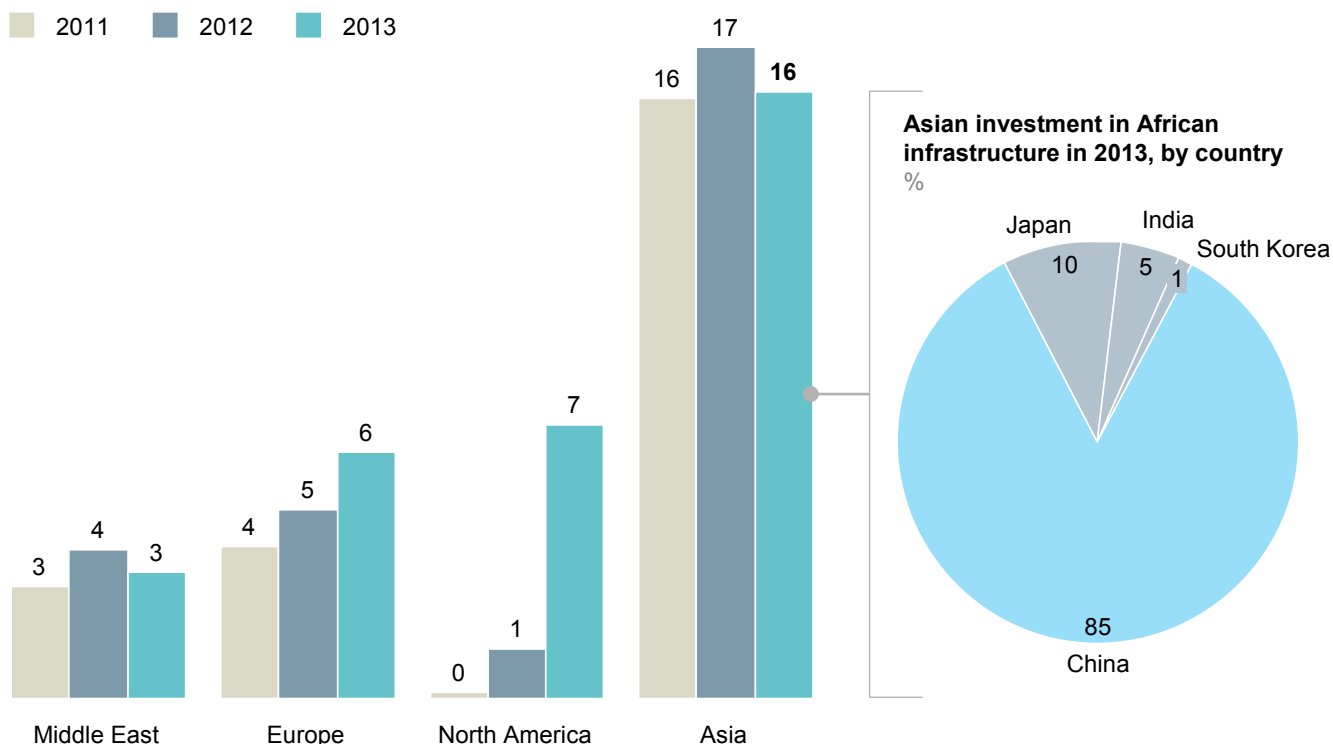
Exhibit 20

Chinese firms have invested heavily in Africa

Foreign investment in African infrastructure, by region

\$ billion

■ 2011 ■ 2012 ■ 2013



NOTE: Numbers may not sum due to rounding.

SOURCE: Infrastructure Consortium for Africa of the African Development Bank; McKinsey Global Institute analysis

Their massive scale can create ripple effects throughout industries

Some emerging-market companies have built up such massive scale and invest so much in fixed costs that their marginal costs of additional expansion fall sharply. In 1990, when Chinese companies represented only 4 percent of global production of aluminum, the marginal cost throughout the industry was approximately \$2,500 per tonne (averaged across producers in real 2014 US dollars). In 2014, Chinese smelters represented 52 percent of global production, and the marginal cost averaged across all producers has dropped below \$1,900 per tonne—enough to drive out more than half of the Western producers that were active in 1990 (Exhibit 21).

The dramatic expansion of capital stock in emerging economies, especially in China, has led to overcapacity in several industries. In sectors such as automobiles, this is part of a natural evolution. Companies make anticipatory investments based on market growth potential, and demand growth eventually closes the gap with capacity. All of the major automotive manufacturers may suffer from lower utilization in emerging markets as they invest today for growth tomorrow. But in other sectors such as steel, which involves relatively less global trade or competition, overcapacity can result in local productivity declines or falling prices and become a significant drag on company performance.

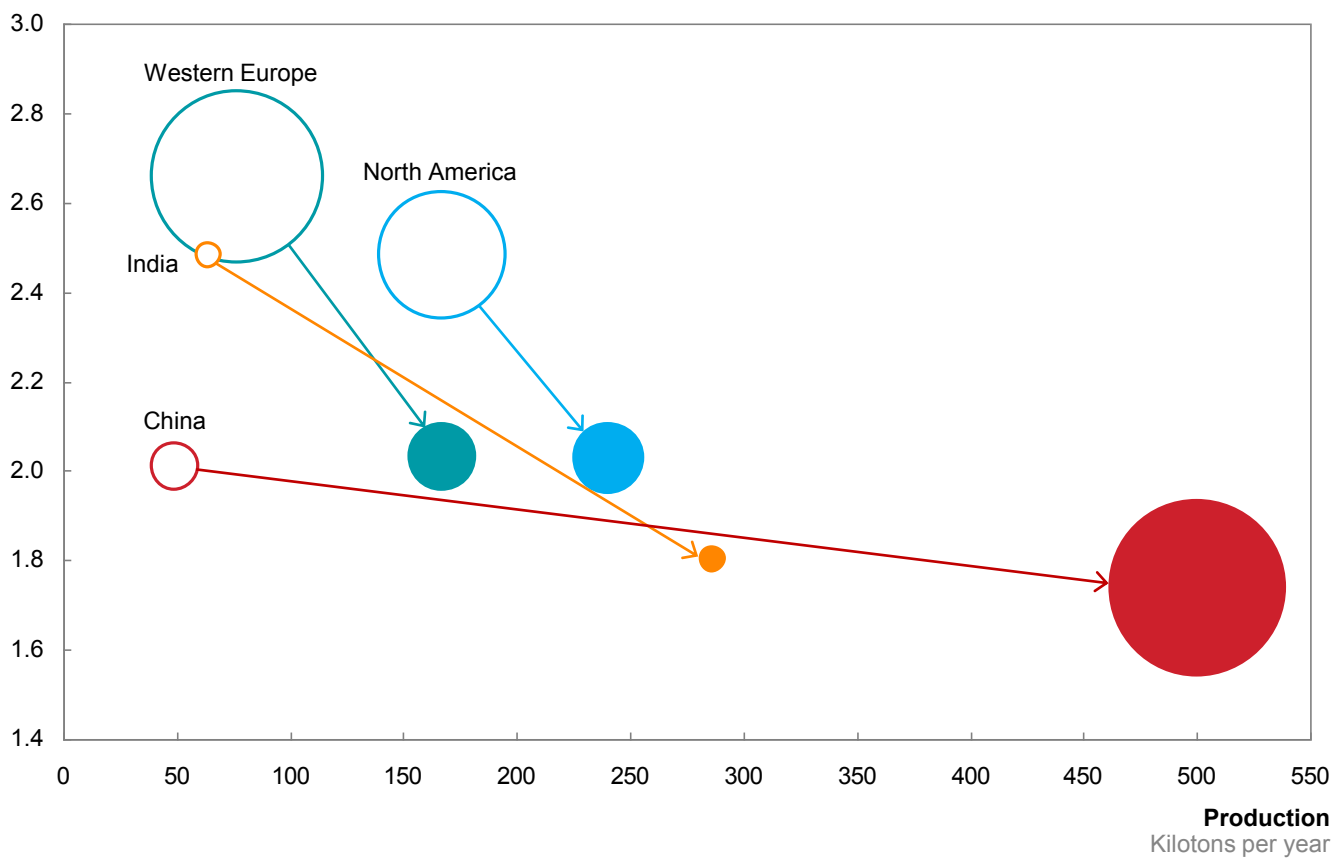
Exhibit 21

Emerging-market firms achieve massive scale in many industries, reinforcing an already significant cost advantage

Aluminum smelting costs for firms from various regions, 1990 and 2014

○ 1990 ○ Size of bubble represents number of firms
 ● 2014

Marginal cost per tonne¹
 \$ thousand, real 2014 dollars



¹ Marginal costs reflect normalized input costs for two categories: raw materials and energy.

SOURCE: Wood Mackenzie; McKinsey Global Institute analysis

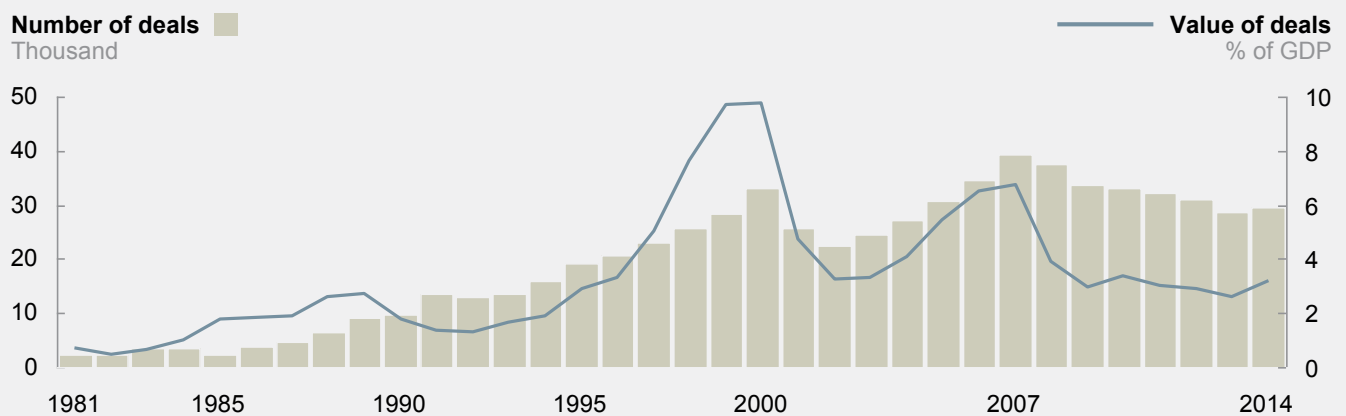
Box 3. Using M&A as a competitive strategy

Faced with the need to muscle out competitors, companies are increasingly pursuing inorganic growth as a strategy for capturing new markets, adding new business lines, and scaling up quickly. The corporate world has experienced spikes of mergers and acquisitions activity in the past, but nothing compares to the volume of megadeals in the past two decades. In 1990, there were nearly 10,000 M&A deals with a combined value equivalent to 2 percent of world GDP. Since 2008, there have been some 30,000 deals a year totaling roughly 3 percent of world GDP (Exhibit 22). The total value of worldwide deals in 2014 was \$3.5 trillion, up 25 percent from the previous year and its highest level since the global financial crisis. Ninety-five deals exceeding \$5 billion were announced in that year alone.¹

Exhibit 22

M&A activity has grown fivefold since the 1980s

M&A deals in volume and value, 1981–2014



SOURCE: Dealogic; Thomson Reuters; McKinsey Global Institute analysis

Emerging-market companies have been significant players in this trend (Exhibit 23). Having grown to significant size at home, Chinese, Indian, and other emerging-market companies are now using M&A strategies to expand their global presence. India's Sun Pharmaceutical, for example, has made a stream of acquisitions since the 1990s to become one of the world's largest generic drug companies. The Tata Group, based in Mumbai, encompasses 19 companies with more than 50,000 workers in the United Kingdom alone, making it one of the country's largest private-sector employers.² Brazil's JBS has become the world's biggest meat producer through a series of acquisitions, including the purchase of US-based Swift & Company and Pilgrim's Pride.

Chinese firms, in particular, have embarked on a wave of global acquisitions. In 2013, Chinese firms completed 198 overseas deals worth \$59 billion, accounting for one-third of their total acquisitions that year.³ Over the past four years, Chinese firms' share of global deal value has exceeded their share of global revenue by almost 30 percent, an indicator of their aggressive expansion. Consider just a few of the headline deals in recent years: Zhejiang Geely Holding Group Co. acquired Swedish automaker Volvo; Shuanghui International now owns US-based Smithfield Foods, the world's largest pork producer and processor; China National Offshore Oil Corporation bought Canadian oil and gas producer Nexen; and Lenovo recently bought Motorola Mobility.⁴

¹ *Mergers & acquisitions review: Financial advisors: Full year 2014*, Thomson Reuters, December 2014.

² "Tata fast facts," Tata Group, July 21, 2014; also see "Corporate sustainability in the UK: A selection of stories from Tata companies and employees," Tata Group, 2013.

³ Allen T. Cheng, "Chinese companies are the new force in global M&A," *Institutional Investor*, August 28, 2014; Dealogic.

⁴ *Ibid.*

Box 3. Using M&A as a competitive strategy (continued)

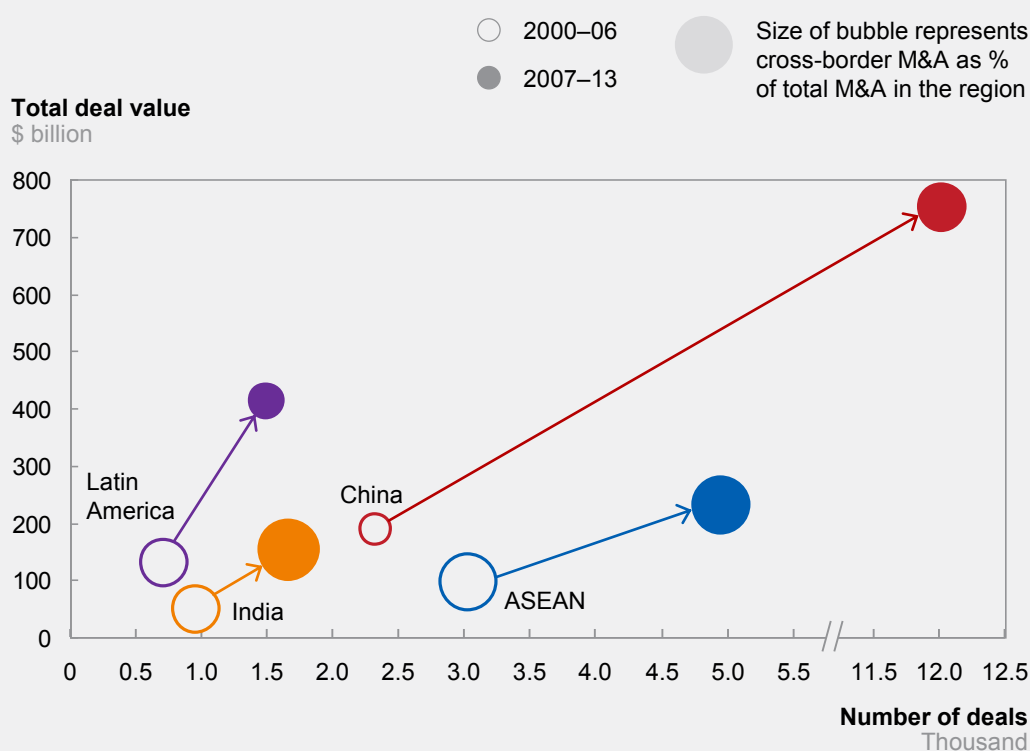
An analysis of cross-border acquisitions by emerging-market companies from 2000 to 2013 shows that 56 percent of the deals were motivated by a desire to acquire capabilities, brands, or technology.¹ Chinese telecom giant Huawei, for instance, recently acquired innovative UK firm Neul specifically to strengthen its position in the growing market for the Internet of Things.² As emerging-market companies continue to mature, however, the share of deals conducted with an eye toward penetrating new international markets has been on the rise.

Idea-intensive sectors also account for a large share of M&A activity. Firm size is particularly important in these industries, where the biggest companies often come out on top. The EBITA margins of large firms are seven to nine percentage points higher than those of small firms in consumer products, pharmaceuticals, media, telecom, and software.³ And the larger firms get, the more they tend to use M&A to grow.⁴ The deals in these industries tend to be bigger, and the giants driving them have higher EBIT margins than smaller firms.⁵ These trends are mutually reinforcing, and valuations have risen dramatically as a result.

Exhibit 23

M&A activity in emerging markets has been rising in the past decade

M&A deals by acquiring region, 2000–06 vs. 2007–13



SOURCE: Dealogic; McKinsey Global Institute analysis

¹ David Cogman, Patrick Jaslowitzer, and Marc Steffen Rapp, “Why emerging-market companies acquire abroad,” *McKinsey Quarterly*, July 2015.

² Liam Tung, “Huawei buys UK’s Neul to boost IoT smarts,” *ZDNet*, September 23, 2014.

³ Large firms are defined here as being in the top quartile of their industry in revenue; small firms are in the third quartile. See *M&A 2014: Return of the big deal*, McKinsey & Company, April 2015.

⁴ EBITA = earnings before interest, taxes, and amortization. Werner Rehm, Robert Uhlener, and Andy West, “Taking a longer-term look at M&A value creation,” *McKinsey Quarterly*, January 2012.

⁵ EBIT = earnings before interest and taxes. See *M&A 2014: Return of the big deal*, McKinsey & Company, April 2015.

TECHNOLOGY FIRMS ARE CHALLENGING BUSINESS MODELS

Technology has created another huge—and more unpredictable—source of competition. In the past 30 years, global information and communication technology sectors have gone from \$600 billion to more than \$6 trillion in revenue. As the sector's growth has accelerated in the past decade, the market capitalization of listed technology firms has grown from \$3.7 trillion in 2005 to \$6.2 trillion today. The world's three most valuable technology names alone (Google, Apple, and Microsoft) had a combined market cap approaching \$1.5 trillion as of mid-2015.

Tech and tech-enabled firms use digitization to enrich many “traditional” transactions and make them more valuable for both the consumer and themselves. As aggregators and distributors, they capture value by establishing online communities, providing value-added digital bundles, and creating one-stop digital marketplaces.

“Hyperscale” technology firms and their digital platforms are a potent competitive force

The biggest tech and tech-enabled firms have grown to never-before-seen scale in users, customers, revenue, and profits. Facebook averaged 968 million daily active users in June 2015, Twitter handles half a billion tweets per day, and Google processes some 3.5 billion searches a day.⁵⁶ Tencent's WeChat instant messaging platform now has 549 million monthly active users—a number that is beginning to approach the population of the entire ASEAN region.⁵⁷ YouTube has more than one billion users, and 300 hours of video are uploaded every minute.⁵⁸

When tech and tech-enabled firms build digital platforms, their marginal costs of expansion are negligible. It costs virtually nothing to add new customers.

Alibaba, which brings together tens of thousands of sellers with hundreds of millions of users on its e-commerce marketplace platforms, topped \$9 billion in sales in just 24 hours during its 2014 “Singles Day” promotion.⁵⁹ Indian telecom provider Bharti Airtel has around 310 million subscribers worldwide, a number roughly on a par with the population of the United States. Xiaomi, a Chinese smartphone manufacturer, has grown at triple-digit rates to become the world's third-largest smartphone vendor after Samsung and Apple—even though the company does not sell phones in Europe and the United States. Apple reported an \$18 billion quarterly profit, the biggest in corporate history, for the fourth quarter of 2014 (Exhibit 24).

For these tech giants, massive scale goes hand in hand with the ability to build and operate a platform or network. These platforms can take various forms, such as e-commerce marketplaces, operating systems (such as Google's Android and Apple's iOS), social networks, and digital media platforms (such as YouTube).⁶⁰

⁵⁶ Corporate websites and Internet Live Stats.

⁵⁷ Tencent corporate financial statement, first quarter 2015.

⁵⁸ YouTube corporate website.

⁵⁹ “Alibaba Group generated US\$9.3 billion in GMV on 11.11 shopping festival,” Alibaba corporate press release, November 12, 2014.

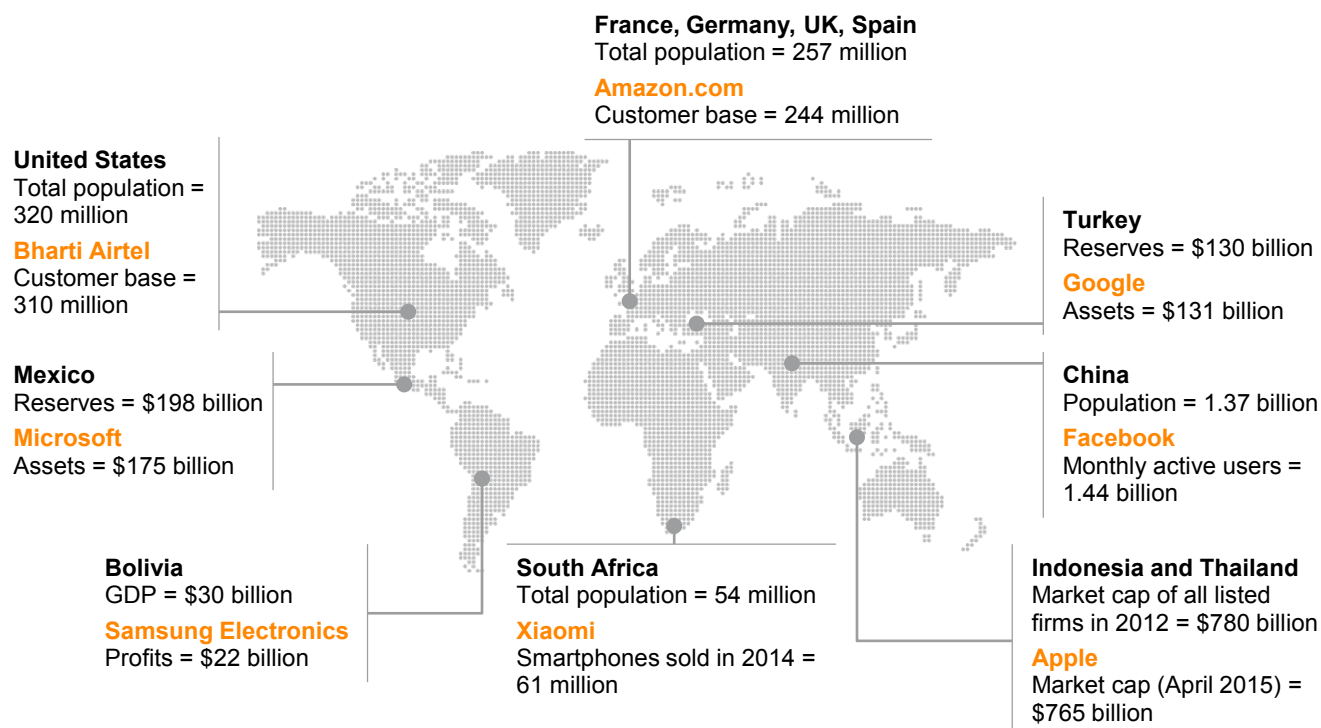
⁶⁰ Michael Chui and James Manyika, “Competition at the digital edge: ‘Hyperscale’ businesses,” *McKinsey Quarterly*, March 2015.

This phenomenon poses two distinct types of competitive threats. The first is from the platform operators themselves. As platforms drive down their marginal costs dramatically, they gain enormous efficiencies; it costs them little to nothing to add new customers.

Exhibit 24

The largest tech firms rival the size of nations

2014 or latest data



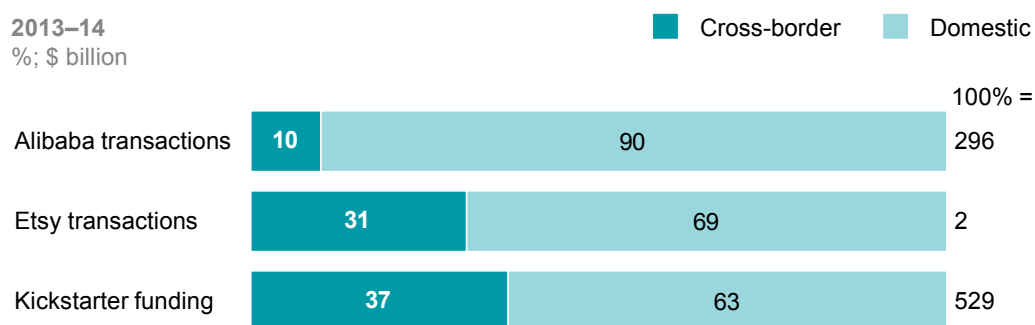
SOURCE: Forbes; Fortune 500; World Bank; company websites, annual reports, and press releases; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

The second challenge stems from the hundreds of thousands of small enterprises these platforms enable. The largest and most powerful e-commerce platforms—such as Alibaba, Amazon, eBay, Flipkart, and Rakuten—host an entire universe of smaller vendors. These digital marketplaces offer entrepreneurs a way to launch new ideas with minimal startup costs, giving them the kind of payment infrastructure, logistics support, and global visibility once reserved for large firms. The pooling of small players on the biggest digital platforms can pose an existential threat within some industries.

By piggybacking on these platforms, these smaller firms and even startups can quickly transform themselves into “micro-multinationals” (Exhibit 25). In 2014, nearly \$300 billion of transactions were recorded on Alibaba, 15 percent of which were cross-border transactions. Etsy, a digital market for goods made by artisans and small producers, supported \$2 billion in sales in 2014, more than one-third of which were international sales. Thousands of Chinese manufacturers and wholesalers sell to overseas customers on B2B marketplaces that have millions of registered buyers. Because smaller firms now have lower barriers to entry, they are emerging in greater numbers—which creates another new source of competition that could intensify in the years ahead. Pebble, a smartwatch startup, sourced \$20 million in just one month on Kickstarter, an online crowdfunding platform that attracts 37 percent of funds from outside the United States.

Exhibit 25

Digital platforms create marketplaces that give small startups global reach at an early stage



NOTE: Numbers may not sum due to rounding.

SOURCE: Thomson Reuters; Bloomberg; Daily Finance; TechCrunch; company SEC filing; McKinsey Global Institute analysis

In addition, digital platforms create a new form of competitive advantage: communities of users and developers. From gaming systems to social media sites, the most successful platforms build a strong community of users who reinforce the attraction of the platform. After investing in Apple hardware, users are more likely to remain loyal and stay within its iOS ecosystem to purchase apps, music, and other content. Apple announced a half-billion dollars' worth of sales of apps and in-app purchases in the first week of January 2015 alone.⁶¹ The same dynamic applies to Android developers, to the armies of TripAdvisor and Yelp reviewers, and to the millions of individuals who post original videos on YouTube.

Tech and tech-enabled firms may also turn to communities to solicit design ideas and product feedback, provide product and service updates, and announce future products. Chinese mobile phone maker Xiaomi has established an online community of its fans, which it uses to crowdsource information about product features and improvements that will resonate with users; it uses the group's insights to build improvements into frequent software updating, dramatically accelerating the product development process.⁶²

Technology firms are disrupting value chains and unlocking new capacity in the economy

Digital platforms can aggregate the products and services offered by multiple providers, creating a single portal where consumers can search, compare, and purchase. This has transformed the way consumers book travel and transportation, choose financial products, and shop for consumer goods. In such cases, traditional distributors (such as travel agencies, insurance agencies, and car dealers) have found their profits squeezed—or have been completely put out of business. Think of the bookstores shuttered by Amazon, the video stores wiped out by Netflix, or the travel agents rendered obsolete by Expedia.

The disruption unleashed by tech and tech-enabled firms often plays out in the consumer's favor. Using their cost structure advantages, tech firms often go after a market-leading position by creating consumer surplus. Some provide free or low-cost products or services where traditional businesses have charged fees for years. Skype, for instance, shifted some \$37 billion to consumers in 2013 alone (Exhibit 26). This effect is most visible in consumer-

\$37B
consumer surplus
created by Skype
in 2013 alone

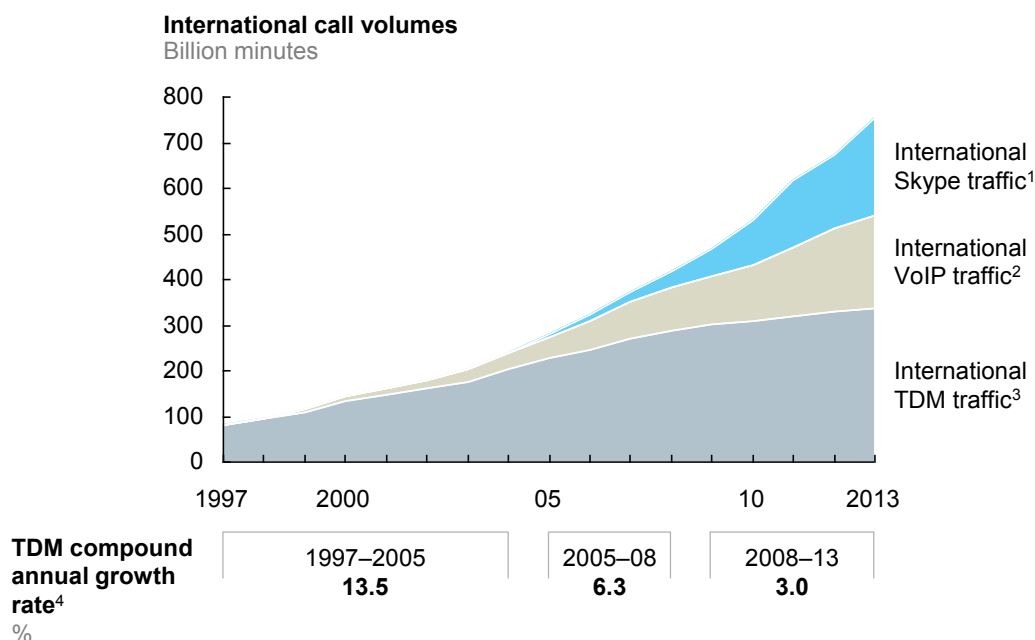
⁶¹ "App store rings in 2015 with new records," Apple corporate press release, January 8, 2015. See also John Paczkowski, "The stickiness of iOS makes it tough for Apple users to stray," All Things D, January 29, 2013.

⁶² *China's digital transformation: The Internet's impact on productivity and growth*, McKinsey Global Institute, July 2014.

facing industries, especially service industries in which a middleman or distributor has traditionally added value to both providers and consumers.

Exhibit 26

Digital players such as Skype disrupt traditional business models and shift huge value from incumbents to consumers



1 International Skype-to-Skype calls, including video calls.

2 International VoIP-transported calls, including Skype-to-phone calls, excluding PC-to-PC and Skype-to-Skype calls.

3 International TDM-carried calls (time division multiplex, traditional means for international calls transfer).

4 Assuming average 2013 price of \$0.17 per minute for an international phone call.

SOURCE: TeleGeography; McKinsey Global Institute analysis

Some tech-enabled firms are even going a step beyond the traditional intermediary role and unlocking new types of fractional capacity in the economy, as car-sharing service Uber has done with underutilized private vehicles. Airbnb, for example, allows individuals on its platform to make money from spare rooms or rental properties that might otherwise sit empty, creating a new challenge to the traditional hotel industry while at the same time monetizing the value of consumers' assets. The potential for economic disruption is massive. The US hospitality industry owns \$340 billion in fixed commercial assets such as hotels, but platforms such as Airbnb can create digital trade in more than \$17 trillion of residential assets currently in the hands of private owners.

Other tech and tech-enabled firms have applied a similar model to assets ranging from cars and bicycles to textbooks and children's toys. But now this "sharing economy" model has spread to the B2B space as well, with products such as construction equipment. The US equipment rental and leasing industry owns \$382 billion in equipment assets (machines and tools ranging from bulldozers and tractors to jackhammers and forklifts). Compare that to \$5.5 trillion of equipment that is owned by manufacturing and utility companies, much of which can work for similar uses and is utilized only 70 to 75 percent of the time. Some industrial firms are experimenting with renting out their available equipment. Bringing up the utilization to 80 percent across the manufacturing sector would be equivalent to introducing \$200 billion of machinery and equipment assets into the economy, roughly 50 percent of the current stock in the machinery leasing industry.

These examples are all based on the same principle: identifying and monetizing underused assets, greatly expanding the market, and moving it to a digital platform. Digital platforms have been able to disrupt asset-intensive firms in traditional industries by reducing prices, increasing variety, or offering more convenience (or all three), often creating a digital community experience in the process. Already, the introduction of Uber has had an impact on taxi service in cities around the world. In San Francisco, for example, a report to regulators noted that the number of fares recorded by the average city taxi dropped by 65 percent from March 2012 to July 2014.⁶³ The city council in Long Beach, California, recently voted to eliminate the price floor for fares in officially licensed cabs to allow them to compete with Uber.⁶⁴ Airbnb is putting pressure on the hotel industry; one study documented an 8 to 10 percent drop in hotel revenue in Austin, Texas, when the service entered the market.⁶⁵ This trend is just beginning. The same model could apply to—and rapidly disrupt—additional industries and holders of capital assets.

Technology firms are blurring sector boundaries

Because their transactions are digitized and automated through platforms, tech and tech-enabled firms achieve low marginal costs of expansion. They can add new interactions and business lines quickly and at low cost. As tech firms look for expansion opportunities, they can strike into adjacent sectors—and incumbents may be caught flat-footed when they do.

Amazon, which began as a bookseller, expanded into virtually every retail category, created its own self-publishing platform, and now offers cloud-based business services. Chinese e-commerce giants Alibaba, Tencent, and JD.com have expanded into financial services, including small business lending, consumer finance, and money market funds. By drawing on the massive amounts of data generated by vendors and customers on its marketplace platforms, Ali Finance, for example, has achieved a non-performing loan ratio that is well below the average in the Chinese banking industry.⁶⁶

As it blurs sector boundaries, technology is exposing incumbent firms to new forms of competition. Utility companies developing smart meters find themselves up against Google's Nest. By offering Sunday deliveries and experimenting with package deliveries via drones, Amazon is affecting logistics firms, couriers, and postal agencies alike. As software becomes integrated into manufactured goods, traditional producers have to reinvent themselves with new capabilities. Automakers are teaming up with software companies to compete in the market for connected cars; Tesla is even investing in its own in-house software. Private-label companies such as Harry's, Dollar Shave Club, Bonobos, and Warby Parker are creating a more digital retail experience as their platforms allow them to forgo retail partnerships or their own retail locations while offering competitive pricing.

These examples underlie a broader trend: value is increasingly being generated by new types of assets (data, algorithms, networks, software) that tech and tech-enabled firms bring to the game. In the telecom industry, for instance, even as Skype puts pressure on profits, other players focusing on design and software are grabbing a higher share of the remaining profits. In the US wireless ecosystem, for instance, telecom carriers' profit share has declined by 30 percent since 2007, while the share of asset-light device makers (such as fabless semiconductor firms) and mobile web and app developers has increased (Exhibit 27). Profit margins of the most asset-light device makers, such as Apple, Qualcomm, and MediaTek, are in the range of 25 to 30 percent, which is five to eight times higher than the margins of companies with more physical assets.

⁶³ Jessica Kwong, "Report says SF taxis suffering greatly," *San Francisco Examiner*, September 16, 2014.

⁶⁴ Laura J. Nelson, "Long Beach's answer to Uber and Lyft: Cheaper taxi fares," *Los Angeles Times*, May 13, 2015.

⁶⁵ Georgios Zervas, Davide Proserpio, and John W. Byers, *The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry*, Boston University, May 2015.

⁶⁶ Alibaba news releases and McKinsey Global Banking Pools database.

Exhibit 27

The most profitable firms in the tech ecosystem tend to focus on design and software instead of production and hardware

■ Design firms ■ Production firms

US wireless value chain profits, 2013

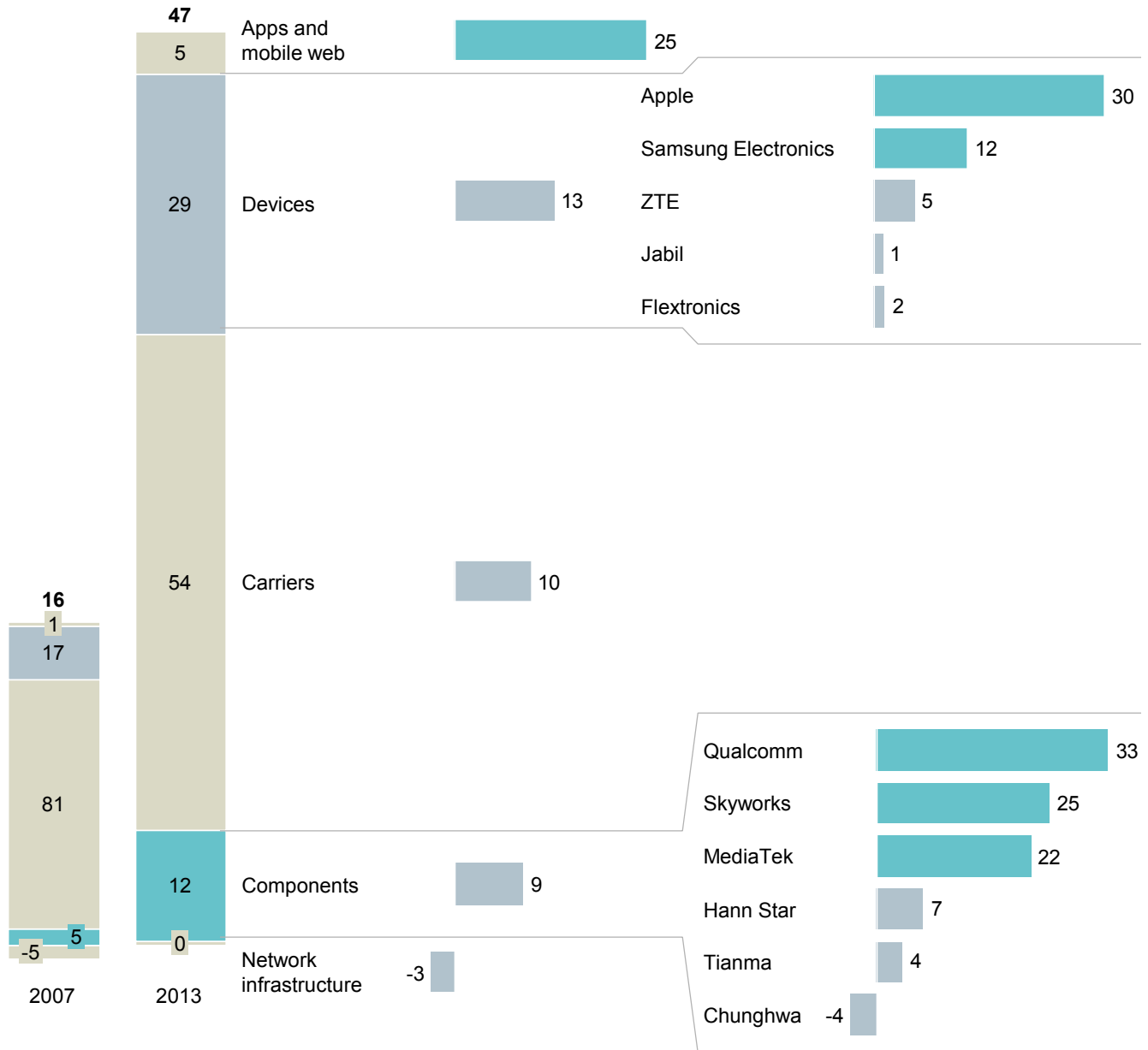
%; \$ billion

Average EBIT¹ margin, 2007–13

%

EBIT margins of leading firms, 2014 or latest available

%



1 Earnings before interest and taxes.

NOTE: Numbers may not sum due to rounding.

SOURCE: Strategy Analytics; Yankee Group; companies' annual reports; PQ Media; Gartner; McKinsey Global Institute analysis

The focus by tech firms on aggressive growth is driven partly by ownership

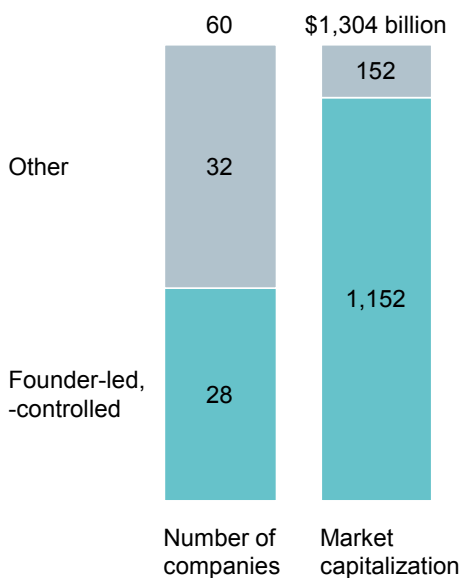
Tech firms tend to be brutal competitors. In some cases, this is due in part to their ownership structure: many are privately held by founders or by venture capital investors who often prioritize market share and scale at the expense of profits (Exhibit 28).

Sometimes this mindset—and the control of founders—persists even after these companies go public. Major players such as Amazon, Twitter, Spotify, Pinterest, and Yelp focused on growing revenue or large user networks even while losing money over extended periods of time. Among NASDAQ-listed software and Internet companies, founder-controlled firms have 60 percent faster revenue growth and 35 to 40 percent lower profit margins and returns on invested capital than widely held firms. For tech firms as a group, the ratio of market cap to profits is 75 percent higher than the average for firms in other industries.

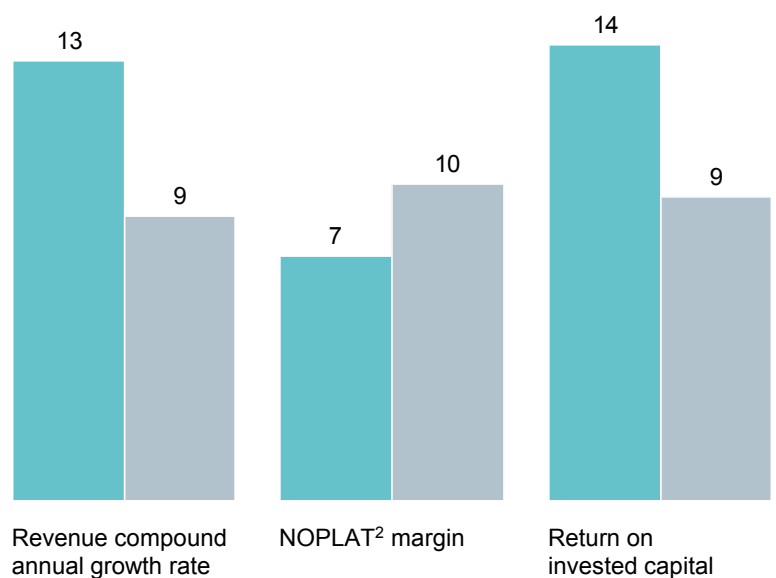
Exhibit 28

Founder-controlled tech firms focus on revenue growth above profit margins or return to shareholders

Top software NASDAQ-listed firms by ownership type¹



Median, 2010–13 %



1 Analysis covers firms from the following industries: computer software: programming, data processing; computer software: prepackaged software; retail: computer software and peripheral equipment. Analysis covers companies with yearly revenue >\$200 million (covering 95% of NASDAQ market capitalization in the selected industries).

2 Net operating profit less adjusted taxes.

NOTE: Numbers may not sum due to rounding.

SOURCE: NASDAQ, March 19, 2015; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Tech firms' focus on aggressive growth and pursuing market share has manifested itself in a wave of M&A activity. Larger players use this strategy to stay on the cutting edge by acquiring intellectual property or making moves to protect it. The \$12.5 billion acquisition of Motorola's Mobility handsets division in 2012, for instance, provided Google with ownership of Motorola's portfolio of patents and helped "protect the Android ecosystem."⁶⁷ Despite selling the Motorola Mobility handset business to Lenovo for nearly \$3 billion in 2014, Google retained ownership of the "vast majority of Motorola's patents."⁶⁸

⁶⁷ Google press release.

⁶⁸ "Lenovo to acquire Motorola Mobility," Google official blog, January 29, 2014.

A focus on growing the user base can help tech and tech-enabled firms achieve greater network effects and market dominance. When Facebook acquired Instagram in 2012, for instance, it paid \$1 billion—or \$30 for each of the service’s 33 million users. Just two years later, the company acquired WhatsApp for \$19 billion. While the valuation caught many by surprise, it came to \$42 for each of the messaging app’s 450 million users, many of whom were located in markets where Facebook hoped to expand.⁶⁹ The acquisition immediately gave the company capabilities and scale in the messaging market.



In the past, executives knew their competitors well and could track their moves in advance. But now companies in all industries have to look over their shoulders for new competitors that could arrive with surprising speed from any corner of the globe and, increasingly, from the technology sector. Industry competition has always been a fact of life, but these two sets of competitors are creating a more volatile and fast-moving playing field. Chapter 3 looks ahead to how these trends may play out in the decade ahead.

⁶⁹ Tom Gara, “Facebook values WhatsApp users at \$42 each,” *Wall Street Journal* Corporate Intelligence blog, February 19, 2014.





3. PREPARING FOR THE NEXT PHASE OF COMPETITION

Corporate competition has become a pitched battle, but what we see today is only the opening salvo. Although corporate revenue and profits will continue to rise, the operating environment is turning tougher, and new rivals are putting incumbents on notice. Technology and globalization will continue their relentless reshaping of industries. While profits are increasingly shifting to idea-intensive industries that revolve around intangibles such as brands and software, margins are being squeezed in capital-intensive industries.

Incumbents have to disrupt themselves before a competitor beats them to it.

After three decades of stellar increases, we could be entering a world of leaner profits—one in which corporate performance will no longer outpace the global economy. We project that while operating profits will continue to grow in absolute terms in the decade ahead, they will fall from almost 10 percent of global GDP today to 7.9 percent—returning to their level before the boom began in 1980. In other words, the stratospheric profit gains of the past 30 years could drift back to earth in just ten.

Despite this shift, the companies that successfully adapt will be able to capture remarkable opportunities over the next decade. New market opportunities are still opening up around the world as emerging economies continue to urbanize and industrialize. The global consumer class will keep expanding its ranks and ramping up its spending. Companies will be able to harness new technologies to improve their operational efficiency and develop new products and services. But to maintain or increase their profits, they need to be willing to disrupt themselves before others do it to them. Agility, innovative thinking, and an optimistic vision will be more important than ever.

But global competition is more than just a question of business strategy. Big companies have been key drivers of global economic growth and creators of jobs, and the wealth they have created has flowed to shareholders, governments, and, through pension funds, the broader population. The end to 30 years of rising profits will affect entire nations, and governments and investors will have to grapple with the consequences.

Corporate activity ultimately defines national competitiveness. Multinationals account for more than 80 percent of global trade, and their cross-border dealings with affiliates, suppliers, and customers can drive economic growth and job creation. The explosive growth of cross-border trade and investment has opened up new opportunities, and economies that participate may grow up to 40 percent faster than those that do not. Policy makers need to grasp how changes in the competitive landscape are affecting corporate decisions to expand, invest, and hire. Governments all over the world will face new questions about what it means to develop a comparative advantage that can last in this fast-changing environment. They may need to review existing regulations that protect incumbents, and in some cases even to rethink their whole attitude toward competition.

A TOUGHER EXTERNAL ENVIRONMENT WILL SLOW PROFIT GROWTH

For three decades, multinationals have benefited from a rapidly declining cost base in terms of labor, taxes, and interest payments. But the combined effect of new competitors and new headwinds could bring the age of record profits to an end.

44–52%

of the workforce in IT industries and media are highly skilled

The global war for talent is heating up

Companies will have more limited opportunities for global labor arbitrage as wages rise in China and the Chinese workforce ages. Offshoring activities are also coming under renewed scrutiny. After a long decline in labor's share of national income in countries such as the United States and Japan, the pendulum may begin to swing in the other direction. The heated debate over income inequality has produced grassroots campaigns across the United States and Europe, and citizens may force governments to become more responsive to their concerns over the scarcity of quality jobs that pay a living wage. Germany adopted its first-ever minimum wage in 2014, while Portugal and Spain announced increases to their wage floors. Already more than a dozen states as well as individual cities across the United States (including Los Angeles, Seattle, San Francisco, Chicago, and Washington, DC) have adopted initiatives to raise the minimum wage.

Meanwhile, a global war for the most specialized talent is under way. Human capital is a powerful competitive advantage for companies in idea-intensive industries, which turn on innovation. Idea-intensive industries have produced three times as many patents per dollar of revenue as other industries since 2000. Highly skilled workers make up 44 to 52 percent of the workforce in IT industries and media, for example (Exhibit 29). But previous MGI research has projected a shortage of 38 million to 40 million workers with college or postgraduate degrees by 2020.⁷⁰

Companies are already finding it hard to recruit skilled workers for key roles. Thirty-eight percent of the 41,000 global employers surveyed by Manpower in 2015 reported they could not find the talent they needed. In a recent survey of more than 1,000 global CEOs, respondents cited human capital as their number one challenge.⁷¹

The aging trend is ratcheting up this pressure. The median age of the US worker was 34.6 years in 1980, but in 2013, it was 42.4 years.⁷² In advanced economies, one-third of workers could retire in the next two decades, taking valuable skills and experience with them. In Germany, Japan, and South Korea, nearly half of today's workforce will be over the age of 55 in another ten years (Exhibit 30).

As experienced workers retire, replacing them will not be easy. Millennials, like every generation before them, have their own approach to the workplace and their own expectations about tenure and loyalty. Corporations are still learning how to manage this new, mobile, and highly wired generation and draw the best out of them. The average job tenure for a young worker is only about three years, about one-third the tenure of an older worker.

Now that online talent platforms are making job markets more transparent, workers have more options. Platforms such as LinkedIn and Glassdoor give individuals more information about potential employers, job openings, and the wages they could command. As a result, talented workers have many more options that could induce them to leave their current employer. The most sought-after talent in high-growth fields may not need to apply for jobs at all; offers may roll in to them as companies increasingly seek out "passive" recruits who

⁷⁰ *The world at work: Jobs, pay, and skills for 3.5 billion people*, McKinsey Global Institute, June 2012.

⁷¹ Charles Mitchell, Rebecca L. Ray, and Bart van Ark, *CEO challenge survey 2015*, Conference Board, January 2015.

⁷² US Bureau of Labor Statistics.

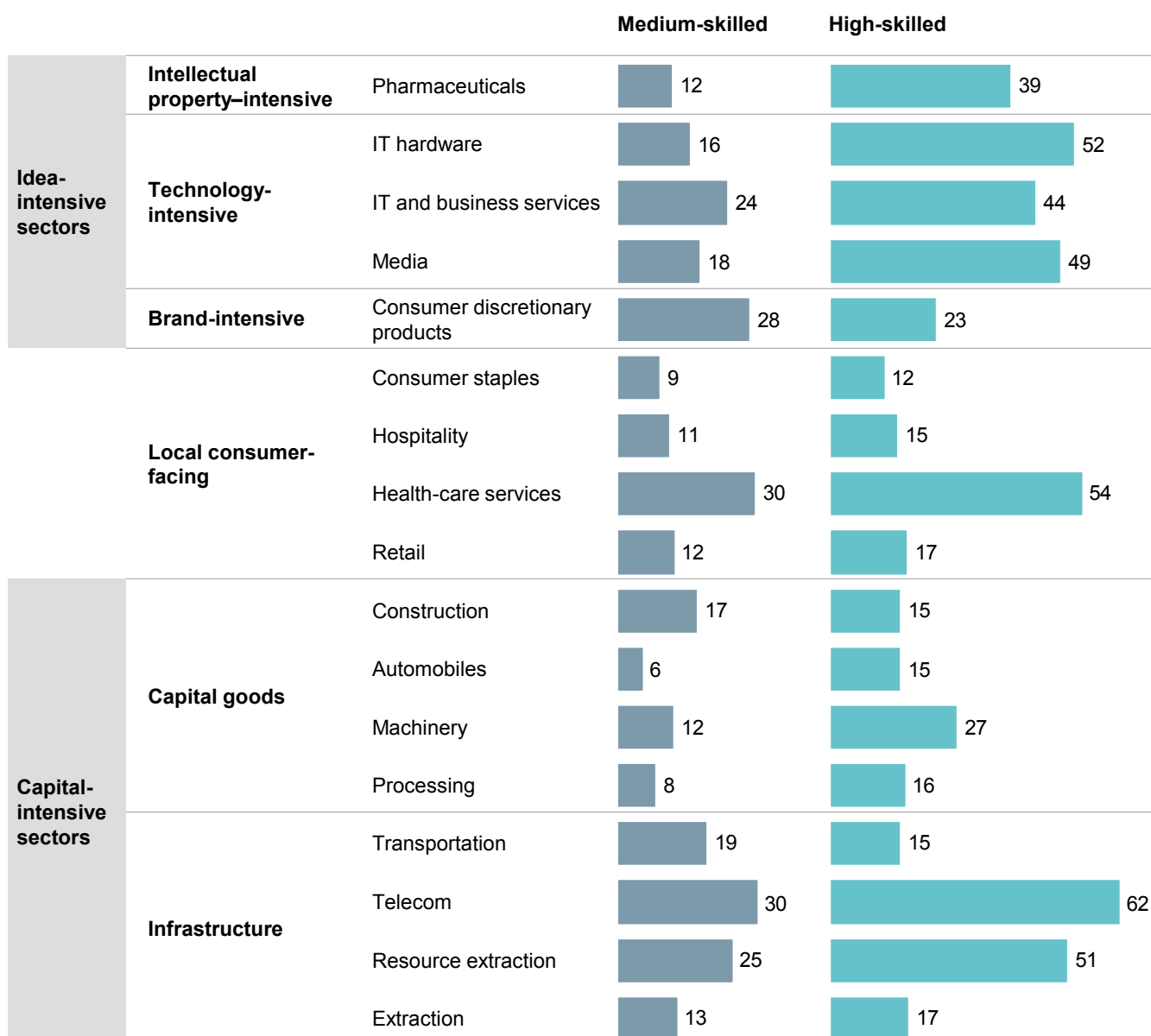
are not actively job hunting. In fact, 75 percent of hires made through LinkedIn in 2014 were passive recruits.⁷³

Exhibit 29

Human capital is a key differentiator for profits, as idea-intensive sectors have a higher share of high-skilled workers

Share of occupational employment by industry

%



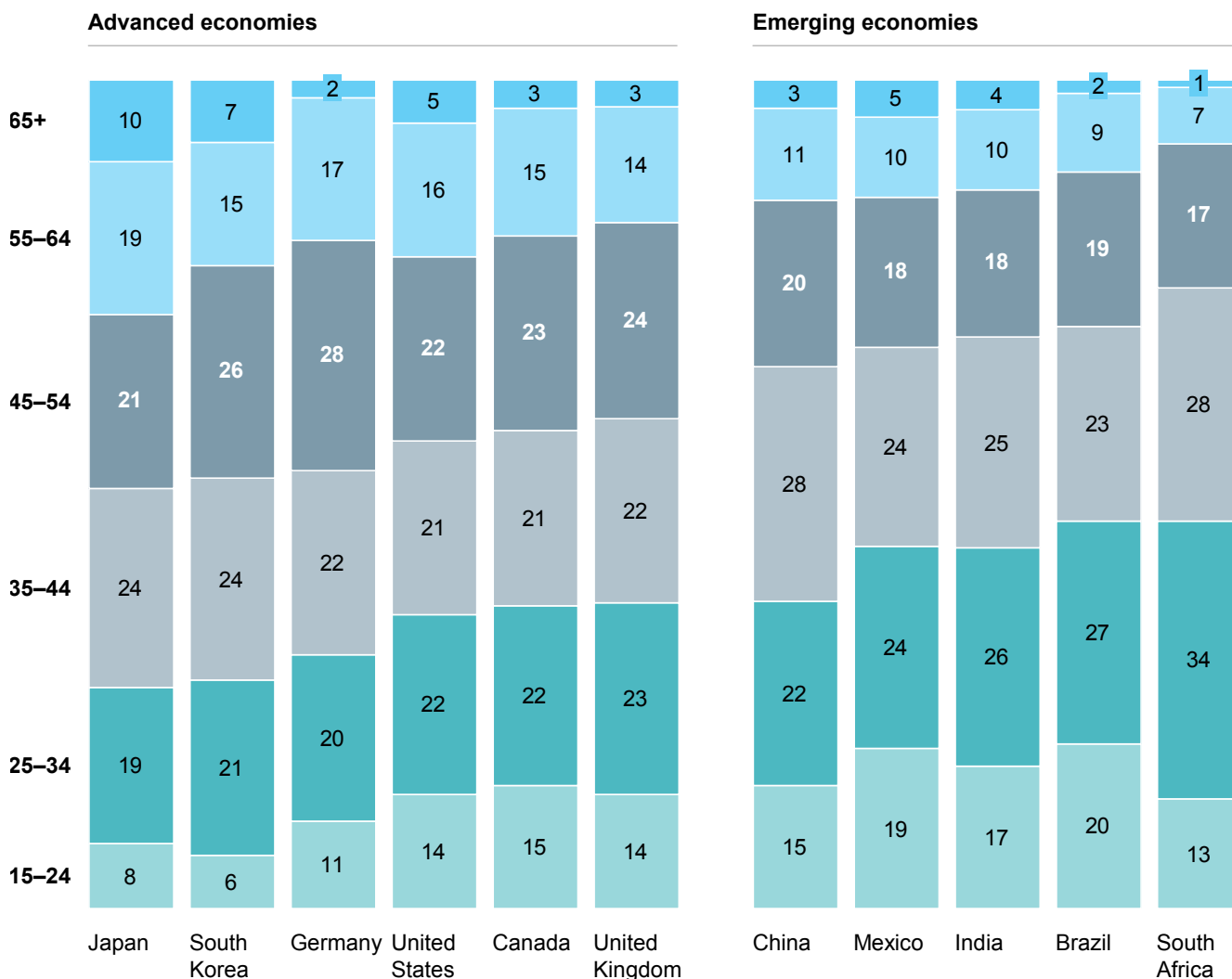
SOURCE: US Bureau of Labor Statistics; McKinsey Global Institute analysis

⁷³ *A labor market that works: Connecting talent with opportunity in the digital age*, McKinsey Global Institute, June 2015.

Exhibit 30

40 to 50 percent of today's labor force in advanced economies could retire in the next 20 years

Age distribution of labor force, select countries, 2013 or latest
% of total labor force



NOTE: Numbers may not sum due to rounding.

SOURCE: OECD; McKinsey Global Institute analysis

Companies based in advanced economies but seeking to expand in fast-growing overseas markets are increasingly competing with homegrown firms for the best local talent. The most coveted jobs in emerging economies were once positions with Western multinationals, but that is changing rapidly. As companies from emerging economies become global firms themselves, they are closing the gap with foreign multinationals in terms of remuneration and perceived opportunities for career growth. Increasingly, the most sought-after talent in these countries prefers to work for large companies with local roots. In the Chinese job market, 34 foreign firms were listed among the 50 most attractive employers in 2004, but only 15 made the list in 2014. Seven of the ten most attractive companies for Chinese business graduates in 2014 (and six of the top ten for engineering graduates) were local firms. At the top of the list for Indian graduates were domestic companies such as ICICI Bank, State Bank of India, Infosys, and Wipro.⁷⁴ Homegrown giants in China, India, and

⁷⁴ Universum global survey of most attractive employers, 2014.

other emerging markets are battling it out with Google, Apple, Microsoft, and other Western tech firms to attract the best programmers, engineers, designers, and strategists.

Other tailwinds that propelled profit growth may be reaching their limits

Falling costs may have bottomed out, not only for labor but in other areas as well. Companies have enjoyed historically low costs of debt in recent years: US companies, for instance, saw their interest payments fall by 40 percent, driven almost entirely by cheaper borrowing costs. But with benchmark rates set practically at zero in major advanced economies, interest rates cannot fall any further. As recoveries take hold, policy makers face growing calls to phase in rate increases. Balance sheets will become more difficult to manage when “easy money” policies eventually come to an end.

Corporate tax policies, too, are subject to change as governments face growing fiscal pressures; concerns over transfer pricing and base erosion could lead to changes in effective tax rates. The significant deregulation that benefited the corporate sector over the past 30 years is already being rolled back in some industries, notably finance. Meanwhile, the societal and environmental impacts of corporate activity are coming under greater scrutiny—not just by governments but increasingly by consumers, who vote with their wallets. Governments seeking to reinvest in infrastructure or shore up their local manufacturing base could undertake policy actions that make the playing field less even.

As consumption continues to rise in emerging economies, companies in many industries will be presented with unprecedented opportunities. But looking at an even longer time horizon reveals that global demographic shifts could have a dampening impact. The world economy expanded sixfold over the past 50 years, driven in nearly equal measure by an expansion of the labor force and by productivity growth. Over the next 50 years, however, an aging population will significantly reduce labor force growth from 1.7 percent annually to just 0.3 percent. This could slow overall global economic growth if productivity gains cannot compensate.⁷⁵

COMPANIES FACE SLOWER PROFIT GROWTH AND MANY MORE COMPETITORS IN THE DECADE AHEAD

The outlook for corporations is not all doom and gloom. Though competition will intensify, there will be no shortage of opportunities for growth. Overall, the global revenue pool could rise by more than 40 percent in real terms over the next ten years. While this reflects slightly slower growth than the past decade—consistent with various projections for the slowing Chinese economy, for instance—it is still a remarkable opening for corporations.

The dramatic rise in corporate profits over the past three decades comes with no guarantee for the future, however. It could even be subject to reversal. This does not necessarily mean that the pool will shrink. But as global revenue continues to rise, profit growth may not keep pace—and many more companies will be fighting for a slice of the pie.

More than half of the revenue growth expected over the next decade will come from emerging markets, and nearly two-thirds of that will be fueled by capital-intensive sectors. Traded industries within this group (such as automotive and machinery) are already under enormous competitive pressure. Large emerging-market firms in industries such as extraction, telecom, and transportation have been relatively protected so far, but that is changing rapidly. These firms currently hold large shares of global profits—primarily by virtue of their size—but their margins are declining, due in part to deregulation and technology disruption.

40%
real increase in
global revenue pool
by 2025

⁷⁵ *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015.

Much has been written about Uber, Lyft, and similar providers shaking up the transportation sector, and this is unlikely to be an isolated case. In the past few years, the introduction of digital platforms has shown the ability to bring down the price of everything from hotel rooms to hip replacements. No sector is safe, but companies that rely on large physical investments to provide services, or those that act as intermediaries in a services value chain, are particularly at risk.

Several forces could compress corporate profits in the years ahead. First, emerging-market competitors—and Chinese firms especially—will account for a greater proportion of the corporate universe. They are experiencing strong revenue growth and are likely to claim a greater share of global profits (Exhibit 31). But many of these firms are in infrastructure industries such as utilities, telecom, transportation, construction, and extraction—and as these industries are deregulated in many regions, price competition is straining profit margins. Based on current trends, their increased presence could lower the overall ratio of profitability, shrinking future corporate profits by \$800 billion to \$900 billion below the trend growth line over the next decade.

Even as profit growth slows, there will be many more companies fighting for a slice of the pie.

Second, the impact of technology and the resulting consumer surplus could reduce profits by an additional \$600 billion to \$700 billion in sectors such as retail, health care, and utilities. Service industries with business models that require large capital expenditures are particularly ripe for disruption. Uber's effect on the taxi industry, Airbnb's effect on the hotel industry, and WhatsApp's effect on the mobile industry are prime illustrations of this phenomenon. Large providers in these sectors can be tied down by expensive and sometimes underutilized assets, making it hard to respond quickly to new, tech-enabled competitors.

Third, the end of declining labor costs could reduce profits by a further \$800 billion. This includes rising productivity-adjusted labor costs in emerging economies that will hit multinationals building a presence in these markets to pursue revenue growth. Overall, in the G20 countries, unit labor costs have grown at a rate of 2.0 percent per year since 2000, while labor productivity, defined as GDP per employee, has grown at 1.2 percent per year.

Finally, interest rates and tax rates are currently at 30-year lows and could be subject to increases. Our scenario considers what would happen if the trend of the past ten years is reversed over the next ten.

After weighing various scenarios affecting future profitability, we project that global revenue could reach \$185 trillion and the after-tax profit pool could amount to \$8.6 trillion by 2025.⁷⁶ Corporate profits, currently almost 10 percent of world GDP, could shrink to less than 8 percent (Exhibit 32)—undoing in a single decade nearly all the corporate gains achieved relative to world GDP over the past three decades.⁷⁷ Real growth in corporate net income could fall from 5 percent to 1 percent per year. Profit growth could decelerate even more

\$185T
projected global
revenue pool in
2025

⁷⁶ The profit and revenue projections in this section are in real 2013 US dollars.

⁷⁷ See the appendix for full details on the methodology. The profit scenario begins with region-specific revenue projections for 2025 across non-financial industries; they were then adjusted to reflect the regional revenue shares projected in previous MGI research (see *Urban world: The shifting global business landscape*, October 2013). Region-specific profit margins for each non-financial industry were then applied to the 2025 revenue projections and aggregated to form the baseline for the 2025 global profit pool. The baseline profit pool was then reduced in stages to reflect various projected adjustments described above.

sharply if China experiences a more pronounced slowdown that reverberates through capital-intensive sectors.

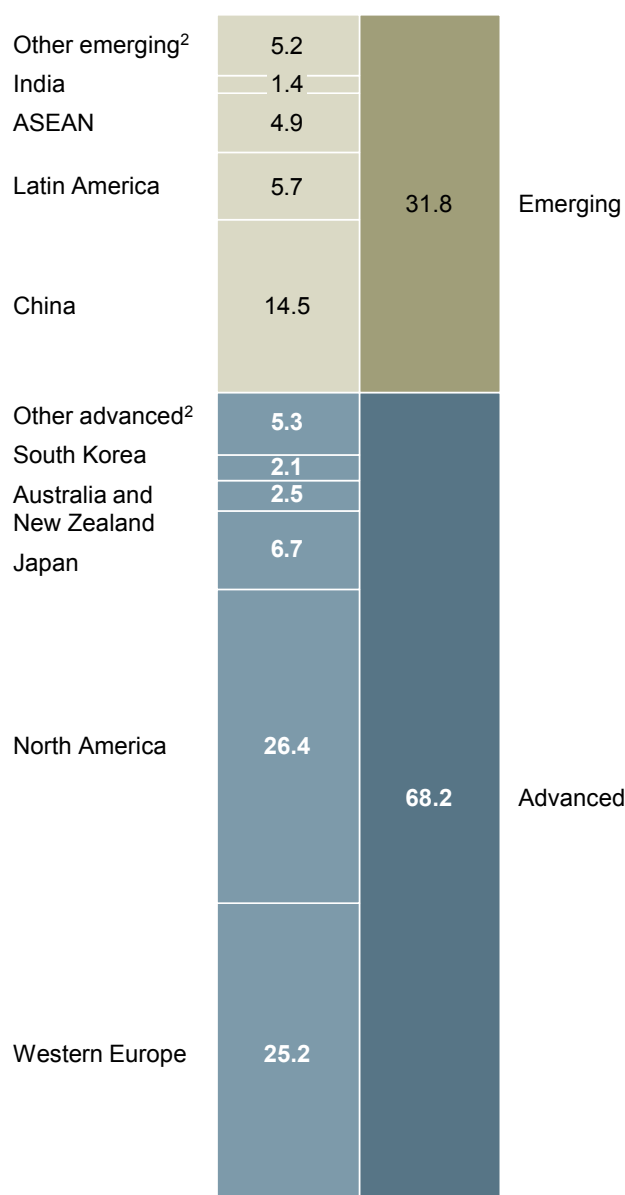
Exhibit 31

Emerging-market firms could claim a greater share of the global profit pool

Global NOPLAT¹ profit pool, 2013 and 2025
%; \$ trillion, in 2013 dollars

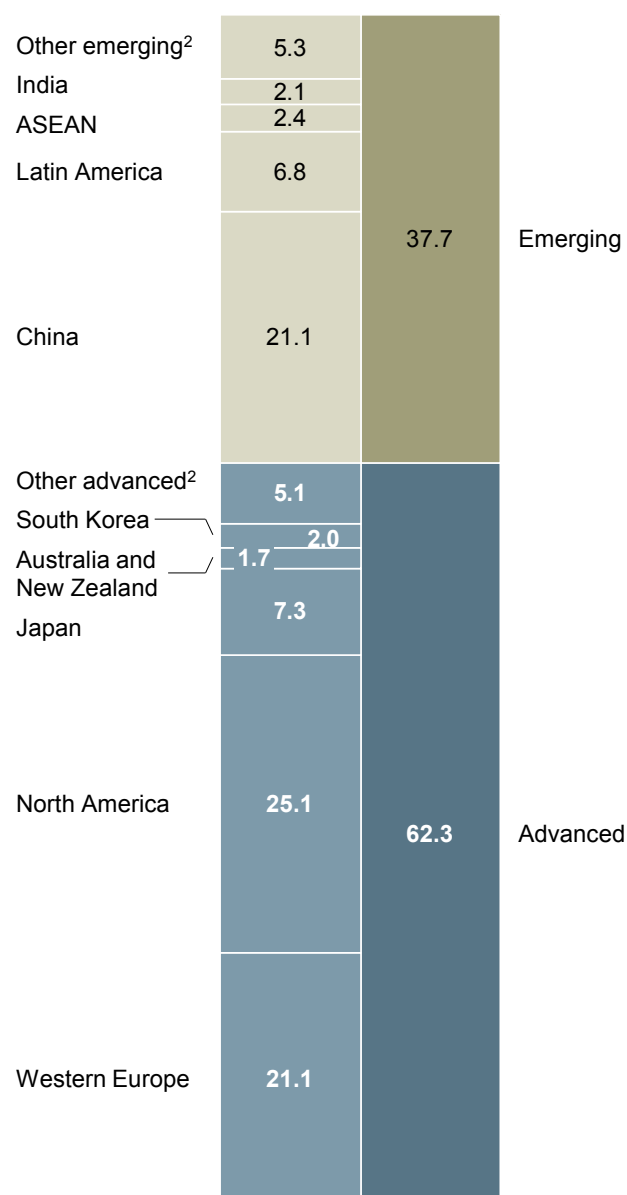
2013

100% = \$7.2 trillion



2025

100% = \$8.6 trillion



1 Net operating profit less adjusted taxes.

2 "Other advanced" refers to Hong Kong, Taiwan, and Middle Eastern countries; "other emerging" refers mainly to Russia, Eastern Europe, and Africa. NOTE: Numbers may not sum due to rounding.

SOURCE: World Bank; OECD; Bureau van Dijk; European Commission AMECO database; US Bureau of Economic Analysis; IHS; Oxford Economics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Exhibit 32

The global corporate profit pool will continue to grow, but by 2025, they could lose the relative gains of the past three decades

1980 2013 2025

Gross pre-tax

Earnings before interest, taxes, depreciation, and amortization (EBITDA)

Net pre-tax
Earnings before interest and taxes (EBIT)

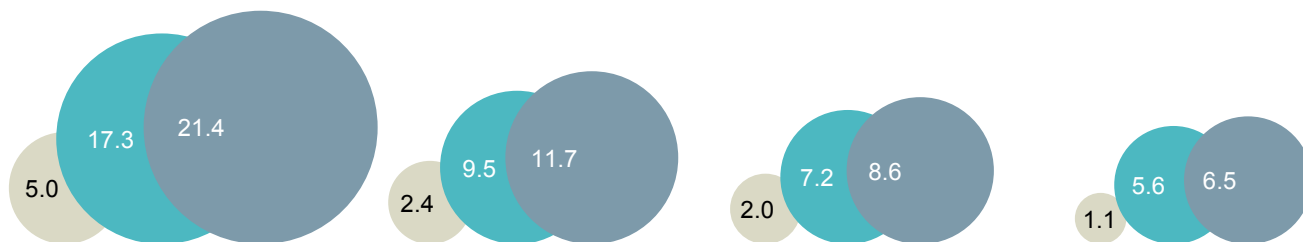
Net post-tax

Net operating profit less adjusted taxes (NOPLAT)

Net income

Total size of profit pool

\$ trillion, 2013 dollars

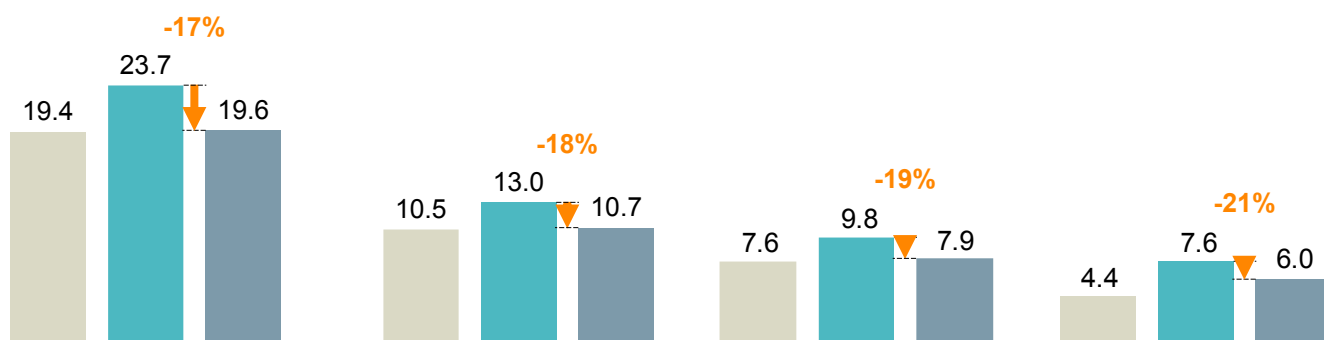


Compound annual growth rate (%)

Category	1980–2013	2013–25
Gross pre-tax	3.8	1.8
Net pre-tax	4.3	1.8
Net post-tax	4.0	1.5
Net income	5.1	1.2

Corporate profit pool

% of world GDP



SOURCE: World Bank; OECD; Bureau van Dijk; European Commission AMECO database; US Bureau of Economic Analysis; IHS; Oxford Economics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

<8%

projected global profit pool in 2025 as a share of world GDP, down from almost 10% today

Consumers, as well as workers in emerging markets, could be the big winners from these shifts (see Box 4, “The new competitive dynamics: Ramifications for consumers and workers,” later in this chapter). Companies from advanced economies may have to settle for a smaller piece of the global profit pool, as their share could decline from 68 percent today to roughly 62 percent in 2025. The swing in profits to emerging economies could accelerate, however, if Chinese, Indian, and other emerging-market firms make inroads in idea-intensive industries, either through M&A activity to acquire foreign intellectual property and brands or through their own innovation efforts.

WINNING FIRMS DISTINGUISH THEMSELVES IN THREE KEY AREAS

Our analysis of the roughly 17,000 publicly listed companies in our data set across a range of sectors finds that the most profitable firms stand apart from their competitors in one of three ways.⁷⁸ These strategies increasingly determine which firms come out on top, regardless of the sector in which they operate.

Fast-growing markets

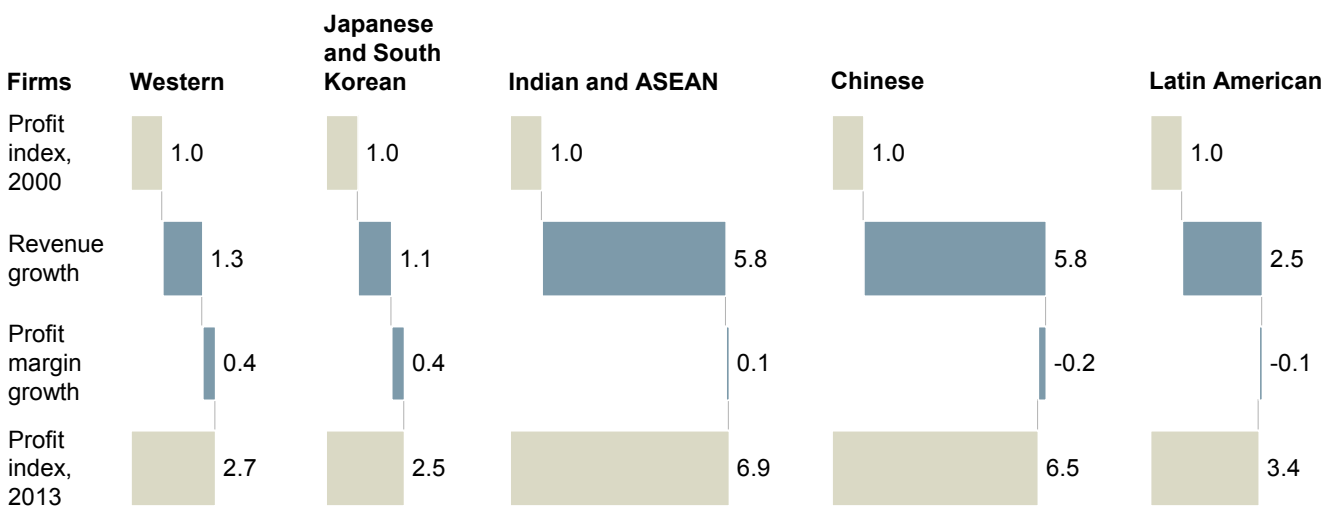
The most profitable firms are active in fast-growing markets. As revenue growth has shifted to emerging markets, profits have been following—slowly at first, but at a faster pace over the past decade (Exhibit 33).

Exhibit 33

Profits are shifting to emerging-market firms but more slowly than revenue

Multiples of profit pool growth for firms from select regions

Index: 1 = 2000 profit pool



NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

As one would expect, emerging-market firms are capitalizing on this shift. Publicly listed firms from China, Latin America, India, and the ASEAN region account for 20 to 40 percent of profits in infrastructure industries such as telecom, transportation, and utilities, and more than 50 percent of profits in extraction. They also account for 20 to 50 percent of profits in consumer staples and discretionary products. Among the most profitable infrastructure companies in the Fortune Global 2000, for instance, are China's Anhui Conch Cement and China State Construction Engineering Corporation, Nigeria's Dangote Cement, and India's Larsen & Toubro and Grasim Industries. Emerging-market firms are also capturing a rapidly expanding share of profits in automobiles, machinery, and processing industries.

But many foreign companies with successful operations in fast-growing emerging markets have also benefited, regardless of their home country. IBM, for example, derives two-thirds of its revenue from outside the United States.⁷⁹ Walmart International operates more than 6,300 retail units in 26 countries outside the United States, and its sales in 2014 exceeded

⁷⁸ We examined the top decile of firms in each subsector, as measured by after-tax profits and, separately, profit margins.

⁷⁹ Company financial statement, first quarter 2015 (prepared remarks).

\$136 billion.⁸⁰ The foreign profits of US firms have grown faster than their domestic profits since 1980 and today make up one-third of their total profits.

Intellectual assets

The most profitable firms, regardless of their sector, build intellectual assets. Over the past decade, winning companies have been able to widen their lead by investing in R&D, brands, or other intangible assets (Exhibit 34). The most profitable names in industries such as pharmaceuticals, semiconductors, and software development tend to significantly outperform their competitors—and they are nearly 10 percent more R&D-intensive than the median firm in the industry, and nearly 15 percent more marketing-intensive.

Even within capital-intensive industries, highly profitable product segments such as advanced industrial machinery and premium automobiles are more idea-intensive, and winning firms in those markets capture a larger share of profits. In a recent survey, industrial companies reported that they expect to replace nearly 50 percent of their machinery and equipment over the next decade.⁸¹ As they do so, new opportunities will arise for idea-intensive companies in software and services to capture a piece of the manufacturing value chain.

In addition to R&D, the most profitable firms in idea-intensive industries often have an advantage in pricing power because of a strong brand (such as those created by Apple and Disney) or intellectual property regulation (such as that enjoyed by Western pharmaceutical firms). Network effects can also play a role, particularly in technology-related industries such as e-commerce, where successful companies rely on digital platforms that dominate the market.

Firm size also matters, especially for idea-intensive industries. The most profitable firms in pharmaceuticals, medical devices, IT services, and technology hardware, for instance, are 40 to 110 percent larger than the median firm in these industries. M&A activity influences this outcome; idea-intensive industries tend to have larger deals, and the large firms that dominate these deals have higher EBIT margins than smaller firms.⁸² Firms in idea-intensive industries tend to use M&A strategies to stay on the cutting edge by protecting or acquiring intellectual property. One of the largest deals in the pharmaceutical industry in the past decade—Pfizer's 2009 acquisition of Wyeth for \$68 billion—was driven not only by the desire to achieve cost efficiencies by increasing scale but also by the need to broaden and diversify the patent portfolio for both firms.⁸³

Software and data are increasingly valuable intangible assets, but in consumer-facing industries, behavior and positional data are valued above simple transactional data. And firms that develop software are more profitable than those that simply use it in their operations. Large retailers, for example, make extensive use of logistics and inventory control software, but their profit margins do not match those of IT services firms. Most of the value is captured by the tech and tech-enabled firms that developed the software—or by consumers who benefit from lower prices, more variety, and better matching of merchandise to their preferences.

⁸⁰ Walmart corporate and financial facts, June 2015.

⁸¹ Cornelius Baur and Dominik Wee, "Manufacturing's next act," McKinsey & Company, June 2015.

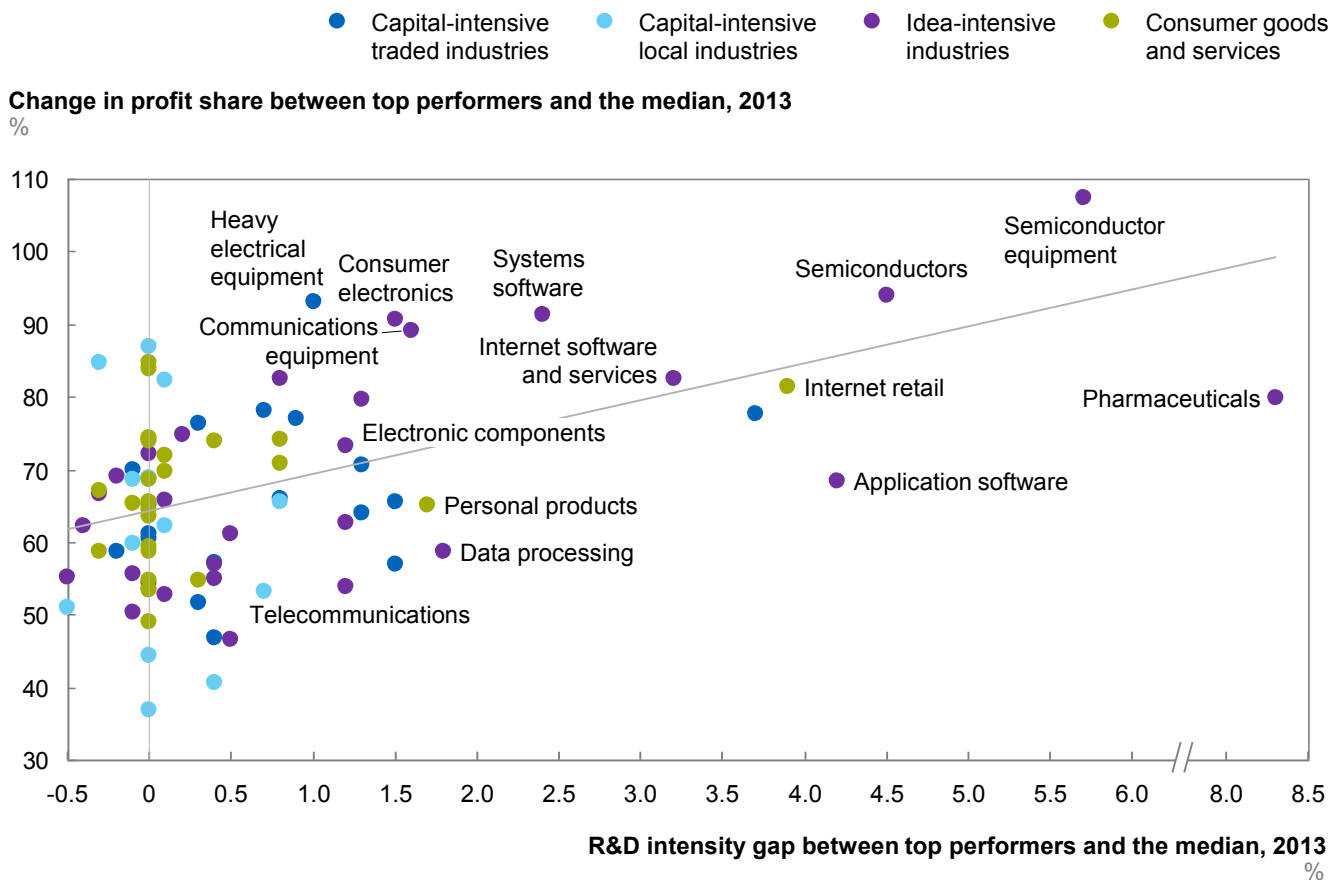
⁸² *M&A 2014: Return of the big deal*, McKinsey & Company, April 2015.

⁸³ "Pfizer to acquire Wyeth, creating the world's premier biopharmaceutical company," Pfizer corporate press release, January 26, 2009.

Exhibit 34

Top performers increasingly invest in intellectual assets to capture a larger share of the profit pool, especially in idea-intensive sectors

Comparison of R&D spending between most profitable¹ and median firms by industry²



1 Top performers are the top decile of firms in each industry, measured by total after-tax profits.

2 Includes 87 industries for which data were available, making up 85% of revenue for publicly listed firms. Conglomerates and firms in the financial services, aerospace and defense, trading, and construction industries are excluded.

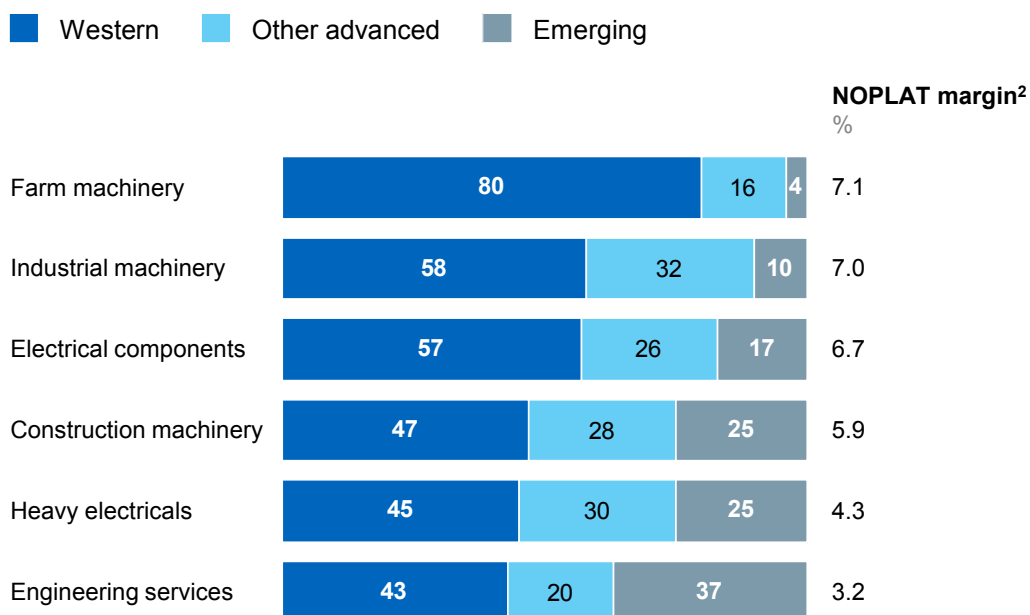
SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Some incumbent firms in capital-intensive industries are playing in the more idea-intensive segments of the market in order to carve out separate competitive spaces and preserve their margins (Exhibit 35). In the machinery sector, for instance, many Western incumbents are maintaining double-digit profit margins while nearly all emerging-economy firms post margins in the low to mid-single digits. But a closer look shows they actually engage in little head-to-head competition. Western firms dominate R&D-intensive segments such as industrial and agricultural machinery, where profit margins average 7.5 percent of sales. In these sectors, companies from China, India, and Latin America make up a very small share of global sales. In contrast, emerging-economy firms—especially Chinese firms—are very strong in electrical equipment, construction machinery, and construction and engineering services, all of which have profit margins that are half to two-thirds of those in segments dominated by Western firms. Where there is head-to-head competition, many firms have been forced out of the industry, and the ones that remain are highly efficient.

Exhibit 35

In some sectors, incumbents and emerging-market competitors find distinct segments to avoid head-to-head competition

Global machinery and equipment sales by companies classified by their home region¹
%



1 “Western” refers to North American and Western European firms; “other advanced” includes Japanese and South Korean firms; “emerging” includes firms from China, India, Latin America, and the ASEAN region.

2 Net operating profit less adjusted taxes as a share of sales, averaged across publicly listed firms in the subsector over the period 2011–13.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Productivity growth

The most profitable firms have significantly more efficient operations than the median firm in their industry; these companies have much lower production costs for every dollar of sales.⁸⁴ Operational efficiency is particularly vital in capital-intensive industries such as specialty chemicals, heavy electrical equipment, and tires and rubber, which are exposed to wider competitive pressures. In capital-intensive traded industries where profit margin variation across companies is relatively low, input costs are 10 to 15 percent lower for the most profitable companies than for the median firms. As a result, firms with tighter operations capture a larger share of the profit pool than the median firms in these industries. The same effect is apparent in local capital-intensive industries such as telecommunication services and utilities as well as in some consumer-facing industries such as retail and health care.

Idea-intensive industries, where winning firms have significantly higher profit margins than median firms, also show evidence of higher efficiency. In technology hardware and consumer discretionary products, for instance, the most profitable firms are 20 to 25 percent more productive than the median. In some cases, though, the difference is not just about more efficient operations; many of the most profitable firms in idea-intensive industries, mostly Western firms, have outsourced capital-intensive activities, adopting an asset-light posture but still exercising some control over the production value chain. The

⁸⁴ Estimated as cost of goods sold plus depreciation expense, to reflect labor, capital, and resource input costs, for every dollar of sales.

most famous example of this is Apple. Other examples include fabless semiconductor firms, brand-name apparel producers, and pharmaceutical companies.

BUSINESS LEADERS NEED TO BE EXTERNALLY FOCUSED, AGILE, AND OPTIMISTIC

Merely playing defense will not insulate companies from growing competitive pressures. Businesses need the vigilance and vision to spot new opportunities—and the aggressiveness to exploit them quickly while outmaneuvering an increasingly crowded field.

Understand and monitor the new landscape

Large incumbents cannot afford to be so absorbed in their internal operations and current customers that they are blindsided by new competitive threats. Business leaders need to scan the horizon for disruptions that are about to hit—and our experience suggests that few Western executives are devoting enough time to this.

Monitoring the landscape requires more than just an “emerging-markets perspective” or even a “China view.” Industry leaders need to understand the nuances of the challengers’ home environments, which can offer clues into how these firms operate, invest, and innovate. Cultivating intelligence is crucial, because the new competitors spend considerable time studying industry leaders for weaknesses they can exploit.

Among emerging-market firms, those from Latin America tend to be less globalized, but those from emerging Asia stand out as being equally (or even more) global compared to their competitors in advanced economies. Interestingly, international rankings place this region as one of the world’s most difficult business environments. Firms from emerging Asia have had to build agile and adaptable operations—and these qualities make them especially aggressive and formidable competitors.

Half of world GDP growth to 2025, and many of the new competitors, will come from smaller cities in the emerging world that most Western executives would be hard-pressed to find on a map. New challengers could hail from places like Surat, an Indian textile production center; Foshan, China’s seventh-largest city in GDP; and Porto Alegre, the capital of the Brazilian state of Rio Grande do Sul. Each of these cities will contribute more to global growth between now and 2025 than Madrid, Milan, or Zurich.⁸⁵

Prepare for tech disruption

The rapidly evolving tech landscape is especially hard to track because of the vast array of new technologies and the speed with which digital players can disrupt incumbents and grab market share. It can be daunting to place bets on a specific technology before the dust has settled—but waiting increases the risk of falling behind.

Some large firms attempt to stay on the cutting edge by holding competitions and “hackathons” or partnering with venture capital firms to be their eyes and ears. Others, such as Siemens and Eli Lilly, have established their own accelerators and VC funds, although this is a challenging proposition to get right. Corporate VC funds, incubators, and accelerators can be established with a limited mandate to focus on carefully targeted strategic initiatives or R&D efforts. While the startups gain access to valuable financing, market research, and mentoring, the large firm hopes to carve out a role in the entrepreneurial ecosystem and a vantage point from which it may be able to spot the next new thing. It gets an early indication of technical capability and ability to disrupt—and possibly even a large stake in what could have been a potential future competitor.

Companies need to be willing to disrupt themselves before tech and tech-enabled firms do it to them, overcoming the fear that a new product or channel will “cannibalize” an existing

⁸⁵ *Urban world: The shifting global business landscape*, McKinsey Global Institute, October 2013.

business. Appointing a chief digital officer can help to institutionalize a high-tech mindset and encourage companies to begin to think in more entrepreneurial ways.

86%

of surveyed executives believe making decisions for the long term would improve corporate performance

Seek out patient capital

Widely held public companies are often hamstrung by the demands of shareholders who want to maximize short-term returns. Financial markets have a relentless focus on each quarter's earnings targets, but recent research has found that this pressure can lower firms' investment in R&D and other intangibles.⁸⁶ Almost two-thirds of executives who responded to a McKinsey survey said that the need to deliver short-term financial performance has actually increased since the 2008 crisis, while 86 percent believe that making business decisions in the context of a longer-term strategy would improve corporate performance and innovation.⁸⁷

By contrast, many of the new competitors are state-, family-, or founder-controlled, which gives them greater flexibility to play the long game and build out their market share over a period of years. CEOs and boards could begin to move in this direction by seeking out institutional investors such as pension funds, sovereign wealth funds, insurers, and other large investors with longer horizons. They can also design compensation packages that reward executives for delivering longer-term value rather than offering incentives for boosting the company's stock price in the short term.

Stay agile in the face of volatility

We live in an age of industry shakeups, volatile markets, and fickle consumers, all of which require rapid-fire responses. Supply chains are an area of particular vulnerability. Toyota's production, for example, took a major hit in the aftermath of the 2011 earthquake and tsunami—not only because of damage to its own factories but also because of disruptions among its suppliers.

Some companies prepare for the unknown by creating multidisciplinary "risk" teams, diversifying their supply chains, and implementing more flexible procurement contracts and manufacturing systems. To be truly resilient, firms have to game out multiple worst-case scenarios, from natural disasters to swings in demand and spikes in the cost of commodities. Contingency plans are best prepared long before they are needed. In many cases, these planning exercises can reveal ways to achieve efficiencies in day-to-day operations.

Even in the absence of external crises, lean footprints and rapid innovation capabilities will be increasingly vital. Yet many companies struggle with legacy assets and productivity gaps in their own operations—in some cases, companies have a 40 percent gap between their most and least productive sites.⁸⁸ Firms will need to become much better at overcoming strategic inertia and complacency. A McKinsey study of more than 1,600 companies followed their capital expenditure allocations across business units between 1990 and 2005 and found that each year's capital allocation was closely correlated—over 90 percent—with the previous year's allocation. Those firms that were able to adapt to changing conditions and reallocate capital had a substantially higher growth rate and return to shareholders.⁸⁹

To break the inertia, some companies have a "harvesting" rule that involves putting a certain percentage of their portfolio up for sale every year. For example, when Lee Raymond was

⁸⁶ Stephen J. Terry, *The macro impact of short-termism*, Stanford Institute for Economic Policy Research discussion paper number 15-022, June 2015.

⁸⁷ Dominic Barton and Mark Wiseman, "Focusing capital on the long term," *Harvard Business Review*, January-February 2014.

⁸⁸ *Manufacturing the future: The next era of global growth and innovation*, McKinsey Global Institute, November 2012.

⁸⁹ Stephen Hall, Dan Lovallo, and Reinier Musters, "How to put your money where your strategy is," *McKinsey Quarterly*, March 2012.

CEO of ExxonMobil, he required the corporate planning team to identify 3 to 5 percent of the company's assets for potential disposal annually, and business divisions were allowed to keep them only if they could demonstrate a tangible and compelling turnaround program for each. In other words, the burden on the business units was to prove that an asset should be kept, rather than the other way around. Other firms place existing businesses into different categories, such as "grow," "maintain," and "dispose," and have a different set of investment rules for each category. The idea is to take the politics out of resource allocation as much as possible.⁹⁰

In a world of intensified competition and greater volatility, companies will have to be doubly vigilant, and they will have to be willing to get out of a market or business line if they see serious disruption unfolding that they are not equipped to respond to.

Build new intellectual assets

Today companies need new clarity about all the assets at their disposal, including customer relationships and data assets. Putting unstructured data to use can sharpen existing processes and shape strategies—or yield entirely new products and services. Assets such as data, algorithms, and software are becoming more valuable, and even within these broad categories, some are more valuable than others. For instance, data on consumer behavior and decision making could be more valuable than customer transaction or location data.⁹¹

Some firms have found success by creating external communities of users, suppliers, and innovators. Apple's universe of app developers and Google's universe of Android developers are the prime examples—and the more that creativity and innovation arise from these crowds, the more loyalty accrues to the underlying brand or platform. Some ecosystems revolve around social media platforms, but this approach does not have to be limited to the tech world. AstraZeneca, for instance, created an Open Innovation platform to work with academics, nonprofits, and other partners across all stages of drug discovery.

Acquisitions can be a key part of an innovation strategy, but winning with M&A requires discipline, a good reputation as a purposeful acquirer, and a strategic vision for the target company's business, its prospects, and its external relationships.⁹² Even without making an acquisition, companies can form smart alliances with firms in other sectors for quick access to new capabilities and markets.

Go for growth

In a more competitive environment, many companies will instinctively throw their resources into protecting their current market niche. But given the scale and speed of the forces reshaping the corporate world, that approach will not work for long. Firms may be better off continuously disrupting themselves rather than taking a purely defensive posture.

Many Western firms have prioritized profit margins, passing up market opportunities if margins are too thin. Many Asian firms and technology firms have been willing to forgo future margins for current revenue in their quest to grow sales rapidly and capture market share. But this is a false trade-off; growth and profits are not mutually exclusive.

An analysis of the top profit-margin performers in most industries shows that their revenue growth is also above the industry average. Companies can preserve their profit margins while they pursue an aggressive growth strategy—but only if they target the right market segments. This is not about chasing revenue growth for its own sake, but about companies

⁹⁰ Ibid.

⁹¹ Jacques Bughin and James Manyika, "Measuring the full impact of digital capital," *McKinsey Quarterly*, July 2013.

⁹² Cristina Ferrer, Robert Uhlener, and Andy West, "M&A as a competitive advantage," *McKinsey Quarterly*, August 2013.

focusing time and resources on the fastest-growing market segments where they have the capabilities and assets to compete.⁹³ In addition to making careful choices about where to compete, companies have to craft strategies that are ahead of trends, built on true sources of advantage, flexible enough to embrace uncertainty, and backed by full commitment and a solid action plan.⁹⁴

Gear up for the war for talent

Finding and nurturing the most skilled and creative employees is already growing more difficult, and it will become even more so as digital hiring platforms become ubiquitous around the world. As the job search becomes more digitized, competitors have new tools for poaching the top-performing people (or even entire teams).

Companies have to be conscious of managing their reputations as employers. Individuals now have new visibility into what it would be like to work for a given company based on anonymous online reviews by current and former employees. The mobility enabled by online talent platforms is a positive dynamic for individuals and the broader economy, but companies may face higher turnover costs. It is becoming more important than ever for companies to create a compelling value proposition for their workforce.⁹⁵ Retaining talented workers may require bolder incentives, such as providing an ownership stake in the firm.

As multinationals expand into new global markets, having the right leadership in place can spell the difference between success and failure. Executives who came up through the ranks in a company's home office may not have the right skills or perspective to succeed in a different culture or environment, and competition for the best local leadership talent in emerging economies is intensifying.⁹⁶

Companies have to compete in order to attract and retain the talent they need.

In a more crowded corporate landscape, all businesses will find themselves increasingly competing for the skills they need. In a survey of senior executives, 76 percent said their organizations needed to develop global leadership capabilities, but only 7 percent thought they were currently doing so very effectively.⁹⁷ In a recent McKinsey survey of global executives, less than one-third of respondents said that their companies' leadership has significant experience working abroad—but two-thirds say this experience will be vital for top managers in five years' time.⁹⁸ Closing this gap will be a critical factor in competing successfully in foreign markets.

⁹³ Mehrdad Baghai, Sven Smit, and S. Patrick Viguerie, "The granularity of growth," *McKinsey Quarterly*, May 2007.

⁹⁴ For more on these topics, see Chris Bradley, Martin Hirt, and Sven Smit, "Have you tested your strategy lately?" *McKinsey Quarterly*, January 2011.

⁹⁵ *A labor market that works: Connecting talent with opportunity in the digital age*, McKinsey Global Institute, June 2015.

⁹⁶ Pankaj Ghemawat, "Developing global leaders," *McKinsey Quarterly*, June 2012.

⁹⁷ Ibid.

⁹⁸ Survey of 1,509 executives representing the full range of regions, industries, company sizes, functional specialties, and tenures. Conducted in September 2014.

Box 4. The new competitive dynamics: Ramifications for consumers and workers

Consumers have been the big beneficiaries from the industry disruptions created by technology and emerging-economy competitors alike. In real terms, the price of durable goods in the United States has barely risen since the early 1980s, even as the overall consumer price index has more than doubled. Car prices, for example, have remained flat in real terms since 1985, even as their performance, safety, and reliability have improved dramatically. In 2000, the typical base model of a mid-size passenger car had a retail price of \$25,000 (in today's dollars). In 2015 that same car has \$3,000 worth of additional components, yet its retail price is only \$23,000 (Exhibit 36). Particularly in the "value" segment, the largest and fastest-growing car segment worldwide, manufacturers have been adding features without raising prices.

In some cases, content and services are now being delivered for free. Technology innovations such as Skype have generated enormous consumer surplus. Forty percent of international call minutes in 2013 were Skype-to-Skype calls. This equates to \$37 billion of lost revenue for telecom firms. From 2005 to 2013, the total revenue lost from this growing trend amounted to nearly \$150 billion.

For workers, however, the story is mixed. Idea-intensive industries are posting faster job growth, and wages have risen along with profit margins. In contrast, firms in traded capital-intensive industries have achieved strong productivity growth while overall employment in these industries has eroded in advanced economies. Even in emerging economies, job growth has been weak. Companies in these industries have responded to global competition by cutting costs—often at the expense of workers.

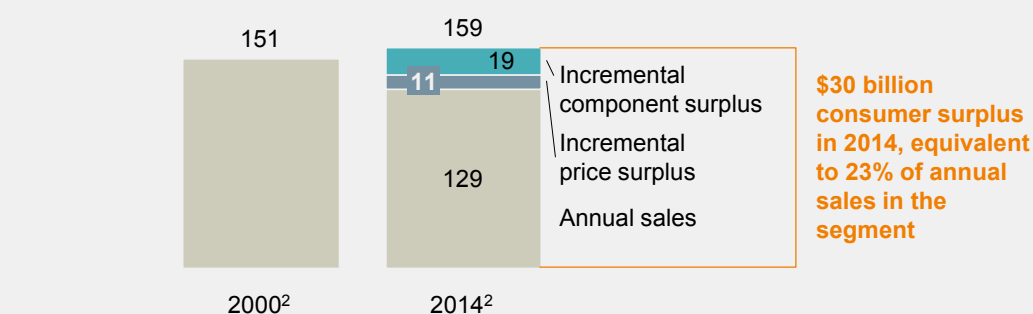
The robust wage growth in idea-intensive industries benefits only a small slice of the labor force. These firms employ very few workers relative to traditional heavy industries. Even in Western economies, only 20 percent of the workforce is employed in these industries, less than half the workforce of capital-intensive industries. The most profitable idea-intensive companies outsource manufacturing activity while concentrating on research, creativity, and innovation. The weakening of labor unions, the trend toward automation, and the availability of low-cost labor in emerging economies have produced a "hollowing-out" of middle-skill jobs and wage pressure on low-skill jobs in advanced economies. The result is a two-tiered labor market, with highly skilled workers reaping the benefits and lower-skilled workers being left behind.

Exhibit 36

Consumers capture a growing share of value in automobiles

Annual sales and consumer surplus in global mid-size car segment¹

\$ billion, real 2014



	Real 2014 \$ thousand		Change, 2000–14
MSRP	24.9 ³	23.0	-1.9
Component value⁴	11.1	14.5	3.4

1 Mid-sized or intermediate passenger cars (D1 segment).

2 Typical mid-sized passenger car (e.g., Toyota Camry).

3 Based on manufacturer's suggested retail price in the United States (\$17,500), converted to 2014 dollars.

4 Based on "Who makes the car: 2012," estimate from Bank of America/Merrill Lynch, global research highlights, April 2012. Also see "The future of the North American automotive supplier industry," McKinsey & Company, March 2012.

NOTE: Numbers may not sum due to rounding.

SOURCE: Edmunds; IHS Automotive; Bank of America; McKinsey Global Institute analysis

Some global firms have reacted by offering executives from emerging markets global career opportunities. In 2010, Unilever assigned about 200 managers from its Indian subsidiary to global roles with the parent company, and two of them are now part of the top leadership team. Other companies, including General Electric and Caterpillar Group, finding that the traditional single headquarters model no longer fits their needs, have split their corporate centers into two or more locations.⁹⁹

POLICY MAKERS MUST ACKNOWLEDGE THE REALITIES OF A NEW COMPETITIVE WORLD

As the world undergoes a series of profound economic, technological, and generational shifts, this is a time of high anxiety. But this period of disruption and churn will allow countries and regions to carve out new market niches and new roles in global value chains.

Prepare for more pressure on employment and wages

Already, as the fortunes of idea-intensive and capital-intensive sectors diverge, the labor market has become more deeply polarized. Companies in capital-intensive industries have responded to margin pressures by cutting costs—often at the expense of workers. Idea-intensive industries have produced strong wage growth, but they have relatively small workforces. Labor imbalances will lead to a shortage of nearly 80 million high- and medium-skilled workers and a surplus of about 95 million low-skilled ones by 2020.

Over the past decade, employment and wages have become a political flashpoint. In the years to come, they are likely to become even more sensitive issues for both companies and governments. Highly skilled workers have benefited during the current period of rapid profit growth, but for most workers in advanced economies, wages have barely grown as companies have preferred to tap into the vast pool of less-skilled labor worldwide (Exhibit 37). As the competitive environment heats up, this trend is likely to continue. As companies seek to boost productivity through automation, technology will eliminate some roles and change the nature of others. Growth in idea-intensive industries will mitigate this to some extent, but these sectors make up no more than 20 percent of employment—even in the United States and Western Europe, regions whose firms dominate these industries.

80M

global shortage of high- and medium-skilled workers by 2020

95M

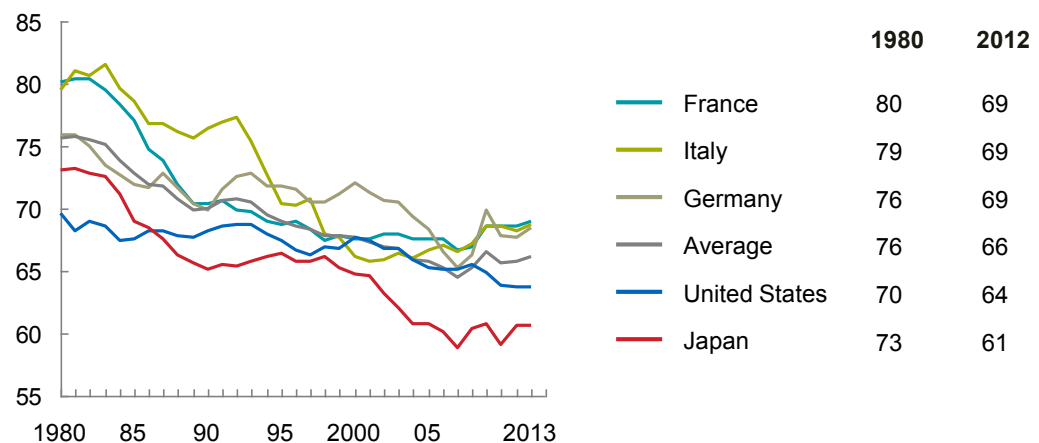
global surplus of low-skilled workers

Exhibit 37

Labor's share of total income has fallen sharply since 1980

Labor share of national income, 1980–2012

% of total



NOTE: Includes payroll income and self-employment labor income.

SOURCE: OECD; McKinsey Global Institute analysis

⁹⁹ *Urban world: The shifting global business landscape*, McKinsey Global Institute, October 2013.

Companies cannot fend off these trends, and neither can countries. Instead, policy makers should focus on ways to ease the dislocations associated with a period of adjustment. Not only do more young people need to complete both secondary and postsecondary education, but education and training systems have to become more responsive to changing trends in the demand for skills.

Support the disruptions that create consumer surplus and public good

It may seem counterintuitive, but the ultimate beneficiaries of corporate competition are consumers and society as a whole. Competition makes a wider variety of better and more affordable products and services available to consumers. Consider how consumer electronics products have gotten cheaper even as they have gotten more sophisticated. In addition, tech firms and their digital platforms are increasingly empowering individuals to monetize their own assets—everything from their homes and cars to their skills and creativity. But regulators will have to adapt continuously to keep up with new tech-enabled innovations.

Competition can be channeled toward social goals such as health and safety, environmental sustainability, and higher living standards. Competition in the automotive industry, for instance, has given birth to a range of innovations, including safety belts, engine efficiency, traction control, GPS, Bluetooth, and, more recently, collision avoidance and driver support systems. These gains cost governments very little in direct expenditure, but they dramatically improved safety, fuel efficiency, and even productivity.

Policy makers can exploit the competitive environment by mandating desired outcomes and letting companies compete to meet the mandate. Another way to support disruptions is through open information. Already, several government agencies have set up “big data” and “open data” initiatives to provide access to data sets for everything from energy use to clinical trials. Such efforts, combined with mandates, can be an effective way to harness corporate innovation and competitive dynamics to achieve societal outcomes.

Develop innovation ecosystems to attract and retain investment

In a world where countries claim specialized roles in global value chains and profits increasingly flow to idea- and technology-driven sectors, innovation is critical to capturing investment and greater value added in any domestic economy. This requires building strong networks to connect entrepreneurs, investors, universities, and business mentors; support needs to be available at every stage to help small businesses commercialize new ideas. It also requires the right legal framework for intellectual property protection and a commitment to R&D funding in targeted fields.

When deep pools of technical and entrepreneurial talent form and investment flows into R&D, innovative industry clusters can take root and grow. Investment in research institutions that focus on strategically important sectors is a crucial building block. Both public- and private-sector R&D funding can provide the support needed to develop and commercialize emerging technologies. Once a cluster begins to form around a research hub, additional companies and suppliers may follow, creating an agglomeration economy. The United States has multiple examples of thriving local industry clusters far beyond Silicon Valley, including biotech in Massachusetts, clean tech in Colorado, polymers in Ohio, and auto manufacturing in South Carolina.¹⁰⁰

Many locations have tried to replicate this model, but it is exceedingly difficult to engineer, particularly if the effort is top-down. Governments that coordinate their efforts with the private sector and take a broad view of building a competitive ecosystem—one that is

¹⁰⁰ Bruce Katz and Mark Muro, *The new “cluster moment”*: How regional innovation clusters can foster the next economy, Metropolitan Policy Program at Brookings, September 2010.

focused on sustaining talent and innovation—are more likely to succeed. By focusing on talent development, R&D support, and ensuring the availability of startup capital, Israel has built a renowned life sciences industry with a growing global presence. Its technology incubator was originally government-funded, but since being privatized, it has expanded to dozens of science parks across the country to provide infrastructure, finance, and administrative support for the first years of a company’s life in exchange for an equity stake.¹⁰¹

Creating an innovation ecosystem can help investment. In a volatile corporate environment, companies are more willing and able to move parts of their operations. Their investment in any country is less “sticky” unless profitability stays at acceptable levels. Instead of engaging in a “race to the bottom” by offering easily replicated incentives to attract corporate operations, ecosystems can be an effective way of attracting—and retaining—corporate activity.

Support diversification in the corporate sector

Government policy toward corporations is often portrayed as “picking winners and losers.” In reality, a wide spectrum of policy actions can help governments foster a vibrant and competitive corporate sector. These actions may be limited to establishing the ground rules and the necessary market institutions. But some countries take more active approaches, such as retaining control over state-owned firms, setting up business clusters and industrial developments, or reshaping industry structures. Governments can also use their purchasing power to create new markets. They can set requirements on performance and outcomes and then offer incentives for domestic and foreign firms to innovate, create a supply base, and develop local talent to achieve those outcomes.

Regardless of the approach used, policy makers will be well advised to ensure that their corporate sector is diversified, with competitive firms in several industries and of all sizes, rather than one outsized “national champion.” When governments seek to protect incumbent firms or state champions from competition, those firms often end up lagging in productivity, investment, and innovation, so helping incumbents may not always be the right strategy. Sometimes society may derive more benefit from the entry and growth of new players, even if they come at the expense of the status quo. Moreover, companies based in markets that are disrupted first—and survive the disruption—are likely to be globally competitive, benefiting their home countries even as they expand overseas.¹⁰²

Companies of every size and age are valuable to an economy, because each brings distinct benefits. Small firms tend to employ a greater share of the workforce in many countries, while large ones tend to be more productive and better at promoting R&D and productivity growth. Large, established multinationals tend to pay higher wages than the industry average, while young and fast-growing firms generate more new jobs. Innovation thrives where there is competition, and that in turn benefits countries, companies, and consumers alike.

¹⁰¹ Technological Incubators Program, Office of the Chief Scientist, Israeli Ministry of Industry, Trade, and Labor.

¹⁰² *Growth and competitiveness in the United States: The role of its multinational companies*, McKinsey Global Institute, June 2010.



The new competitive forces can hit like an earthquake—and the more rigid the structure, the greater the chance that it will be destroyed. Agility is not something that comes easily either to big business or to government. But the era we are entering is not one of economic retrenchment. It will be one of continued expansion, albeit with more volatility and fiercer competition. There will be losers, but there will also be many winners. The challenge for corporate executives and policy makers alike will be to spot these opportunities and seize them. The rules of the game are changing, but incumbents can still win if they radically update their playbook.



APPENDIX: TECHNICAL NOTES

1. Financial databases developed for this research
2. Definitions of corporate profitability
3. Estimating the sources of corporate revenue growth
4. Estimating the global and regional corporate profit pools
5. Creating sector archetypes
6. Identifying and analyzing the best-performing firms
7. Developing forward-looking scenarios

1. FINANCIAL DATABASES DEVELOPED FOR THIS RESEARCH

This report uses macroeconomic data combined with industry insights and company-level financial data for both public and private firms. The macroeconomic data are obtained mostly from public sources such as the World Bank, the OECD, and the International Monetary Fund. Industry insights are obtained from interviews with experts, analyst reports, and other sources that focus on specific industries. For company-level information, we rely on four databases that are compiled from various sources, including McKinsey & Company proprietary data, and adapted for this research.

Database of publicly listed corporations

Financial metrics are sourced from McKinsey's Corporate Performance Analysis Tool (CPAT), which covers all public companies incorporated in most large economies. We examined companies with annual revenue greater than \$200 million in any year from 1990 to 2013. We also selected companies from regions that account for the world's largest economies: North America (Canada and the United States), Western Europe (EU-15 countries and Switzerland), Northeast Asia (Japan and South Korea), Australia and New Zealand, China, India, Latin America (Central and South American countries, including Mexico), the member states of ASEAN (the Association of Southeast Asian Nations), Russia, and the Middle East.

For most of the analyses of publicly listed firms in this report, we focus on a subset of seven of these regions for which reliable data and good industry coverage are available. The seven—North America, Western Europe, Northeast Asia, China, India, ASEAN, and Latin America—cover 80 to 95 percent of global corporate activity.

The resulting data set covers roughly 40 percent of the corporate revenue pool (the majority of the rest is made up of private firms). It consists of 16,858 companies headquartered in 42 countries and spanning 67 industries and 155 subindustries. Two versions of this database are created: one at the firm level, another at the aggregate industry level. Both databases are used for various analyses during this research.

The industries are classified into 18 sectors based on shared business cycles (Exhibit A1). These sectors are: automobiles; consumer discretionary products (e.g., luxury goods); consumer staples (e.g., food processing); construction; financial services; health-care

services; hospitality (e.g., hotels and restaurants); IT and business services; machinery and equipment; media; pharmaceuticals, biotech, and medical devices; processing (e.g., chemicals); resource extraction (e.g., mining); retail; technology hardware (e.g., electronics); telecommunications; transportation; and utilities. These aggregate categories were formed by combining industries that have a similar business focus and economic trends. For example, an analysis of the broader health-care sector reveals similarities in the long-term growth and profitability trends of the pharmaceutical, biotech, and medical device industries that support grouping them into one aggregate sector. But hospitals and health-care providers have distinct characteristics that lead us to treat health-care services as a separate sector.

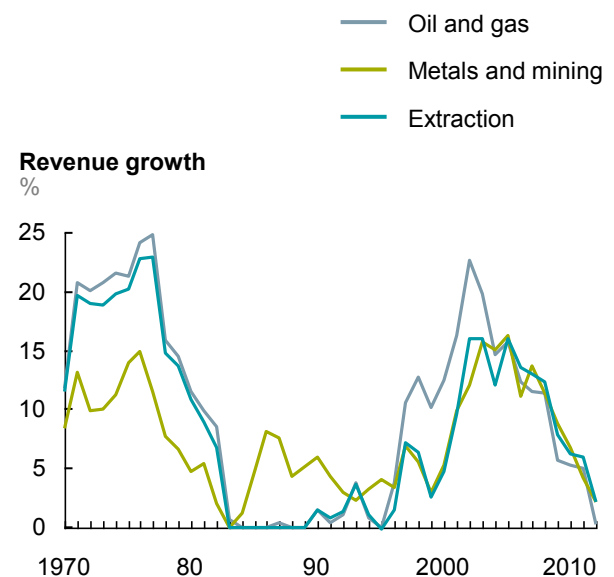
Exhibit A1

Corporate activity can be classified into 18 sectors, and industries within each sector share business cycles and supply-chain linkages

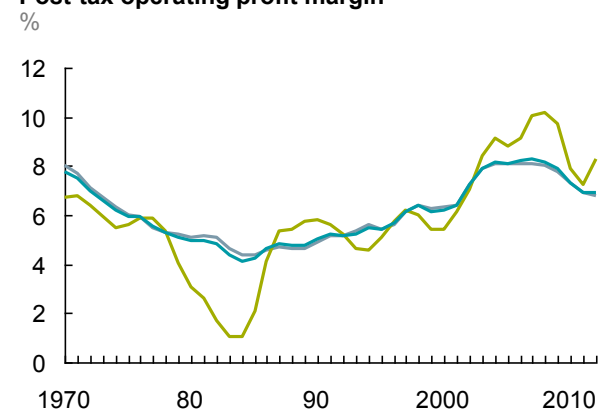
Industry classification and example industries

Sector	Example industries
Automobiles	Auto assembly; auto components
Construction	Infrastructure; civil engineering
Consumer discretionary	Household durables; leisure products
Consumer staples	Food products; personal products
Financial services	Banks; insurance
Health-care services	Health-care providers; hospitals
Hospitality	Restaurants; hotels
IT and business services	Software; IT services
Machinery and equipment	Industrial and farm equipment
Media	Broadcasting; content production
Pharma/biotech/medical devices	Pharmaceuticals; medical devices
Processing	Chemicals; paper and wood products
Resource extraction	Oil and gas; metals and mining
Retail	Distributors; specialty retail
Technology hardware	Semiconductors; electronics hardware
Telecommunications	Diversified telecom; wireless telecom
Transportation	Airlines; shipbuilding; rail transport
Utilities	Electric and gas utilities

“Extraction” sector formed by combining the oil and gas and the metals and mining industries, which display similar economic trends



Post-tax operating profit margin



SOURCE: McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

Database of private companies

In addition to the CPAT database of publicly listed firms, we compiled a data set consisting of firm-level share distribution and financial performance for a sample of 69,090 public and private companies. We use the same revenue cutoff (\$200 million) and the same set of seven regions. The primary data source is the Bureau van Dijk (BVD), which aggregates shareholding and financial data for both public and private firms based on various sources, including annual reports, anti-money-laundering documents, and tax filings.

The original data set comprises upward of 100,000 companies. For our purposes, we use a narrower set of 69,090 firms based on a number of filters.

One filter involves matching public firms in this data set with those in CPAT. We performed sector validity checks on all sample firms, comparing average EBIT margin and weighted average EBIT margin to identify any discrepancies between BVD and CPAT data.¹⁰³ Three outcomes emerged from these checks:

- If discrepancies were larger than 3 percent for both checks, the sector/region combination of firms was excluded from all analyses.
- If the discrepancy was larger than 3 percent for one of the two checks, the sector/region combination was used only in aggregated analyses. The resulting sample size was 19,291 firms.
- If the discrepancy was smaller than 3 percent for both checks, the sector/region combination was used for all analyses. The resulting sample size was 14,277 firms.

The second filter involved removing outliers based on additional data validity checks, such as excluding firms with anomalies in financial data (including fixed asset turnover, return on assets, and/or EBIT margin).¹⁰⁴

Finally, the third filter involved identifying the ownership of each firm in the remaining sample. We focus our analyses on three types of firm ownership, based on the firm's ultimate owner: **family-controlled** if the ultimate owner is an individual or family, **state-controlled** if the ultimate owner is a government, and **widely held** if no ultimate owner is identified (i.e., no single shareholder has dominant voting power). In addition to these three types of ownership, we identify financially controlled firms (e.g., those controlled by banks, private equity investors, or other financial institutions). These firms are excluded from the analyses but included in the overall landscape of firms by region.

We define the "direct owner" of a firm as the shareholder who is able to cast the deciding vote in most voting situations. To test whether a given individual or group controls a corporation, we first study the exact composition of corporate principal shareholdings and then determine the voting power of each shareholder by calculating the fraction of possible voting sequences in which the shareholder casts the deciding vote. This is measured using the Shapley-Shubik power index, in which any shareholder with a power index above 0.75 is assumed to be the firm's controlling shareholder. Note that a firm can be controlled even without an outright majority (more than 50 percent of the votes). For example, if a shareholder has a 30 percent stake and the next largest shareholder has only a 1 percent stake, the former is considered the firm's direct owner as it will have the highest voting power and will almost always be able to determine the outcome of votes.

¹⁰³ EBIT margin of a sector/region combination between 2006 and 2011.

¹⁰⁴ For fixed asset turnover, filter excludes the top and bottom 5 percent from 2006 to 2011. For return on assets, filter excludes the top and bottom 1 percent from 2006 to 2011. For EBIT margin, filter excludes the top 1 percent and the bottom 0.3 percent from 2006 to 2011.

The ultimate owner of a firm is then determined by tracing the firm's control paths along its corporate family tree. This is done, for example, through first identifying a firm's direct owner, then identifying the direct owner of the firm's owner until the ultimate owner is identified. As we do this, we are also careful to consider the network effects of having multiple shareholders who may themselves be controlled by a common ultimate owner; in such cases, their shares will be aggregated into a single block when computing voting power.

Database of large companies, public and private

The CPAT and BVD databases are combined with a fourth database of large corporations called CompanyScope, which was developed by MGI for prior research.¹⁰⁵ This database comprises 10,291 public and private firms, each with \$1 billion or more in annual sales. It provides information on each firm's country and region of headquarters; its industry; whether it is public or private, parent or subsidiary; and whether it is state-owned. The CompanyScope data set is used to further refine the ownership algorithm in the BVD data set and also to inform some of the analyses around large corporations and the global profit pool.

The database is built using several sources, including the Forbes Global 2000, the Fortune Global 500, the Global 5000 Companies database, and several other global and national industry listings. Sources such as S&P Capital IQ and Hoover's are then used to collect information about the companies, including their revenue, location, and industry. The latest available revenue figures it contains range from 2010 through 2012 for the companies in the database; for specific companies, these numbers are updated to 2014.

2. DEFINITIONS OF CORPORATE PROFITABILITY

- **EBITDA** refers to a corporation's earnings before interest, taxes, depreciation, and amortization expenses are deducted. It is used as a proxy for long-term cash flows available either for reinvestment or for payments to the three principal types of claimholders: government (via taxes), creditors (via interest payments), and equity shareholders (via dividend payments). It is generally used in combination with other metrics such as net income since it does not deduct depreciation—which, while an operating expense, is a non-cash item.
- **EBITA** (earnings before interest, taxes, and amortization) is the total earnings after depreciation expenses are deducted but before interest payments and income tax payments are deducted. It is revenue less operating expenses (e.g., cost of goods sold, selling costs, general and administrative expenses, and depreciation). A related metric—adjusted EBITA—refers to the profit before taxes that a company generates from its core operations, excluding non-core activities. Why use EBITA over EBITDA? When a company purchases a physical asset such as equipment, it capitalizes the asset on the balance sheet and depreciates the asset over its lifetime. Since the asset loses economic value over time, depreciation must be included as an operating expense when determining NOPLAT.
- **NOPLAT** (net operating profit less adjusted taxes) starts with EBITA and then deducts operating taxes. It is the after-tax profit generated from core operations, excluding any income or expenses from non-operating items (such as foreign exchange gains or losses) or financing activities (such as interest income or expenses). While net income is the profit available to equity holders, NOPLAT is the profit available to all stakeholders (equity as well as debt holders).

¹⁰⁵ *Urban world: The shifting global business landscape*, McKinsey Global Institute, October 2013.

NOPLAT is calculated as adjusted EBITA minus operating tax—that is, taxes that are attributable to core operations, estimated based on line items included in EBITA. Why use operating taxes and not reported taxes? Since reported taxes are calculated after interest and non-operating components, they are a function of non-operating items and capital structure. Keeping NOPLAT focused solely on operations requires that the effects of interest expense and non-operating income also be removed from taxes. Operating tax is calculated by starting with reported taxes, adding back the tax shield caused by interest expenses, and removing the taxes paid on net non-operating income. The resulting operating taxes should equal the hypothetical taxes that would be reported by an all-equity, “pure operating” company.

- **ROIC** (return on invested capital) is a profitability metric that focuses solely on operating performance. It excludes the impact of non-operating activities and capital structuring decisions. It is calculated as NOPLAT relative to average operating invested capital. ROIC is a useful analytical tool for understanding a company’s performance and is preferable to return on equity (ROE) or return on assets (ROA) because it focuses solely on the company’s operations. Return on equity mixes operating performance with capital structure, making peer group analysis and trend analysis less meaningful. Return on assets is an inadequate measure of performance because it includes non-operating assets and ignores the benefits of accounts payable and other operating liabilities that together reduce the amount of capital required from investors.

To understand different strategic levers for operating performance, ROIC can be further decomposed into margins and capital efficiency. ROIC can be calculated with the following equation:

$$\text{ROIC} = (1 - \text{operating cash tax rate}) \times \left(\frac{\text{EBITA}}{\text{revenue}} \right) \times \left(\frac{\text{revenue}}{\text{invested capital}} \right)$$

Here, invested capital is the sum of operating working capital; net property, plant and equipment (net PP&E); and net other operating assets. Operating invested capital represents the amount invested in the core operations of the business, while operating working capital equals operating current assets minus operating current liabilities. Operating current assets comprise all current assets necessary for the operation of the business, including working cash balances, trade accounts receivable, inventory, and prepaid expenses. Excess cash and marketable securities—that is, cash greater than the operating needs of the business—are specifically excluded. Operating current liabilities include those related to the ongoing operations of the firm; the most common are those related to suppliers (accounts payable), employees (accrued salaries), customers (deferred revenue), and government (income taxes payable). Net PP&E is the book value of property, plant, and equipment (e.g., production equipment and facilities) and is always included in operating assets. Net other operating assets include long-term operating assets net of long-term operating liabilities.

- Finally, **net income** is also a measure of profitability, one that represents the income or loss available to equity holders after deducting all expenses and losses from revenue and gains during the fiscal period. But because net income is affected by non-operating items and capital structuring decisions, this metric can distort comparisons between peer companies even in the same industry and region. Our research therefore largely focuses on NOPLAT, ROIC, and EBITA rather than net income.

3. ESTIMATING THE SOURCES OF CORPORATE REVENUE GROWTH

The corporate revenue pool estimate used in this report is based primarily on gross output statistics available from two sources: IHS and the World Input-Output database (WIOD). IHS provides gross output by country and sector for 17 sectors of the economy from 1980 to 2014 and also includes projections for future gross output. We consider 14 of these 17 sectors to be in the realm of corporate activity, since most goods and services in these sectors (e.g., mining, manufacturing, and retail) are provided by private- or public-sector corporations. The three sectors excluded are private household services, public administration and defense, and social security. We consider both nominal and real gross output numbers for various revenue-related analyses. These numbers are validated against WIOD values for relevant analyses.

To understand the forces driving the increase in corporate revenue growth from 1980 to 2013, gross output is broken into its four component parts using WIOD data: household consumption, investment (i.e., gross fixed capital formation), government consumption, and supply-chain intermediaries. The World Bank provides three of the four components (household consumption, investment, and government consumption) as a percentage of GDP in 1980 and 2013. These percentages are applied to 1980 and 2013 global GDP (in real 2013 dollars) to quantify each component in absolute dollars in both 1980 and 2013. The change between 1980 and 2013 represents the growth of each component in absolute dollars.

The fourth component, supply-chain intermediaries, is taken as the difference between global gross output and global GDP (both in real 2013 dollars) in 1980 and 2013. The change between 1980 and 2013 represents the growth of supply-chain intermediaries for that period. This number was validated by analyzing the trend of intermediate output based on WIOD data between 1995 and 2011. The WIOD total for intermediate outputs in those years turns out to be similar to the numbers estimated by using the World Bank data to calculate the difference between gross output and global GDP in those years.

4. ESTIMATING THE GLOBAL AND REGIONAL CORPORATE PROFIT POOLS

Global profit pools are estimated for 1980 and 2013 using four measurements: gross pre-tax profits, net pre-tax profits, net post-tax profits, and net post-tax profits excluding interest.

The estimates for 2013 are derived using corporate income as a share of GDP (based on GDP data from the World Bank). The various measures of corporate income are taken from OECD Annual National Accounts, which provide data on gross operating surplus and mixed income, consumption of fixed capital, current taxes, property income, other current transfers, interest payments, and other items included in gross pre-tax profit. Where OECD statistics do not provide data coverage, country data are extrapolated to the regional level—in effect using a large country as a proxy for the wider region. All regions except ASEAN and India have more than 88 percent of GDP coverage of the countries for which data are available. For missing countries within high-coverage regions, the profit-to-GDP ratio is assumed to be equal to the regional average. We used a different approach for ASEAN and India, multiplying profit margins from BVD and CPAT by revenue data from IHS to obtain an estimate of those regions' profit pools.

We calculate estimates for 1980 in a similar way for Japan, North America, and Western Europe, using data from the OECD. Since OECD data for 1980 are available for only these three regions, we use a different approach for the remaining geographies: changes in GDP shares over time are used to adjust corporate income (CI) over GDP ratios, using 2013 as a reference point.

We cross-checked all profit pools and CI/GDP ratios calculated in this analysis against various other sources such as the European Commission AMECO database, US Bureau of Economic Analysis (BEA) national accounts, and Oxford Economics. For the United States, BEA values were used instead of OECD values. Final numbers were converted to 2013 dollars using GDP deflators. Regional shares of the global net post-tax profit pool were estimated using various sources, including CompanyScope, CPAT, and BVD. The CompanyScope data set was used to provide a starting point for the regional distribution of large firms, which represent roughly 60 percent of global revenue; the remaining 40 percent was extrapolated using CPAT and BVD regional distributions.

5. CREATING SECTOR ARCHETYPES

The 17 non-financial sectors described earlier in this appendix are classified into five archetypes based on the following characteristics: the industry's relative knowledge, capital, or labor intensity; its degree of competition; its predominant model of firm ownership; and corporate profitability.

The five groups are: intellectual property-intensive sectors (e.g., pharmaceuticals); technology-intensive sectors (e.g., IT hardware, IT services, media); local consumer-facing sectors (e.g., consumer discretionary products, consumer staples, hospitality, health care, retail); capital goods (e.g., automobiles, machinery, processing), and infrastructure (e.g., telecom, utilities, construction, transportation, resource extraction).

These sectors (with the exception of local consumer-facing industries) fall under two major umbrellas: idea-intensive industries and capital-intensive industries (Exhibit A2).

Idea-intensive industries are those that invest relatively heavily in intellectual assets in order to compete. We look at three metrics: R&D intensity, brand intensity, and skill intensity. "R&D intensity" is defined as average annual R&D spending from 2011 to 2013 relative to average annual sales during the same period. "Brand intensity," defined as selling, general, and administrative (SG&A) costs averaged from 2011 to 2013 relative to sales averaged across the same period, captures the degree to which companies engage in marketing activities. "Skill intensity," defined as the share of each industry's employment pool that is highly skilled (with graduate degrees), captures the relative importance of human capital in that industry.

Capital-intensive industries invest relatively heavily in physical assets such as property, plant, and equipment (PP&E) in order to compete. We look at two metrics: capital intensity, which reflects the amount of fixed capital needed to generate one dollar of sales, and invested capital. Capital intensity is calculated for each sector as average annual PP&E from 2011 to 2013 as a share of average annual sales during the same period. Invested capital is a simple balance-sheet reading of publicly listed companies' net capital investment, averaged over three years (2011 to 2013).

In addition to examining the characteristics described above, we look at each sector's labor intensity and its profitability. Labor intensity captures the degree to which labor is an important input in the production process relative to the value added. It is calculated as employee compensation as a share of value added and represents the degree to which labor costs affect the competitiveness of companies within a given industry.

Exhibit A2

Idea-intensive sectors see higher margins and spreads than most sectors

■ Top quartile ■ Second quartile ■ Third quartile ■ Bottom quartile

Group	Sector archetype	Selected sectors	Knowledge			Labor	Capital	Profitability		
			R&D intensity R&D over sales, %	Brand intensity SG&A over sales, %	Skill intensity Share of high-skill workers, %	Labor intensity Payroll share of output, %	Capital intensity PP&E over sales, %	Invested capital \$ billion	Average profit margin NOPLAT over sales, %	Profit spread 95th – 5th percentile, percentage points
Idea-intensive goods and services	Intellectual property-intensive	Pharma/medical devices	13.2	41	39	14	23	500	19.8	32
	Technology-intensive	Technology hardware	7.6	20	52	51	18	700	7.8	33
		IT and business services	6.7	25	44	43	13	300	11.7	29
		Media	1.1	25	49	43	38	300	12.4	36
Labor-intensive consumer goods and services	Local consumer-facing	Consumer discretionary products	3.9	25	23	73	14	400	5.0	23
		Consumer staples	1.2	24	12	47	25	1,000	9.3	22
		Hospitality services	1.5	17	15	61	59	400	8.5	23
		Health-care services	0.6	10	54	83	10	200	3.9	19
		Retail	1.3	20	17	50	21	1,000	3.5	14
Capital-intensive goods and services	Capital goods	Construction	1.7	14	15	63	18	1,000	4.4	17
		Automobiles	3.9	14	15	51	27	1,600	5.4	12
		Machinery	2.8	18	27	40	27	1,700	6.8	17
		Processing	2.1	15	16	44	43	1,500	6.6	20
	Infrastructure	Transportation	0.5	10	15	59	86	1,300	6.0	42
		Telecom	1.5	25	62	30	84	1,100	13.4	35
		Utilities	0.3	12	51	31	204	4,000	8.5	36
		Extraction	0.4	7	17	30	63	6,000	5.8	42

SOURCE: McKinsey Corporate Performance Analysis Tool; IHS; US Bureau of Economic Analysis; US Bureau of Labor Statistics; McKinsey Global Institute analysis

To arrive at profitability metrics, firm-level financial data are sourced mostly from the Corporate Performance Analysis Tool database of all public companies with revenue exceeding \$200 million in any year between 1990 and 2013. The indicators are calculated using smoothed three-year averages (2011 to 2013) for each firm. The final ratio for each indicator is calculated by aggregating the numerator (e.g., R&D spending) and denominator (e.g., revenue) across all companies in the data set.

The sector archetypes also differ to varying degrees in a few other metrics such as trade intensity, FDI intensity, industry concentration, M&A intensity, and corporate ownership. For instance, the share of government ownership (measured on total sales) is higher for infrastructure industries. Between one-quarter and one-third of corporate revenue in these industries is captured by state-owned companies; in contrast, the share is around 7 to 10 percent for capital goods industries, and less than 5 percent for idea-intensive industries.

6. IDENTIFYING AND ANALYZING THE BEST-PERFORMING FIRMS

“Top performers” are defined in two different ways throughout the report: those that have the highest NOPLAT margins and those that have the highest total NOPLAT in their subsectors. Top performers in any given year exhibit NOPLAT margin or NOPLAT in the tenth percentile of their subindustry for the given year. Firms categorized as “consistent top performers” are in the top quintile of firms in their subindustry by average NOPLAT margin over the period 2000 to 2013. The financial characteristics of top performers are then compared to the characteristics of all firms at the subindustry level to evaluate trends in how top performers are most often differentiated. These trends are evaluated at multiple levels of the industry and regional hierarchies to identify the characteristics that distinguish top-performing firms from the median.

Metrics of firm size, knowledge intensity, capital intensity, and labor intensity are used to understand how firms compete and how top performers vary from the median firms. Size metrics include dollars of revenue, dollars of PP&E, and number of employees. Metrics of knowledge intensity include R&D margin (R&D/sales); selling, general, and administrative expense margin (SG&A/sales); and intangibles margin (intangibles/sales). Metrics of capital intensity include PP&E intensity (PP&E/sales) and working capital intensity (WC/sales). Measures of labor intensity include employees/sales and cost of goods sold/sales.

7. DEVELOPING FORWARD-LOOKING SCENARIOS

The profit scenario for 2025 applies region-specific revenue projections across all industries. IHS region- and industry-specific revenue projections were adjusted to reflect the regional revenue shares projected in previous MGI research.¹⁰⁶ This adjustment allocates a greater share of revenue to Chinese firms, for instance, to account for their rapid growth. Region-specific profit margins for each industry (derived from those for public and private firms in the Bureau van Dijk and CPAT data sets) were applied to the aforementioned 2025 revenue projections and aggregated to form the baseline for our 2025 global profit pool. The resulting 2025 revenue pool is 95 percent higher than the 2013 revenue pool in nominal terms. The adjustment for regional revenue shares combined with the region-specific profit margin results in a baseline 2025 corporate profit pool of \$15.8 trillion (nominal), an increase of 120 percent from the 2013 profit pool.

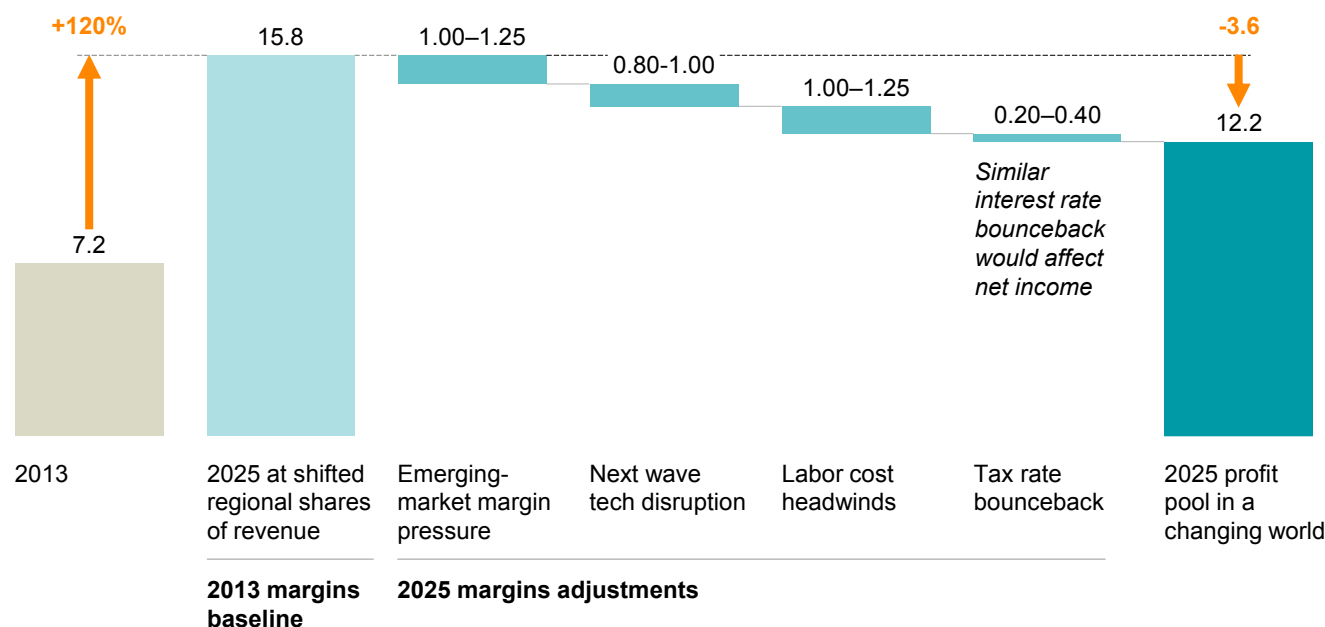
¹⁰⁶ *Urban world: The shifting global business landscape*, McKinsey Global Institute, October 2013.

The baseline profit pool is then reduced in stages to reflect various pressures that may constrain profits in the decade ahead, as explained below (Exhibit A3).

Exhibit A3

Multiple forces could compress the global profit pool

Global NOPLAT¹ profit pool, 2025
\$ trillion, nominal



1 Net operating profit less adjusted taxes.
NOTE: Numbers may not sum due to rounding.

SOURCE: Bureau van Dijk; International Labour Organisation; US Bureau of Labor Statistics; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

The first adjustment relates to margin pressures caused by the growing presence of emerging-market companies. Profit margins have already been trending downward in many capital-intensive local industries such as extraction, transportation, utilities, telecom, and construction. The continuing rise of emerging economies is generating strong revenue growth, but as these industries are increasingly deregulated, price competition is intensifying in many regions, straining profit margins.

To quantify this effect, we adjusted margin projections for select regions. For Chinese firms, margins are already converging with those of Japanese firms, falling from nearly 20 percent in 2003 to 7 percent today. Part of our first adjustment involves applying a projection that by 2025, the average margin of Chinese firms will decline to match the 2013 margins of Japanese firms. For North American and Western European firms, we project the continuation of the current eight-year downward compound annual growth rate trend seen from 2006 to 2013, and we apply that decline to their current profit margins. For firms from other emerging economies, we assume that 2025 profit margins will equal the average of 2025 margins for Chinese, Western, and Northeast Asian firms, reflecting global convergence that increased competition should bring to these capital-intensive local industries (similar to what has occurred with more traded capital-intensive industries such as machinery and automobiles). Applying these projections to the industry-specific revenue pool in the 2025 baseline yields a reduction of \$1 trillion to \$1.25 trillion (in nominal terms) from the 2025 baseline profit projections.

We make a second adjustment to account for the emergence and growth of digital platforms that disrupt entire industries. Current examples include Uber's effect on the taxi industry, Airbnb's effect on the hotel industry, and WhatsApp's effect on the mobile industry. These three industries are part of broader sectors—transportation, hospitality, and telecom—that are ripe for disruption because they are service industries whose business models require large capital expenditures. Large providers in these sectors can be tied down by expensive and sometimes underutilized assets, making it hard to respond quickly to new, tech-enabled competitors. For this adjustment, we expand the scope of tech-enabled disruption to other sectors that share similar attributes: utilities, health care, and retail. Based in part on case studies that point to price, revenue, and profit margin effects that are already under way in these industries, we consider the possibility that these effects will be felt globally by 2025. These highly localized case studies indicate that retail-sector revenue has declined by 20 percent, hospitality revenue by 13 percent, health-care revenue by 7 percent, transportation revenue by 20 percent, and utility revenue by 9 percent. In addition, telecom profit margins declined by 25 percent.¹⁰⁷ Applying these reductions to the industry-specific revenue and profit pools in the 2025 baseline scenario yields a reduction of \$900 billion (in nominal terms) in profits. All revenue reductions were taken against aggregate industry totals, except for transportation, in which certain subsectors (air, water, and pipeline) were excluded. For transportation subsectors, land transport revenue was included in the impact analysis with the exception of railroads; transportation support services and post/courier revenue were included.

The third adjustment incorporated into our analysis is a global comparison of labor and productivity trends. While unit labor costs and productivity growth are both rising, labor costs are growing faster than productivity in many emerging economies. While in the United States, productivity growth is outpacing wages, the reverse is true in China. Overall, in the G20 countries, unit labor costs have risen by 2.0 percent per year since 2000, while labor productivity (defined as GDP per employee) has grown at 1.2 percent per year. Our profit pool adjustment involves applying this difference (of 0.8 percent) to the growth rate of the global cost base through 2025. In the baseline scenario, the cost base is projected to grow by \$134 trillion (nominal) from 2013 to 2025, for an annual growth rate of 6.2 percent. The adjustment projects the cost base growing by 7 percent annually, which would increase the projected 2025 global cost base by \$1.4 trillion (nominal) across all industries. It is important to note that this cost base increase is already implicit in the first adjustment described above, which is specific to capital-intensive local industries. These industries represent a substantial 23 percent of the 2025 profit pool projection, so we remove them from this adjustment. All told, this results in a \$1.1 trillion (nominal) increase in labor costs, which decreases the profit pool in 2025.

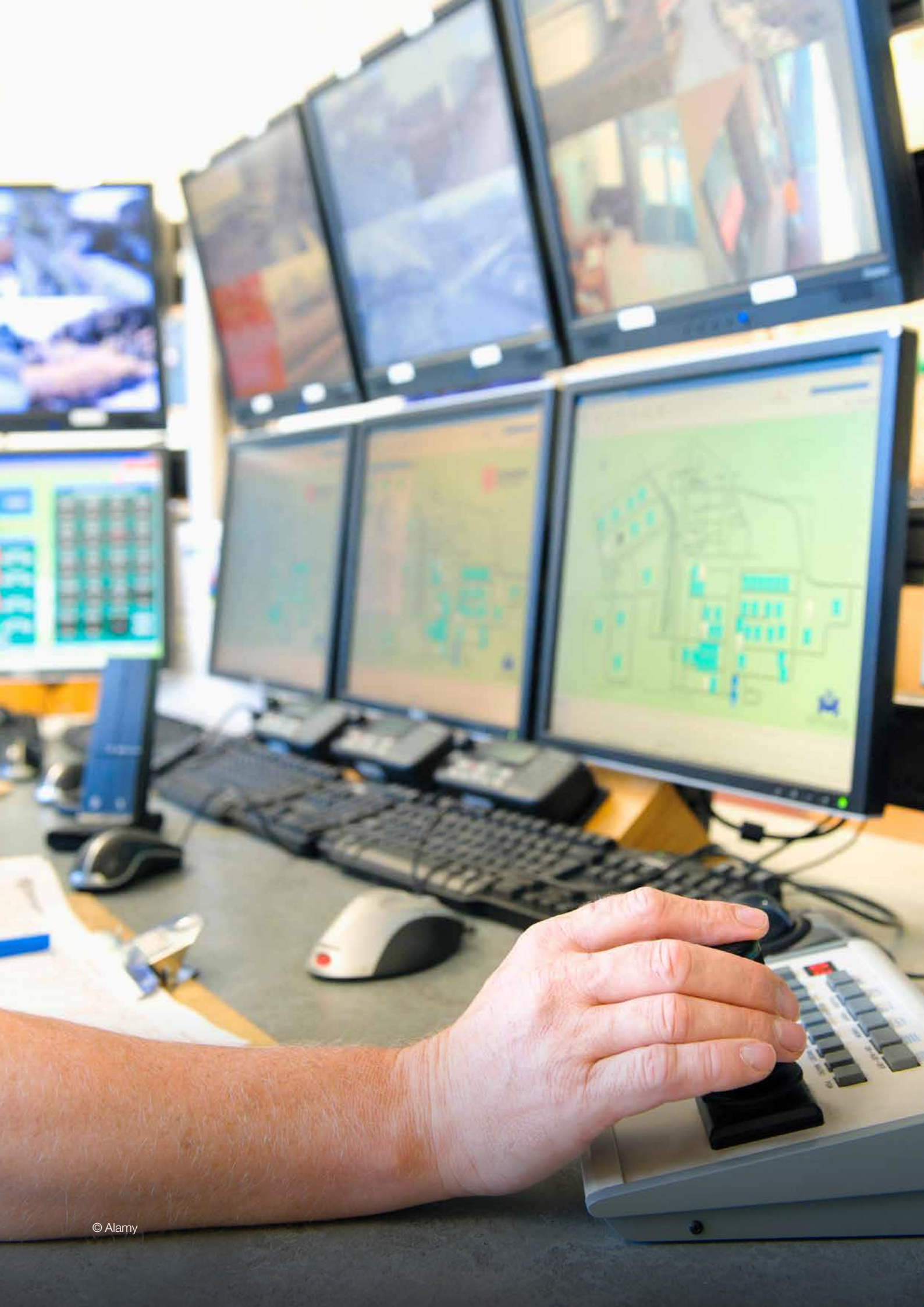
The fourth adjustment accounts for the possibility of rising corporate income taxes and interest rates, which are currently at or near 30-year lows. To illustrate the effect of rising tax and interest rates, we consider what would happen if the trend of the past ten years is reversed over the next ten. On the tax side, we analyze corporate tax payments as a share of revenue for all public firms, taking the difference between EBIT and NOPLAT and dividing by these firms' total revenue in 2004 and 2013. The compound annual growth rate (CAGR, nominal) turns out to be negative 2 percent. We then apply a CAGR of positive 2 percent over the ten-year projection to the 2025 profit pool. We take the same approach with interest rates, by comparing interest expenses as a share of invested capital from 2004 to 2013.

¹⁰⁷ See, for example, Georgios Zervas, Davide Proserpio, and John W. Byers, *The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry*, Boston University, May 2015; *How can utilities survive energy demand disruption?* Accenture's Digitally Enabled Grid program, 2014 edition, December 2014; Hans Bonde Christensen, Eric Floyd, and Mark G. Maffett, *The effects of price transparency regulation on prices in the health-care industry*, Chicago Booth research paper number 14–33, May 2015; *A study of cost variations for knee and hip replacement surgeries in the U.S.*, The Health of America report, Blue Cross Blue Shield, January 2015; Morningstar Research; *The Economist*; and McKinsey & Company.

Again we see a nominal CAGR of negative 2 percent, and we apply a positive 2 percent growth rate over the next decade to arrive at the total profit pool reduction by 2025.

The regional breakdown of the 2025 profit pool is based on revenue projections by region as described earlier. The baseline 2025 profit pool is adjusted in four steps as described, with each step affecting a specific group of industries. For each adjustment, regional trends in profit margin are taken into account to estimate the total impact. As a result, each adjustment ends up altering the regional distribution of profits in the baseline 2025 scenario. The net result is calculated as the aggregate regional effect of these four adjustments to the global profit pool.

We convert nominal 2025 dollars to real 2013 dollars using a deflator for world GDP averaged from various projections, including Oxford Economics, IHS, and the Economic Research Service at the US Department of Agriculture. The 2025 world GDP estimate is based on several sources: OECD, IHS, and the Conference Board all have projections based on GDP volume or real GDP growth rates that together estimate 2025 GDP (in real 2013 dollars). We use the upper end of these projections for our estimation of 2025 corporate profits as share of GDP.





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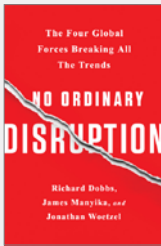
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Over the past 50 years, the world economy expanded sixfold, average per capital income almost tripled, and hundreds of millions were lifted out of poverty. Yet global economic growth will almost halve in the next 50 years—unless the world can engineer a dramatic improvement in productivity.



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