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GOVERNMENT PRODUCTIVITY

UNLOCKING THE \$3.5 TRILLION OPPORTUNITY

DISCUSSION PAPER
APRIL 2017

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PREFACE

Governments around the world face an increasingly urgent question: how do we do more with less? In an environment of fiscal constraints made worse as populations age, the public sector is grappling with complex problems such as economic inequality, rising health-care costs, and protracted security concerns. At the same time, citizens who have grown accustomed to the ease of online shopping, mobile banking, and on-demand ride sharing are calling for better and faster service from government agencies. Together, these influences make improving government productivity an imperative. The good news is that it can be done: governments have already delivered step-change improvements in outcomes at little or no additional cost. By sharing best practices more widely and accelerating the diffusion of innovation, public-sector leaders can unlock the transformation to “Government 3.0”—a new era of efficient, high-quality public services that deliver the outcomes that matter most to citizens.

This research is based on a major global study on government productivity conducted by the McKinsey Center for Government (MCG), with support from the McKinsey Global Institute (MGI). To ensure that the findings are relevant and actionable in a wide range of national contexts, we studied governments from countries at different stages of economic and institutional development. We reviewed more than 200 case studies; interviewed more than 50 current and former heads of state, ministers, mayors, and senior civil servants, including finance, commercial, and digital professionals; and built a first-of-its-kind database and analysis tool to benchmark the efficiency and effectiveness of government expenditure across seven sectors in 42 countries.

This effort was led by Bjarne Corydon, an MCG director based in Copenhagen; Richard Dobbs, an MCG director and a senior partner based in London; David Fine, global leader of McKinsey’s Public and Social Sector Practice and a senior partner based in London; Eoin Daly, a senior partner based in Kuala Lumpur; Jonathan Dimson, a partner based in London; Rajat Gupta, a senior partner based in Mumbai; and Jonathan Woetzel, an MGI director and senior partner based in Shanghai. The research team was headed by Tera Allas, a visiting fellow based in London, and Andrea Berchowitz, an associate partner based in London. The team comprised Sarah Badat, Peter Ballis, Markus Bergman, Mary Calam, Marc Canal, Tommaso Cariati, Charlotte Davis, Christina Figiel, John Henry, Richard Higgins, Mads Jensen, Colin MacLeod, Kimberley Moran, Joel O’Neill, Ana Ramos, Kartik Trehan, Raushan Tulepbayeva, Jordan Ward, and Su-E Yap. We are grateful for the contributions of time and expertise by McKinsey colleagues in many practices and functions,

including members of MGI and our Public and Social Sector Practice. We want to personally thank the following McKinsey partners for their guidance and insights: Aamer Baig, Kalle Bengtsson, Benjamin Cheatham, Thomas Dohrmann, Nora Gardner, Andrew Goodman, Andrew Grant, Martin Hjerpe, Eric Labaye, Roberto Lancellotti, Diaan-Yi Lin, Martin Lundqvist, Mona Mourshed, and Navjot Singh. Colin Douglas and Mark A. Stein provided editorial support, and Kristen Jennings and Rob Mathis led external communications. Design and copy editing are by Leff Communications, including DeQuesha Hopkins, Annie MULLowney, Brittany Williams, and Delilah Zak. McKinsey colleagues Aurélie Barnay, Roland Dillon, Grail Dorling, Emma Dorn, Moira Goulmy, Alain Imbert, Sharon Keilthy, Martha Laboissiere, Raajesh Nair, Anselm Ott, Yaron Savoray, Eric Schweikert, Angela Spatharou, Christine Thorp, and Frances Wilson also provided invaluable help.

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This paper contributes to MCG's mission to provide governments with new and proven knowledge and tools to confront critical challenges and opportunities in a context of limited resources. This work is funded entirely by the partners of McKinsey and has not been commissioned or sponsored in any way by any business, government, or other institution.

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IN BRIEF

Higher costs and rising demand have driven rapid increases in spending on core public services such as education, health care, and transport—while countries must grapple with complex challenges such as population aging, youth unemployment, and economic inequality. Budgets are strained and the global public-sector deficit is close to \$4 trillion a year, yet citizens' satisfaction with key government services is generally low.

Around the world, governments urgently need a way to deliver better outcomes—and a better experience for citizens—at a sustainable cost. This challenge is where the concept of government productivity is key: productivity is a vital measure of the performance of national economies and private-sector businesses, yet until now limited progress has been made on measuring it in the public sector. As a result, it is difficult for governments to gauge the true return on spending and public debate is often focused on how to increase inputs. Governments typically pay less attention to identifying improvement opportunities by learning from other countries—or from other regions or sectors within the same country.

To start to close this gap, the McKinsey Center for Government (MCG) built a comprehensive database and benchmarking tool to assess the efficiency and effectiveness of government expenditure in 42 countries that make up 80 percent of global gross domestic product (GDP). We supplemented this research with insights from more than 50 interviews with government leaders and more than 200 case studies. This paper presents the initial findings of this analysis, along with a review of the practical steps governments can take to improve productivity with speed and at scale.

- From 2005 to 2015, annual government spending per capita increased by more than one-third in real terms (that is, accounting for inflation). Government expenditure amounted to \$35 trillion in 2015—34 percent of global GDP. Yet governments are struggling to meet citizens' rising expectations.

- Several countries have achieved dramatic productivity improvements in recent years—for example, by improving health, public safety, and education outcomes while maintaining or even reducing spending per capita or per student in those sectors. If other countries were to match the improvements already demonstrated in these pockets of excellence, the world's governments could potentially save as much as \$3.5 trillion a year by 2021—equivalent to the entire global fiscal gap.
- Alternatively, countries could choose to keep spending constant while boosting the quality of key services. For example, if all the countries we studied had improved the productivity of their health-care systems at the rate of their best-practice peers over the past 5 years, they would have added 1.4 years to the healthy life expectancy of their combined populations. That translates into 12 billion healthy life years gained—without additional per capita spending.
- To supplement the policy capability that has historically been at the center of government and realize the productivity-improvement opportunity, governments need to deepen their functional capabilities in four key areas: finance, commercial, digital technology and data analytics, and talent management. Across these areas, governments need to adopt an ambitious, structured approach to transform the productivity of the state.

The professionalization of the civil service—a process that spanned 200 years—allowed governments to achieve step-change improvements in policy development and performance. We might characterize that change as “Government 2.0.” They now need to make a similar step-change but at much greater speed, with a focus on strengthening their functional capabilities. This evolution to “Government 3.0” could unlock dramatic improvements in governments' productivity, so enabling them to meet the rising expectations of their citizens within their fiscal constraints. ■

EXECUTIVE SUMMARY





The demands on government have never been so great—yet budgets are under strain and the deficit of governments globally is close to \$4 trillion a year.¹ Many governments are struggling to translate finite resources into meaningful progress on complex challenges such as meeting the health-care needs of an aging population, tackling economic inequality, and ensuring security in an uncertain world. They also face a steep challenge in achieving the fast, efficient service delivery that citizens expect in the 21st century. As a result, satisfaction with government is low, which is helping to fuel the crisis of trust in governments among large groups of citizens.

It's time to transform the public sector's capacity to convert resources into impact in driving the societal outcomes that matter most. This task is where the concept of government productivity is key: productivity is a vital measure of the performance of national economies and private-sector businesses, yet until now limited progress has been made on measuring it in the public sector. It is thus difficult for governments to gauge the true returns on their spending, contributing to inefficiency in many areas of state activity. The lack of a robust productivity measure also inhibits effective sharing of best practices among governments, slowing down diffusion of innovation in the public sector.

A first step to help close this gap is to measure it better. The McKinsey Center for Government (MCG) has therefore built a comprehensive database and analysis tool to start to benchmark the efficiency and effectiveness of government expenditure. We have applied that tool in multiple sectors, across 42 countries that between them make up around 80 percent of global gross domestic product (GDP). This paper presents the first version of this analysis, which shows that several countries have achieved dramatic productivity improvements in recent years—for example, by raising health-care outcomes without increasing spending per capita or boosting education attainment with little or no additional spending per student.

If other countries were to learn from the progress demonstrated in these pockets of excellence and match the improvements already made, the world's governments could potentially save as much as \$3.5 trillion a year by 2021—equivalent to the entire global fiscal gap. Alternatively, they could choose to keep spending at levels similar to today's while greatly boosting the quality of key services such as health care, schools and universities, policing, transport, and tax collection.

The prize from strengthening public-sector productivity is enormous—but what are the practical steps that governments can take to capture it? To find answers, we reviewed more than 200 government productivity-improvement efforts around the world and interviewed current and former heads of state, ministers, mayors, finance and commercial professionals, chief digital officers, and sector leaders. We also drew insights from the more than 3,000 studies undertaken by McKinsey & Company with governments globally over the past five years. To anchor our findings in real-world challenges, we have begun

¹ The sources of the GDP and other key figures cited in this report, together with our methodology and core assumptions, are set out in the technical appendix, available online at www.mckinsey.com/government-productivity.

productivity-improvement partnerships with several countries at different stages of economic and institutional development.

These investigations point to a common imperative in any effort to raise government productivity: rethinking and reshaping the key functional capabilities within government. As this report shows, governments need to adopt a more strategic leadership role and build next-generation skills in four functional areas in particular: finance, commercial, digital technology and data analytics, and talent management. Across all these areas, governments need to adopt an ambitious, structured approach to managing major change and transforming the effectiveness of the state—and so deliver better outcomes from every dollar, euro, or peso spent.

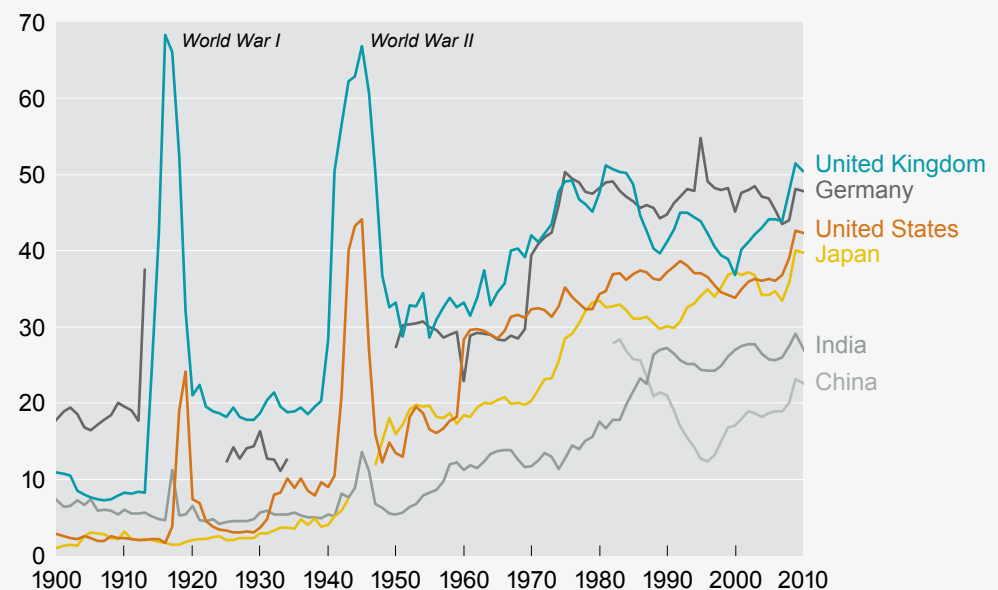
WHY GOVERNMENT PRODUCTIVITY MATTERS NOW MORE THAN EVER

In recent history, government has grown to occupy a much larger share of the global economy (Exhibit E1). In 2015, government expenditure amounted to 34 percent of global GDP—or a total of \$35 trillion. From 2005 to 2015, annual government expenditure per capita increased by more than one-third in real terms, from a global average of just over \$3,600 to nearly \$5,000. This growth in the size of the state reflects steadily increasing commitments. Across most countries, aging populations and demographic shifts are driving increases in health-care costs and pension obligations; the International Monetary Fund (IMF) forecasts these increases to amount to an additional 5 percent of global GDP by 2050. As countries become more prosperous, they also tend to spend a greater proportion of their

Exhibit E1

Governments' scope and share of the economy has expanded dramatically over the past century

Government expenditure (excluding interest payments), 1900–2010
% of GDP



SOURCE: Paulo Mauro et al., *A modern history of fiscal prudence and profligacy*, International Monetary Fund working paper number 13/5, 2013

GDP on government services, social benefits payments, and public infrastructure, resulting in particularly high growth rates of government spending in medium-income countries.

Despite the scale of public expenditure and its increase in recent years, governments are struggling to keep up with demand from citizens—and to meet their rising expectations. MCG research in the United States found that citizens' satisfaction with key state services, such as public transportation, schools, and health-care facilities, was less than half that with most non-state providers, such as banks or utilities (Exhibit E2). In areas including health care and education, the digitally enabled private sector is now competing directly with governments, offering citizens viable alternatives with radically different delivery models. Previous research conducted by McKinsey found that 75 percent of online customers expect help within five minutes of contact.² Increasingly, citizens—as consumers of public-sector goods—are expecting governments to offer the same level of service.

Even as the challenges facing governments are increasing in size and scope, many countries face significant constraints on public spending. Previous McKinsey Global Institute (MGI) research suggests that the trend toward more-constrained government finances is not simply cyclical but partly structural, as the world economy is entering a period of lower growth.³ The IMF, for example, forecasts that the global government deficit will exceed \$3 trillion a year—or between 2 and 3 percent of global GDP—from 2017 to 2021.⁴

Governments have never been asked to do so much, yet their sources of funding are under real pressure. To close the gap, they must urgently find ways to deliver more, and better, for less.

THE \$3.5 TRILLION PRODUCTIVITY OPPORTUNITY—AND A NEW TOOL KIT TO START REALIZING IT

Our analysis shows that several countries have already achieved dramatic improvements in government productivity in recent years. If all countries improved their government

²“The CEO guide to customer experience,” *McKinsey Quarterly*, August 2016.

³ McKinsey Global Institute (MGI), *Global growth: Can productivity save the day in an aging world?* January 2015.

⁴ World Economic Outlook Database, International Monetary Fund (IMF).

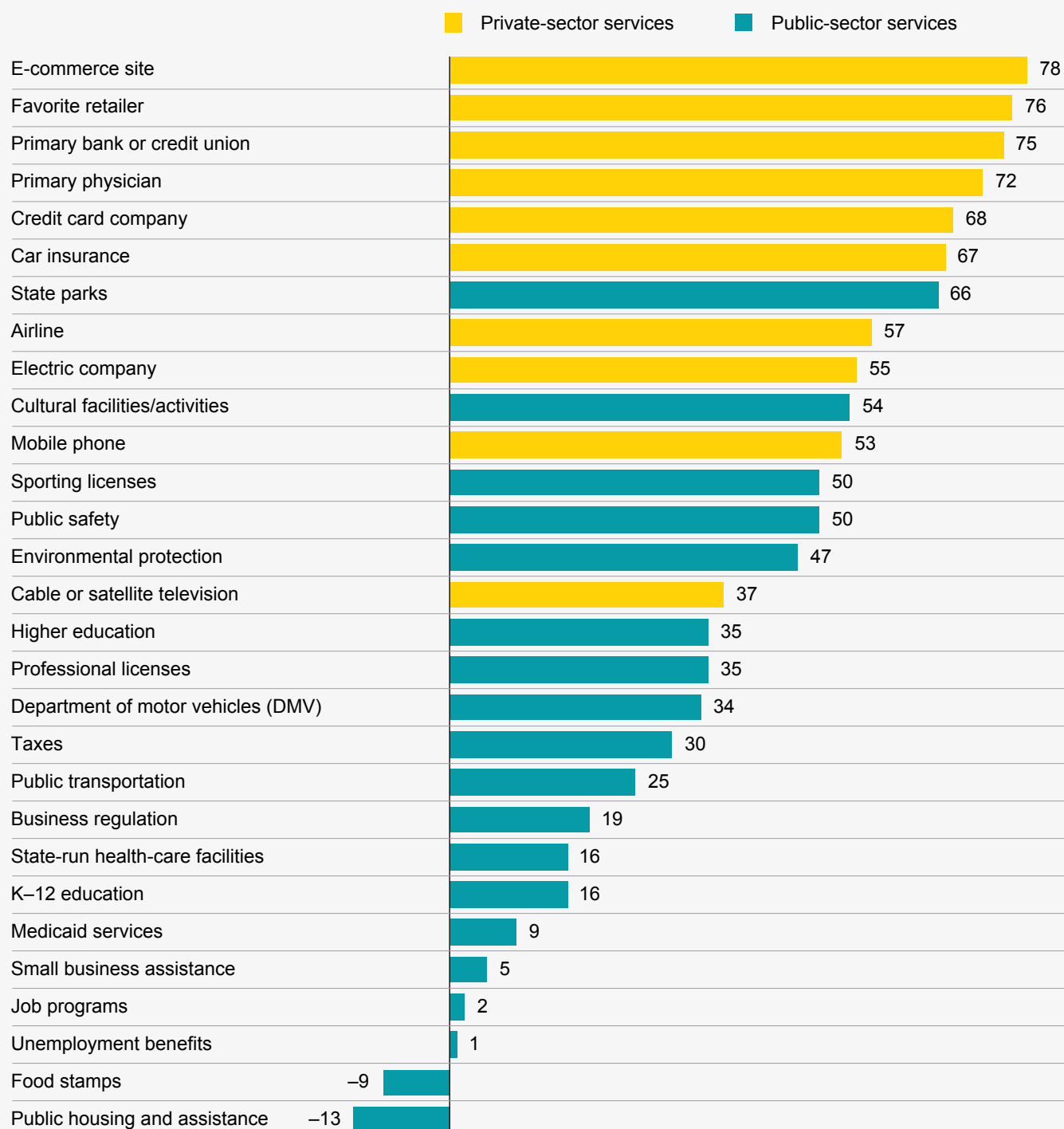


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Exhibit E2

In the United States, citizen satisfaction with public services is generally lower than with private services

Citizen Satisfaction Score (CSS) for private sector and state government services, United States, 2015¹



¹ Based on a survey of 17,000 citizens across 15 US states. CSS is calculated by subtracting the percentage of citizens who are dissatisfied from those who are highly satisfied.

SOURCE: *Putting citizens first*, McKinsey Center for Government, November 2014

productivity at the rate of the top-performing nations in their peer group,⁵ the world’s governments could potentially save as much as \$3.5 trillion a year by 2021—equivalent to the global fiscal gap projected by the IMF (Exhibit E3). Such savings would amount to 9 percent of government expenditure worldwide.

Of course, governments could also choose to use productivity improvements to deliver better outcomes for citizens rather than to make financial savings. For example, if all 42 countries in our sample had improved the productivity of their health-care systems at the rate of their best-practice peers, they would have added 1.4 years to the healthy life expectancy (HLE) of their combined populations over the past five years. That addition translates into 12 billion healthy life years gained—with no increase in per capita spending on health care.

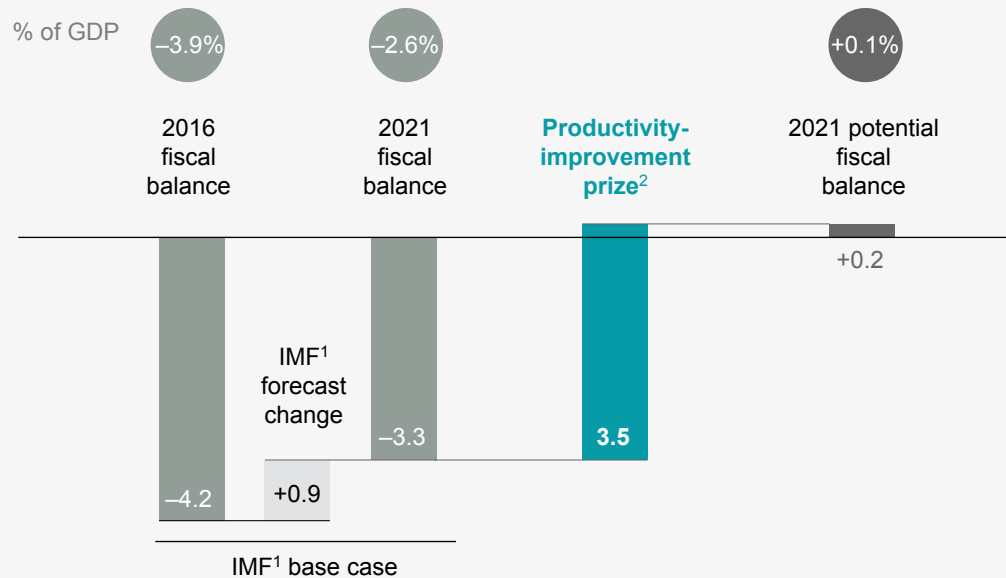
In primary and secondary education, such productivity gains would have brought the performance of the average school system up to the level of today’s top-quartile education nations, without spending more per student. And such improved activity would have enabled the 28 countries whose tertiary education systems we analyzed to enroll five million

⁵ Within each sector we analyzed, we sorted countries into peer groups that achieved similar outcomes (for instance, similar student test scores).

Exhibit E3

By seizing the opportunity to improve productivity, the world’s governments could potentially save \$3.5 trillion a year by 2021—equivalent to the global fiscal gap

World fiscal balance and productivity improvement potential
USD 2010 PPP, trillion



1 International Monetary Fund.

2 The \$3.5 trillion includes \$1.8 trillion of potential savings from seven core sectors (health care; primary, secondary, and tertiary education; public safety; road transport; and tax collection) and \$1.7 trillion from other sectors.

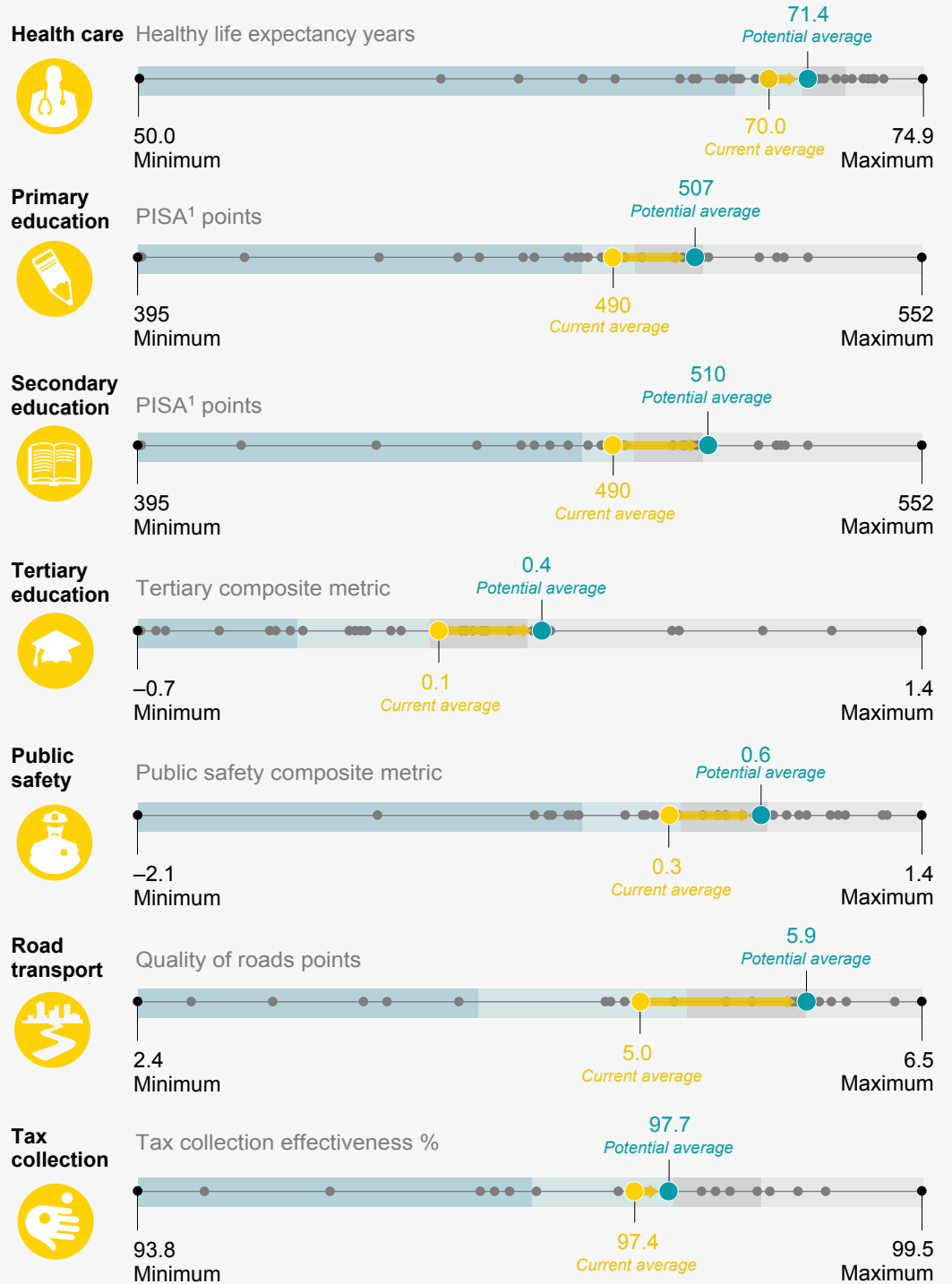
NOTE: These savings would result if all governments improved their productivity at the rate of the best improvers in their peer group and if they used that improvement solely to reduce expenditure.

SOURCE: International Monetary Fund; IHS Markit; McKinsey Center for Government GPS analysis

Exhibit E4

The productivity opportunity can deliver improved outcomes for citizens

■ 4th quartile ■ 3rd quartile ■ 2nd quartile ■ 1st quartile



1 Programme for International Student Assessment.

NOTE: These improvements show the outcomes that could have been achieved on average across the countries analyzed if all countries had improved their productivity at the rate of the best improver in their peer group and if they had used that improvement solely to improve outcomes rather than reduce expenditure.

SOURCE: McKinsey Center for Government GPS analysis

Our initial findings provide a vivid picture of the productivity trajectory in key areas of public spending and suggest there is massive opportunity for governments to improve their productivity.

more higher-education students at no additional cost. In tax collection, productivity improvements could have raised an additional \$55 billion in revenues—without increasing tax rates—across a similar group of countries (Exhibit E4).

The opportunity is tremendous. To realize it, however, governments need a clearer way to measure their productivity, compare it with that of their peers, pinpoint areas in which they can improve, and identify which countries are the best sources of replicable best practices—and so accelerate the diffusion of innovation in the global public sector. That need prompted MCG to develop the Government Productivity Scope (GPS) methodology to compare the efficiency and effectiveness of government expenditure across countries and sectors. This approach includes the GPS improvement score, the start of a new tool for diagnosing a country's productivity trajectory and benchmarking it against that of peer nations. Our analysis covered 42 countries that, combined, account for around 80 percent of global GDP. It focused on seven major sectors—health care; primary, secondary, and tertiary education; public safety; road transport; and tax collection.

This paper presents the first version of this analysis, which we will continue to extend and refine in dialogue with government leaders and academic experts. The GPS is not intended to provide definitive judgments about countries' productivity; rather, it can guide governments to focus on the most important questions about the efficacy of their spending. Indeed, our initial findings provide a vivid picture of the productivity trajectory in these key areas of public spending and suggest there is massive opportunity for governments to improve their productivity.

One thing that stands out from our analysis is the significant increase in costs per unit. In secondary education, for example, spending per student in the countries we studied increased on average by 14 percent in real terms from 2008 to 2014—a compound annual growth rate exceeding 2 percent. Over the most recent five-year periods we analyzed, we also saw rapid growth in average spending per capita on health care and road transport and in spending per student on primary and tertiary education. On average, the countries in our sample managed to contain unit costs in only two sectors—public safety (police and justice systems) and tax collection (Exhibit E5). While increased spending per unit has been accompanied by better outcomes in most sectors, these gains have been relatively small. This reality raises the question: have outcome improvements been sufficient to justify the additional spending?

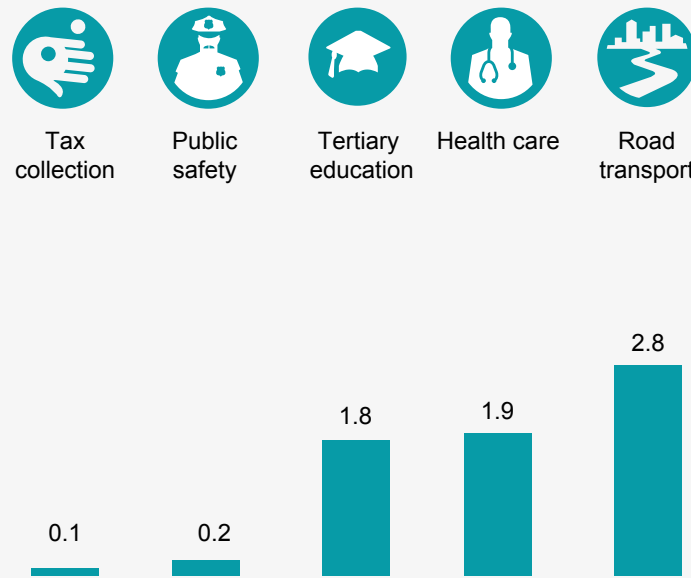
The real lessons, though, are to be found by looking at the variation of country performance within sectors, hidden by international averages. The results show many countries seem to be a long way from the frontier of efficiency. Within peer groups of countries that achieved similar outcomes (for instance, similar student test scores), the least-efficient country

Exhibit E5

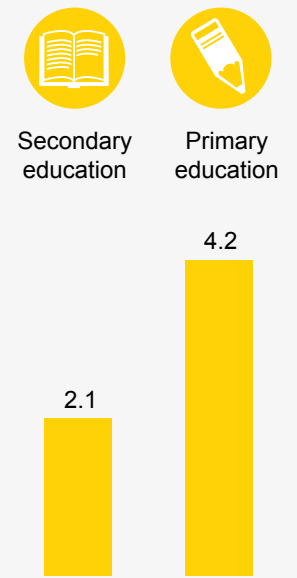
Cost per unit has increased ahead of inflation in all sectors, with mixed improvements in outcomes

Higher outcomes and higher cost per unit

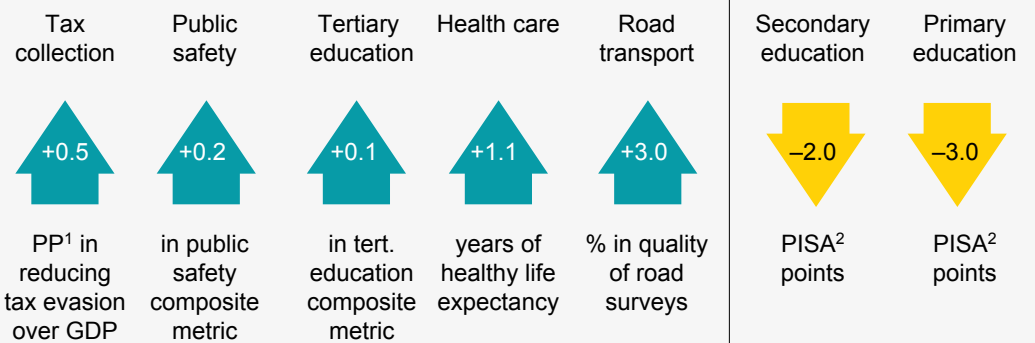
Most recent five-year compound annual growth rate of real cost per unit
%



Lower outcomes and higher cost per unit



Total change in outcomes over the most recent five-year period



1 Percentage points.
2 Programme for International Student Assessment.

NOTE: Figures reflect the most recent five-year period available given time lags between inputs, outputs, and outcomes. Six-year period for primary and secondary education. Efficiency measures are based on health care—expenditure per resident; primary, secondary, and tertiary education—expenditure per student enrolled; public safety—expenditure per resident; road transport—expenditure per passenger kilometer equivalent; tax collection—expenditure on tax collection per resident.

SOURCE: McKinsey Center for Government GPS analysis

typically spends at least twice as much per unit of output as the most-efficient country—and in some cases the differences are much greater. Similarly large differences exist in the rates of improvement in most sectors.

While most countries have struggled to constrain spending growth, we find examples in all sectors of countries reducing unit costs while also improving outcomes (Exhibit E6). This finding is particularly prevalent in tax collection: 50 percent of the countries we analyzed have driven down the incidence of tax fraud and evasion while reducing processing costs, thanks to both policy changes and the adoption of digital technology and advanced analytics. By contrast, in road transport, 16 percent of countries have reduced spending but only 4 percent have achieved improved outcomes while doing so. Yet case examples show that here, too, better data, processes, and talent management can unlock significant improvements.

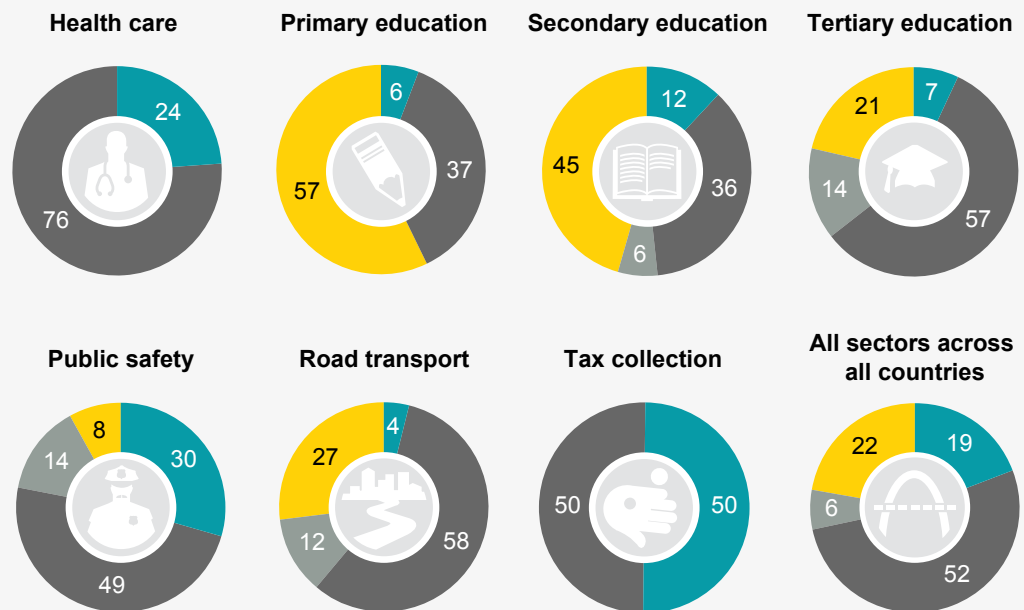
Of course, productivity variances between countries are driven in part by structural differences such as population density, topography, and cultural factors. For instance,

Exhibit E6

Most countries are improving outcomes for citizens—but they are typically spending more per unit to do so

Change in cost per unit of output (efficiency) and outcomes (effectiveness)
% of countries analyzed

- **IMPROVERS**
Higher outcome with lower cost per unit
- **SAVERS**
Lower outcome with lower cost per unit
- **SPENDERS**
Higher outcome with higher cost per unit
- **STRAGGLERS**
Lower outcome with higher cost per unit



NOTE: Figures may not sum due to rounding.

SOURCE: McKinsey Center for Government GPS analysis

education productivity in South Korea benefits from intensive parental efforts in addition to the schooling system, and health-care productivity in Italy benefits from the Mediterranean diet. But even quite similar countries present large differences both in current productivity and in rates of improvement over time, suggesting that governments' policy choices and public-sector management practices are a decisive factor.

Our sector-specific analysis shows that opportunities exist for major productivity improvements in each of the seven major sectors of the public sector.



Health care: Improving the health of populations *and* public finances. Health-care systems exist so that people can live longer, healthier lives. By this measure, countries are doing well. The average number of years that a person can expect to live in full health has risen in all 42 countries we analyzed, from an average of 66.6 years in 2000 to 70.0 years in 2015. This improvement has been accompanied by a significant increase in spending, partially driven by the aging of populations (Exhibit E7). Across these countries, real per capita expenditure on health care rose by an average of 69 percent from 2000 to 2015, outstripping both GDP growth and expenditure in most other sectors. With health care already accounting for an average of 13 percent of government spending, increases at this rate will be hard to sustain. But our findings are also cause for optimism. We find tremendous variation in the spending of countries with similar levels of HLE, suggesting opportunities to deliver better health outcomes at lower cost. This conclusion is supported by our analysis of how different countries' health-care productivity has changed over time. Countries such as Italy, Russia, and Spain actually reduced per capita health-care spending from 2009 to 2014 while improving HLE—but other nations spent as much as \$2,000 per capita for each additional year of HLE.



Primary and secondary education: Smarter ways to create great schools. Of the countries we studied, nearly half improved their school students' skills from 2009 to 2015, as measured by the Programme for International Student Assessment (PISA). Yet in most countries, spending per student has increased significantly in recent years. In secondary education, for example, it increased by 14 percent in real terms from 2008 to 2014. Behind these trends, however, there are wide variations in spending per student—even between comparable countries. For example, in primary education, spending per student in countries with best-performing school systems ranges from \$5,900 to \$12,000. Our research found equally wide variations in the investments countries have made to improve outcomes. Some, such as Poland, have achieved much better PISA scores while keeping spending per student in check, but other countries have incurred significant additional cost. At a time of fiscal constraint, governments should take a close look at ways to improve primary and secondary education outcomes in a more efficient manner. Rather than necessarily investing additional resources, they can rethink education approaches, such as finding ways to make teaching a more attractive career.



Tertiary education: Boosting quality and graduation rates at a sustainable cost. To measure countries' effectiveness in tertiary education, we created an outcomes score made up of three metrics: the percentage of enrolled students that graduate in any one year, the quality of teaching at major universities, and the value of tertiary education to graduates. This score reveals wide variation in tertiary education outcomes, even among countries with similar levels of spending. For example, among countries that spend between \$9,000 and \$14,000 per student per year, one nation achieved the highest outcomes score in our

sample while another in the same region scored close to the bottom of the class. These disparities remain when we focus on specific metrics. For instance, in countries that achieve teaching quality scores between 45 and 55 (on a scale of 1 to 100), spending per student ranges from \$10,000 to \$20,000. With governments struggling to finance the continued expansion of tertiary education, that finding points to a key opportunity to improve productivity. It can be done: countries such as Portugal have achieved significant increases in both teaching quality and graduation rates, with little additional spending per student.



Public safety: New approaches to policing and justice. To gauge how governments are doing at keeping people safe, MCG developed a composite public safety metric composed of four measures: reported homicide rates, public confidence in the police, public confidence in the judiciary, and perceptions of how safe it is to walk alone in one's neighborhood at night. The results show a very mixed picture. From 2010 to 2015, 28 of the 36 countries we analyzed experienced an improvement in safety, but the remaining eight saw it worsen. Moreover, the correlation between spending and safety is weak. Some countries achieve a high degree of public safety while spending around \$400 per person per year, while others spend more than \$800 per person for similar or lower results. Our analysis of improvements over time reveals equally high variance. Countries such as Latvia, New Zealand, and the United Kingdom significantly improved public safety from 2010 to 2015 while keeping spending per person constant or even reducing it—in part by driving greater efficiency through adoption of digital technologies. Others increased their per capita spending but achieved little or no improvement in outcomes.



Road transport: Ensuring infrastructure investment delivers better journeys. Governments are investing many billions of dollars in upgrading the world's road networks. Among the 26 countries we analyzed, total government spending on roads rose by an estimated 43 percent in real terms from 2000 to 2015. Despite this increase in spending, the reported quality of road transport has been flat or falling in nearly half the countries in our sample. To gauge countries' road-transport efficiency, MCG developed a metric—the “passenger kilometer equivalent” (pkme)—that combines the movement of both passengers and freight. Expenditure per pkme, or unit costs, for road construction and maintenance increased by an average of 21 percent from 2005 to 2010 across the countries we analyzed. In other words, governments are spending more to achieve the same levels of movement of people and goods. Only four countries—France, Switzerland, Turkey, and the United Kingdom—were successful in improving their efficiency on this measure. These findings show that many governments can do more to ensure investments in road transport return value to citizens, typically by more careful targeting, timing, and design of road investments.



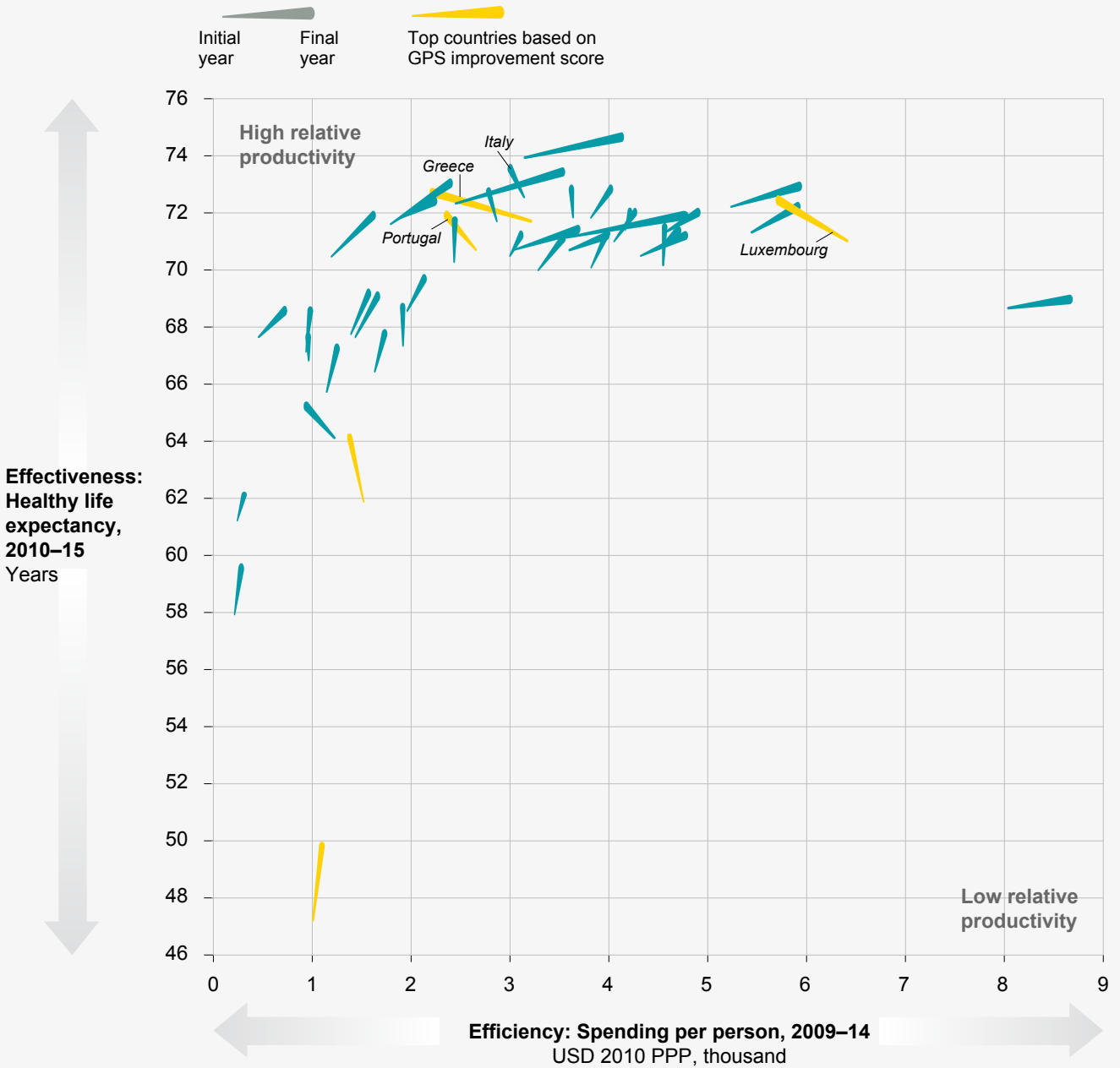
Tax collection: Targeting investments to boost revenues. We assessed the efficiency and effectiveness of 28 tax authorities from a mix of high-, medium-, and low-income countries. We found that all countries had reduced tax evasion in recent years and thus improved tax collection effectiveness—but some had done so while reducing expenditure per capita while others had spent considerably more to improve outcomes. Countries such as Denmark, the United Kingdom, and the United States improved tax collection while reducing per capita spending by more than 10 percent over a five-year period. That points to an opportunity for other countries to improve their tax systems' efficiency and effectiveness simultaneously—including through well-planned digitization efforts. Medium- and low-income countries

are more likely to need to spend more as they improve tax collection, but this extra expenditure is often well worth it if applied productively. In Turkey, for example, every additional dollar spent on tax collection has generated \$60 in revenues.

Exhibit E7

Beyond a certain point, additional expenditure on health care tends to not deliver large improvements in outcomes

Health care effectiveness compared with efficiency



NOTE: Structural differences between countries significantly impact both costs and outcomes. This chart does not correct for these structural differences, and it is therefore not appropriate to directly compare countries with each other.

SOURCE: McKinsey Center for Government GPS analysis

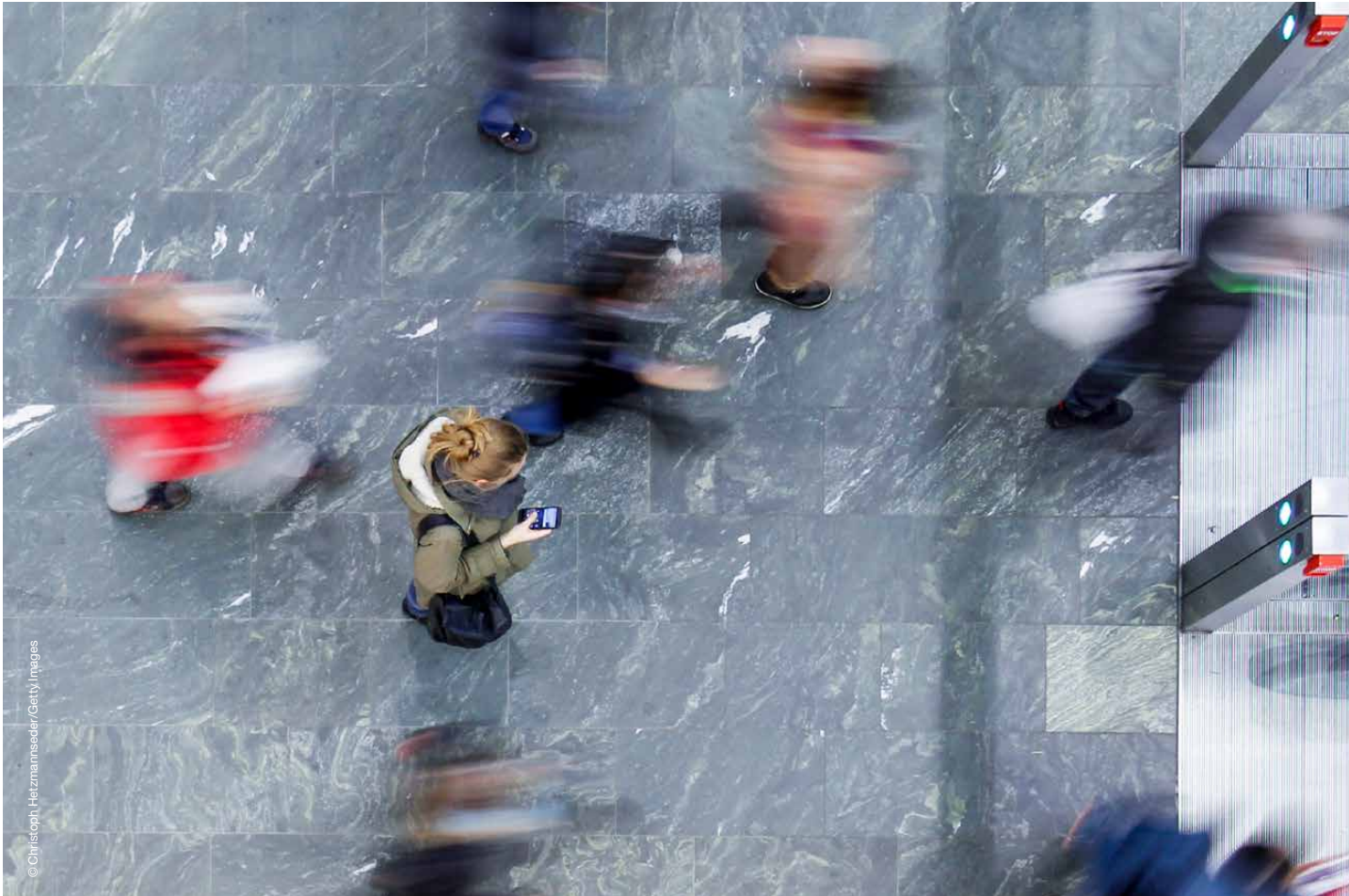
These vast differences in returns from spending suggest that by learning from the best performers, governments around the world could dramatically enhance their productivity overall and in several key sectors. Depending on a country's starting point, however, the path to closing this productivity gap will differ significantly. Many medium- and low-income countries, for example, have an opportunity to “leapfrog” ahead in productivity: as they continue to increase the coverage of their public services, they can look to best practices globally to understand what levers the most-improved countries have used to transform their services. This insight will enable them to achieve rapid gains in outcomes while maximizing the cost effectiveness of their spending.

As for high-income countries, it appears that many are experiencing diminishing returns from increased spending. For example, in health care and primary and secondary education, unit costs (per capita or per student) have generally risen significantly in real terms, while average outcomes have improved only marginally in health care and actually declined in education. Small improvements may still be worth the additional spending, but many governments would be well-advised to review the true value they're receiving for their expenditure in different sectors. Such reviews, alongside thoughtful benchmarking and learning from others, can play a central part in driving government productivity.

LEADING FOR PRODUCTIVITY: BUILDING FUNCTIONAL EXCELLENCE

Once a government has sized the productivity-improvement prize for its own country, how can it go about capturing that prize—and ensure that productivity gains are sustained over time? The experience of the pioneering countries we analyzed points to a common imperative in any effort to raise public-sector productivity: rethinking and reshaping key functional capabilities within the government. In addition to the policy function that has historically been at the center of government, the following four functions need to be strengthened to play a more strategic leadership role in pursuing efficiency and driving better outcomes:

- *Finance.* By taking on a more pivotal leadership role, the finance function can provide the information, insights, and incentives for public funds to be spent in ways that make a real difference to outcomes in every area of government. The finance function can also provide better data, guidance, and support to the line managers who deliver government services to citizens.
- *Commercial capabilities.* By cultivating excellence in commercial skills, governments can ensure that big-expenditure items such as procurement, major projects, and information technology (IT) are actively managed for value—and that they can unlock better performance from state-owned enterprises (SOEs).
- *Digital technologies and data analytics.* By building an effective digital function, governments can transform citizens' experience, save money, and boost outcomes. They can also use advanced analytics to reduce waste and pinpoint those government activities that work well to improve citizens' lives—and those that do not.
- *Talent management.* A strategic human resources (HR) function can ensure the entire government attracts and develops the talent needed to deliver better outcomes for less—and manages and motivates that talent to drive ongoing productivity gains.



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The insights presented in this report draw on the experience of both governments and businesses that have achieved a step-change in productivity. While governments differ from the private sector in many important ways, including vastly greater complexity in a more constrained environment, we find many parallels between the most successful cases of government transformation and the functional excellence the private sector increasingly deploys to strengthen performance.

Financial leadership: Taking a strategic approach to improving government productivity

Traditionally, government finance functions have been dominated by financial reporting, transactional, and compliance activities. In many countries, this role is reflected in the government department responsible for finance—often designated the “treasury.” These tasks are critical, but finance functions now need to expand their focus beyond budgeting and fiscal stewardship—and actively drive outcomes, identify productivity-improvement opportunities, and champion change. Our GPS analysis reinforces this conclusion: in many countries, increased government expenditure has not translated into material improvements in outcomes.

Our research—including interviews with a range of public-sector finance leaders—highlighted several examples of countries and regions where the finance function has adopted bold new approaches to setting, measuring, and driving outcomes. The leadership role is typically exercised in partnership with heads of state or other top government leaders. In most countries, the ministry of finance is the central driver of these practices; however, they apply much more broadly. Financial leadership capabilities are needed across the public sector—in other ministries, line agencies, and regional and city governments.

To help unlock a step-change in government productivity, finance functions can apply the following five disciplines:

- *Get data and analytics foundations in place.* To serve as effective navigators of the journey to greater government productivity, finance leaders must have accurate, timely data and insightful analysis at their fingertips. Acquiring this data is often a challenge due to reliance on manual processes and legacy systems, as well as the difficulty of mapping inputs to outputs and outcomes in a complex environment. Finance functions that master this challenge can play a much more effective role in monitoring performance, setting targets, and allocating resources. Data can also bring light to specific issues. In the United Kingdom, the government has used citizen-level data to track anonymized individuals through their lives and correlated their education paths with their employment and earning levels. This tracking has helped identify the economic “return on investment” from different types of education expenditure at a high level of granularity.
- *Run periodic benchmarking and spending reviews to understand department-level spending productivity.* With a foundation of robust data, finance functions can take their role to a more strategic level. First, they can use their data and analytics capabilities to benchmark the efficiency and effectiveness of departments—both among similar units in the same sector, against other public services within their country, and against peer nations around the world. Second, finance functions can work with departments to undertake comprehensive spending reviews that stress test spending and realign government budgets around national priorities. In the private sector, companies that undertake such reviews on a frequent basis, and are therefore quick to reallocate resources to new priorities, tend to deliver significantly higher shareholder returns than their peers. By contrast, most governments change their spending allocations only marginally year over year, suggesting that an opportunity exists to review and readjust spending much more boldly (Exhibit E8). Governments that have undertaken such reviews have often identified savings of around 10 percent or more of the target cost base, without sacrificing the scope or quality of services.
- *Develop ongoing performance dialogues with departments and strengthen adherence to budgets and goals.* Alongside periodic spending reviews, finance functions can also develop a more continuous, collaborative relationship with delivery organizations and their budget holders—and thus monitor and discuss performance on an ongoing basis rather than on a rigid annual cycle. They can back up these ongoing dialogues with effective compliance mechanisms and fiscal rules. Denmark, for example, implemented a budget law in 2012 that directs the minister of finance to impose economic penalties on ministries or local governments if they breach their respective expenditure ceilings.
- *Coordinate strategic thinking so spending drives long-term social and economic outcomes.* Governments will always be subject to short-term political and economic pressures. But sustainable productivity transformations take several years and therefore require a long-term view. The finance function can lead on this view by acting as a strategic coordinator across the government to tackle large, cross-cutting issues and to ensure clear, non-politicized, and programmatic tracking of progress and delivery. It can also foster new approaches, technologies, and service-delivery models

across government by ensuring that appropriate investment is dedicated to innovation. For example, New Zealand has set ten cross-cutting, five-year targets to improve public services while strengthening government finances. The targets range from reducing crime to increasing participation rates in early childhood education, and each is driven by a collaborative, multiagency team reporting to the prime minister.

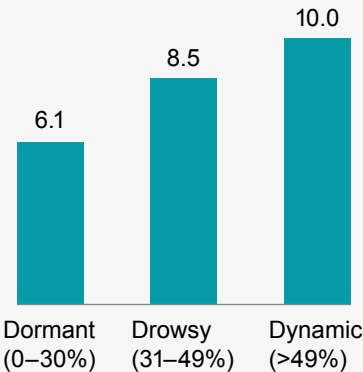
- Actively manage the government balance sheet to unlock value.** In most countries, governments hold assets and liabilities worth trillions of dollars, but few have truly optimized their management to deliver value to taxpayers and citizens. In Organisation for Economic Co-operation and Development (OECD) countries alone, one estimate suggested that governments own sellable land and buildings worth up to \$9 trillion. Governments’ liabilities—such as pensions and explicit and implicit guarantees—have lives extending decades into the future. To gain clarity on opportunities to release value, governments can establish and scrutinize a comprehensive balance sheet using a broad definition of assets and liabilities. They can also develop an accurate view of “subspending,” such as implicit guarantees, and a robust process to challenge and change current arrangements. For example, Sweden undertakes portfolio reviews involving structured analysis of state-owned assets to determine the extent to which they satisfy predetermined, rigorous criteria for ongoing public ownership.

Exhibit E8

Most governments change their spending allocations only marginally year-on-year, suggesting an opportunity to improve allocative efficiency

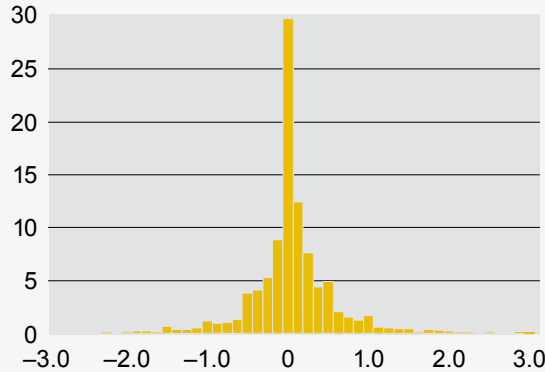
Companies that reallocate budgets dynamically tend to deliver higher shareholder returns

Median total shareholder return growth rate by degree of capital reallocation, 1990–2010
Compound annual growth rate, %



By contrast, in governments, fewer than one in ten sector budget allocations in EU governments changed by more than 1 percent

Frequency with which sector allocation changed year-on-year, 2006–14
Total reallocations¹ across EU countries, %



¹ 1 Percent of total budget spend for each Eurostat sector of culture, defense, economic affairs, education, environmental protection, general government, health, housing, legislative/executive, old age, public debt transactions, public safety and order, sickness and disability, social protection, transport, and unemployment.

SOURCE: Eurostat government expenditure statistics; McKinsey Center for Government analysis

The business of government: Boosting commercial capabilities

Governments not only account for 34 percent of global GDP but they are also the largest single purchaser of goods and services in many countries. Across all categories, public-sector procurement is estimated to total more than \$9 trillion annually.⁶ In addition, many SOEs are among the world's largest corporations. Together, governments and SOEs are responsible for delivering many of the most important and complex capital projects. All these factors make “the business of government” a critical component in efforts to improve public-sector productivity. While several governments are driving real advances in commercial disciplines, our research shows that there is still much to be done. Our analysis points to the following three specific avenues for improvement:

- *Smarter procurement can save governments around 15 percent of addressable spending while simultaneously boosting outcomes.* Governments can drive these procurement improvements through strengthened supply management, demand control, and processes (for example, e-tendering portals). For instance, a US agency achieved savings of about \$100 million in IT spending, partly by eliminating unnecessary software licenses and enforcing existing rules on the allocation of electronic devices. Denmark's cross-government procurement program saved about \$80 million in annual expenditure in the first wave alone, which focused on computer hardware, office supplies, equipment, and furniture.
- *Better governance can unlock value in SOEs.* In many countries, SOEs are responsible for the delivery of critical services such as water, electricity, transport, and telecommunications, which makes them substantial components of local economies. Some SOEs demonstrate strong commercial capabilities, and indeed there have been many efforts in recent years to strengthen SOE performance. But there is still room to improve, and better governance is a key way of doing so. One particularly effective approach is to establish “government holding companies,” with professional boards, that set clear objectives and targets for SOEs, select their top management, and monitor their performance.
- *Improved management of major projects could save up to \$1 trillion per year across governments.* Major IT, defense, and infrastructure project pipelines are often worth up to 20 percent of a country's GDP. In general, public-sector institutions can reduce project costs and increase returns by requiring that all projects have a clear business case, ensuring enough time is spent on up-front design to reduce cost overruns later, streamlining project delivery, and making the most of existing assets. MGI estimates that governments could save up to 40 percent of infrastructure project costs by implementing these approaches.⁷ In IT, avoiding risk-prone “megaprojects” is also key. For example, the Netherlands tax authority has capped projects at \$10 million and with a length of one year, and Estonia avoids the risk of cost and schedule overruns in large IT projects by breaking them up and sequencing them into smaller modules.

Upgrading to a digital and data-enabled government

In the public sector, as in the private sector, digital technologies and advanced data analytics are poised to deliver major dividends. Previous McKinsey research has estimated that

⁶ “Size of public procurement,” in *Government at a glance 2015*, OECD, July 6, 2015.

⁷ Cem Dilmegani, Bengi Korkmaz, and Martin Lundqvist, “Public-sector digitization: The trillion-dollar challenge,” *McKinsey Quarterly*, December 2014.

digitization could deliver productivity improvements worth at least \$1 trillion across the global public sector.⁸ For governments, digitization and data analytics can drive step-change improvements in efficiency, effectiveness, and citizen satisfaction—often all at the same time. To achieve these improvements, governments can focus on the following four key areas:

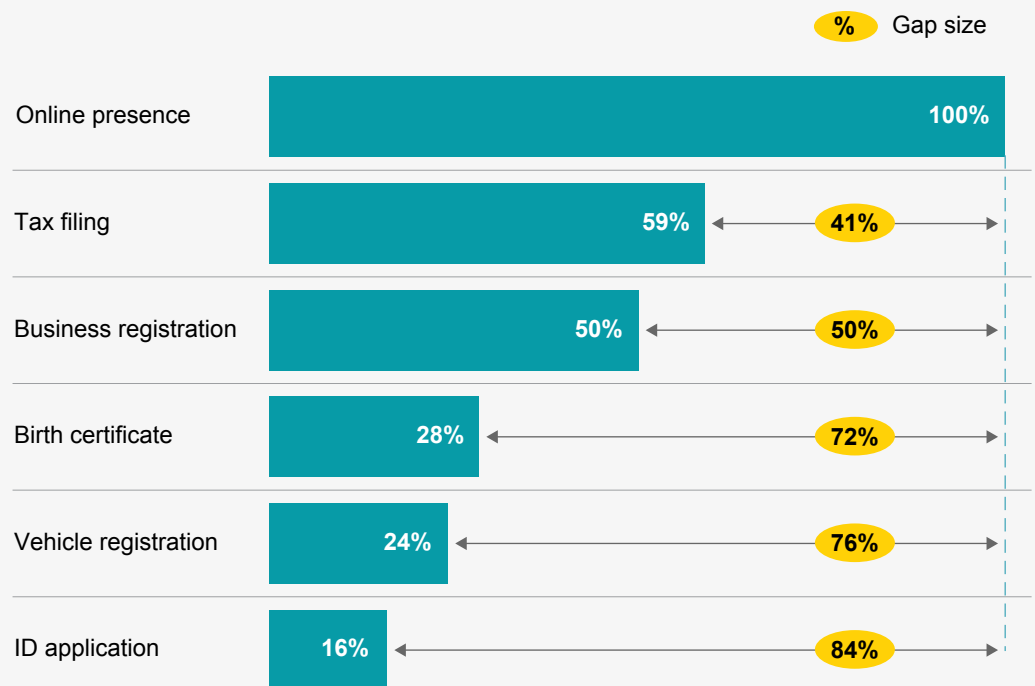
- Services: Digitizing interfaces with citizens.** Practically all governments now have websites, but these sites do not improve citizens’ experience if they must still queue or call to apply for an identity card, register a vehicle, file taxes, or set up a business—as is the case in most countries (Exhibit E9). Increasingly, governments are seeking ways to use digital tools and channels to simplify and streamline their interactions with citizens and businesses. Digitizing these interfaces can save costs and improve outcomes; fewer in-person interactions can result in rationalization of facilities, while citizens can expect quicker, more consistent, and more personalized services. The results can be impressive. The Pension Fund of Baden-Württemberg, in Germany, replaced paper-based archives with a single digital archive, thus reducing citizens’ access time by more than 99 percent—from days to seconds. The United Kingdom kicked off its digital transformation program by digitizing 25 basic services such as voter

⁸ *Infrastructure productivity: How to save \$1 trillion a year*, MGI and the McKinsey Infrastructure Practice, January 2013.

Exhibit E9

Practically all governments have websites—but many still require citizens to fill out forms and stand in line for common services

% of countries that have selected features and services available online



SOURCE: *E-government survey*, United Nations, 2016

and motor vehicle registrations, saving \$300 million a year and greatly improving citizens' experiences.

- *Processes: Automating and redesigning manual tasks.* Digitizing behind-the-scenes processes offers the greatest potential for efficiency gains in the public sector, with significant resource and processing-time savings possible. To transform a process effectively, governments need to digitize the entire chain of activities that make it up—which may mean simplifying and reengineering a process that cuts across multiple departments. Singapore, for example, has fully digitized its process for registering a company, shortening the time required to just 15 minutes in most cases. It also automatically issues notices of incorporation to companies, so business owners don't have to look them up. However, getting automation right is difficult, and the risk of "digitizing waste" is real. Many well-intentioned digital efforts have turned out to be costly, time consuming, and unhelpful—particularly if incomplete. One city government we interviewed admitted that it offers an online front end for citizens to submit forms but still prints out the completed forms and manually processes them at the back end.
- *Decisions: Integrating advanced data analytics.* One big advantage of digital technology is that it allows organizations to make more accurate predictions and more intelligent decisions by analyzing vast amounts of data. The range of opportunities is huge. One US state police unit used data from previous years to determine when and where armed robberies were most likely to take place, leading to a 40 percent reduction in those crimes. When the Australian Taxation Office wanted to reduce the number of improper refunds paid out due to error or fraud, it created algorithms employing social network analysis and visualization tools to identify and understand complex relationships among individuals, trusts, and partnerships. These efforts prevented incorrect payments worth \$500 million in one year alone.
- *Data sharing: Involving citizens in solutions.* Governments are starting to digitize their data, consolidate their stores of information, and share them, first among agencies and then with the public. This effort brings several challenges, including consolidating data from multiple separate systems and protecting citizens' and businesses' privacy. But the rewards for getting it right can be considerable. Turkey's Integrated Social Assistance Services System (ISASS), for example, enables all social assistance processes to be carried out on an electronic platform, where data can be exchanged directly with citizens, municipalities, and non-profits. By integrating data from 22 public institutions and 1,000 local social-assistance offices, ISASS has improved the management of services, as well as the transparency of resource allocation. Another successful example is found in the US city of San Francisco, which, like many others, offers open access to real-time transit data. This openness has reduced calls to the city's service center by 22 percent, resulting in savings of \$1 million annually.

The governments that are the most successful across these four digital capabilities have implemented a number of approaches to support and accelerate their shift to digital. Although there is no single recipe, our research points to four key enablers: articulating a clear strategy for harnessing digital to meet productivity objectives; putting in place

strong governance to consolidate and coordinate digital delivery; ensuring the right leadership, talent, and culture through training and recruitment; and standardizing the underlying technology infrastructure.

The center of government has an instrumental role in driving these enablers—especially as many government agencies have a deeply ingrained preference for operating independently, and digitization can involve considerable coordination. In both national and local governments, we observe central digital functions taking on some combination of three different roles: a strategy shaper and coordinator, which entails the development and coordination of a digital strategy and setting of the accompanying policies; a “center of excellence,” which brings together the expertise of specialists focused on particular areas—often new capabilities where skill gaps exist within departments; and a development and solution center, where the central unit actively delivers components of a government’s digital strategy.

The talent to lead: A new approach to human resources

If governments are to achieve a step-change in productivity, they will need a new approach to talent and leadership. They will need to find, or develop, a range of functional skills that are currently underrepresented in the public sector—such as technologists, data analysts, and commercial project managers. They must also strengthen several key leadership competencies, including strategic foresight, mastery of delivery, effective change management, and the ability to foster rapid innovation.

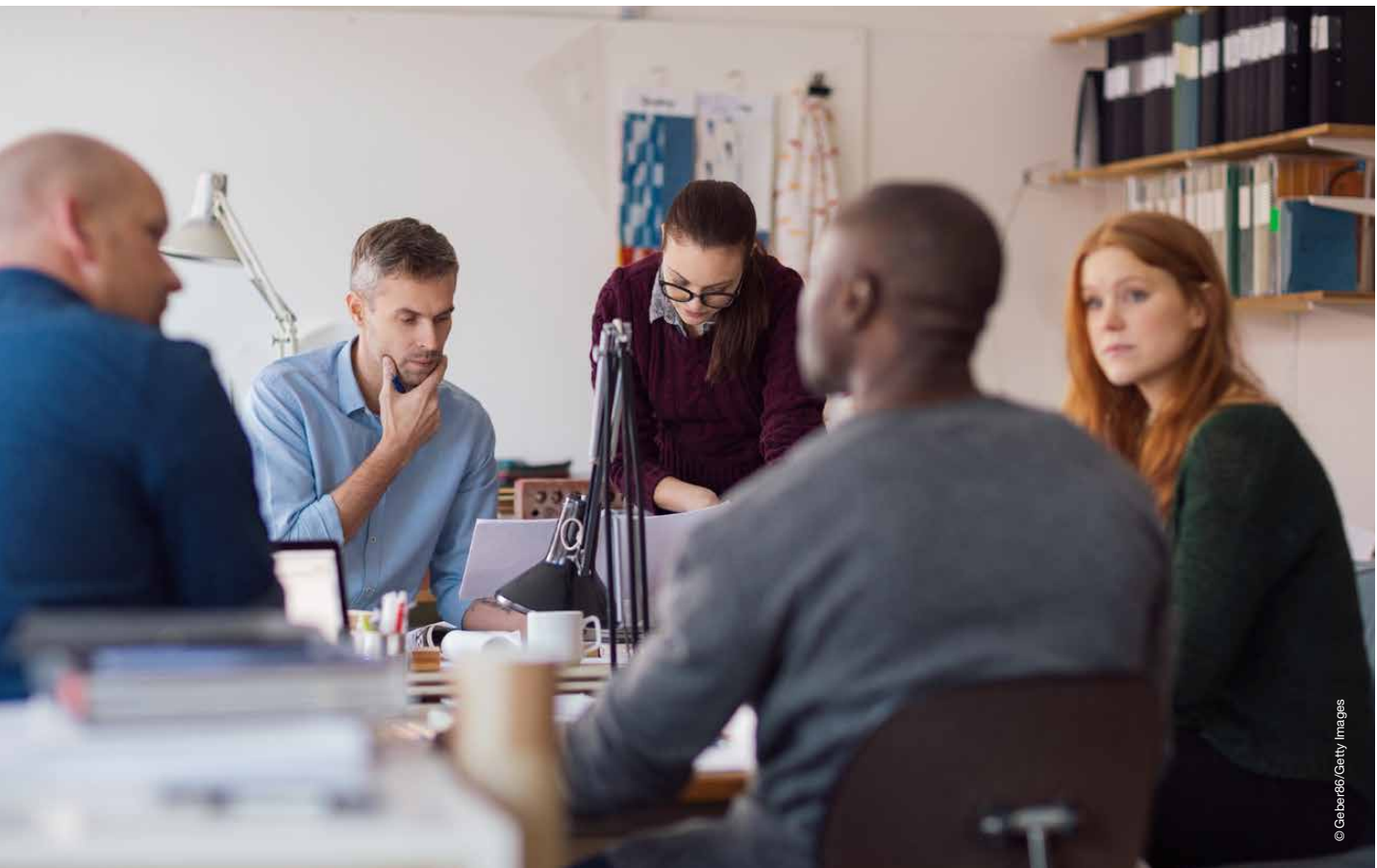
In many cases, governments will need to look outside their current organizations to find the skills they need, both to tackle immediate challenges and to build their capabilities for the long term. That process will require a keen understanding of the changing labor market, particularly the expectations and motivations of younger workers. It will also require smart approaches to attract the right talent into government, as well as the readiness to draw on external contractors, secondments from the private sector, and even volunteers when needed.

Just as important, governments will need to find new ways to manage and mobilize their vast existing workforces—and to inspire and energize their senior managers. Public-sector organizations often have deep capabilities and dedicated cultures of service, but a drive for greater productivity will call for new levels of agility and adaptability. As one key step to develop leaders and broaden their perspectives, governments can make more frequent use of job rotation between agencies and departments and create greater “permeability” between public- and private-sector careers.

Public-sector organizations often have deep capabilities and dedicated cultures of service, but a drive for greater productivity will call for new levels of agility and adaptability.

To master these complex talent challenges, public-sector HR leaders will need to step up to a new role, encompassing the following four imperatives:

- *Reimagine and reconfigure the HR function as a strategic confidant of civil-service leaders.* An HR function with the right authority and visibility can build a cross-government view of talent needs, deploy efficient recruitment channels, facilitate interdepartmental transfers, and work with leadership and unions across departments to implement change. It can also drive transformation in the HR function itself, ensuring the simplification and alignment of HR processes and the adoption of performance-management standards. The Public Service Division of Singapore is one example. Reporting directly to the prime minister's office, it sets employment policy and standards for the entire government. It is also responsible for developing leaders within the civil service and works closely with the country's Civil Service College to build public-sector capabilities.
- *Develop and communicate clear, targeted value propositions to attract the right talent in a competitive labor market.* Governments need to understand the priorities and career expectations of workforce segments that are underrepresented in the public sector—including younger workers and women—and figure out how to attract target roles such as digital specialists. Based on that understanding, governments



can create targeted recruitment strategies to attract people with specific experience, skills, or intrinsic qualities. For example, the Singapore Police Force (SPF) targets smart, ambitious young men and women who are seeking a challenge. It reaches out to them via digital channels, including an online library of videos showing actual police work and an engaging Facebook page that has received more than half a million “likes.” But governments need to make sure the actual experience of new recruits matches the promises made in such communications. One challenge to overcome is the long lead time in public-sector recruitment, which typically takes twice as long as that in the private sector.

- *Engage the workforce and energize leaders to drive productivity.* Even with the right talent on board, governments face a deep-seated challenge in motivating and managing their workforces for high performance. One part of this challenge is the sheer scale of the government workforce. In OECD countries, public-sector employees typically make up more than 20 percent of the total workforce. Moreover, public-sector institutions generally lag behind private-sector businesses in organizational health, including in critical elements such as motivation and leadership effectiveness. That deficiency points to a need for governments to strengthen their general management and performance management practices. For example, when the Danish government embarked on a top-to-bottom HR modernization effort, it began with an open and honest review of how to evaluate staff. As a result, it adapted its evaluation criteria to give greater weight to delivery and execution capabilities. Alongside such efforts, governments can do more to create compelling career pathways for talent—including encouraging greater mobility across departments and sectors and fostering permeability between public- and private-sector careers.
- *Draw on the talent of external partners and volunteers.* Not every public service has to be performed by the public sector. When properly designed, meaningful partnerships with private-sector and non-profit organizations can greatly improve the quality and speed of public-service delivery. Many governments have brought top external talent into the public sector on a temporary basis through secondments. The use of volunteers can also achieve major impact. An example is the Estonian Defense League’s Cyber Unit, a voluntary organization that helps protect Estonian cyberspace. The unit consists of hundreds of civilian volunteers, including specialists in cybersecurity as well as teachers, lawyers, and economists. This volunteer army is constantly on hand to respond to cyberattacks on Estonia’s information infrastructure and has become an example for other governments around the world.

MOVING TO ACTION: REAL-WORLD LESSONS ON GOVERNMENT TRANSFORMATION

To realize the productivity-improvement opportunity in a particular sector—and to develop the cross-cutting functional excellence needed to boost productivity across all sectors—governments must shape far-reaching transformations. That won’t be easy: governments are typically large, complex, and cautious about change. Any change effort must navigate tensions between political appointees and permanent staff, the competing needs of multiple stakeholders, and the glare of constant media attention. Not surprisingly, at least 60 percent of public-sector transformations fail to achieve their targets. Governments

that overcome these odds create clear direction for change, build a well-oiled delivery “machine,” and drive continued engagement to sustain momentum beyond the political cycle. We describe these imperatives as the three dimensions of government transformation. Each requires a very different mindset and approach.

Direction: Create a compelling vision and a clear strategy for change

To create clear direction, governments must craft a powerful, overarching vision that can focus the efforts of multiple departments, break through organizational inertia, and provide a rallying cry that remains fresh and relevant for several years. They also need to translate that vision into clearly defined strategic priorities and quantified objectives. To get it right, leaders must be ready to engage in debate and disruptive thinking—and to listen to the priorities of citizens and the ideas of outside experts.

Two government experiences provide successful examples. In setting objectives for France’s 2009–13 transformation program, government leaders built a deep understanding of what citizens actually valued. They discovered a strong desire to simplify “life events” that involved interaction with the state—such as getting married or opening a business. That finding prompted the government to define “simplicity” as the key metric in the transformation. Malaysia’s Economic Transformation Program, launched in 2010, had a single, overarching vision: to make Malaysia a high-income nation by 2020. With that clear objective in place, the government convened about 1,000 leaders from across society to identify the 12 priority sectors that would drive the transformation.

Delivery: Build a consistent process to manage implementation

Once the direction of the transformation has been clearly defined, it is time to shift to a very different mode: delivery. What is needed now is a well-oiled machine that runs a tireless, consistent process to keep things moving according to plan.

To ensure effective coordination, several governments have established delivery units—small, agile, cross-functional teams comprising exceptional personnel who have direct access to top government leadership and a clearly defined institutional role to drive delivery across departments. An example includes Sierra Leone’s President’s Delivery Team, which was charged with managing the country’s recent Ebola crisis recovery program.

Whether delivery is managed by such a unit or by an existing entity, it is essential to create detailed implementation plans, define robust performance indicators and milestones, and use hard data to monitor progress. These plans must be underpinned by the right financial framework. Transformations should not be starved of the resources they need; but savings and improvements are not guaranteed if they are not carefully tracked. Finally, governments need to ensure that ministers and civil servants are accountable for results—including by publicizing targets and performance against them.

Drive: Sustain the momentum for change

When a change program is delivering early results, those should be celebrated—but the key to a successful transformation is to build the momentum and organizational capabilities to sustain improvement over the longer term. To do so, governments need to provide inspirational leadership, communicate effectively with citizens and civil servants, and

strengthen their organizations' capabilities and broader health. In this way, they can institutionalize a focus on productivity improvement—and the capacity to deliver it—across government. Such institutional know-how will outlive specific change initiatives.



Higher productivity is not an end in itself; it is a way to enable governments to deliver a better experience for citizens, do a better job of tackling the greatest societal challenges, and remain within their fiscal constraints. Several governments are already boosting efficiency while improving the services they offer to citizens. Other governments can do the same by creating a more accurate picture of their own productivity trajectory, learning from peer nations, and having fact-based discussions about what outcomes are wanted for what amount of spending. That way, governments can improve productivity in the outcomes that matter most to citizens—from healthier lives to better education to safer streets. We characterize this new, more productive state as “Government 3.0.” Achieving it will require a transformation every bit as significant as the professionalization of the civil service (or “Government 2.0”). The impact on citizens' lives is likely to be even more profound. ■



PART I

BETTER OUTCOMES FOR LESS

The government-
productivity opportunity



Pressure on public services is increasing, and governments must tackle complex challenges ranging from economic inequality to the threat of terrorism—yet budgets are under increasing strain in many countries as populations age. There is an urgent need to transform the public sector’s capacity to convert resources into impact in the societal outcomes that matter most.

That is where the concept of government productivity is key: productivity is a vital measure of the performance of national economies and private-sector businesses, yet until now limited progress has been made on measuring it in the public sector. As a result, it is difficult for governments to gauge the true return on their spending, contributing to inefficiency in many areas of state activity. The lack of a robust productivity measure also inhibits effective sharing of best practices among governments, leading to slower diffusion of innovation in the public sector compared with the private sector.

The good news is that several pioneering governments at the national, regional, and city levels are already demonstrating that step-change improvements in public-sector productivity can be achieved. Further, these governments have often delivered meaningful productivity improvements in a short time span.

In Part I of this paper, we shine a spotlight on the opportunity to transform public-sector productivity and showcase examples of success from around the world. Part II of the report draws inspiration from these pockets of excellence and paints a practical road map for delivering greater social and economic value for every dollar, euro, or peso spent.

WHY GOVERNMENT PRODUCTIVITY MATTERS NOW MORE THAN EVER

The demands on government have never been so great—yet the global public-sector deficit is almost \$4 trillion a year.⁹ Many governments are struggling to translate finite resources into meaningful progress on complex challenges such as tackling economic inequality, meeting the health-care needs of an aging population, and ensuring security in an uncertain world. They face a steep challenge in achieving the fast, efficient service delivery that citizens have come to expect in the 21st century. As a result, citizen satisfaction with government is low, fueling the crisis of trust in governments emerging in many countries.

LEVIATHAN RISES: THE UNPRECEDENTED SIZE AND SCOPE OF GOVERNMENT

Writing in the 17th century, Thomas Hobbes envisioned government as the leviathan—a mythical sea monster of massive proportions—that would eventually be intimately involved in the lives of every citizen.¹⁰ And indeed, in the ensuing 500 years the leviathan grew substantially in oversight and influence, reaching into countless aspects of 21st-century daily life.

The state was tiny in Hobbes' time, and only in the 20th century did government expenditure as a proportion of GDP begin to rise at a rapid rate (Exhibit 1). In 2015, expenditure amounted to 34 percent of global GDP, or a total of \$35 trillion.¹¹ Some of the most rapid growth is recent; from 2005 to 2015, annual government expenditure per capita increased by more than one-third in real terms, from a global average of \$3,600 to nearly \$5,000.¹²

This growth in government spending reflects the rapid increase in incomes in many developing countries (Exhibit 2). As countries become more prosperous, they tend to spend a greater proportion of their GDP on government services, social benefits payments, and public infrastructure.¹³ But even in many high-income countries, where the baseline proportion was already higher, we have seen an increase over the past 15 years. In France, for example, total public spending rose from 51 percent of GDP in 2000 to 57 percent in 2015. In Italy, it rose from 46 percent to 51 percent over the same period, and in the United Kingdom it rose from 34 percent to 40 percent.

Rising spending, growing demand on government services

Across the globe, state growth reflects steadily increasing commitments in many of the main areas of government spending. In health care, for example, MCG's analysis shows

⁹ The sources of the GDP and other key figures cited in this report, together with our methodology and core assumptions, are set out in the technical appendix, available online at www.mckinsey.com/government-productivity.

¹⁰ Thomas Hobbes and J. C. A. Gaskin, *Leviathan*, Oxford: Oxford University Press, 1998.

¹¹ All dollar figures shown in Part I of this report are in 2010 US dollars at purchasing power parity (PPP) unless otherwise stated.

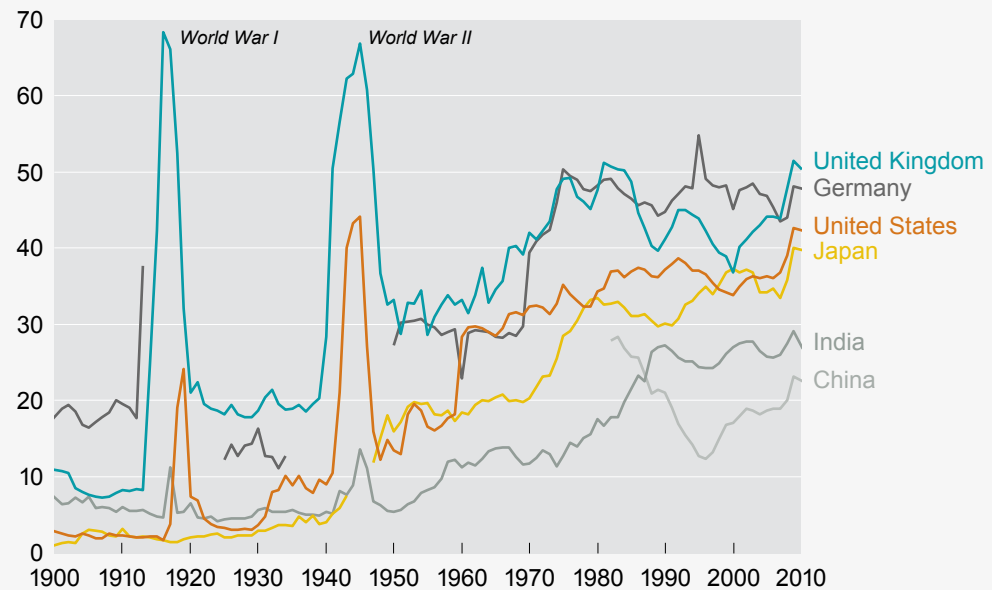
¹² This sharp increase in spending was partially as a result of the 2008–09 financial crisis.

¹³ Several economic studies have found that as countries' levels of income and economic development increase, they tend to devote a greater proportion of GDP to public expenditures. For example, see António Afonso and João Tovar Jalles, "Causality for the government budget and economic growth," *Applied Economics Letters*, volume 21, number 17, 2015.

Exhibit 1

Governments' scope and share of the economy has expanded dramatically over the past century

Government expenditure (excluding interest payments), 1900–2010
% of GDP



SOURCE: Paulo Mauro et al., *A modern history of fiscal prudence and profligacy*, International Monetary Fund working paper number 13/5, 2013

that real per capita expenditure rose an average of 69 percent from 2000 to 2015 across 42 countries that represent four-fifths of world GDP. (We present this analysis in detail in the next chapter.) In total, the World Health Organization (WHO) estimates that global public health-care expenditure doubled from around \$2.5 trillion in 2000 to more than \$5 trillion in 2015—well ahead of the growth in world population, which increased by around 20 percent over this period. These trends are indicative of the aging populations in many countries, the expansion of health-care services in the developing world, and the increasing sophistication and cost of medical treatment.

Education, another major area of government responsibility, is also costing more. In the countries we analyzed, spending per student in primary and secondary education increased by around 30 percent in real terms from 2005 to 2015. Spending per enrolled student in tertiary education rose 13 percent over the same period.¹⁴ In road transport, the countries in our sample increased government spending per kilometer traveled (by people and goods) by 14 percent in real terms from 2005 to 2012.

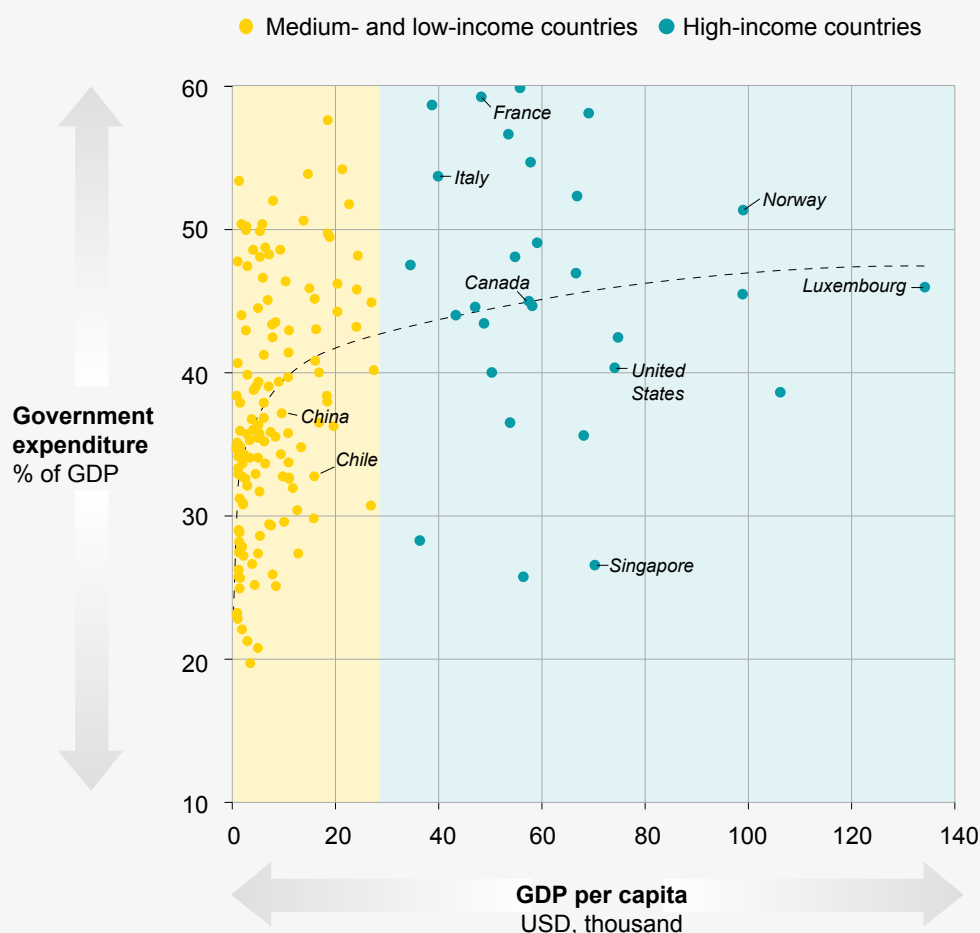
Governments must balance the increasing financial demands of these sectors with a growing commitment to finance social benefits. Defined as payments in cash or in kind,

¹⁴In education and health care, our spending analysis includes both public and private expenditure. Across our sample countries, public expenditure accounts for more than 90 percent of total spending in primary and secondary education on average, and it accounts for around 70 percent in health care and tertiary education. These proportions have remained stable over the past decade.

Exhibit 2

Government expenditure as a share of GDP is higher in more prosperous countries

Government expenditure compared with GDP per capita, 2015



NOTE: Data from 166 countries; medium- and low-income countries defined as those with GDP per capita lower than current \$25,000 in 2015.

SOURCE: International Monetary Fund

including pensions and unemployment compensation, social benefits represents the largest category of public spending worldwide. In 2014, it accounted for 31 percent of government expenditure and around 13 percent of global GDP.¹⁵ Since 2000, medium- and low-income countries have increased the share of GDP they spend on social benefits to an average of 9 percent, from 8 percent, while high-income countries have experienced an even sharper increase, to 18 percent of GDP, from 15 percent.

Given the growth in the size and responsibilities of the state, government employees now constitute a major share of the workforce in most countries. In OECD countries, the public sector employed on average 21 percent of the total workforce in 2011, and

¹⁵Based on analysis of 52 countries with social benefits expenditure data.

in Denmark and Norway this figure was as high as 35 percent. Public-sector wages represent, on average, around 10 percent of GDP and between 20 and 35 percent of government expenditure in most regions. As we discuss in Chapter 6, managing and motivating a workforce of this size is an immense HR challenge.

Governments also finance a significant share of the world's capital investment in infrastructure, and they typically play a vital role in regulating privately financed and operated infrastructure. Though infrastructure investment as a share of GDP has declined in several high-income countries since the 2008–09 financial crisis, MGI research has estimated that the world currently invests some \$2.5 trillion a year in transportation, power, water, and telecommunications systems.¹⁶ This analysis also shows that global infrastructure expenditure will need to increase to \$3.3 trillion a year by 2030 to address increasingly serious backlogs and to support continued economic growth and urban development. While much of this infrastructure will be financed through user charges and delivered by the private sector, citizens will still rely on governments to ensure that it is functional and affordable.

Low levels of citizen satisfaction and trust in government

Despite the sheer scale of public expenditure and its increase in recent years, governments are struggling to keep up with demands from citizens—and to meet their rising expectations. In the United States, for example, research commissioned by MCG found that most government services recorded low levels of citizen satisfaction compared with private-sector services (Exhibit 3). Whereas citizens rated several non-state providers such as retailers, banks, and private-practice physicians above 70 points (out of 100), they rated many key state services such as public transportation, public schools, and public health-care facilities at 25 points or fewer. Citizens tend to be even less satisfied with governments' performance in supporting outcomes in economic development and job creation; small-business assistance and job programs were among the lowest-rated government services in the United States.

Government-enabled outcomes play a major role in people's quality of life. For example, GDP per capita, social support, and life expectancy together make up nearly half of "citizen happiness" as measured in the 2016 *World Happiness Report*.¹⁷ Political leaders should therefore be worried about citizens' relatively low levels of satisfaction with public services and the potential effect this has on how governments are perceived. Indeed, in a 2016 survey of citizens in 28 countries, only 42 percent of respondents said they trusted their governments; from 2008 to 2016, trust in government was consistently lower than trust in business.¹⁸ These findings suggest that many governments are struggling to convert resources into outcomes that matter to citizens—including healthier lives for their families, education that leads to rewarding employment, and cities that are safe and easy to travel around.

While governments need to maintain focus on delivering long-term outcomes, citizens' day-to-day experience of public services is also a critical factor in their satisfaction with government. People have become accustomed to the convenience, choice, quality,

¹⁶Bridging global infrastructure gaps, MGI, June 2016.

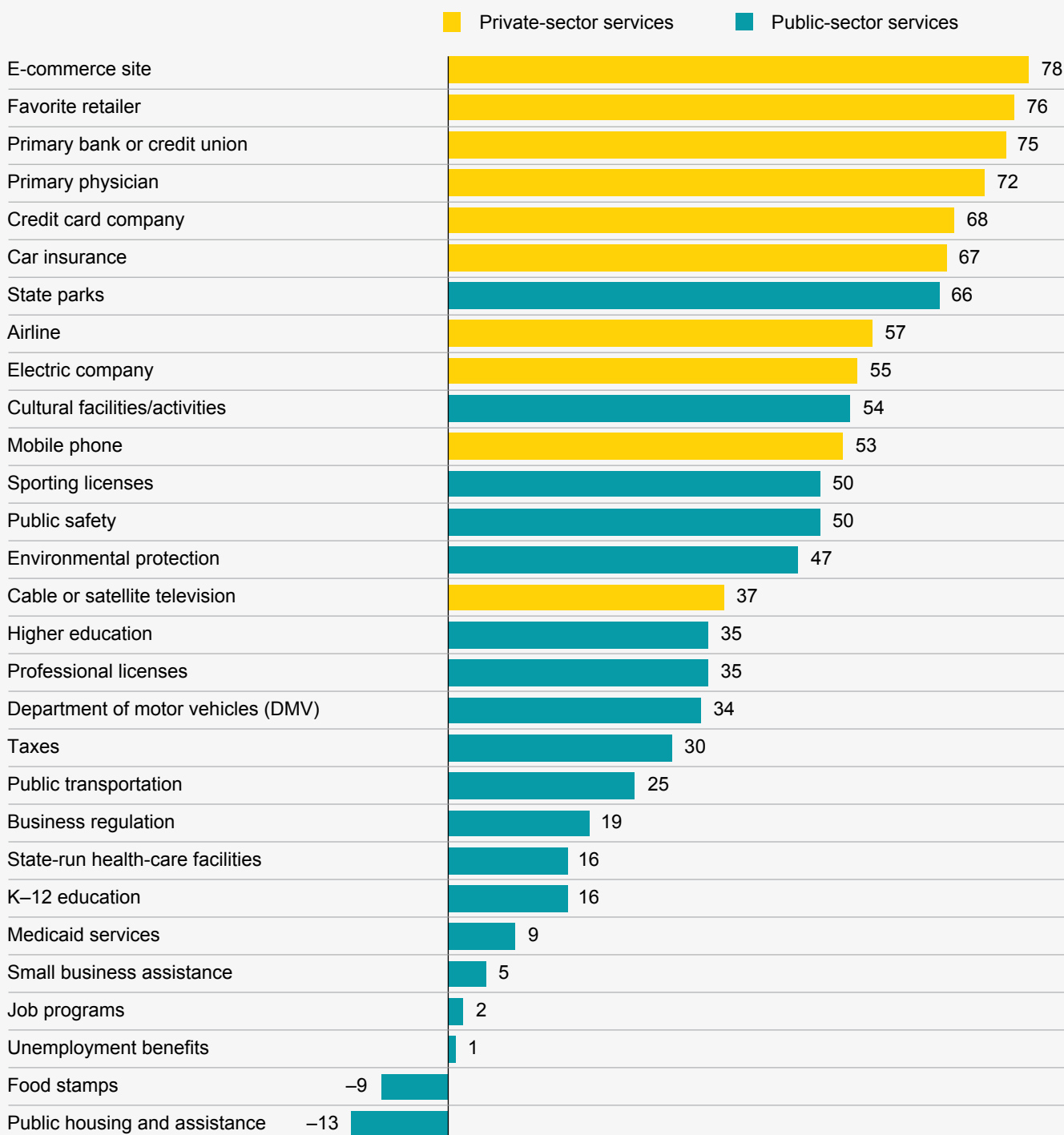
¹⁷Jeffrey Sachs, Leonardo Becchetti, and Anthony Annett, *World Happiness Report 2016*, Sustainable Development Solutions Network, 2016.

¹⁸Edelman Trust Barometer.

Exhibit 3

In the United States, citizen satisfaction with public services is generally lower than with private services

Citizen Satisfaction Score (CSS) for private sector and state government services, United States, 2015¹



¹ Based on a survey of 17,000 citizens across 15 US states. CSS is calculated by subtracting the percentage of citizens who are dissatisfied from those who are highly satisfied.

SOURCE: *Putting citizens first*, McKinsey Center for Government, November 2014



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and ease of interaction afforded by digitally enabled companies such as Airbnb, Alibaba, Amazon, and Google. A survey conducted by McKinsey shows that 75 percent of online customers expect help within five minutes of contact.¹⁹ Increasingly, citizens—as consumers of public-sector goods—are expecting government to offer the same level of service.

In the United States, the citizens we surveyed cared most about speed, simplicity, and efficiency in their service experience—all areas where they rated private providers much higher than government services. Respondents identified better online offerings as their number-one priority for improving state services. Practically all countries have websites, but few offer the speedy, simple service experience that citizens want. Less than 40 percent of countries allow citizens to file taxes online, and only 14 percent allow citizens to apply for an identity card online.²⁰ As the private sector continues to ramp up investment in digital technologies, governments risk falling further behind.

IT'S NOT GETTING EASIER: GOVERNMENTS' COMPLEX FUTURE CHALLENGES

The trends that have driven up government spending in recent decades are likely to intensify in the next few decades. Of these trends, population aging is the most profound—a theme explored in depth in McKinsey's book *No ordinary disruption*.²¹ The proportion of the world's population aged over 60 is expected to nearly double over the next 35 years, from 12 percent of the population in 2015 to 22 percent in 2050.²² In some of the world's largest economies, the trend will be even more pronounced. In South Korea the over-60 population is forecast to increase from 19 percent of the total to 42 percent. In China it is expected to increase from 15 percent to 36 percent, and in Germany from 28 percent to 39 percent. In these countries and many others, governments will be faced with ever-greater dependency ratios as the population's share of working-age adults declines against the rising proportion of retirees.

¹⁹Ibid. "The CEO guide to customer experience," *McKinsey Quarterly*, August 2016.

²⁰*E-government survey 2014*, United Nations, 2014.

²¹Richard Dobbs, James Manyika, and Jonathan Woetzel, *No ordinary disruption: The four global forces breaking all the trends*, McKinsey & Company, 2015.

²²*2015 revision of world population prospects*, United Nations, July 2015.

The waning of demographic tailwinds could have dramatic impact on countries' economic growth and tax revenues, unless productivity can be raised—in both the private and public sectors—to compensate for this demographic shift. The steps needed to boost productivity across the economy will be politically challenging, however. Governments will need to foster greater competition between businesses; incentivize innovation; boost labor-market participation among women, youth, and older people; and further integrate the world economy.²³

Population aging will also put governments under tremendous pressure to increase expenditure in social services. The IMF forecasts that without reforms, government spending on pensions and health care will rise by a potentially crippling five percentage points of GDP by 2050.²⁴ Amid these financial pressures, governments will have to grapple with several other complex, far-reaching policy and delivery challenges. These include the following:

- ***Increasing inequality.*** In advanced economies, 65 to 70 percent of all households saw their disposable income stall or fall from 2005 to 2014, even as the highest earners' incomes grew.²⁵ To tackle inequality, governments must find ways to rekindle economic growth and broadly support business expansion and job creation, boost education outcomes, provide more opportunities for low- and medium-income households to find work, and shape policies to secure the income and consumption levels of such households through transfers, tax reforms, labor-market regulations, and compensation practices. Governments of many countries will also need to tackle persistently high levels of gender inequality, which holds back women's participation in the economy—as well as GDP growth.²⁶
- ***Youth jobs and skills gap.*** Globally, young people are three times more likely than their parents to be out of work. An estimated 75 million youth are unemployed—representing a major pool of untapped talent and a potential source of social unrest.²⁷ Yet there is a critical skills shortage at the same time. Across nine countries studied by McKinsey, 39 percent of employers surveyed believe a skills shortage is a leading reason for entry-level vacancies (Exhibit 4).²⁸ To bridge this gap, governments need to work with employers and education providers to connect education to employment—including by building effective, large-scale vocational training programs.
- ***Rapid urbanization.*** The proportion of the world's population living in urban areas is projected to rise from 54 percent in 2014 to 66 percent by 2050. Cities in the developing world will experience the greatest growth; Africa alone will be home to 190 million more urban residents over the next decade, while cities in China, India,

²³Ibid.

²⁴Benedict Clements et al., *The fiscal consequences of shrinking populations*, IMF discussion note, October 2015.

²⁵*Poorer than their parents? A new perspective on income inequality*, MGI, July 2016.

²⁶*How advancing women's equality can add \$12 trillion to global growth*, MGI, September 2015.

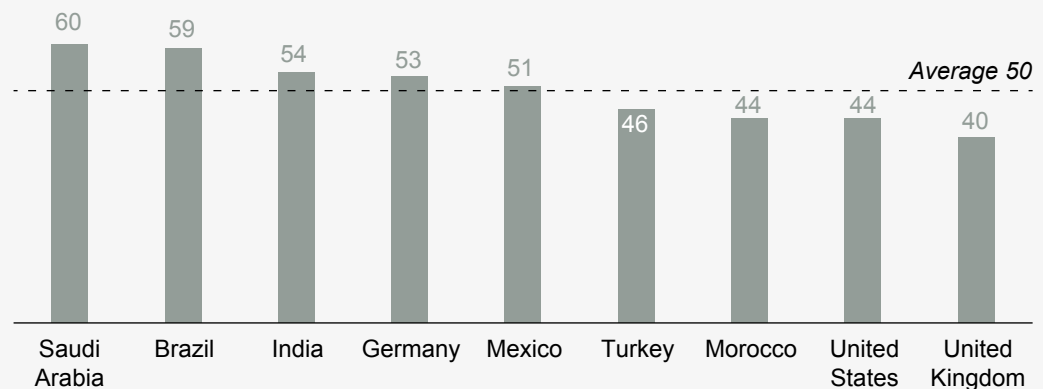
²⁷*Education to employment: Designing a system that works*, McKinsey & Company, January 2013.

²⁸Ibid.

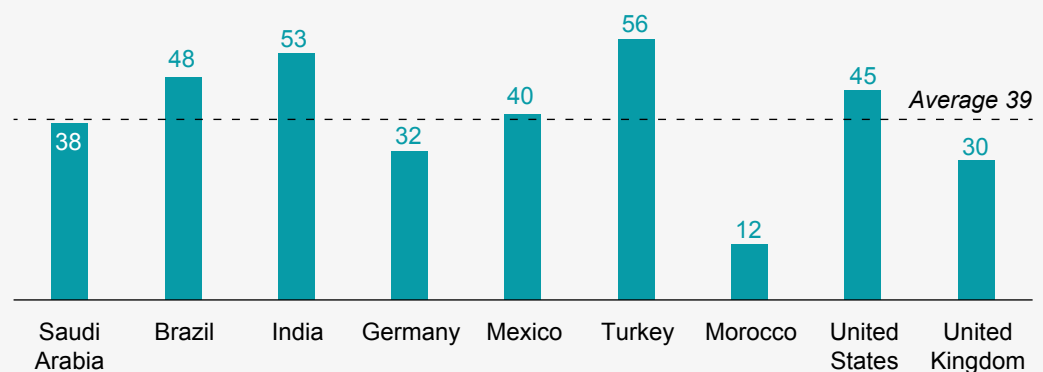
Exhibit 4

In many countries, the education system is not preparing young people adequately for the job market

Students who believe their post-secondary studies improved their employability¹
 % of respondents



Employers who believe a skills shortage is a leading reason for entry-level vacancies
 % of respondents



¹ Agreed with the statement “my post-high school education improved my chances of getting a job.”

SOURCE: *Education to employment: Designing a system that works*, McKinsey & Company, 2013; based on surveys conducted in 2011 and 2012

and Latin America will also expand quickly.²⁹ This rapid urbanization has the potential to bring significant economic benefits—provided governments prepare for it effectively. To ensure healthy urbanization, governments will need to improve planning processes, build more affordable housing, design and invest in efficient mass transit systems, increase access to electricity, and install more digital infrastructure.

- **Rising prevalence of obesity and other lifestyle diseases.** If current trends continue, the proportion of the global population that is obese will increase from 30 percent in 2014 to 41 percent in 2030, which will have a negative economic impact estimated at \$2 trillion a year (driven both by direct health-care expenditure and loss of working time).³⁰ To

²⁹ *Urban world: Cities and the rise of the consuming class*, MGI, June 2012.

³⁰ *Overcoming obesity: An initial economic analysis*, MGI, November 2014.

tackle the problem, governments will need take an integrated approach—one that combines changes in practices by the food and beverage industry with a behavior-change program involving public and private health services, city planners, large employers, sports organizations, and others. Governments will need enhanced capabilities to coordinate the efforts of these multiple stakeholders.

- *Threat of terrorism.* Of all the complex challenges facing governments, none are more worrying than those in the security arena. With terrorist attacks having notably increased in the past decade, governments must boost capabilities and investments in a range of activities, from early surveillance to enhanced policing of major events and urban centers.³¹ They also need to shape longer-term policies that reduce the susceptibility of local populations to recruitment by terrorist groups.

Governments must address these difficult, long-term challenges even as the political environment in many countries becomes more polarized and volatile—and less predictable. To navigate these stormy seas and avoid being capsized by short-term crises, governments will need to shape robust, pragmatic strategies and programs. They also need to build professional teams capable of implementing those programs effectively and savvy enough to extract maximum value from limited budgets.

None of this will be easy, as governments face several built-in organizational constraints. Unlike private-sector businesses, governments do not have shareholders, a single CEO to whom the whole of government is accountable, or a unified top management team with shared incentives and a common view of performance. Indeed, there is often tension between political appointees and permanent staff. Civil services are also often characterized by risk aversion, which holds back the speed of change. In part this caution reflects the constant external scrutiny and media attention that governments attract—but the glare of publicity can also prompt short-term thinking and policy U-turns, which hamper effective project management and delivery.

In addition, governments are finding it increasingly difficult to attract and retain the right types of talented people, especially those with specialized capabilities such as operational delivery experience or digital customer insight. Although this challenge applies to talent of all ages, governments face a particular struggle in attracting young people (as we discuss further in Chapter 6.) Millennials—people born between roughly 1980 and 2000—already make up a large share of the workforce in many countries, but they are underrepresented in the public sector. This new generation of talent prizes flexibility and autonomy, variety, and rapid career growth. They are also more likely than previous generations to quit their jobs if their expectations are not met.³²

THE COMING FISCAL CRUNCH: WHY GOVERNMENTS MUST DO BETTER WITH LESS

Even as the challenges facing governments are increasing in size and scope, the “fiscal space” in many countries is contracting as tax revenues level out and debt grows. McKinsey’s analysis suggests that this trend is not simply cyclical but partly structural,

³¹ Global Terrorism Database.

³² Joanna Barsh, *Mind the gap: Young leaders show the way*, McKinsey Centered Leadership Project, 2015.

as the world economy enters a period of lower growth that could last several decades.³³ Governments must urgently find ways to deliver more, and better, for less.³⁴

Government revenues have failed to keep up with the growth in government expenditure since 2008 (Exhibit 5). Global revenues declined precipitously after the 2008–09 financial crisis as unemployment rose and corporate profits fell, sending the global fiscal deficit to 6.2 percent of GDP in 2009. In 2015, it was still at 3.8 percent, and the IMF projects it will be 2.6 percent in 2021.³⁵ Thus current fiscal constraints are not likely to disappear anytime soon.

To make up for the shortfall, governments have resorted to borrowing on a scale rarely seen before. In the developed world, government net debt levels are at historic highs, at around 50 percent of GDP. Although major medium-income countries reduced their debt levels from 2000 to 2008, they too have seen a steady increase in indebtedness more recently. Worldwide, total government debt outstanding increased from \$33 trillion in 2007 to \$58 trillion in 2014 (at constant 2013 exchange rates).³⁶ Several of the world’s

³³Ibid. *Global growth*, MGI, January 2015.

³⁴We are indebted to former UK Cabinet Secretary (head of the civil service) Lord Gus O’Donnell, who drew the distinction between “more for less” (greater efficiency) and “better for less” (greater impact and quality).

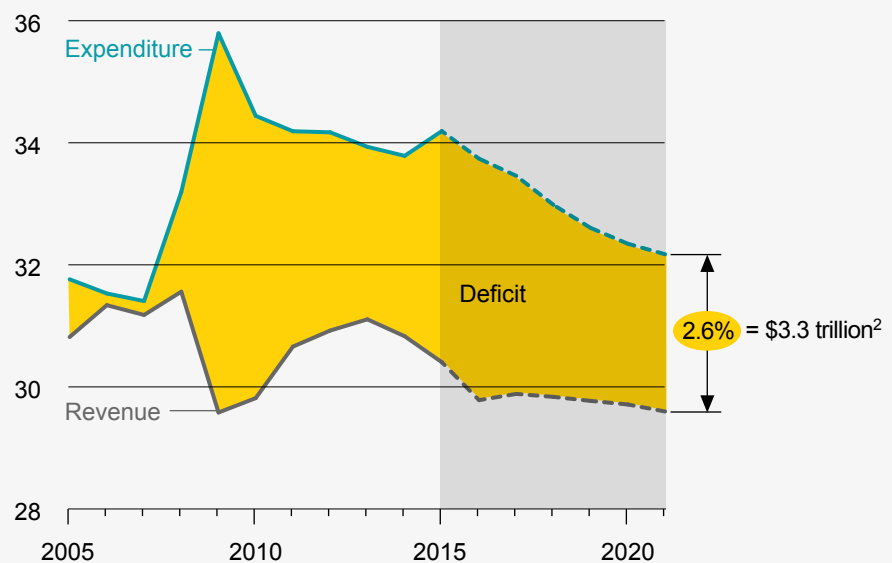
³⁵World Economic Outlook Database, IMF.

³⁶*Debt and (not much) deleveraging*, MGI, February 2015.

Exhibit 5

Forecasts suggest that many governments will face continuing budget deficits

Total government expenditure compared with revenue, 2005–21¹
% of GDP



¹ Data for 182 countries.

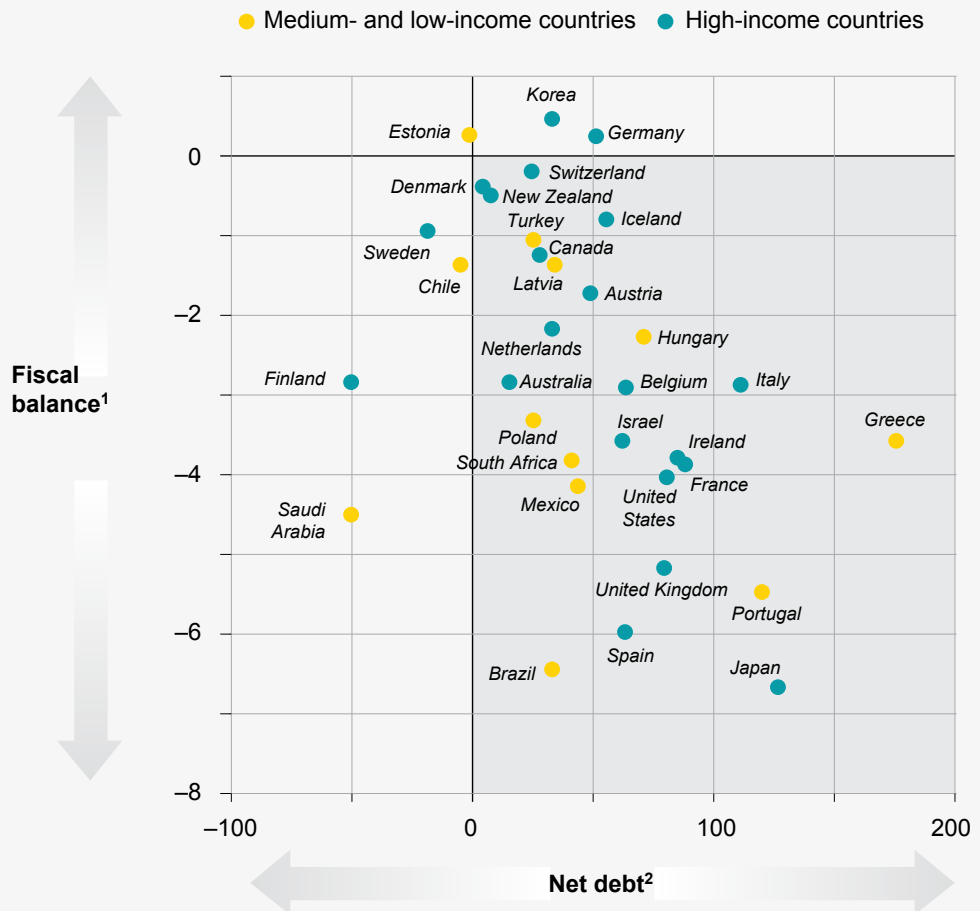
² USD 2010 PPP.

SOURCE: International Monetary Fund; IHS Markit

Exhibit 6

High debt levels and negative fiscal balances are creating pressure on both developed and developing countries

Fiscal balance compared with net debt, average 2013–15
% of GDP



1 Fiscal balance is defined as the difference between government revenue and total expenditure.

2 Net debt is defined as public debt minus financial assets in the form of debt instruments.

SOURCE: International Monetary Fund

major economies now have debt-to-GDP ratios approaching or exceeding 100 percent and fiscal deficits of 4 percent or higher (Exhibit 6).

Some would argue that, with interest rates at record lows, governments should be borrowing and spending even more. But there is much to suggest that governments face limits in continuing to increase their debt. As one indicator, several of the world’s largest economies—including France, Italy, Russia, Saudi Arabia, the United Kingdom, and the United States—have experienced sovereign-debt ratings downgrades in the past decade. Many governments around the world have implemented or announced far-

To deliver better outcomes and better citizen experience at sustainable cost, governments must adopt a fundamentally new approach to achieve a step-change in productivity.

reaching budget cuts, including civil service pay freezes and retrenchment programs, reduced benefits packages, and outsourcing of activities to lower-cost private providers.



Public spending per capita is at or near historic highs. Yet the societal problems that governments must address, and the citizen expectations they must meet, are becoming progressively greater and more complex—and public finances are increasingly constrained. To deliver better outcomes and better citizen experience at sustainable cost, governments must adopt a fundamentally new approach to achieve a step-change in productivity. The transformation will be every bit as significant as the professionalization of the civil service that began in the 19th and early 20th centuries—an era that we might call Government 2.0. What we are describing as Government 3.0 is essentially about lifting government delivery to the next level.

In the following chapters, we present the first version of a new methodology—the Government Productivity Scope—that can help governments diagnose their productivity trajectory, compare it with that of peer nations, and pinpoint opportunities to raise it. We highlight the impressive advances in productivity that several governments have already achieved through more strategic financial and commercial management, as well as new approaches to technology and talent. Finally, we consider how governments can shape and implement a transformation to Government 3.0 with speed and at scale. ■

THE \$3.5 TRILLION PRODUCTIVITY OPPORTUNITY—AND A NEW TOOL KIT TO START REALIZING IT

Can governments avoid the fiscal crunch ahead—while meeting their countries’ increasingly complex societal challenges? Our analysis suggests that the answer is a resounding “yes.” If all countries improved their productivity at the rate of the top-performing nations in their peer group, the world’s governments could potentially save as much as \$3.5 trillion a year by 2021—equivalent to reducing global government budgets by 9 percent without compromising outcomes. Alternatively, countries could choose to keep spending relatively constant while greatly boosting the quality of public services, thus improving key outcome measures such as the population’s health and the quality of primary and secondary education.

To realize this opportunity, however, governments need a clearer way to measure their productivity, compare it with that of their peers, pinpoint areas in which they can improve, and identify which countries are the best sources of replicable innovations. That need prompted MCG to start to develop the Government Productivity Scope (GPS) methodology, which allows us to compare the efficiency and effectiveness of governments’ expenditure in seven major sectors—health care; primary, secondary, and tertiary education; public safety; road transport; and tax collection. These seven sectors collectively account for the majority of core government expenditure worldwide. In this chapter, we describe the findings of this analysis. We also introduce the GPS improvement score, a new tool to diagnose a country’s productivity trajectory and benchmark it against that of peer nations.

Across the seven sectors, we found dramatic differences in countries’ relative productivity. Even among comparable countries with very similar outcomes, the least-efficient government currently spends more than twice as much per unit of output as its most-efficient peer. And our productivity-improvement analysis shows equally wide variances: while most countries have struggled to contain spending growth, in every sector we find examples of governments that have reduced expenditure per unit while improving outcomes. These differences point to a tremendous opportunity for governments to boost productivity, save money, and achieve better outcomes for citizens.

A NEW BENCHMARK: QUANTIFYING AND COMPARING THE RETURNS FROM GOVERNMENT SPENDING

Measuring public-sector productivity is difficult (see Box 1, “Measuring value added in the public sector”). At the core of this undertaking, though, is a simple question: how much “bang for the buck” do governments get from their spending? For every dollar spent, what has the government actually delivered? We answer this question by looking at the following two variables:

- The *efficiency* of government spending—in other words, how financial inputs, such as expenditure on schools, translate into outputs, such as the number of students educated. Efficiency is thus measured by looking at cost per unit—for example, cost per student in education or cost per citizen in health care.
- The *effectiveness* of government spending—how those outputs translate into quality of outcomes, such as students’ scores on global measures of proficiency in

mathematics, science, and reading.³⁷ These quality metrics vary by sector, but they capture the most important outcomes that governments, and citizens, expect from each public service.

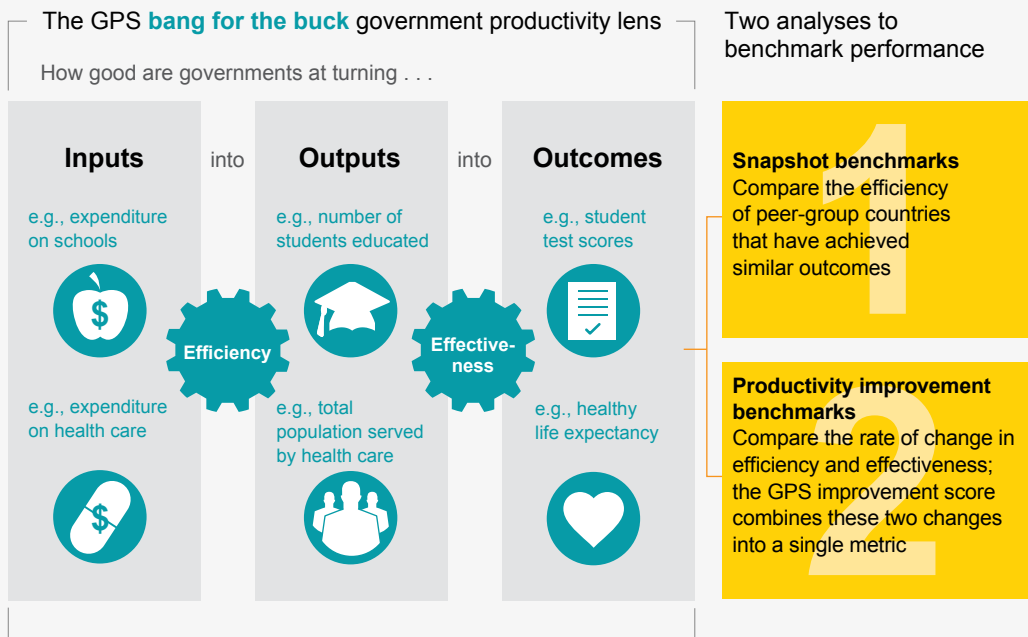
In an ideal world, we would want to look at the economic and societal value generated by a particular level of outcome and compare this value to the related expenditure. In education, for example, we might measure students' future employability and incomes, their social mobility, health and well-being, sense of control over their lives, and even friendships built. But it would very difficult to collect, quantify, and compare such diverse benefits across multiple countries. Instead, our approach in each sector focuses on using a small number of high-quality metrics that are widely available and comparable (Exhibit 7).

Specifically, we take a benchmarking approach, comparing countries both with their peer group and over time. Comparing within the peer group, we use snapshot benchmarks. We begin by identifying a peer group of countries that has achieved similar outcomes; for example, secondary education students in Singapore and South Korea achieve similarly high test scores. We then look for differences in efficiency within that

³⁷As explained below, we use PISA scores to measure outcomes for primary and secondary education.

Exhibit 7

The McKinsey Center for Government GPS evaluates government productivity by focusing on outputs relative to expenditure—or bang for the buck



SOURCE: McKinsey Center for Government GPS analysis

Box 1

Measuring value added in the public sector

In the private sector, labor productivity is calculated by taking the value of goods and services produced by a worker in an hour and subtracting the cost of any intermediate goods used—an approach known as gross value added (GVA) per hour worked.¹ This approach cannot easily be replicated in the public sector, as there are no markets or prices to value

many of the outputs of governments. Estimates of GVA in the public sector would assume that the value of an hour of a government employee's work is equal to their compensation. But this approach fails to capture how efficient and effective the employee was in that hour in delivering valuable outputs and outcomes for citizens—an essential insight for governments

seeking to measure and drive productivity. Our GPS methodology is a starting point for addressing this problem.

¹ More formally, GVA is defined as output valued at basic prices less intermediate consumption valued at purchasers' prices. See "Gross value added," Eurostat, http://ec.europa.eu/eurostat/web/products-datasets/-/teina404_r2.

peer group. Between Singapore and South Korea, which country educates more students for every \$1 million spent?³⁸

These snapshot comparisons across countries must be made with care. Geographical, economic, demographic, cultural, political, and historical differences all affect how truly comparable two countries might be. So for instance, education productivity in South Korea benefits from intensive parental efforts in addition to its schooling system, and health-care productivity in Italy benefits from the Mediterranean diet. We therefore also compare productivity over time using productivity-improvement benchmarks, which measure changes in efficiency and outcomes, comparing across countries to see which achieved more for less. Was Singapore or South Korea more successful in improving educational attainment over the past five years? Which was more successful in containing costs per student?³⁹

Our benchmarking analysis covers much of the globe; to date, we have analyzed 42 countries that account for 80 percent of global GDP.⁴⁰ Given the broad scope of our benchmarking database, this report provides only an overview of our approach and the highlights of our major findings. To review our full methodology, see the technical appendix, which describes our choice of metrics for each sector, data sources, assumptions, and approach to sizing the productivity-improvement opportunity.⁴¹

³⁸As mentioned in the previous chapter, our spending analysis for education and health care includes both public and private expenditure, as both contribute to national outcomes. Across our sample countries, public expenditure accounts for an average of more than 90 percent of total spending in primary and secondary education and around 70 percent in health care and tertiary education. These proportions have remained stable over the past decade. In all other sectors, our analysis covers only public expenditure.

³⁹We assume there is a time lag between inputs (such as an increase in education spending) and outcomes (such as an improvement in student test scores) and take this into account in our analysis.

⁴⁰In some sectors our analysis covers fewer countries, as robust data is not available for every sector in every country. In every sector, though, our analysis covers a broad range of countries.

⁴¹The technical appendix is available online at www.mckinsey.com/government-productivity.

THE PRODUCTIVITY-IMPROVEMENT PRIZE: \$3.5 TRILLION IN ANNUAL SAVINGS OR A MAJOR BOOST IN OUTCOMES AT NO ADDITIONAL COST

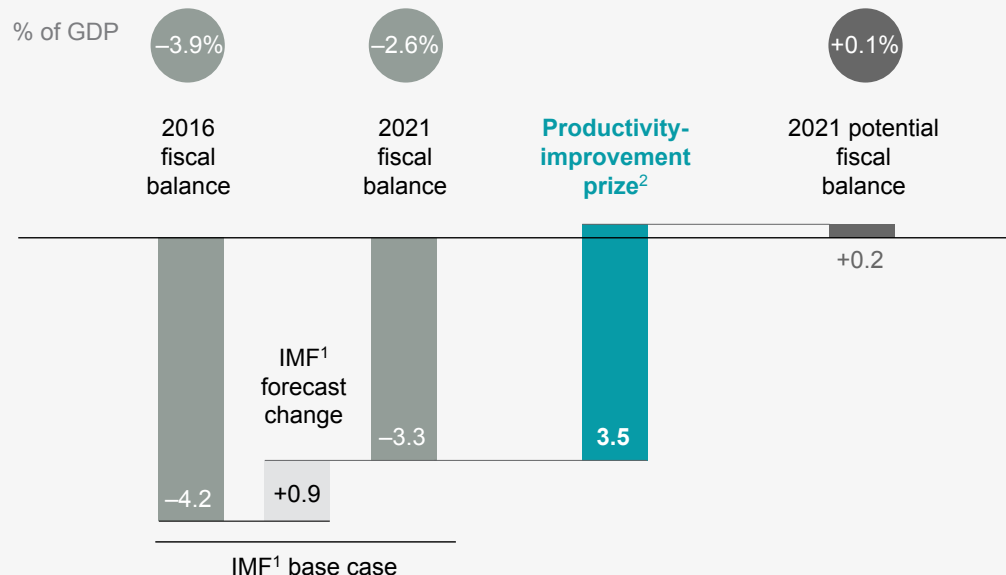
Our analysis shows that several countries have achieved dramatic productivity improvements in recent years. What if others were to replicate those improvements? To estimate the size of the productivity-improvement prize, we divided the countries in our sample into quartiles based on their outcomes in each sector analyzed. We then calculated the potential impact that would be achieved—in terms of both financial savings and better outcomes—if all countries were to match the productivity gains of the best improver in their quartile.

The findings show that the government-productivity opportunity is massive. If all countries were to raise their productivity at the rate of the best improver in their peer group, the world's governments could potentially save as much as \$3.5 trillion a year by 2021—equivalent to the global fiscal gap projected by the IMF (Exhibit 8). Such savings would amount to 9 percent of government expenditure worldwide.

Exhibit 8

By seizing the opportunity to improve productivity, the world's governments could potentially save \$3.5 trillion a year by 2021—equivalent to the global fiscal gap

World fiscal balance and productivity improvement potential
USD 2010 PPP, trillion



1 International Monetary Fund.

2 The \$3.5 trillion includes \$1.8 trillion of potential savings from seven core sectors (health care; primary, secondary, and tertiary education; public safety; road transport; and tax collection) and \$1.7 trillion from other sectors.

NOTE: These savings would result if all governments improved their productivity at the rate of the best improvers in their peer group and if they used that improvement solely to reduce expenditure.

SOURCE: International Monetary Fund; IHS Markit; McKinsey Center for Government GPS analysis

Financial savings are just one potential benefit of improved productivity. Governments could also choose to use productivity improvements to drive better outcomes in critical areas such as health care, education, and tax collection—without needing to increase spending per capita or per unit. To determine the approximate size of that opportunity, we took a closer look at the productivity-improvement differences among the countries in our sample over the most recent five-year period assessed. We calculated the outcomes that would have been achieved across these countries had all of them raised productivity at the rate of the best improver in their peer group (Exhibit 9). Those outcomes improvements include the following:

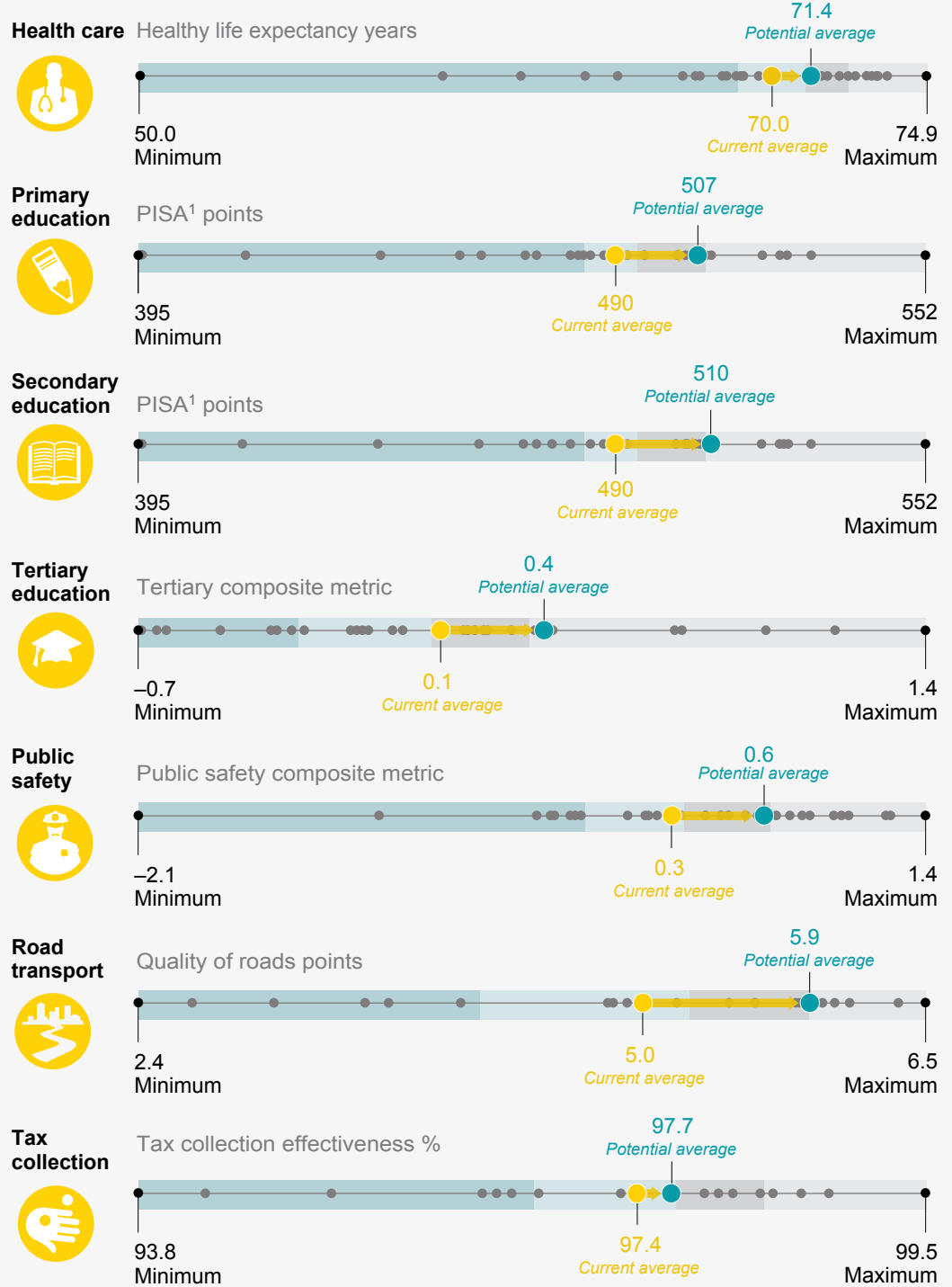
- *Adding 1.4 years of healthy life expectancy across entire populations.* If all 42 countries in our sample had improved the productivity of their health-care systems at the rate of their best-practice peers, they would have added 1.4 years to the HLE of their combined populations. That increase would have brought their average HLE to 71.4 years per person—for a total of 12 billion healthy life years gained—with no increase in per capita spending on health.
- *Accelerating growth by making great schools the norm.* In primary and secondary education, widespread adoption of best-practice productivity improvements would have boosted students' proficiency significantly. Scores for reading, mathematics, and science in secondary schools, as measured by the PISA, would have reached an average of around 510 points across our sample countries, up from the actual 2015 figure of 490. The additional 20 points would have brought the performance of the average school system up to the level of today's top-quartile education nations, such as Germany and the Netherlands, at no additional cost per student. Modeling the effect of education attainment on economic growth suggests that these gains could have raised average GDP growth by as much as 0.4 percentage points a year across our sample countries.⁴²
- *Enrolling 5 million more students in tertiary education.* In tertiary education, we analyzed 28 countries for which comparable data was available. If all of them had improved their productivity at the rate of the best performers in their peer group from 2010 to 2015, they could have enrolled 14 percent more students without increasing spending. In our sample countries, that translates into 5 million more students in tertiary education. Globally, such productivity improvement would benefit millions more young people.
- *Boosting revenues by \$55 billion a year without raising tax rates.* In tax collection, the most-improved countries have used levers such as tax system reform, digitization, and data analytics to achieve much greater compliance—at little or no increase in spending per capita. This increased productivity has allowed them to raise billions of dollars in additional tax revenues from improved compliance alone. We analyzed tax collection in 28 countries. If all of them had replicated the achievements of the best performers in the period analyzed, together they would have improved tax collection

⁴²This is an indicative estimate by McKinsey, based on a regression model developed by the Organisation for Economic Co-operation and Development (OECD) on the relationship between educational attainment and economic growth from 1960 to 2000. See *The high cost of low educational performance*, OECD, 2010.

Exhibit 9

The productivity opportunity can deliver improved outcomes for citizens

4th quartile 3rd quartile 2nd quartile 1st quartile



1 Programme for International Student Assessment.

NOTE: These improvements show the outcomes that could have been achieved on average across the countries analyzed if all countries had improved their productivity at the rate of the best improver in their peer group and if they had used that improvement solely to improve outcomes rather than reduce expenditure.

SOURCE: McKinsey Center for Government GPS analysis

effectiveness significantly—and raised an additional \$55 billion a year in taxes without increasing tax rates or spending more.

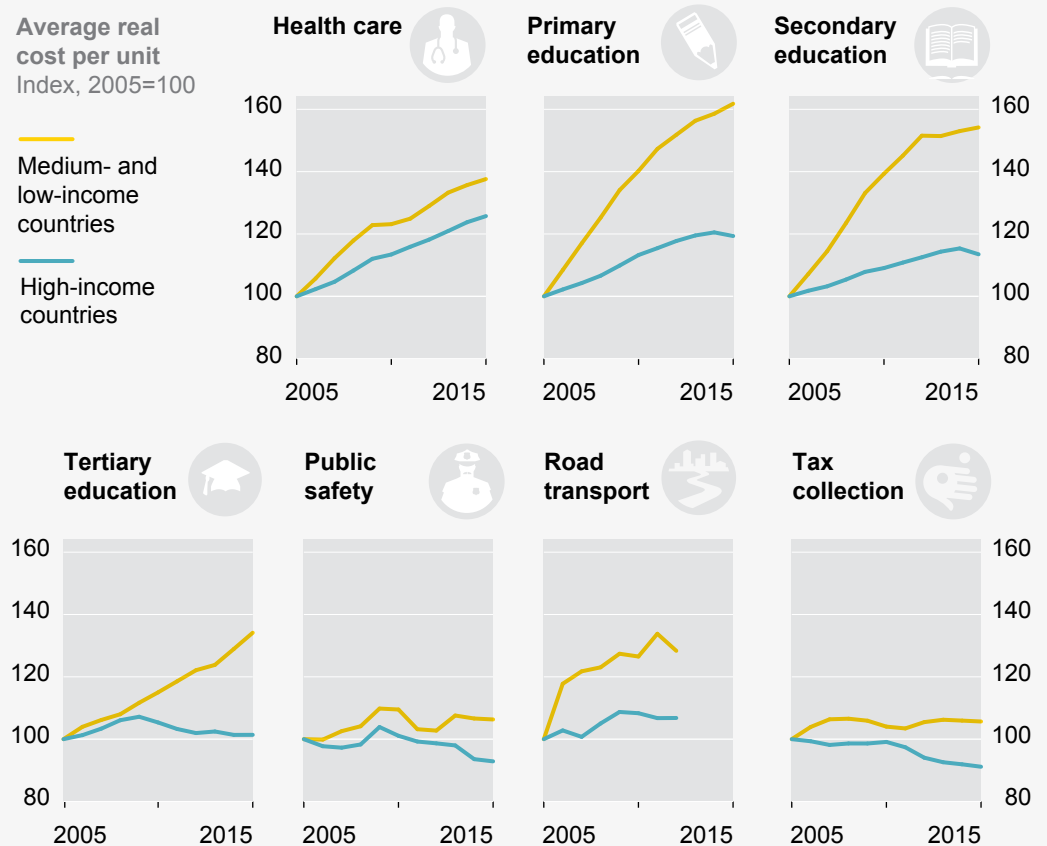
Benchmarking with peers shows that many countries can do more with less

The opportunity to improve public-sector productivity matters greatly, as many countries could face a fiscal crisis if they do not contain spending. Our productivity benchmarking provides a sector-level picture of increases in public expenditure over the past decade—and of the returns on that expenditure. Governments have spent more, both in total and per unit of output (Exhibit 10).

On average across the countries in our sample, there have been significant increases in cost per unit in most sectors. In secondary education, for example, spending per student increased on average by 14 percent in real terms from 2008 to 2014—a compound annual growth rate exceeding 2 percent. The growth in average spending per capita

Exhibit 10

In medium- and low-income countries, average real cost per unit has increased in all sectors, while in high-income countries they have increased in the largest sectors



NOTE: Cost per unit refers to input divided by output. For example, in health care it refers to spending per person and in education to spending per student.

SOURCE: McKinsey Center for Government GPS analysis

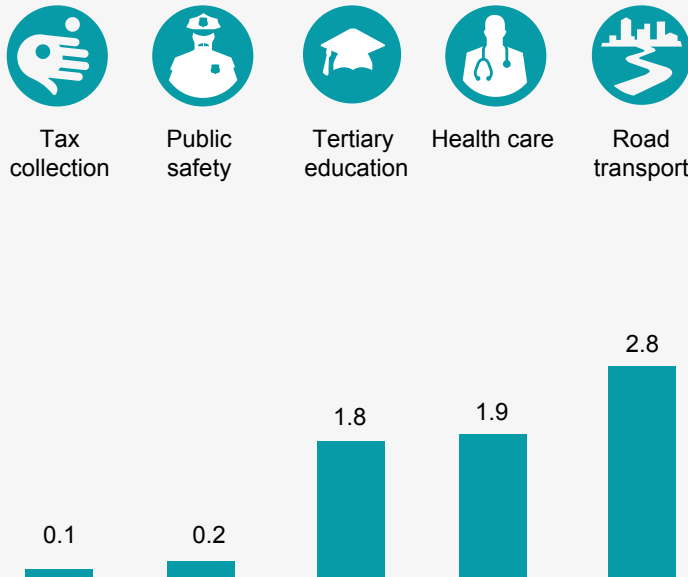
on health care and road transport, and in spending per student on primary and tertiary education, has also been rapid. On average, the countries in our sample managed to contain unit costs in only two sectors: public safety and tax collection (Exhibit 11). While

Exhibit 11

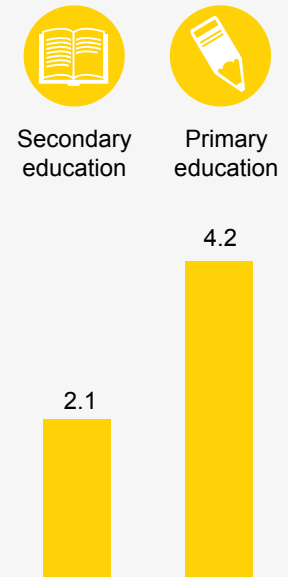
Cost per unit has increased ahead of inflation in all sectors, with mixed improvements in outcomes

Higher outcomes and higher cost per unit

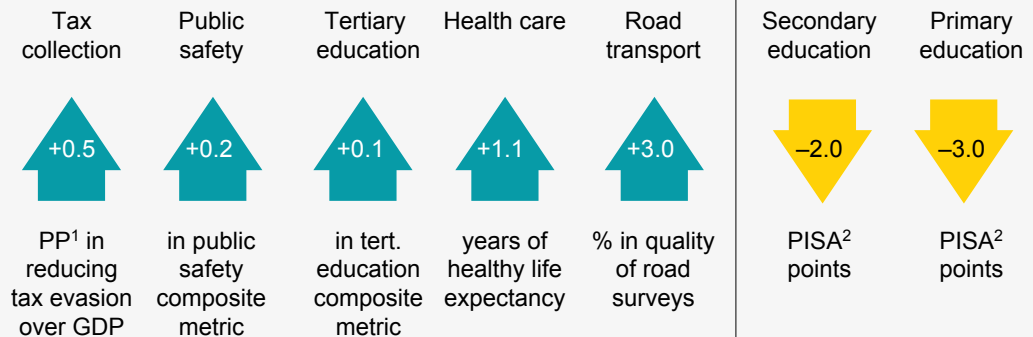
Most recent five-year compound annual growth rate of real cost per unit
%



Lower outcomes and higher cost per unit



Total change in outcomes over the most recent five-year period



1 Percentage points.
2 Programme for International Student Assessment.

NOTE: Figures reflect the most recent five-year period available given time lags between inputs, outputs, and outcomes. Six-year period for primary and secondary education. Efficiency measures are based on health care—expenditure per resident; primary, secondary, and tertiary education—expenditure per student enrolled; public safety—expenditure per resident; road transport—expenditure per passenger kilometer equivalent; tax collection—expenditure on tax collection per resident.

SOURCE: McKinsey Center for Government GPS analysis

increased spending per unit has been accompanied by better outcomes in most sectors, these gains on average have been relatively small—raising the question of whether outcome improvements have been sufficient to justify the additional spending.

The real lessons, though, are to be found by looking at the variation of country performance within sectors, hidden by international averages. The results show many countries are a long way from the frontier of efficiency. Within peer groups of countries that achieved similar outcomes (for instance, similar student test scores), the least-efficient country typically spends at least twice as much per unit of output as the most-efficient country—and in some cases the differences are much greater. There are similarly large differences in the rates of improvement in most sectors.

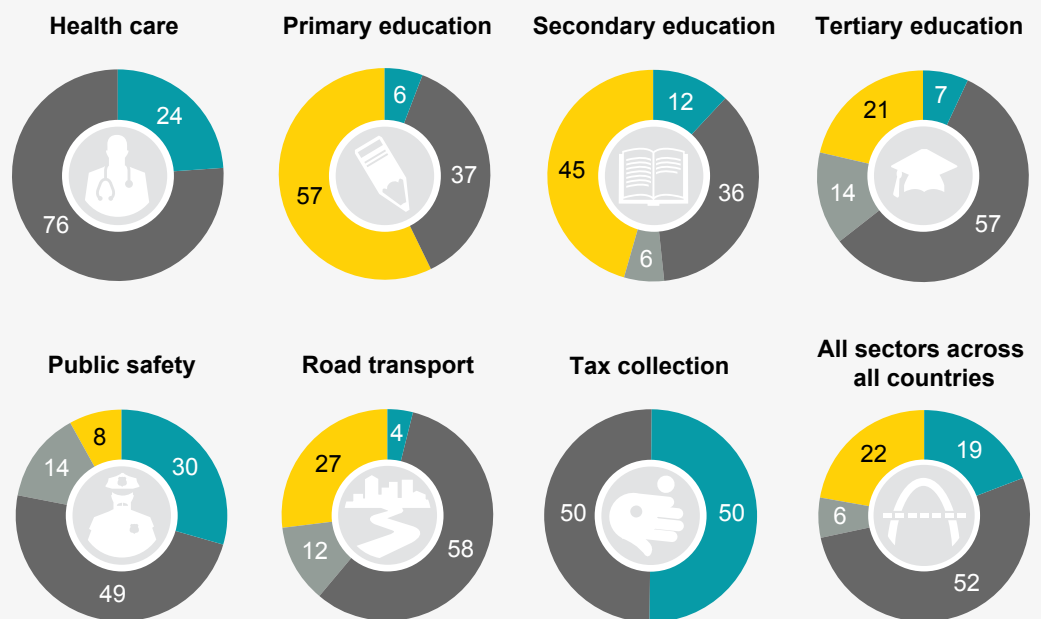
While most countries have struggled to constrain spending growth, we find examples in all sectors of countries reducing unit costs while also improving outcomes (Exhibit 12).

Exhibit 12

Most countries are improving outcomes for citizens—but they are typically spending more per unit to do so

Change in cost per unit of output (efficiency) and outcomes (effectiveness)
% of countries analyzed

- **IMPROVERS**
Higher outcome with lower cost per unit
- **SAVERS**
Lower outcome with lower cost per unit
- **SPENDERS**
Higher outcome with higher cost per unit
- **STRAGGLERS**
Lower outcome with higher cost per unit



NOTE: Figures may not sum due to rounding.

SOURCE: McKinsey Center for Government GPS analysis

This finding is particularly prevalent in tax collection: 50 percent of the countries we analyzed have driven down the incidence of tax fraud and evasion while reducing processing costs, thanks to both policy changes and the adoption of digital technology and advanced analytics. By contrast, in road transport, 16 percent of countries have reduced spending but only 4 percent have achieved improved outcomes while doing so. Case examples show that here, too, better data, processes, and talent management can unlock significant improvements.

Of course, productivity variances between countries are driven in part by structural differences such as population density, topography, and cultural factors. But even quite similar countries present large differences both in current productivity and in rates of improvement over time, suggesting that governments' policy choices and public-sector management practices are a decisive factor. This finding points to major opportunities for countries to benchmark with peer nations to identify potential improvement pathways.

Accelerating diffusion of innovation in the global public sector

The benchmarking findings also point to an opportunity for governments to share best practices more widely (see Box 2, “Identifying productivity-improvement opportunities in a European country”). Barriers to diffusion of best practices are often higher between governments than between companies. McKinsey research shows that competition and multinational corporations are key transmission channels for productivity—yet neither channel applies directly to government services.⁴³ There is also evidence that diffusion is slower for the kind of knowledge-intensive innovation needed in the public sector than it is for physical products.⁴⁴ In an increasingly connected world, public-sector leaders have an opportunity to find ways to overcome these barriers and bring the best of the global public sector to their citizens.

Opportunities to improve government productivity in seven major sectors

Our overall findings reflect trends common to the seven sectors under our spotlight. In the following sections, we assess cross-country productivity trends specific to each of the seven sectors. In doing so, we highlight the reform efforts of some of the most-improved countries as identified by our GPS improvement score—countries that have outperformed their peers in increasing their efficiency, their effectiveness, or both. Across these case studies, the functional capabilities we explore in Part II of this report emerge as common drivers of excellence.

⁴³ See, for example, *Innovation matters: Reviving the growth engine*, McKinsey & Company, June 2013.

⁴⁴ Dany Bahar, Ricardo Hausmann, and César A. Hidalgo, *International knowledge diffusion and the comparative advantage of nations*, Harvard Kennedy School working paper number RWP12-020, May 2012.







Barriers to diffusion of best practices are often higher between governments than between companies. In an increasingly connected world, public-sector leaders have an opportunity to find ways to overcome these barriers.

In each sector, our analysis is built on input, output, and outcome metrics that are both internationally comparable and analytically robust (Exhibit 13). We explain the rationale for the metric selection in more depth in the technical appendix, where we also detail our analytical approach for each sector.⁴⁵ It is important to note that while our approach illuminates core aspects of the efficiency and effectiveness of a sector in each country, it is not a definitive assessment. We do not attempt to control for the myriad structural differences between countries that can drive differences in costs and outcomes, nor do we account for all the outcomes citizens value.

⁴⁵The technical appendix is available online at www.mckinsey.com/government-productivity.

Exhibit 13

GPS methodology uses robust and comparable metrics for each sector

Sector	Metric	Description
Health care 	Input	Total (private and public) expenditure on health care and public health, all functions
	Output	Total population
	Outcome	Healthy life expectancy
Primary and secondary education 	Input	Total (private and public) expenditure on primary or secondary education
	Output	Number of students enrolled
	Outcome	PISA score (average of reading, math, and science)
Tertiary education 	Input	Total (private and public) expenditure on tertiary education
	Output	Number of students enrolled
	Outcome	Composite metric based on graduation rate (33%), teaching quality (33%), employment premium (17%), and income premium (17%)
Public safety 	Input	Government expenditure on public safety (police, prisons, law courts, and fire safety)
	Output	Total population
	Outcome	Composite metric based on homicide rate (33% weight), confidence in police (17%), confidence in judiciary (17%), and feeling safe walking alone (33%)
Road transport 	Input	Government expenditure on roads (government agencies and state-owned enterprises)
	Output	Passenger km equivalent (incorporates both freight and passenger movements)
	Outcome	World Economic Forum quality of road metric
Tax collection 	Input	Overall expenditure for tax functions and related overhead
	Output	Total population (as a proxy for number of taxpayers)
	Outcome	Tax-collection effectiveness (1 minus tax evasion over GDP)

NOTE: For more detail on definitions, data sources, and rationale, see the technical appendix at www.mckinsey.com/government-productivity.

SOURCE: McKinsey Center for Government GPS analysis

Box 2

Identifying productivity-improvement opportunities in a European country

The GPS improvement score provides a vivid picture of the societal impact that this European country has achieved from increased spending over the past five years. The score also reveals that compared with its peer group, the country achieved above-average productivity improvements in most sectors (exhibit). In health care and primary and secondary education, these improvements were due more to containing spending than improving

outcomes. In tertiary education and road transport, however, this country succeeded in containing cost growth while raising outcomes well above the average rate of improvement of other European nations.

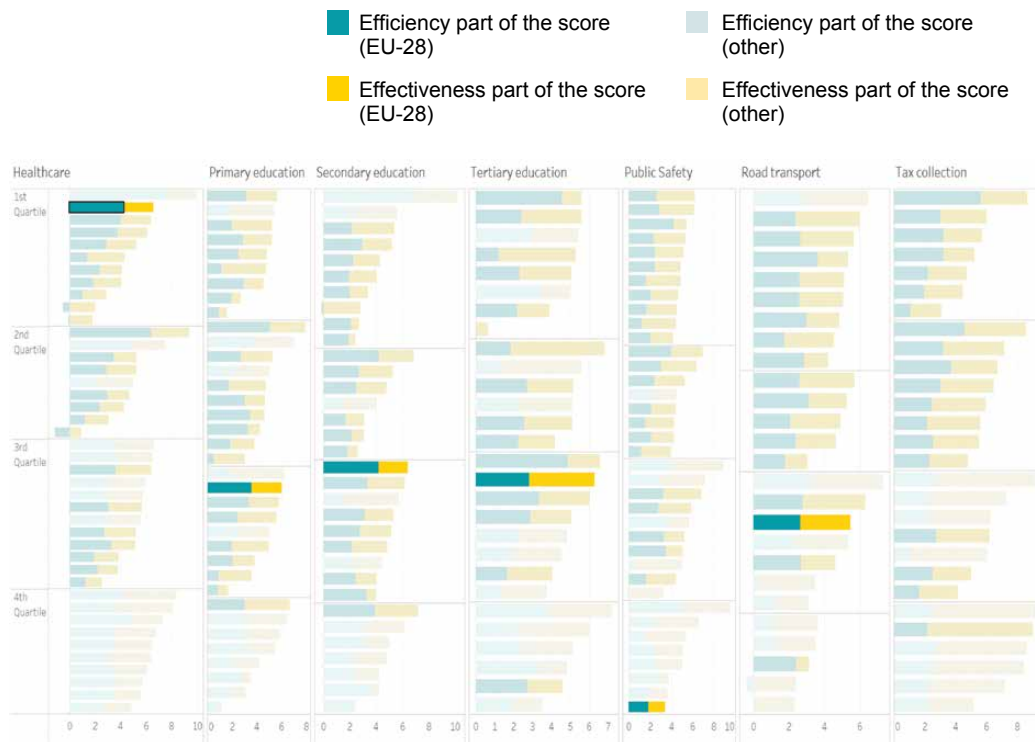
In public safety, however, the country's performance declined. Spending per person increased while outcomes—particularly confidence in the police and judiciary—worsened significantly. As this country seeks

to sustain and improve societal outcomes in an environment of constrained spending, the GPS improvement score provides a useful guide to the biggest opportunities to improve government productivity. For example, which lessons learned from its health-care system could translate into improvements in public safety? Which countries with similar systems did better, and why? In future years, the score can help the country track progress in each sector.

Exhibit

Benchmarking the productivity improvement of a European country across sectors

Most recent five-year period available for each sector (with lags)



NOTE: The country does not have comparable data on spending on tax collection, so it is excluded from this sector.

SOURCE: McKinsey Center for Government GPS analysis

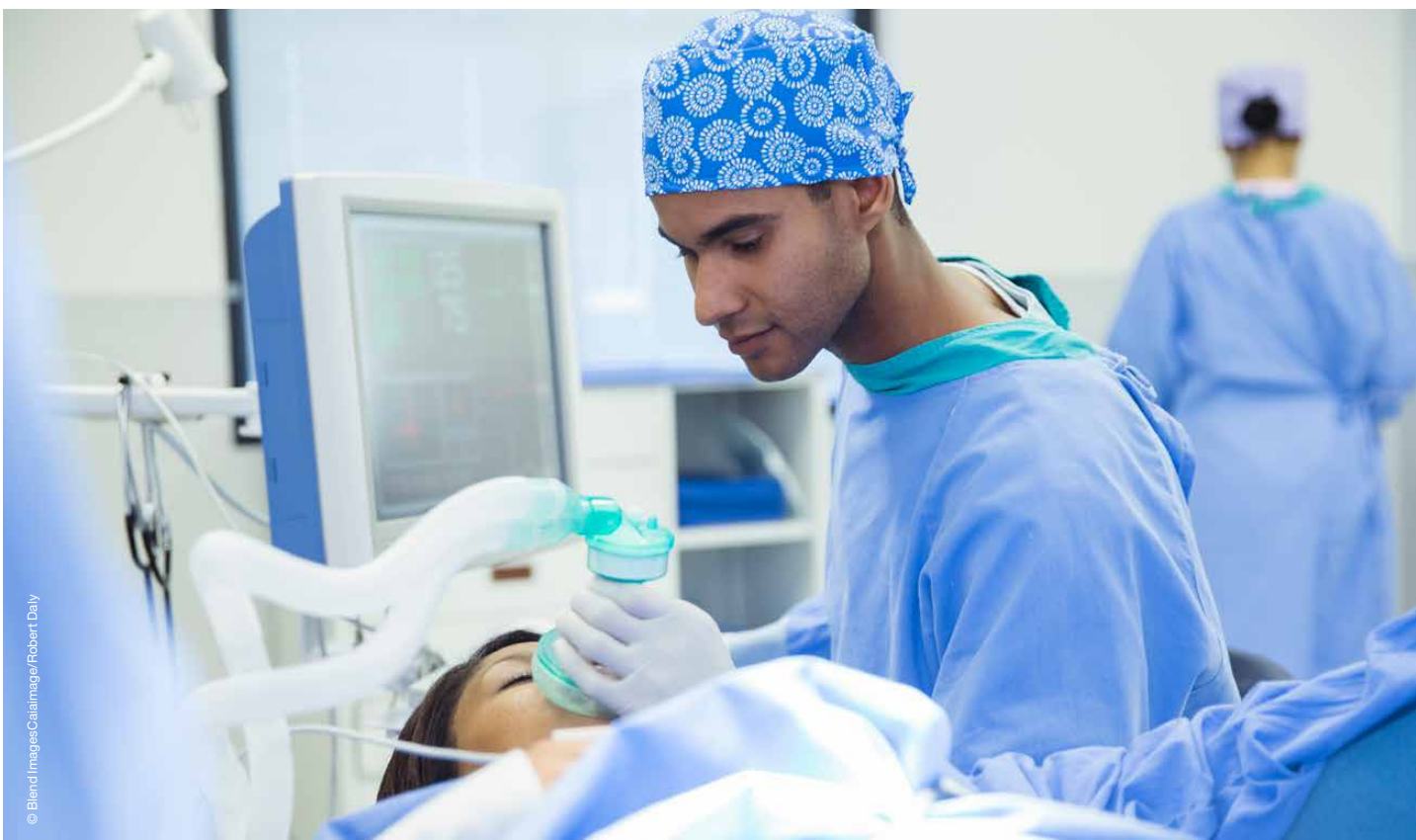


HEALTH CARE: IMPROVING THE HEALTH OF POPULATIONS AND PUBLIC FINANCES

Health-care systems exist so that people can live longer, healthier lives. By this measure, countries are doing well. HLE has risen in all 42 countries analyzed, from an average of 66.6 years in 2000 to 70.0 years in 2015. But this improvement has been accompanied by a significant increase in spending. Across these countries, real per capita expenditure on health care rose an average of 69 percent from 2000 to 2015, outstripping both GDP growth and expenditure in most other sectors. With health care already accounting for 13 percent of government spending, increases at this rate may not be sustainable.

But our findings are also cause for optimism. We find tremendous variation in the spending of countries with similar levels of HLE, suggesting potential opportunities to deliver better health outcomes at lower cost. For example, among countries achieving very high HLE (above 72 years), spending per person varies by a factor of three. For instance, two neighboring European countries have the same HLE (73 years), but one country spends a third more per person on health care than the other. These variances might be influenced by factors such as population demographics and density, behavioral characteristics, quality of infrastructure, and public safety levels—but health-system management appears to be a central driver of productivity. There are also large differences in efficiency among countries with national health services, as well among those with national or social health-insurance schemes.

The opportunity to improve is also demonstrated by our analysis of how different countries' health-care productivity has changed over time (Exhibit 14). Ten of the 42 countries we



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analyzed actually reduced per capita health-care spending from 2009 to 2014 while improving HLE. These include Italy, Russia, and Spain. Other countries spent as much as \$2,000 per capita for each additional year of HLE. The global patterns we analyzed suggest that many countries are at a point where additional expenditure is delivering only marginal improvements in HLE. These benefits may still be worth the extra expenditure, but government officials should be asking themselves whether the money is really being spent in the most effective way.

At a time of constrained resources and rising demands on health-care systems, these findings point to a huge opportunity to deliver improved health outcomes at lower cost. By examining the top performers according to our GPS, other countries can draw valuable insights on the approaches most likely to realize this opportunity (see Box 3, “How Denmark’s health-care system reforms boosted both quality and efficiency”).

As discussed above, if all the countries in our sample had improved the productivity of their health-care systems at the rate of their best-practice peers, their average HLE today would have been 71.4 years, up from today’s actual figure of 70 years. Alternatively, they could have delivered today’s outcomes at lower cost per capita. This opportunity to help people live longer, healthier lives matters greatly. Health care not only accounts for a large and growing part of government spending but is also a major driver of both economic development and people’s life satisfaction.⁴⁶

Our analysis suggests that countries have the following three paths for improving health-care productivity, depending on their starting points:

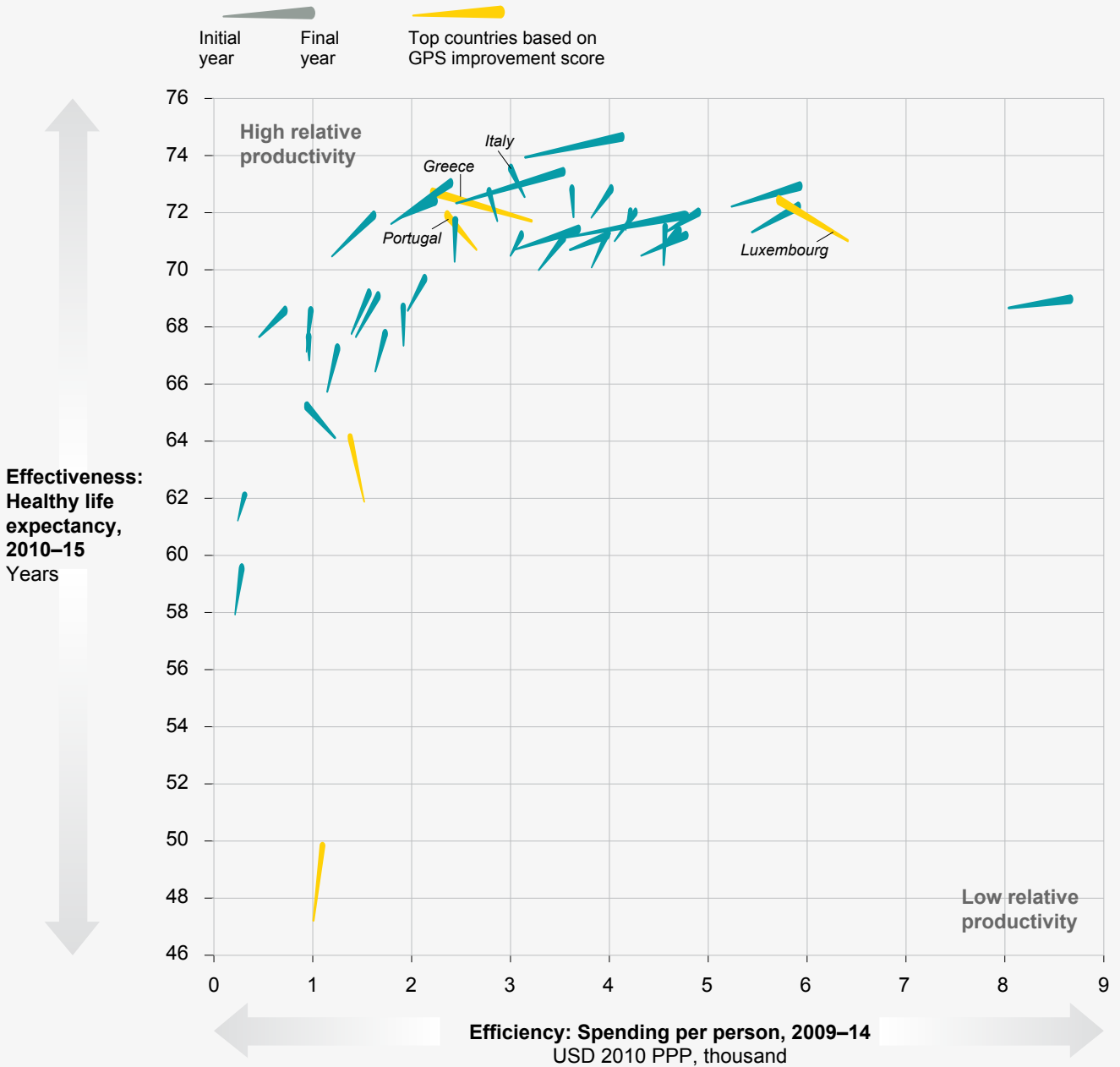
- *Focus on efficiency.* In countries where HLE is already high, each additional year of life expectancy is likely to come at a high financial cost. Countries with per capita health-care spending above \$2,500 and high HLE might be able to achieve the same health-care outcomes at a lower cost—or sustain their rate of improvement with lower spending increases in the future. Policy makers should seek transparency on what additional spending is really delivering and weigh it against other national priorities—or indeed other valued outcomes in the health-care system such as shorter waiting times or more-accessible health-care facilities.
- *Focus on efficacy.* The likely priority for medium-income countries with medium HLE is to boost health outcomes in an environment where spending might be constrained. Many such countries are already achieving greater health gains off smaller increases in expenditure than their high-income peers. By examining these top performers, other countries can gain insight into how to improve their health-care outcomes by targeting and delivering their spending more effectively.
- *Set up for success.* Countries with low spending and low life expectancy can raise their HLE by building out their health systems. As they do so, they have an opportunity to leapfrog ahead of their peers by learning from best-in-class examples in countries with higher levels of productivity or with a track record of rapidly improving outcomes.

⁴⁶ Anthony Strittmatter and Uwe Sunde, *Health and economic development: Evidence from the introduction of public healthcare*, Institute for the Study of Labor discussion paper number 5901, August 2011; *Ibid.* Jeffrey Sachs, *World Happiness Report 2016*, 2016.

Exhibit 14

Beyond a certain point, additional expenditure on health care tends to not deliver large improvements in outcomes

Health care effectiveness compared with efficiency



NOTE: Structural differences between countries significantly impact both costs and outcomes. This chart does not correct for these structural differences, and it is therefore not appropriate to directly compare countries with each other.

SOURCE: McKinsey Center for Government GPS analysis

Box 3

How Denmark's health system reforms boosted both quality and efficiency

Denmark has achieved significant gains in outcomes while controlling health-care costs at a time when many other high-income nations have experienced rapid cost increases. Denmark's HLE increased from 69.6 years in 2008 to 71.4 years in 2015, while spending per person was flat from 2009 to 2015. This achievement reflects major reforms launched in 2007 to improve quality of care and boost efficiency across the publicly financed health-care system.

The reforms reorganized health-care provision into five regions, each of which was required to plan and implement year-on-year productivity improvements across its hospital networks. At the local level, municipalities were given the responsibility and financial incentive to improve preventative care. These steps slowed the growth in hospital admissions while improving the overall health of the population. The reforms also included a plan to establish "super hospitals" to achieve critical mass for specialized procedures.

Denmark's finance minister played a vital role in implementing the reforms and budgeting strategically by taking a long-term, data-driven view. (In the next chapter, we further explore the role that such finance leaders can play in driving government productivity.)



PRIMARY AND SECONDARY EDUCATION: SMARTER WAYS TO CREATE GREAT SCHOOLS

There are few things as important to the world's future well-being as the quality of the education our children receive. Efforts to strengthen school systems and improve education outcomes have been a key focus for governments around the world. In secondary education, for example, 16 of the 33 countries whose school systems we studied improved their students' skills from 2009 to 2015, as measured by the PISA.⁴⁷ Countries at all starting levels achieved improvements over this period. Singapore, for example, already home to one of the world's best-performing school systems, increased its average PISA score to 552, from 543. Israel improved to 472, from 459.

Behind these trends, however, there are startlingly wide variations in spending per student—even among countries with similar educational attainment levels and incomes. For example, in primary education, spending per student among countries with best-performing school systems—those with average PISA scores of 508 or above—ranges from \$5,900 to \$12,000. In the second quartile—PISA scores from 496 to 506—spending per student varies from \$5,300 to \$11,600. And in secondary education, spending per student in first-quartile countries ranges from \$6,800 to \$14,200 and in the second quartile from \$5,700 to \$13,600 (Exhibit 15).

Equally wide variations exist in the investments countries have made to improve outcomes: some have achieved better PISA scores even while reducing spending per

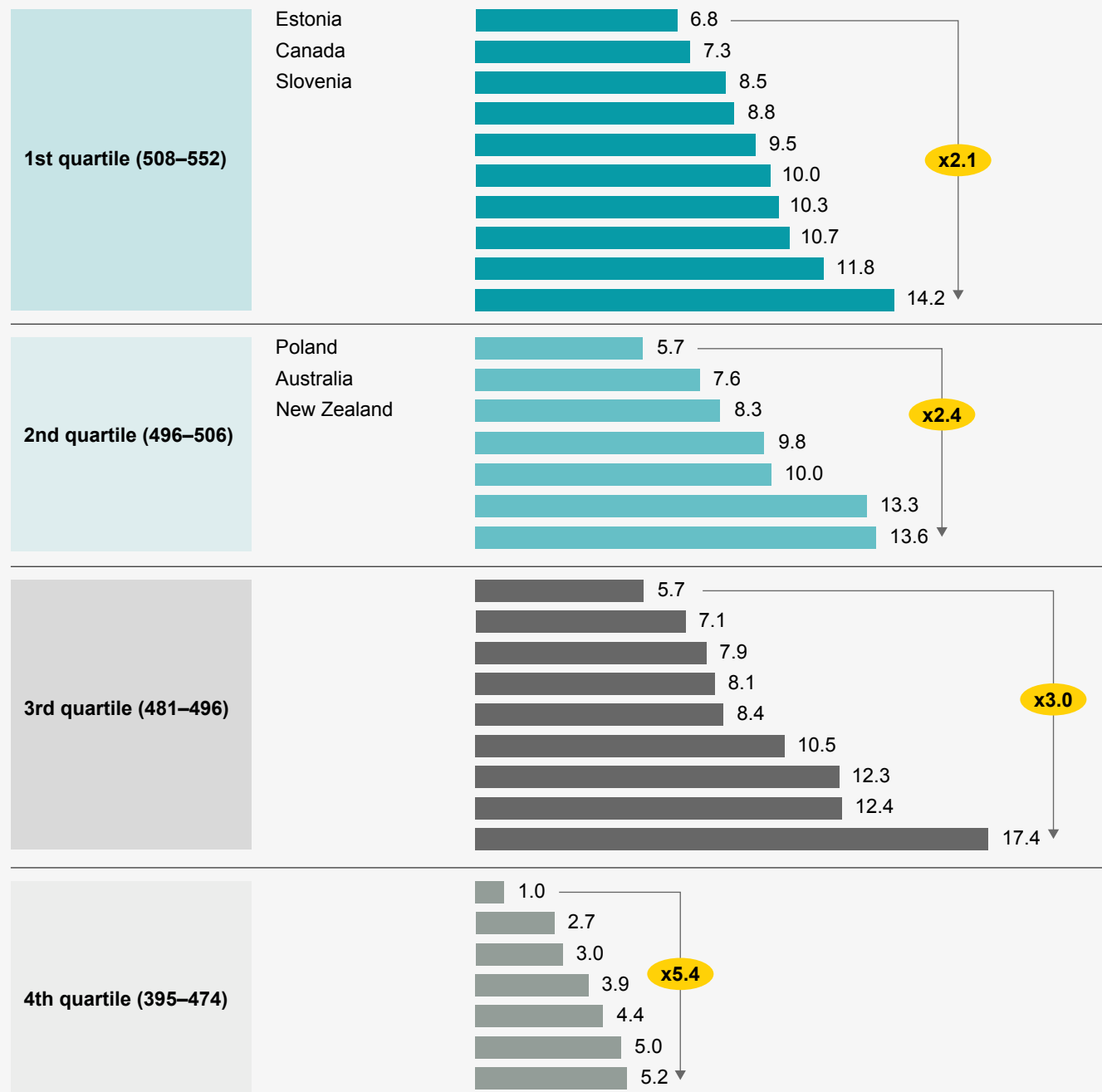
⁴⁷ The PISA contains math, reading, and science tests. We take the simple average of the three tests to obtain a single PISA score.

Exhibit 15

Spending per student in secondary education varies widely—even among countries that achieve similar outcomes

Effectiveness:
Outcome quartile, 2015
PISA score

Efficiency: Secondary education spend per student, 2014
USD 2010 PPP, thousand



SOURCE: McKinsey Center for Government GPS analysis

student, while others have incurred significant additional cost. In our sample, two out of the five most-improved countries (Portugal and Norway) reduced spending per student, as did all five best-improvers in secondary education (Denmark, Israel, Italy, Slovenia, and Spain). Other countries experienced a very positive trend overall but suffered some slippage in 2015. Poland, for example, achieved great improvements from 2000 to 2012 and then lost some of the gained ground in 2015 (see Box 4, “How Poland boosted student attainment with two transformative reforms”). In countries with already-high spending per student, increases in spending did not typically lead to better outcomes; in other words, investment in education seems to yield marginally decreasing returns.

In most countries, real spending per student has increased significantly in recent years. In secondary education, for example, it increased 14 percent from 2008 to 2014. It is questionable whether governments can sustain such increases in the future. But countries cannot afford for educational attainment to slip, as there appears to be a strong correlation between education performance and economic growth.⁴⁸ Thus improved

⁴⁸ Ibid. *The high cost of low educational performance*, OECD, 2010.

Box 4

How Poland boosted student attainment with two transformative reforms

Poland's experience shows that effective reform can deliver rapid and meaningful improvement in a country's education performance. It also shows that staying among the best performers is not an easy task.

Thanks to a series of bold reforms, Poland experienced notable improvements in its primary and secondary education outcomes from 2000 to 2012, while keeping spending per student in check. In reading, its PISA score rose from 479 in 2000 to 518 in 2012. It also made impressive gains in math (for which it achieved a PISA score of 518 in 2012) and science (526 in 2012), which the PISA began

measuring later. In 2015, Poland slipped back slightly, earning an average PISA score of 504. But it remains a top-performing country in education; its 2015 PISA score was 2.5 percentage points above the OECD average and 3.5 percentage points above the average for countries in our sample.

Poland's achievements were made possible by two far-reaching school reforms. The first, launched in 1999, redesigned the schooling system to create middle schools and added one year of education for about 50 percent of students. It empowered principals to select their teaching staff, created retraining programs, and gave teachers greater choice in selecting curricula. The

second reform, launched in 2008, broadened the curriculum and introduced a new school-evaluation system that further strengthened professional development for teachers.

Poland's reforms provide useful lessons for other countries seeking to improve outcomes in an environment of budget constraints. They also show how new talent-management approaches—including strengthening capability building and revising incentives—can be a powerful lever to increase government productivity. We explore this theme further in Chapter 6.

productivity in education is an imperative for many countries. As highlighted above, widespread adoption of best-practice productivity improvements over the past five years would have brought the performance of the average school system up to the level of today's top-quartile education nations—at no additional cost per student.

All this makes it clear that, at a time of fiscal constraint in many countries, governments should take a close look at the opportunity to improve education outcomes in a more efficient manner. Previous McKinsey research has demonstrated that moving a school system from “good” to “great” does not typically require the investment of additional resources; instead, it requires changes in education approaches and organizational processes, including making the teaching profession a more attractive and clearly defined career.⁴⁹ Our analysis provides ample confirmation of that conclusion, showing that countries with education outcomes in the first quartile have a similar range and level of spending per student as countries with second- and third-quartile outcomes.

We should note, however, that better results might not come “free” for all school systems: spending is an important lever up to an inflection point (around \$5,000 to \$6,000 per year), after which additional spending has less impact on system gains. Therefore, a different approach is often called for in countries with very low levels of spending per student. These countries should focus on establishing the foundations of student performance data, organization, and pedagogy.⁵⁰



TERTIARY EDUCATION: BOOSTING QUALITY AND GRADUATION RATES AT SUSTAINABLE COST

Tertiary education accounts for a sizable share of public spending—4.5 percent in the high-income countries we analyzed and 2.2 percent in the medium- and low-income countries—and is also a major private cost for students and their families in many countries. However, there is evidence that government investment in tertiary education more than pays for itself through higher tax revenues from graduates—and that the skills produced through tertiary education are a critically important driver of innovation and long-term economic growth.⁵¹ Individual graduates benefit, too: in the vast majority of countries, higher-education graduates are more likely to be employed than people with only secondary-level qualifications, and they earn a significant income premium.

Consequently, the number of people enrolling in and graduating from tertiary institutions has grown rapidly. In OECD countries, 42 percent of 25- to 34-year-olds had a tertiary degree in 2015—up from just 26 percent in 2000.⁵² In an environment of constrained public finances, however, many governments are struggling to finance the continued expansion of tertiary education. That financial strain has made improving the sector's productivity an urgent priority for many governments.

⁴⁹ *How the world's most improved school systems keep getting better*, McKinsey & Company, November 2010.

⁵⁰ *Ibid.*

⁵¹ See, for example, *Education indicators in focus: What are the returns on higher education for individuals and countries?* OECD, June 2012; and *Boosting productivity in US higher education*, McKinsey & Company, April 2011.

⁵² “Population with tertiary education,” OECD, <https://data.oecd.org/eduatt/population-with-tertiary-education.htm#indicator-chart>.

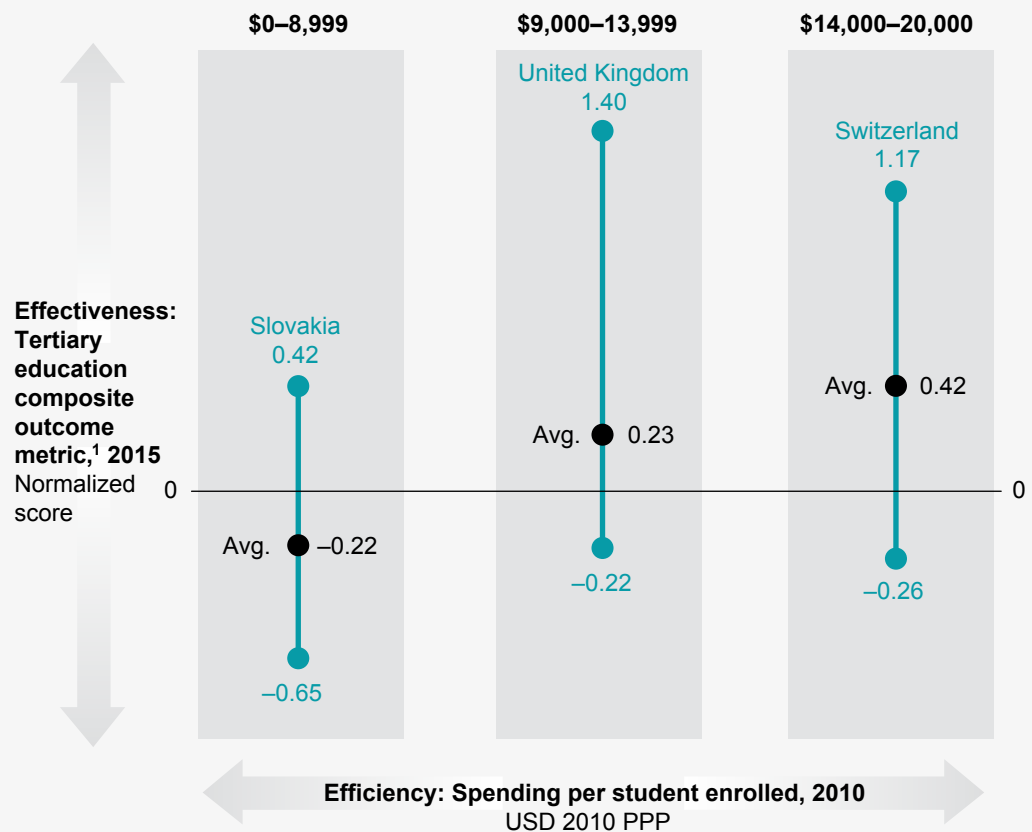
To gauge the sector’s productivity at the country level, we created a composite set of metrics that incorporates the most important indicators of higher-education productivity. As a measure of the cost efficiency of tertiary education, we used spending per student enrolled. To measure the sector’s effectiveness, we bundled three metrics: the percentage of enrolled students that graduate from tertiary education in any one year; the quality of teaching in each country’s major universities, as rated by *Times Higher Education*; and the value of tertiary education to graduates, in terms of the employment and income premiums they achieve compared with people who have completed only secondary education. Using these three metrics, we calculate a composite effectiveness score for each country, ranging from –0.7 (for the lowest outcome) to 1.4 (for the best).

This analysis reveals wide variation in tertiary education outcomes, even among countries with similar levels of spending per student—pointing to major differences in the productivity of tertiary education systems (Exhibit 16). For example, in high-income

Exhibit 16

In tertiary education, countries achieve dramatically different outcomes for similar levels of expenditure per student

Tertiary education effectiveness compared with efficiency



1 Composite metric for each country is built from three measures: (i) the percentage of enrolled students that graduate from tertiary education in any one year; (ii) the quality of teaching in each country’s major universities, as rated by *Times Higher Education*; and (iii) the economic value of tertiary education to graduates, in terms of the employment and income premiums they achieve compared with secondary education graduates.

SOURCE: McKinsey Center for Government GPS analysis

countries with midrange outcome scores between 0.1 and 0.4, spending per student varies from \$10,000 to \$20,000. In medium- and low-income countries with outcome scores between 0 and -0.1, spending per student ranges from \$4,000 to \$7,500. These disparities remain when we focus on specific outcome metrics. For instance, in countries that achieve teaching quality scores between 45 and 55 (on a scale of 1 to 100), spending per student ranges from \$10,000 to \$20,000.

Whatever their starting point, most countries have sought to raise the productivity of their tertiary education sector in recent years, either by reducing spending or by improving outcomes at a faster pace than spending. Countries such as Portugal and Spain, for example, achieved major gains in outcomes from 2010 to 2015 while increasing spending per student moderately over the preceding years. As highlighted above, such progress points to a major productivity-improvement prize in tertiary education. If all 28 countries in our sample had improved their productivity at the rate of the best performers in their peer group from 2010 to 2015, they could have enrolled 5 million more students without increasing spending.

Among the countries that have raised tertiary education outcomes, the main improvements have been in graduation rates and teaching quality. For example, Spain improved graduation rates to 22 percent in 2015, from 18 percent in 2010, and improved teaching quality to 33 points from 19 points. Portugal also achieved impressive improvements in outcomes, driven by ambitious reform programs (see Box 5, “How Portugal transformed the impact of tertiary education”).

Finally, our analysis shows that tertiary education graduates’ employment and income premium over people with only a secondary education has a relatively weak relationship with spending per student or with changes in spending per student over time. These premiums are more likely to be affected by structural factors such as overall inequality levels, unemployment levels, or the proportion of graduates in the workforce. For example, the employment premium rose sharply in countries that experienced spikes in unemployment after the 2008–09 financial crisis—suggesting that when jobs are scarce, graduates’ advantage in competing for them is pronounced. Nevertheless, the employment and income premium metrics do provide governments with useful insights on education policy more broadly, and they are good proxies for the value that employers attribute to tertiary over secondary education.

For instance, Northern European countries—which have similar spending per student, tertiary-education enrollment rates, and secondary-education characteristics—offer higher-education graduates income premiums ranging from 10 to 40 percent. Meanwhile, the graduate income premium in some developing countries is as high as 190 percent. This variance suggests that, in the eyes of employers, the gap between the quality of secondary-only graduates and tertiary graduates is high in developing countries—and that access to tertiary education is relatively restricted. These countries will need to make choices about whether to focus on improving secondary education, widening access to tertiary education, or both. In doing so, they will benefit from analyzing trends and best practices in other countries, as well as creating clarity on the marginal benefit of additional spending in each area.

Box 5

How Portugal transformed the impact of tertiary education

Portugal launched an ambitious reform of its tertiary-education sector in 2007, including a shift in university funding away from an enrollment-based model toward one focused on outcomes. Another pillar of the reform was a “commitment to science” policy, which aimed to double the number of PhD graduates and scientific researchers by 2010, as well as achieve a 50 percent increase in the number of science and technology graduates and scientific publications over the same period. The reform also introduced

new institutional models for universities, including the “foundational institute,” which gave additional powers to the individual university—including to seek private funding.¹

Portugal achieved a major improvement in teaching quality, from 19 points in 2010 to 32 points in 2015. Likewise, graduation rates, as measured by the number of graduates over the total number of enrolled students in tertiary education in a given year, improved from 20 percent in 2010 to 24 percent in 2015.

Portugal achieved these gains while containing costs: spending per student remained constant from 2008 to 2011.

¹ *Reviews of national policies for education: Tertiary education in Portugal*, OECD, 2011; Jaakko Kauko and Sara Diogo, *Comparing higher education reforms in Finland and Portugal*, OECD, 2011; Manuel Heitor and Hugo Horta, *Democratizing higher education and access to science: The Portuguese reform 2006–2010*, 2013; *Higher education in Portugal: IHEM country report*, Universiteit Twente, September 2008.



PUBLIC SAFETY: NEW APPROACHES TO POLICING AND JUSTICE

Keeping people safe and maintaining public order through the police and justice system is a foundational responsibility of any government, averaging around 3.5 percent of public spending worldwide. To gauge how governments are doing at this task, we developed a composite public safety metric made up of four well-established measures: reported homicide rates, public confidence in the police, public confidence in the judiciary, and perceptions of how safe it is to walk alone in one’s neighborhood at night.

The results show a mixed picture. From 2010 to 2015, 28 of the 36 countries whose public safety systems we analyzed experienced an improvement in the composite safety metric, but the remaining eight saw it worsen. Moreover, the correlation between spending and safety is weak. We calculated public spending on police, law courts, prisons, and fire services in each country and found that spending per person varied by a factor of four. Even among countries with similar socioeconomic characteristics and safety outcomes, there are major differences in per capita spending on safety (Exhibit 17).

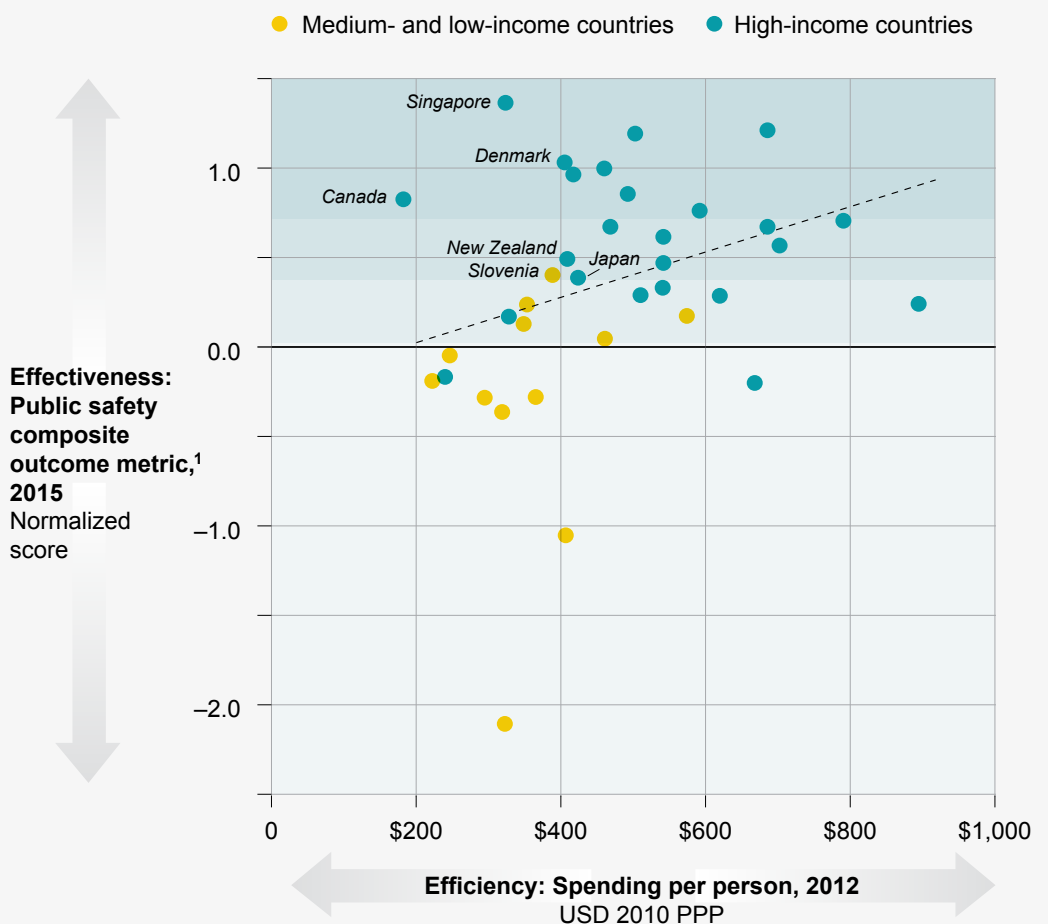
Some countries, such as Denmark and Singapore, achieve a high degree of public safety while spending around \$400 per person per year, while at least one country spent more than \$800 per person for worse results. The same variation is true of countries with lower safety scores: although on average they spend less than safer countries, their spending per person ranges from around \$200 to above \$400. Granted, such variations are driven in part by factors such as inequality, population density, and the extent to which public-order responsibilities are spread among civilian and military agencies. But our analysis suggests there are large differences in the efficiency and effectiveness of police and justice systems, even among similar countries.

Our analysis of countries' efforts to improve public safety reveals equally high variance in the “bang for the buck” achieved. As Exhibit 17 shows, some countries managed to deliver significant improvements in their safety score from 2010 to 2015 while keeping spending per person constant or even reducing it. These countries include Latvia, New Zealand, and the United Kingdom. Others increased their spending per person by \$100 or more over this period, in some cases achieving only moderate improvements in outcomes.

Exhibit 17

Although there is some relationship between expenditure and outcomes in public safety, some countries are particularly cost-effective

Public safety effectiveness compared with efficiency



1 Composite metric for each country is built from the following four measures: (i) reported homicide rates, (ii) public confidence in the police, (iii) public confidence in the judiciary, and (iv) perceptions of how safe it is to walk alone in one's neighborhood at night.

NOTE: Structural differences between countries significantly impact both costs and outcomes. This chart does not correct for these structural differences, and it is therefore not appropriate to directly compare countries with each other.

SOURCE: McKinsey Center for Government GPS analysis

These findings highlight two key points: first, that policing and the criminal justice system are not the only tools to reduce crime, and second, that meaningful improvements in public safety can be achieved even when governments face spending constraints. The most-improved countries have designed smarter policing and justice systems that focus on tackling the causes of crime and driving greater efficiency through adoption of digital technologies (see Box 6, “How New Zealand transformed policing”). The fact that many countries have been able to improve outcomes while reducing spending suggests there might be significant wastage in some countries’ public safety systems.

The pathway to improved productivity does vary according to a country’s starting point. On the one hand, countries that currently underinvest in their police and justice systems and have lower outcomes on average will need to spend more to improve outcomes. These nations can draw insights from best-practice policing approaches to make sure the extra investment delivers the greatest possible improvements in safety. On the other hand, many countries have generally good safety outcomes but can improve efficiency to free up funds for incremental improvements in policing and justice—or to invest in other priorities.



Box 6

How New Zealand transformed policing

In 2009 the New Zealand Police launched the Policing Excellence transformation program, which focused on adopting more efficient resource-allocation practices and new technologies, as well as on retraining officers. This program contributed to significant improvements both in crime statistics and in public perceptions of safety. A key component was the introduction, in 2011, of the “Prevention First” national operating model, which focuses on addressing the underlying causes of crime and strengthening law enforcement in the short term.

From 2008 to 2015, New Zealand’s homicide rate fell to 0.9 per 100,000 people, from 1.2 per 100,000

people. Over the same period, the proportion of people reporting confidence in the police rose to 90 percent, from 78 percent. The percentage of people who felt safe walking alone at night improved to 64 percent, from 57 percent.

Key innovations in New Zealand’s transformation program included issuing police officers smartphones and tablets pre-loaded with custom-designed apps developed in collaboration with leading technology companies. Officers were retrained to prioritize prevention, including treating incidents and calls not as one-off events but as part of a possible series of events and assessing how to prevent recurrence of such situations. To support this

prevention-centered approach, officers were trained to work more closely with agencies in the social sector.

New Zealand also instituted advanced financial-management practices to support its policing-improvement program. To drive ongoing efficiency gains, for example, it created a model listing about 40 core policing activities, such as dealing with antisocial-youth behavior and motor accidents, and assessed the time and effort required for each activity to assign a target cost to each. This action supported better understanding of demand pressures and improved resource allocation.



ROAD TRANSPORT: ENSURING INFRASTRUCTURE INVESTMENT DELIVERS BETTER JOURNEYS

Across the world, outdated road networks are a daily nightmare for commuters and travelers—and a drain on productivity for national economies. Governments are doing their best to keep up, investing many billions of dollars in transport-infrastructure projects. Among the 26 countries we analyzed, total government spending on roads rose on average by 28 percent in real terms from 2000 to 2015. Despite this massive investment, the reported quality of road transport has been flat or falling in 40 percent of the countries in our sample, according to the widely used survey measures developed by the World Economic Forum (WEF). The WEF’s perception-based findings correlate with more objective quality metrics such as the TomTom Traffic Index congestion-level indicator.

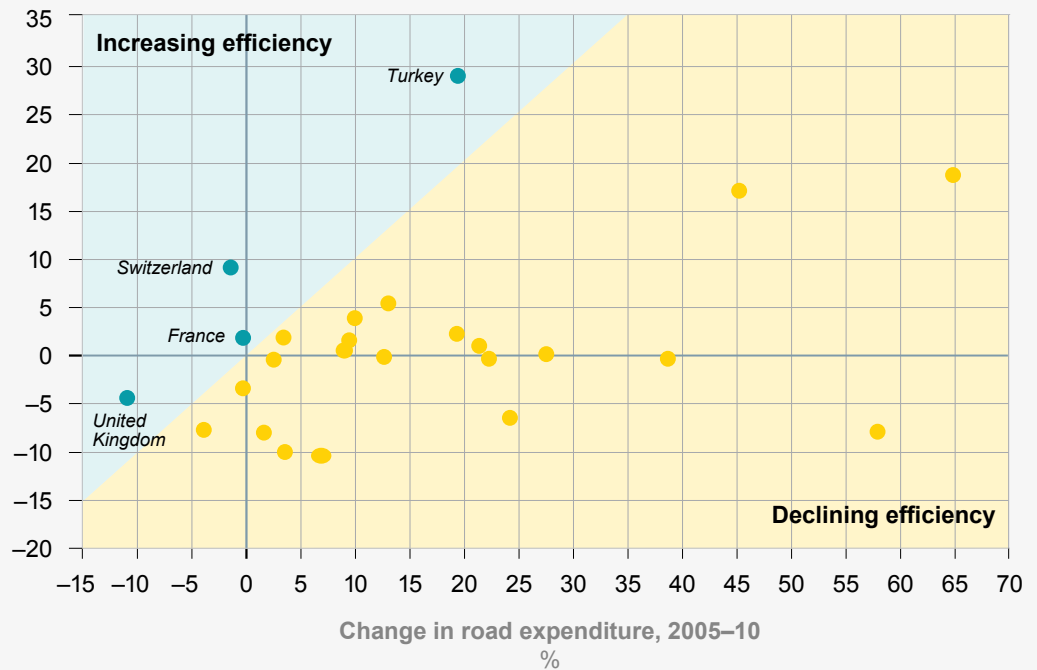
Not only have quality improvements been limited but many countries have experienced declining efficiency too, with total spending rising faster than output (Exhibit 18). To create a robust basis to gauge countries’ road-transport efficiency, we developed a metric—the “passenger kilometer equivalent” (pkme)—that combines the movements of both passengers and freight. Expenditure per pkme for road construction and maintenance increased by an average of 15 percent from 2005 to 2010 across the countries we analyzed. In other words,

Exhibit 18

Efficiency in road transport declined in most countries, as costs rose faster than usage
 Change in road usage compared with road expenditure

Change in usage
 (passenger kilometer equivalent¹), 2008–13
 %

● Countries with increasing efficiency
 ● Countries with declining efficiency



¹ Output metric that combines the movements of both passengers and freight by converting freight tonne km into passenger km equivalent units. For details on the methodology, see the technical appendix at www.mckinsey.com/government-productivity.

SOURCE: McKinsey Center for Government GPS analysis

governments are spending more to achieve the same movement of people and goods. Only four countries—France, Switzerland, Turkey, and the United Kingdom—were successful in improving their efficiency, keeping spending growth below pkme growth.

Spending more for the same output might be reasonable if there were significantly improved outcomes such as reduced congestion or more direct routes. Unfortunately, this is often not the case. Across countries with similar levels of motorist satisfaction, spending per pkme varies by a factor of two or three. Structural differences such as population density, topography, and regulatory systems do not explain away these variances. Real and enduring differences exist in the underlying efficiency and effectiveness of transport systems.

Looking within countries over time, those that spent significantly more per pkme were generally more successful than their peers in improving their quality-of-road scores. But this relationship is weak; one in four of the countries that increased their spending per

pkme actually experienced a *reduction* in transport quality from 2008 to 2013. Moreover, countries that achieved the biggest improvement in quality scores, such as Turkey, did so with little or no additional spending per pkme. (Clearly, roads are very long-lived assets, so expenditure over several decades in the past will have an impact on today's costs and quality. We adjusted for this in our methodology—but we recommend that countries gather and analyze data on the productivity of their road networks over multiple years.)

Overall, our findings suggest that many governments can do more to ensure that road-transport investments are returning value to citizens, either by moving greater volumes of traffic or by enabling faster, safer journeys (see Box 7, “How Norway is turning around its road system”). The cluster of countries with high costs and poor outcomes should focus on learning from nations that are structurally similar to them and that achieve best-in-class efficiency and effectiveness.

Box 7

How Norway is turning around its road system

Norway has low population density and complex topography—features that make road transport costly. Comparisons with similar countries, however, reveal that Norway has room for improvement. In terms of efficiency, according to our estimates, Norway's expenditure per pkme is among the highest in our sample and around 70 percent higher than in Sweden—a country the Norwegian government itself has used as a comparator.

Norway recognized that its road productivity needed major improvement. Its own estimates attributed around half of the cost difference with Sweden to project execution and design choice. In 2015, the government created a stand-alone, state-owned company, Nye Veier AS (New Roads Incorporated), responsible for all the country's major road

networks. The government tasked the new company with improving the quality of roads and reducing their cost. Nye Veier's operating approach includes the following actions:¹

- Prioritize projects according to social profitability and define a transparent, predictable, long-term development and management plan.
- Improve its commercial capabilities in procurement and project management. This includes improving and standardizing contracting processes, developing turnkey contracts that give contractors incentives to innovate, and improving risk-management and conflict-resolution schemes.
- Actively learn from international best practices in road design. The company created a delineation for the “standard road”—a

lower-cost road with clearly defined design-to-cost standards based on similar countries' practices.

- Design and monitor a set of key performance indicators to measure how the company reaches its mission of better, faster, cheaper roads.

Nye Veier estimates that these approaches will achieve future savings of 15 to 20 percent, while significantly increasing the socio-economic value it delivers. In one major road project, it has revised the design to achieve savings worth 17 percent of the total project cost.

¹ Ingrid D. Hovland, “How will a Norwegian governmental company improve road development efficiency?” presentation at a Via Nordica conference, June 10, 2016, <http://atlanticmice.event123.no/NorskVeiforum/ViaNordica2016/pop.cfm?FuseAction=Doc&pAction=View&pDocumentId=68778>.



TAX COLLECTION: TARGETING INVESTMENTS TO BOOST REVENUES

Expenditure on tax collection is small compared with other sectors, but its effectiveness in raising revenue is of critical importance for entire governments. Tax authorities must provide adequate funding to meet target levels of public services while keeping public finances sustainable. They must also ensure that the tax burden is shared fairly: if a significant part of the population evades taxes, the integrity of the tax system is undermined.

We assessed the efficiency and effectiveness of 28 tax authorities from a mix of developed and emerging economies. To measure efficiency, we used as a proxy total per capita expenditure on tax collection—a figure that ranges from \$10 to \$205 across the countries in our sample. To measure effectiveness, we looked at tax collection success, measured as 100 percent minus tax evasion as a percentage of GDP.⁵³ This figure ranges from 93 to 99 percent across our sample countries.

Our measures of tax collection efficiency and effectiveness do not take into account countries' structural differences or their cultural, social, and political characteristics. For example, more-complex tax systems may be costlier to administer, and the level of social cohesion could influence the degree of tax evasion. Our measures also do not account for differences in tax burdens—the lower the tax rate, the smaller the amount of tax potentially evaded. Nonetheless, our approach provides governments with an internationally comparable benchmark based on robust data.

We found universal progress by governments in improving the effectiveness of their tax systems from 2010 to 2015. In every one of the 28 countries whose tax collection we studied, effectiveness scores improved in this period. This achievement reflects that governments are prioritizing compliance, both internally in revenue collection agencies and internationally through cross-border tax compliance initiatives.

Comparing higher- and lower-income countries, two different stories emerged about the pace and cost of these gains. In high-income countries, compliance improvements were more modest (albeit from a higher starting point), but they were achieved while reducing costs. Tax-collection effectiveness improved by an average of 0.3 percentage points of GDP from 2005 to 2010, while per capita costs decreased by an average of 2.2 percent. In three countries—Denmark, the United Kingdom, and the United States—per capita costs fell by more than 10 percent.

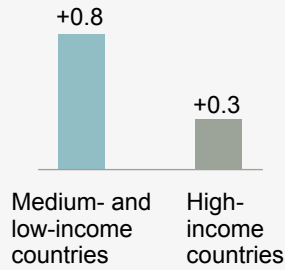
By contrast, medium- and low-income countries achieved more impressive improvements in compliance—but at a cost (Exhibit 19). Tax-collection effectiveness improved by an average of 0.8 percentage points of GDP in these nations, almost three times the rate of high-income countries. These gains were even more dramatic when viewed in terms of potential government revenue. In Mexico, compliance improved by 1 percentage point of GDP but by more than five percentage points as a share of potential government revenues.

⁵³We define “tax evasion” as the percentage of tax not collected by governments over GDP, including activities that are legal but whose proceeds are illegally hidden. This definition excludes the proceeds of illegal activities. For a full explanation of our methodology and data sources, see the technical appendix at www.mckinsey.com/government-productivity.

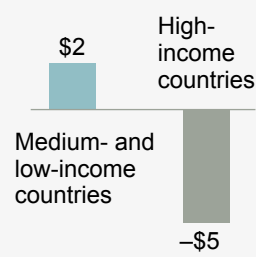
Exhibit 19

While medium- and low-income countries are catching up on tax-collection effectiveness, high-income countries have managed to cut unit costs while reducing tax evasion

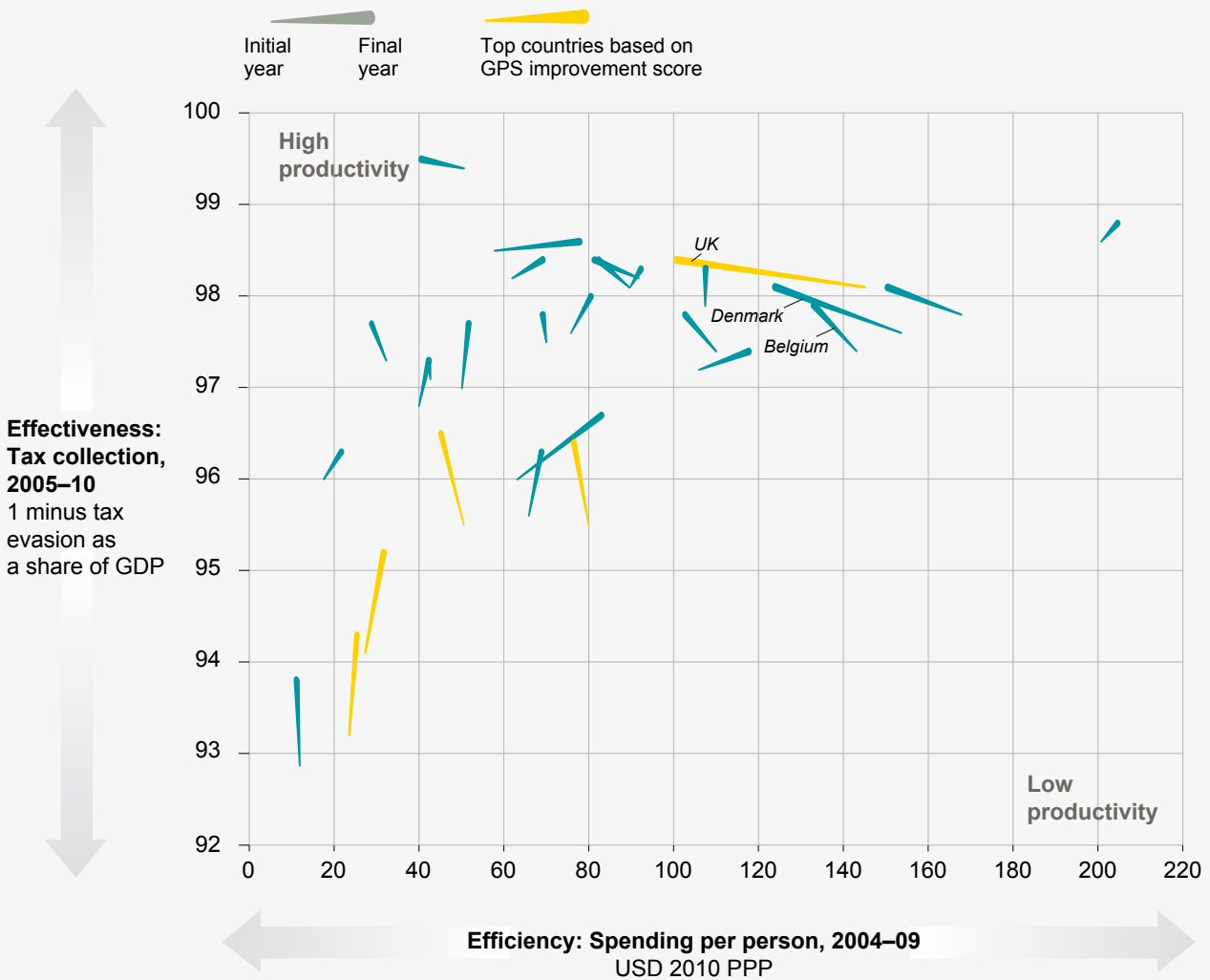
Average tax-collection effectiveness
Change in 1 minus tax evasion, 2005–10
% of GDP



Average tax-collection efficiency
Change in spending per person, 2004–09
USD 2010 PPP



Tax-collection effectiveness compared with efficiency



NOTE: Structural differences between countries significantly impact both costs and outcomes. This chart does not correct for these structural differences, and it is therefore not appropriate to directly compare countries with each other.

SOURCE: McKinsey Center for Government GPS analysis

Box 8

How Turkey raised \$60 for every additional dollar spent on tax collection

Turkey has improved its tax collection effectiveness dramatically while keeping costs under control thanks to a tax reform launched in 2004.¹

The reform centered on a far-reaching reorganization of the tax administration, including widespread adoption of digital technologies. Use of e-filing for income taxes rose from 30 percent in 2004 to 99 percent in 2009; in that period, use for corporate taxes increased from 72 percent to 99 percent, and use for value-added taxes rose from 70 percent to 99 percent.² These changes fostered increases in accountability,

transparency, and information cross-checking across agencies, among other benefits.

Turkey also simplified its tax code and moved closer to OECD best-practice standards in taxation. For example, it harmonized investment incentives and tax rates on income from financial investments, reformed income-tax credits, simplified taxation of corporate earnings and dividends, and consolidated several indirect taxes into a new special-consumption tax.

These efforts contributed to a reduction in tax evasion of 1.1 percent

of GDP from 2005 to 2010—which translated into approximately \$13 billion in tax revenue that otherwise would have been lost. Turkey achieved these gains with only a modest increase in funding to tax collection: spending rose by just over \$230 million, or around \$2 per citizen. In the end, each additional dollar spent on tax collection yielded \$60 of previously unpaid tax for the government.

¹ *Tax policy reforms in Turkey*, OECD, n.d.

² *Ibid.*

However, the costs of administering tax collection across medium- and low-income countries rose by an average of 6 percent.

For governments in medium- and low-income countries, this extra expenditure can be well worth it. In Turkey, for example, every additional dollar spent on tax collection returned \$60 to the government (see Box 8, “How Turkey raised \$60 for every additional dollar spent on tax collection”). However, as these countries continue to push for improved compliance, they should avoid unnecessary losses of efficiency.

Successful transformation programs hold the promise of delivering tax systems with high compliance and high efficiency. As highlighted above, if all 28 countries in our sample had replicated the achievements of the best performers over the past five years, they would have raised an additional \$55 billion a year in taxes—without increasing tax rates or spending more on tax collection.

Common themes of many tax-reform efforts are digitization and advanced analytics. Some countries that increased digitization reduced tax evasion significantly, at little or no additional cost per person. However, other countries experienced a substantial increase in cost while digitizing, and hence they saw efficiency decline. This finding underlines the conclusion that effective design, planning, and project management of digitization efforts is critical for impact—a theme we explore further in Chapter 5.





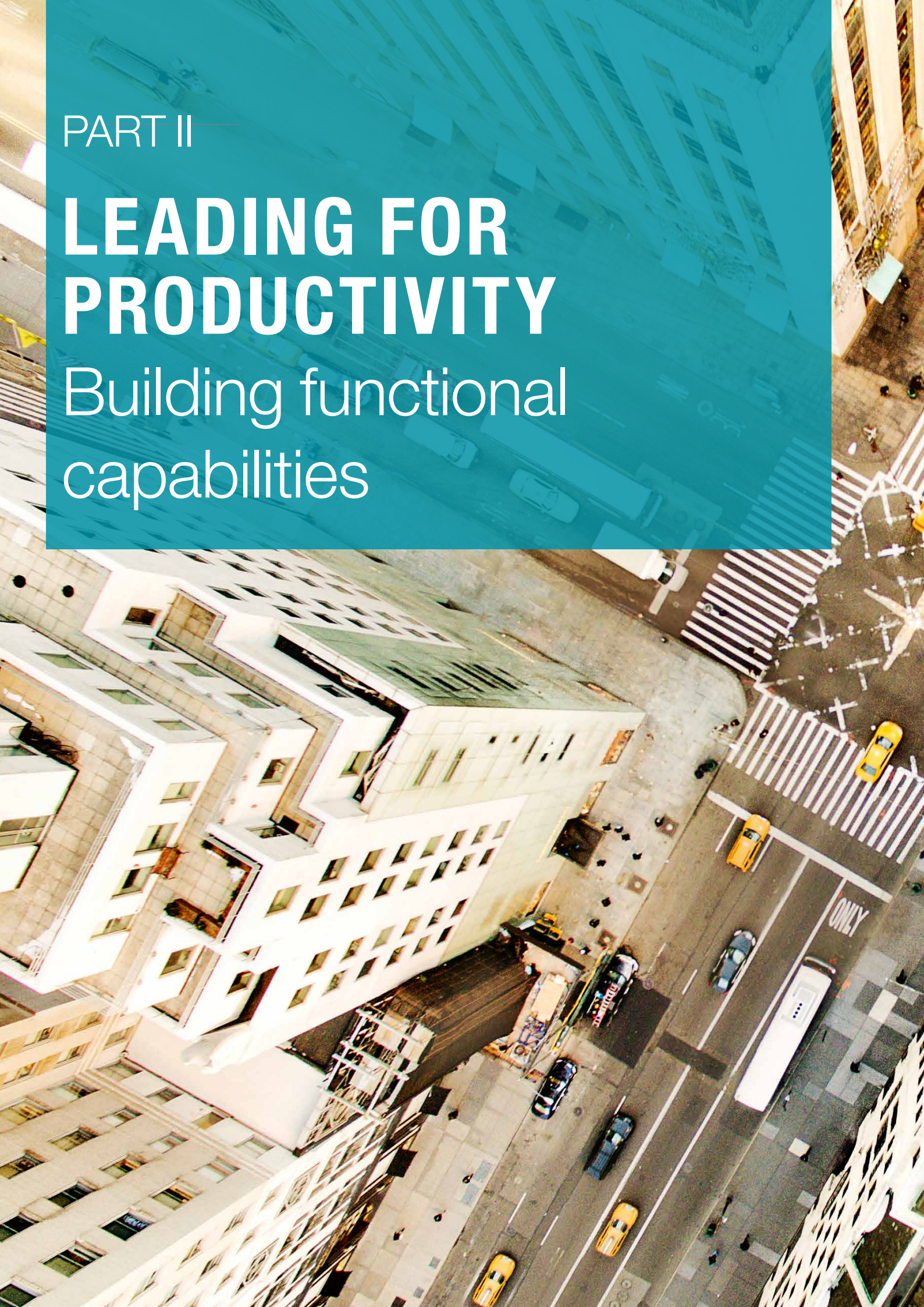
© damircic/Getty Images

Across all major sectors, we found vast differences in governments' relative efficiency and effectiveness. Moreover, many governments have improved their productivity dramatically in the past few years, while others have fallen behind. These findings point to a huge prize if governments can learn from their best-performing peers and apply global innovations in their own countries—a prize equivalent to trillions of dollars in savings, step-change improvements in societal outcomes, or both. But if such knowledge sharing is to translate into sustainable productivity improvement, governments will need to take a close look at their talent, technology, processes, and governance—and in many cases, they will need to make some profound changes. The experience of pioneering countries points to a common imperative: strengthening capabilities in key functions of government. That is the focus of Part II of this report. ■

PART II

LEADING FOR PRODUCTIVITY

Building functional
capabilities





Once a government has sized the productivity-improvement prize for its own country, how can it go about capturing that prize—and ensuring that productivity gains are sustained over time? The experiences of pioneering countries point to a common imperative in any effort to raise public-sector productivity: rethinking and reshaping the functional capabilities within government. In addition to the policy function that has historically been the core functional capability within government, the following four functions need to be strengthened to play a more strategic leadership role in pursuing efficiency and driving better outcomes:⁵⁴

- *Finance.* By taking on a more pivotal leadership role, the finance function can provide the information, insights, and incentives for public funds to be spent in ways that make a real difference in outcomes in every area of government. The finance function can also provide better data, guidance, and support to the line managers who deliver government services to citizens.
- *Commercial capabilities.* By cultivating excellence in commercial skills, governments can ensure that big-expenditure items such as procurement of goods and services, major projects, and IT programs are actively managed for value—and that they can unlock better performance from SOEs.
- *Digital technologies and data analytics.* By building effective digital functional capabilities, governments can rapidly transform citizens' experience, save money, and boost outcomes. They can also use advanced analytics to reduce waste and pinpoint those government activities that work well to improve citizens' lives—and those that do not.
- *Talent management.* A strategic HR function can ensure the entire government attracts and develops the talent needed to deliver better outcomes for less—and then manages and motivates that talent to drive ongoing productivity gains.

These functional capabilities are needed across government: at the center to help guide strategy but also at the front line where execution happens.

⁵⁴Government productivity-improvement efforts will of course also benefit from strengthened capabilities in other functions such as communications and legal. For the purposes of this report, we focus only on the four functions listed here. We should also note that, beyond strengthening functional capabilities, governments could consider other levers in efforts to improve productivity, including privatization and large-scale outsourcing. While we touch on these topics in this part of the report, they are largely outside the scope of this report.

FINANCIAL LEADERS: NAVIGATING THE WAY TO GOVERNMENT PRODUCTIVITY

As previous chapters have made clear, there is both an urgent need and a major opportunity for governments to improve their productivity—and so deliver greater social and economic value for public expenditure. Government finance functions, from finance ministries to national treasuries to department-level financial officers, must be at the heart of this transformation effort. But if they are to succeed, they themselves must transform. They will need to expand their focus beyond budgeting and fiscal stewardship—and actively drive outcomes, identify productivity-improvement opportunities, and champion change. In the journey toward Government 3.0, the finance function should be the navigator, helping departments and agencies to map clear routes to better outcomes, developing finely tuned measures of progress, and providing early warnings of storms ahead.

In the course of this study, we interviewed a range of public-sector finance leaders in both developed and developing countries. These discussions, and our broader research, highlighted several examples of countries, states, and cities where the finance function has adopted bold new approaches to setting, measuring, and driving outcomes, often in partnership with heads of state or other top government leaders. We highlight several of those examples in this chapter. However, most of the leaders we spoke to agreed that there were still major untapped opportunities to manage public finances more strategically, effectively, and efficiently. The Government Productivity Scope (GPS), set out in Part I of this report, reinforces this conclusion: in many countries, increased government expenditure has not translated into significant improvements in outcomes.

In most countries, the ministry of finance will be the central driver of “Finance 3.0,” the agenda of the next-generation government finance function. But the navigators of Finance 3.0 will also be found in the finance functions of ministries and agencies responsible for designing and delivering public services, as well as in regional and city governments.

Finance functions can focus on the following five key disciplines to achieve a step-change improvement in productivity:

- Get the necessary data and analytics foundations in place.
- Run periodic benchmarking and spending reviews to scrutinize and improve department-level spending productivity.
- Create ongoing performance dialogues with departments and help strengthen adherence to budgets and goals.
- Coordinate strategic thinking so that spending drives long-term social and economic outcomes.
- Actively manage the government balance sheet to unlock value.

By driving these five disciplines, finance functions can help deliver both significant savings in expenditure and meaningful improvements in outcomes over time. Of course, governments that are under heavy fiscal pressure may need to take additional actions to reduce their budget deficits and maintain the viability of public finances. While the elements of financial leadership we discuss in this chapter will be instrumental in such situations, there are several other levers that governments can use to ensure their revenues cover their costs or slow their debt growth (see Box 9, “Taking action to reduce government deficits”).

Finally, we note that some government finance functions exercise many other responsibilities such as designing and implementing broader fiscal and economic development policies. While these responsibilities are clearly important for countries’ fiscal sustainability and prosperity, our focus in this report is on the enhancements finance functions need to make in order to deliver Government 3.0.

GET DATA AND ANALYTICS FOUNDATIONS IN PLACE

To serve as effective navigators of the journey to greater government productivity, finance leaders must have accurate, timely data and insightful analysis at their fingertips. But this is a challenge, as legacy government data systems often rely on manual processes, have slow

Box 9

Taking action to reduce government deficits

By taking a more strategic approach to financial management, finance functions will gain much greater clarity on the opportunities to drive cost-effective outcomes, cut wasteful expenditure, and unlock value from the government balance sheet. When they are under pressure to reduce budget deficits, however, they will need to consider a broader set of levers—including steps to increase revenues.

As discussed in the previous chapter, several countries have had great success in improving the effectiveness of their tax collection, increasing revenues without changing tax policy. Governments also have opportunities to enhance

revenues by strengthening customs collections and by considering the use of fees and charges to require users to contribute directly to the cost of government services. For example, one Middle Eastern country found citizens willing to pay a premium for drivers’ licenses and car registrations with a longer validity period.

On the expenditure side, all the finance levers we discuss in this chapter can help reduce expenditure, as can the commercial disciplines covered in the next chapter. However, reducing budget deficits also requires looking at social benefits such as pensions and social security, which make up

more than 30 percent of government expenditure worldwide. Paring back these benefits requires difficult political choices but may be necessary to balance the books.

In many cases, governments can use digital technology and data analytics to unlock both savings and revenue-improvement opportunities. We explore these levers in the next two chapters. Moreover, as we describe in the concluding chapter of this report, several governments have honed an effective approach to delivering major change programs—a programmatic approach that will support any effort to reduce budget deficits.

turnaround times, and do not automatically generate meaningful management information. Building a robust fact base and analytical capacity is essential if finance functions are to play a more strategic role in driving performance across government and in measuring its impact on citizens' lives.

A solid financial fact base is necessary to inform performance monitoring, benchmarking, spending reviews, and resource-allocation decisions. This fact base also helps next-generation finance functions engage line departments in a constructive, ongoing performance dialogue to prompt rapid course-correction when spending or performance is off track—and to improve planning and implementation over the longer term. As a framework for such performance dialogues, finance leaders can strengthen rules and mechanisms to ensure budgetary compliance and accountability for spending.

But building such a fact base is no easy task given the scale of government, the legacy data systems in place in many countries, and the large numbers of data sources that must be reconciled. Many government finance functions spend considerable time collecting and reconciling data from multiple systems. One government we studied reconciles more than 40 different financial systems from different departments to develop a view of government spending and performance. And some governments still use manual processes and reconciliations, meaning they lack the timely, accurate data needed to inform month-to-month decision making. As a result, departments risk overspending their budgets—or underspending them and playing catch-up in the final months of the financial year. Moreover, most government finance systems are focused on expenditure only and lack an integrated view of how spending translates into outputs and outcomes.

To build a fact base that truly guides decision making, finance functions need to develop systems to collect data accurately and regularly. Data collection and collation processes need to be automated and take a light touch (as we discuss in Chapter 5). Just as important, finance functions need to make sure they are capturing the right metrics, which might include efficiency metrics such as cost per student across different schools, operational metrics such as the number of pkme's achieved across a country's road network, and specific outcomes such as reoffending rates for released prisoners. As we discuss below, these metrics should allow comparison with global benchmarks and the ability to pinpoint areas or facilities needing special attention.

The challenge here is to select a limited number of high-quality metrics that are directly relevant to the government's priorities rather than looking only at variables that are easy to measure—or falling into the trap of trying to measure everything. In the words of one government leader interviewed for this study, "We generate massive amounts of data that we don't use." In such cases, government employees often devote major effort to data collection that creates little value, directing precious resources away from service delivery.

When governments have robust and meaningful data in place, they can begin to use advanced data analytics to create better insights and improve resource allocation. For example, the UK Department for Education has used citizen-level data from multiple sources to quantify the return on investment from financing different types of education. Taking anonymized data from the country's national pupil database, Higher Education Statistics Agency, and tax authority, the program has tracked individuals through their lives to correlate their education

paths with their employment and earning levels. The findings have revealed the economic value of each pound spent on different qualifications and in different education institutions, allowing for more informed decisions in allocating spending.

The German federal employment agency provides another example of using data to tailor interventions to individuals. The agency adopted a customer-centered business model in 2007 that introduced new profiling tools, enabling staff to create individualized approaches to place unemployed citizens in jobs. Together with a suite of other reforms, this model contributed to reducing the number of unemployed people in Germany from 4.5 million in 2003 to 2.9 million in 2011 and more than doubling the number of job placements made.⁵⁵

Such citizen-based analytics help governments identify “at-risk” individuals and invest early to avoid future costs to the welfare or health systems, as well as to improve outcomes for the most disadvantaged. They can also track individuals across time to understand their interactions with the government and whether public-sector interventions are delivering results for all citizens. An example is New Zealand’s Social Investment Analytics Layer, launched in 2016 to help improve outcomes in priority areas ranging from early childhood education to youth skills to reoffending rates. This analytical tool maps around two-thirds of the country’s \$37 billion in social-sector spending back to anonymized individuals.⁵⁶ This mapping reveals the impact of cross-sector programs on individual citizens and makes it possible to track their use of public services over time.

Governments seeking to emulate these approaches to data collection and analytics must tackle several potential obstacles, including data availability, privacy issues, and regulatory barriers. But the pioneering initiatives discussed here provide a glimpse of the future—a world in which governments harness data to create deep insight into the impact of their programs and their spending, as well as to deliver better outcomes right through to the level of the individual citizen.

RUN PERIODIC BENCHMARKING AND SPENDING REVIEWS

With a foundation of robust data, finance functions can take their navigational role to a more strategic level. First, they can benchmark the efficiency and effectiveness of departments—both against other departments within their countries and against peer nations around the world. Such benchmarking can be a powerful way to engage departments on productivity-improvement opportunities and unlock significant savings. Second, finance functions can draw on data and dialogues to undertake comprehensive spending reviews that realign government budgets around national priorities.

Benchmark internally and externally to understand cost drivers and unlock step-change productivity improvements

With a solid fact base in place, governments can benchmark comparable metrics among different ministries, regions, or institutions and compare their performances and cost bases with those of other countries and the private sector. As we showed earlier in this

⁵⁵*Behind the German jobs miracle*, McKinsey & Company, October 2012.

⁵⁶Throughout Part II of this report, we have converted non-US-dollar figures into US dollars using 2010 exchange rates. The original figures in this sentence are from “Social Investment Analytics Layer launch,” speech by New Zealand Prime Minister Bill English, September 28, 2016, transcript available at <https://www.beehive.govt.nz/speech/social-investment-analytics-layer-launch>.



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report, such benchmarking can inspire huge savings aspirations and highlight ways in which governments can deliver improvements in outcomes at little or no additional cost. Some benchmarking exercises will be specific to one department only—for example, identifying public spending per primary school student by borough, city, or region, adjusting for structural factors and comparing the results between different locations within the country or globally.

Other metrics, such as space utilization per employee in government offices, can be compared right across government and benchmarked internationally. One such office-space benchmarking exercise undertaken in the United Kingdom highlighted savings opportunities worth more than \$1 billion, enabled the government to exit 2.4 million square meters of unneeded space—an area larger than Monaco—and reduced carbon emissions from the government estate by 22 percent.⁵⁷

Across government, we estimate that benchmarking can identify savings of up to 10 percent of operational and administrative costs in the typical department or agency. For example, a McKinsey & Company study of 13 national tax authorities found that, between them, they could collect an additional \$86 billion in direct tax revenues and save almost \$6 billion in costs if every agency were to perform as well as the top one-third.⁵⁸ The study, undertaken in 2008, examined two measures of productivity: efficiency, expressed by the cost per

⁵⁷*Beyond budgeting: Capturing value from the government's asset portfolio*, McKinsey & Company, September 2014.

⁵⁸*The road to improved compliance*, McKinsey & Company, September 2009.

dollar of tax revenue collected, and effectiveness, expressed by the proportion of taxes payable that was actually collected. McKinsey compared performance across and within countries, revealing considerable variations (Exhibit 20). The analysis of tax collection undertaken for this report confirms the opportunity presented by benchmarking.

Conduct regular, comprehensive spending reviews

Granular data and analysis on financial measures and outcomes enables another key practice—conducting regular, comprehensive spending reviews. These reviews are widely used in the private sector but are still nascent in the public sector. A spending review scrutinizes the effectiveness of expenditure in different areas and informs the development of savings measures, either through improved efficiency or by reducing services.

The finance function has a vital role to play in establishing the objectives and scope of the spending review, working with the relevant department to identify savings, acting as a “coach” to challenge departments’ ambitions on what is possible, and ensuring that the findings of the review inform budget and resource-allocation decisions.

In the private sector, companies that undertake strategic reviews of their finances on a frequent basis and make tough decisions about investments are quick to reallocate resources. Companies with this type of dynamic budgeting tend to deliver significantly higher shareholder returns than their peers. By contrast, our analysis shows that most

Exhibit 20

Tax benchmarking demonstrates a wide range of performance within and across countries

Performance scores
Scale 0–100

Submissions Collections
Examinations Taxpayer service



SOURCE: *The road to improved compliance*, McKinsey & Company, September 2009

governments change their spending allocations only marginally from year to year, suggesting an opportunity to review and readjust spending much more boldly (Exhibit 21).

Since the 1980s, several governments have undertaken structured spending reviews, generally on an ad hoc basis, to align resource allocation with their strategic priorities and reallocate as priorities change. Particularly in times of fiscal pressure, governments have used spending reviews to achieve transparency on spending and identify opportunities to improve efficiency, realize savings, and better target resources toward high-priority programs. The following are some examples:

- *Nigeria* launched an “efficiency unit” in 2015 and reported that it had realized savings of \$48 million in travel expenses across the country’s federal government within its first year.⁵⁹
- *Italy* undertook a spending review that identified \$28 billion in savings to be delivered in 2016 across a range of areas, from consolidating procurement of goods and services

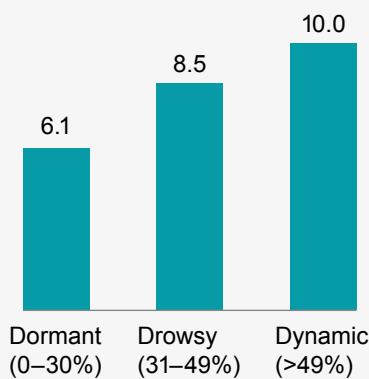
⁵⁹Chris Agabi, “Nigeria: Govt saves n15 billion in travel costs, allowances in one year – official,” AllAfrica.com, October 14, 2016.

Exhibit 21

Most governments change their spending allocations only marginally year-on-year, suggesting an opportunity to improve allocative efficiency

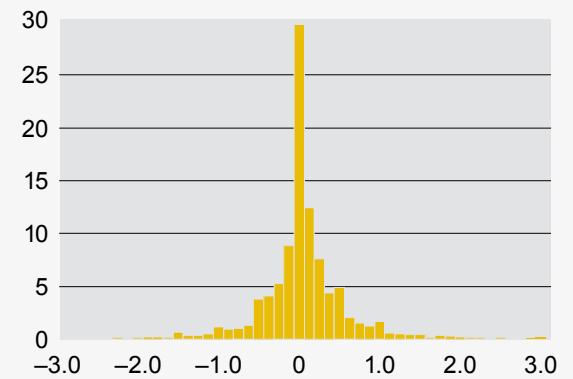
Companies that reallocate budgets dynamically tend to deliver higher shareholder returns

Median total shareholder return growth rate by degree of capital reallocation, 1990–2010
Compound annual growth rate, %



By contrast, in governments, fewer than one in ten sector budget allocations in EU governments changed by more than 1 percent

Frequency with which sector allocation changed year-on-year, 2006–14
Total reallocations¹ across EU countries, %



¹ 1 Percent of total budget spend for each Eurostat sector of culture, defense, economic affairs, education, environmental protection, general government, health, housing, legislative/executive, old age, public debt transactions, public safety and order, sickness and disability, social protection, transport, and unemployment.

SOURCE: Eurostat government expenditure statistics; McKinsey Center for Government analysis

across government departments to merging police forces to reducing the government vehicle fleet by half.

- *Sweden* responded to a fiscal crisis in the 1990s with a large-scale spending review across the government. As a result, it achieved \$15 billion in savings in 1996, equivalent to around 8 percent of GDP.
- *Canada* embarked on a three-year strategic review in 2007, requiring agencies reviewed to identify savings options totaling at least 5 percent from their lowest-priority, lowest-performing program spending. Under the ensuing strategic and operating review, agencies were required to present savings options totaling 10 percent of such program spending.⁶⁰
- *Denmark* has carried out spending reviews regularly since the 1980s, integrating the findings into the budget on an ad hoc basis. On average, these exercises have revealed potential efficiency gains of about 15 percent of the targeted cost base of non-core activities, such as overheads and facility management, across departments and agencies.
- *The Netherlands* has also completed a number of spending reviews since the early 1980s, with the Comprehensive Expenditure Review in 2010 addressing 20 review topics across general government operations as well as social security. The 2010 initiative was expected to capture \$40 billion in savings by 2012, representing 12 percent of the spending in the review's scope.⁶¹

The OECD has recommended that spending reviews become a permanent feature of governments' budget preparation processes.⁶² It notes that spending reviews are much more than a tool for cutting aggregate expenditure and instead should be viewed as a core instrument for ensuring good expenditure prioritization and expanding the fiscal space available for high-priority new spending. We concur: if government finance functions make spending reviews a regular, recurring discipline, they stand to unlock significant productivity improvements.

A few governments have integrated innovative approaches—such as zero-based budgeting and performance-based budgeting—into spending reviews, with the aim of more profoundly challenging the existing budget allocation. Zero-based budgeting looks for the highest return on spending, from the bottom up, rather than comparing the current year's spending to the previous year's. Several countries have used it to gain a focused view of specific areas where there are opportunities to achieve substantial savings. For example, the UK government deploys a process similar to zero-based budgeting for periodic reviews of capital expenditure.

Performance-based budgeting, on the other hand, uses performance measures to inform decision making—in contrast to the common practice in governments of running

⁶⁰Working party of senior budget officials, 3rd annual meeting of OECD senior budget officials: *Spending reviews*, OECD, May 28, 2013.

⁶¹Ibid. Working party of senior budget officials, May 28, 2013.

⁶²Ibid.

budgeting and performance monitoring in parallel and as separate exercises. For example, Singapore's Ministry of Finance produces the biennial Singapore Public Sector Outcomes Review, which reports on whole-of-government outcomes and indicators that reflect policy priorities such as monthly household income and work-training participation rates. These indicators, in turn, inform budgetary decisions in future years.

CREATE PERFORMANCE DIALOGUES AND HELP DRIVE ADHERENCE TO BUDGETS

Periodic deep dives into the spending and outcomes of departments are helpful to drive major course corrections and changes. They need, however, to be supplemented with a more continuous, collaborative relationship between finance and delivery organizations such that performance is monitored and discussed on an ongoing basis. To underpin such dialogues, finance functions can establish mechanisms to ensure budgetary compliance and increased accountability for spending.

Create ongoing performance dialogues to enable timely course correction

In the most successful private firms, chief financial officers (CFOs) and their teams are increasingly playing the role of business performance coach, using data and analysis to help business-unit leaders continuously improve their performance and deploy resources more effectively. These next-generation CFOs are skilled in using financial and performance data to highlight future trends, pinpoint new challenges and opportunities, and ask difficult questions, all the while adopting the posture of coach and partner to line executives. In the public sector, there is an opportunity for finance functions to deploy such ongoing performance dialogues much more widely—both to prompt course correction when spending or performance is off track and to strengthen long-term planning and implementation capabilities across government.

To support these performance dialogues, government finance functions can consider redesigning some core financial practices. In particular, most governments today base their performance-monitoring calendars on the annual budget cycle. This approach can lead to unintended behaviors by line departments, such as disproportionate expenditure just before the end of the budget year (on the assumption that underspending against a departmental budget will result in a lower budget allocation for the following year). It also means that there can be long stretches of the year with little performance oversight or that new initiatives with a high return on investment can only be launched in the following financial year.

Several countries have sought ways to tackle these issues. For example, Indonesia introduced monthly performance monitoring as part of its public-sector reforms in 1999.⁶³ Australia allows departments' unspent administrative costs to be rolled over to the following year, subject to cabinet approval. Other countries allow departments to accumulate carryovers, subject to prescribed limits. France and Sweden, for example, allow a maximum of 3 percent of each department's expenditure to be carried over from one year to the next. Such arrangements incentivize proper planning before money is

⁶³Maggy Horhoruw et al, "Transforming the public sector in Indonesia: Delivering *total reformasi*," IRSPM conference paper, January 2013.

The political temptation for individual departments to make decisions that depart from a long-term strategy is often high. Finance functions have a critical role to play in helping governments steer away from such siren calls.

spent, encourage optimal timing of project initiation and delivery, and allow the finance function to partner more effectively with departments to strengthen performance and resource allocation.

Establish mechanisms to ensure budgetary compliance and increased accountability for spending

Effective performance dialogues need to be backed up with robust compliance mechanisms and fiscal rules—not only to maintain spending at sustainable levels but also to move governments toward greater productivity and impact overall. The political temptation for individual departments to make decisions that depart from a long-term strategy is often high. Finance functions have a critical role to play in helping governments steer away from such siren calls and stay the course to deliver on their long-term strategies.

Fiscal rules, which today are in place in more than 100 countries, are one tool that finance functions can use for this purpose (Exhibit 22). These rules typically put restrictions on spending increases, budget deficits, or public debt levels. However, fiscal rules lack impact if there is no mechanism to ensure compliance—a well-known challenge in the European Union, where several countries are in breach of supranational fiscal rules including a maximum debt-to-GDP ratio of 60 percent and a maximum budget deficit of 3 percent of GDP. Accordingly, several countries have introduced compliance mechanisms such as legally mandated expenditure ceilings. Denmark, for example, implemented a law in 2012 that mandates the minister of finance to impose economic penalties on ministries or local governments if they breach their respective expenditure ceilings. In Germany, the government is legally required to reduce expenditure if budget deficits exceed a threshold of 0.35 percent of GDP.

COORDINATE STRATEGIC THINKING SO SPENDING DRIVES LONG-TERM OUTCOMES

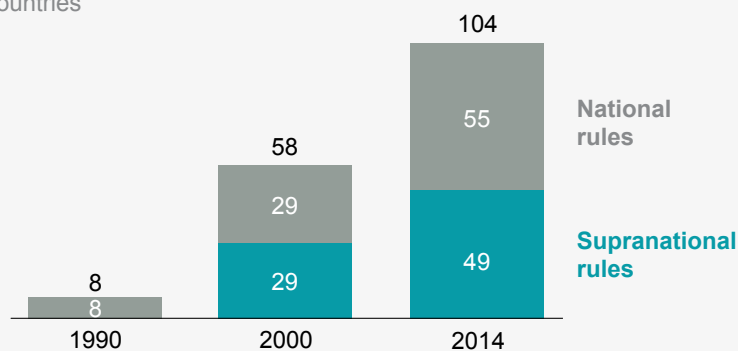
The practices discussed above—building a robust fact base and analytical capability, undertaking effective benchmarking and spending reviews, and creating meaningful performance dialogues—are each important in their own right. Together, though, they enable finance functions to drive the overarching goal of Government 3.0: greater impact in achieving the societal outcomes that matter most. In many cases, opportunities to achieve “quick wins” exist, but most social and economic priorities—from improving health and education outcomes to boosting inclusive growth—require long-term strategies and delivery plans. The fourth key discipline of Finance 3.0 is therefore to coordinate strategic long-term thinking across the government to support consistent productivity improvements.

Exhibit 22

Fiscal rules have become more common and are now in place in more than 100 countries

Fiscal rules in countries over time

Number of countries



SOURCE: "Fiscal rules dataset," International Monetary Fund

This is no easy task given the short-term pressure often caused by economic volatility, natural disasters, political and security crises, and the electoral cycle. Moreover, measuring and evaluating the impact of government interventions is frequently difficult; the challenge is even greater when considering issues and outcomes that cut across departments. But as an integrator of various functional areas and the custodian of public resources, the finance function is ideally placed to focus decision makers on key long-term objectives. It can provide the information and analysis to inform strategic decision making, help prioritize outcomes, and identify the biggest opportunities to improve productivity. It can also help foster innovative approaches, technologies, and service-delivery models across government—a critical enabler of productivity improvement—by ensuring that appropriate investment is dedicated to innovation.

Efforts by finance functions to improve delivery of long-term outcomes can build on the medium-term fiscal and budgetary frameworks already in place in many countries. Best-in-class finance functions go further: not only do they focus on fiscal targets, they also put in place outcome-driven approaches to achieve priority societal goals. Adherence to financial goals ensures that debt-servicing costs do not crowd out resources for social programs, while clear outcomes objectives help ensure those resources are invested productively.

Several countries are pioneering new approaches to drive long-term outcomes on topics of critical national importance. For example, New Zealand has set ten cross-cutting, five-year targets to improve public services while strengthening government finances. The targets range from reducing crime to increasing participation rates in early childhood education, and each is driven by a collaborative, multiagency team reporting to the prime minister (see Box 10, "How New Zealand drives cross-government focus on critical social goals"). Singapore's Public Sector Outcomes Review, discussed above, provides another example. What such approaches have in common is that they concentrate a government's attention on a limited number of high-priority outcomes goals rather than dispersing focus across a large number of metrics that are hard to track, interpret, and manage.

Box 10

How New Zealand drives cross-government focus on critical social goals

In 2012 the government of New Zealand made a commitment to deliver better public services within tight financial constraints. It set out ten priority results, each with quantified five-year targets. These included reducing welfare dependence, increasing participation in early-childhood education, reducing crime and reoffending rates, and increasing citizens' use of and satisfaction with e-government services.

None of the targets were specific to one ministry; instead, different ministries were asked to set up cross-agency teams responsible for achieving the targets and reporting

to the prime minister. For example, a Social Sector Forum, representing the ministries of business innovation, education, health, justice, social development, and Pacific peoples, is responsible for driving the targets related to vulnerable children. New Zealand's treasury supports implementation of the program and makes budgetary allocations, particularly for seed funding and cross-agency funding. It also plays a vital role in impact monitoring and performance management.

While the program is not yet complete, early indicators are positive. For example, the proportion of eight-month-olds immunized

increased from 84 percent in 2012 to 93 percent in 2016. Total recorded crime fell by 15 percent from 2011 to 2016, and reoffending dropped by almost 10 percent in that period. As of mid-2016, the program had released nearly \$2 billion out of a target of \$8 billion by reducing the number of people at risk of welfare dependence.¹

¹ For further details and results, see "Better public services," New Zealand State Services Commission, www.ssc.govt.nz/better-public-services.

Countries that are pioneering such outcome-driven approaches are also paying close attention to the financial part of the productivity equation. Just as they are accelerating impact on priority societal goals, they are finding ways to deliver that impact at lower cost and ensure that long-term revenues are sufficient to pay for government programs. This long-term approach is critical given that many governments have been affected by unforeseen spending increases and volatility in revenues—particularly in recent years. Research by the Rockefeller Institute of Government found that 42 of the 50 states in the United States experienced an increase in revenue volatility from 2000 to 2013, driven largely by increasing volatility in income-tax receipts.⁶⁴

ACTIVELY MANAGE THE BALANCE SHEET TO UNLOCK VALUE

As governments come under pressure to deliver better services and outcomes with constrained resources, another key enabler of Finance 3.0 is to manage the government balance sheet more rigorously and actively. Active management of the balance sheet is a common practice among private-sector companies, but to date it is far less common in the public sector. In most countries, governments have assets and liabilities worth trillions of dollars, but few have truly optimized their management to deliver value to taxpayers and citizens.

⁶⁴Donald J. Boyd and Lucy Dadayan, *State tax revenue forecasting accuracy: Technical report*, The Nelson A. Rockefeller Institute of Government, September 2014.



By establishing a comprehensive balance sheet using a broad definition of assets and liabilities, governments can also gain an accurate picture of long-term spending commitments that might be hidden from view in standard budget documents. Such subspending includes liabilities arising from alternative financing mechanisms such as deferred debt payments, infrastructure concessions, and borrowing by government-backed entities.

Construct a whole-of-government balance sheet and unlock value through regular and rigorous reviews

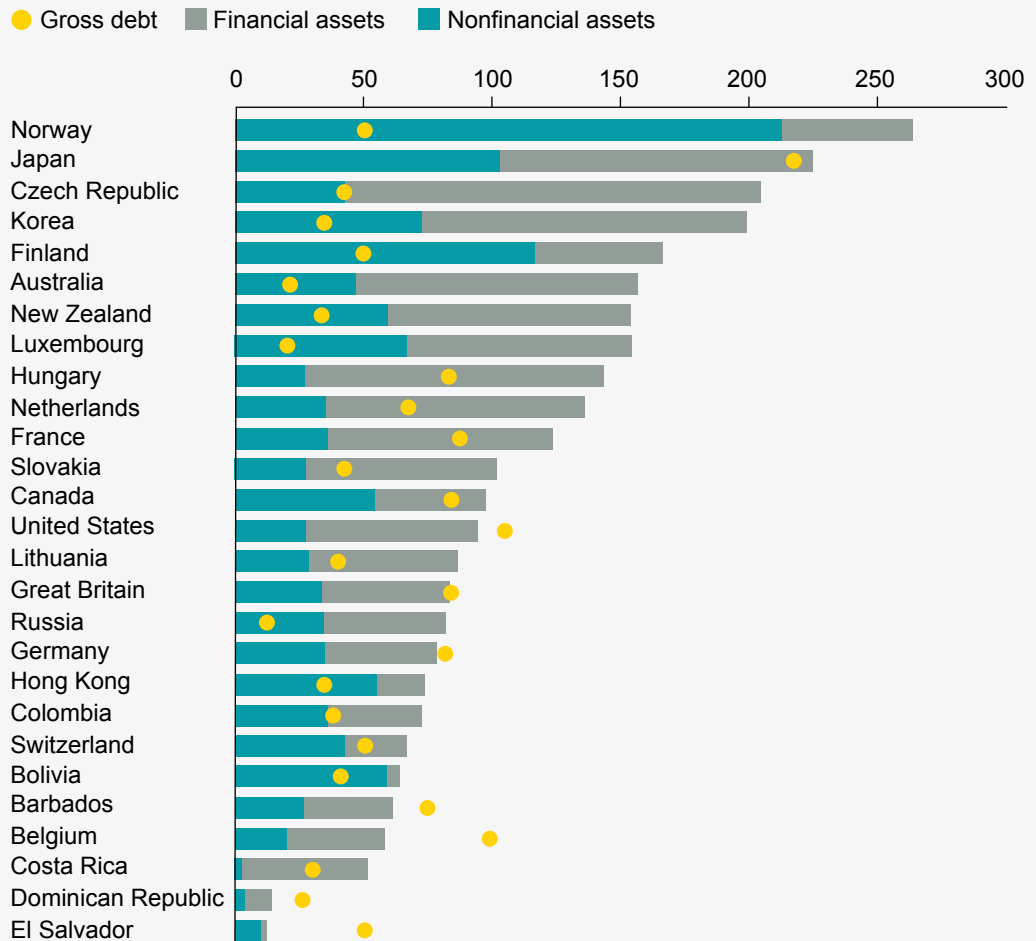
The untapped opportunity in actively managing government balance sheets is significant given their scale. Government holdings of non-financial assets on average stand at 67 percent of GDP, while government-held financial assets exceed 40 percent of GDP. Total government assets are commonly much larger than government liabilities (Exhibit 23), and there is evidence that non-financial assets have been expanding in recent years (Exhibit 24). Land and buildings are generally the largest reported class of non-financial assets. In the OECD countries alone, one estimate suggests that governments own sellable land and buildings worth up to \$9 trillion, representing a real opportunity to reallocate any excess assets to other purposes such as debt repayments and infrastructure development.⁶⁵

⁶⁵“The \$9 trillion sale,” *The Economist*, January 11, 2014.

Exhibit 23

Total government assets are very significant and often much larger than government liabilities

% of GDP



SOURCE: Elva Bova et al., *Another look at governments' balance sheets: The role of non-financial assets*, International Monetary Fund working paper number 13/95, May 2013

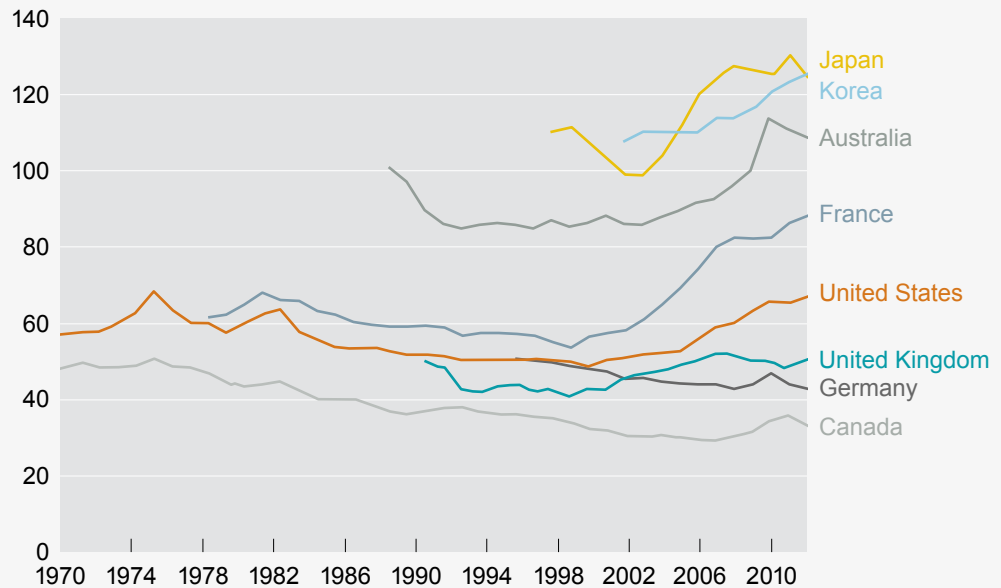
Finance functions can help unlock value by building a whole-of-government balance sheet and putting in place a rigorous review process that improves management of existing assets and considers the government's balance-sheet exposure in a comprehensive manner. Ministries of finance in particular can develop a sovereign balance sheet that provides answers to three key questions: is government ownership appropriate for each asset? Are the various parts of the balance sheet managed effectively, and do they cover their cost of capital? And what are the key financial risk drivers that could affect the balance sheet?

Few governments have established a comprehensive balance sheet to realize the opportunities available from more active management. New Zealand's approach is among the most comprehensive and transparent. New Zealand law requires the government to produce an investment statement every four years to provide a structured assessment of the

Exhibit 24

Government non-financial assets have generally grown in recent years

Government non-financial assets, high-income economies, 1970–2012
% of GDP



SOURCE: Elva Bova et al., *Another look at governments' balance sheets: The role of non-financial assets*, International Monetary Fund working paper number 13/95, May 2013

country's overall asset and liability portfolio. The statement includes the size and structure of the national assets-and-liabilities portfolio, an assessment of the efficiency of asset use, and an overview of financial and commercial efficiency of the portfolio. In 1996, for example, the development of the balance sheet resulted in the sale of a commercial forestry company based on the amount of capital tied up in the business and its exposure to volatility in log prices. With a transparent balance sheet, governments can realize value through a regular review process with levers including asset ownership, and they can maximize profits from government-owned assets, evaluated against any societal goals for government ownership.

Privatization is a key policy choice in this space, but it is not necessarily a universally applicable method for creating value. Sweden provides an example of a rigorous approach to ensure that any privatizations generate long-term public benefit. It undertakes portfolio reviews involving structured analysis of state-owned assets to determine the extent to which they satisfy predetermined criteria for ongoing public ownership. These criteria consist of the following: the asset fulfills a societal interest that cannot be solved in the private sector, a clear national interest exists from continued government ownership, and continued ownership is required to generate long-term value for the government, preserve competition, and preserve employment.

Australia’s approach to asset review and subsequent privatization is also widely regarded as best practice. It realized more than \$11 billion from privatization from mid-2013 to mid-2015, deploying a range of models including initial public offerings, 99-year leases, and full sales through auction. Furthermore, Australia has established innovative institutions and mechanisms to ensure privatization generates maximum public benefit. For example, the country’s federal Asset Recycling Initiative established a \$4 billion fund to reimburse states for 15 percent of asset-sale proceeds, to be reinvested into new infrastructure. To date, this has catalyzed new infrastructure investments worth more than \$15 billion.

Selling public assets is not the only option to optimize asset value. With an appropriate understanding of government motivations and policy, a thorough balance-sheet review can identify several other opportunities—including improving the operational performance of government assets, rethinking business and financial models (for example, by introducing or adjusting user fees), and shifting ownership or management through partial sales or long-term concessions.

DEVELOP AN ACCURATE VIEW OF “SUBSPENDING,” INCLUDING HIDDEN LONG-TERM LIABILITIES

When governments are under pressure to increase spending but face fiscal constraints, they sometimes resort to alternative (and in most cases more expensive) financing mechanisms—or “subspending”—which are typically not reported in standard annual financial reports but can result in significant additional liabilities in subsequent years. Examples of such subspending include the following:⁶⁶

- *Deferred debt payments arising from public-private partnerships.* For example, Portugal has used such partnerships widely to build infrastructure. In 2011, the deferred debt payment obligations from these contracts were estimated at nearly 1 percent of GDP.
- *Long-term liabilities of concessions.* In Chile, for example, significant investment in public infrastructure has come from private-sector concessions, with total investment through these vehicles amounting to as much as 4 percent of GDP. Although the concession arrangement typically reduces the near-term cost to government of infrastructure provision, it can result in major long-term liabilities.
- *Borrowing by government-backed entities.* For example, Chinese local governments generally are prohibited from borrowing themselves—but they can establish entities to borrow on their behalf. Such borrowing can often imply a government guarantee, even if no such guarantee is formally in place.
- *Guarantees to private-sector enterprises.* Several countries have explicitly or implicitly guaranteed the solvency of key private-sector businesses. In the aftermath of the 2008–09 financial crisis, governments provided a total of \$1.7 trillion in direct support to the financial sector globally. In Ireland, the IMF found that the government absorbed banking-sector liabilities equal to 41 percent of cumulative GDP from the beginning of the crisis until mid-2011. If governments do not appropriately monitor and manage such contingent liabilities, they can expose themselves to significant fiscal risk.

⁶⁶Timothy C. Irwin, *Accounting devices and fiscal illusions*, IMF staff discussion note, March 28, 2012.

Finance functions can take the lead in monitoring the use of alternative financing mechanisms across government. They can also establish a decision-making process that can be used to challenge such subsending when the risks it poses are excessive or the spending is not truly needed. This process should define appropriate “subfiscal” rules to limit undue risk exposure. These guidelines will prevent the derailing of governments’ long-term productivity drives, which can be seriously disrupted by sudden shifts in the availability of funding.

Finance functions can take several other steps to increase the transparency of subsending. For example, civil-service pensions—which are not recognized as liabilities in many countries—can involve deferring large volumes of spending. The publication of the United Kingdom’s first comprehensive balance sheet in 2011 prompted a revision of the pension scheme, the liabilities of which the IMF estimated at 81 percent of GDP. The scale of these liabilities is significant, with civil-service pensions making up approximately one-third of total liabilities in high-income countries such as Australia and the United States.⁶⁷

Finally, finance functions can help ensure that existing fiscal rules have as comprehensive coverage of spending as possible; these rules can potentially bind the whole public sector, including SOEs. This approach will reduce the risk of governments bypassing fiscal rules to enable additional spending that might cause fiscal headaches down the line.



Finance functions should be the primary navigators of the journey to Government 3.0, characterized by greater government productivity and better societal outcomes for the long term. To play this role effectively, however, they need to assemble a crystal-clear fact base on government finances and outcomes and use this insight to drive an active dialogue and productivity partnership with departments. In many cases, achieving this goal will require them to upgrade their capabilities—both by making smart investments in digitization and by attracting and mobilizing the best financial talent. We explore both topics in the following chapters. ■

⁶⁷ibid.

THE BUSINESS OF GOVERNMENT: BOOSTING COMMERCIAL CAPABILITIES

With public spending standing at 34 percent of world GDP, governments are the single largest purchasers of goods and services in many countries. In the United States, for example, government purchasing, at approximately \$1.8 trillion, is equivalent to Canada's entire GDP.⁶⁸ At the same time, many SOEs are among the world's largest corporations by value and revenue; in OECD countries alone they are estimated to be valued at close to \$2 trillion.⁶⁹ Together, governments and SOEs are responsible for delivering many of the most important and complex capital projects, from railways to electric power plants to technology investments.

All this makes “the business of government” a critical factor in efforts to improve public-sector productivity. There is much that governments can learn from the best-performing private-sector companies, which have honed their commercial capabilities—including procurement and contract management, enterprise governance, and major project management—to deliver substantial improvements in recent decades. While several governments are driving real advances in some commercial disciplines, much opportunity remains for a more comprehensive approach.

By implementing robust commercial practices, governments stand to achieve trillions of dollars in savings and revenue improvements, which in turn can improve fiscal health and support investment in high-priority societal programs. In addition, better management of the vast range of goods and services procured by the public sector will result in more efficient and effective delivery of services to citizens. Better management will also improve customer service and financial performance by SOEs, as well as better design and more timely delivery of major projects. To deliver these gains, however, governments need to build and sustain strong commercial capabilities across all levels—and build an organizational culture that fosters value creation and innovation across the public sector.

Building such a culture is a real challenge, as the public sector is typically not seen as a preferred career path for high-performing commercial talent (a topic we address in more depth in Chapter 6). Moreover, most countries' procurement organizations are decentralized among multiple departments, agencies, and local government, inhibiting a common approach; and data transparency is often poor, as many governments lack unified IT systems. To overcome these barriers, governments need to drive far-reaching transformations of procurement, SOE governance, and major project management. As the experience of several pioneering governments shows, progress is possible and the rewards can be very large.

SMARTER PROCUREMENT: RETHINKING PURCHASING TO UNLOCK BETTER, FASTER SOLUTIONS

Governments are massive purchasers of a remarkably diverse range of goods and services, from paper clips to nuclear submarines and from facilities management to complex health-

⁶⁸*Government at a glance 2015*, OECD, July 6, 2015.

⁶⁹Hans Christiansen, *The size and composition of the SOE sector in OECD countries*, OECD corporate governance working paper number 5, August 1, 2011.

care provision. Across all categories, the OECD estimates that public-sector procurement totals more than \$9 trillion annually, equivalent to around 30 percent of all government expenditure.⁷⁰ Moreover, given governments' increasing use of outsourcing, the value and complexity of procurement contracts have grown substantially; in the United Kingdom, outsourced spending increased by 26 percent from 2015 to 2016, to \$6 billion.⁷¹ In any effort to improve government productivity, initiatives to strengthen procurement practices should therefore be front and center.

The experience of governments across the world shows that better procurement can release many millions of dollars to finance priority societal programs or to reduce taxes. Worldwide, we estimate that governments could reduce their current purchasing bill by 15 percent, or a combined \$1 trillion, if they were to adopt best-practice procurement disciplines.

This estimate is likely to be conservative. McKinsey's purchasing optimization database, covering more than 1,100 procurement efforts worldwide, shows that the public sector has among the highest savings potential of any sector represented. There is even potential for savings between departments. For example, 31 different vendors supply identical hammers to the US government, with prices ranging from \$9.76 to \$48.77.⁷² The inescapable conclusion is that, at a time when many governments are under serious fiscal pressure, procurement presents a huge untapped opportunity for savings.

Some governments have already made significant progress. For instance, Denmark's cross-government procurement program, launched in 2007, saved about \$80 million in annual expenditure—or 44 percent in the areas under review—in the first wave alone. This wave covered computer hardware, office supplies, equipment, and furniture across multiple government departments.⁷³

Such savings are much easier to capture than alternative means of reducing government expenditure such as reducing benefits or cutting the government workforce. And unlike some other ways of saving money, they typically have no detrimental impact on either societal outcomes or citizens' experience of public services. Procurement improvements and the associated savings can also be phased in progressively, starting with more straightforward segments such as office supplies and moving on to more complex categories such as service contracts.

How better procurement drives better outcomes

We should emphasize that this opportunity is about more than just financial savings. Of course, better procurement can help improve efficiency within governments by simplifying and speeding up purchasing procedures. But a push for smarter procurement also drives greater quality and innovation and reduces delivery time of the goods and services purchased, which in turn directly impacts citizen outcomes and satisfaction.

⁷⁰ Ibid. "Size of public procurement," in *Government at a glance 2015*, OECD, July 6, 2015.

⁷¹ "2015 full year review," Arvato, www.arvato.com/uk/insights/outsourcing-index/2015-full-year-review.html.

⁷² Christian Davenport, "Is \$48 too much for the federal government to pay for a hammer?" *The Washington Post*, June 25, 2014.

⁷³ Danish Ministry of Finance.

For example, a US government agency undertook an in-depth review of its equipment purchasing, including analyzing the manufacturing process for each major item of equipment. Not only did this review result in savings of more than \$300 million—or 32 percent of the equipment budget—but it also improved and standardized equipment specifications, thus enabling suppliers to ramp up production and speed up delivery. Similarly, a consistent purchasing strategy can help governments to prioritize targeted suppliers—such as local businesses or environmentally sustainable providers—where appropriate.

Procurement is ripe for innovation. As an exemplar in this space, in 2010 the US government established the Challenge.gov platform. To date, the platform has been used by more than 100 federal agencies to invite companies and citizens to submit responses to “challenges”—in effect, requests for proposals.⁷⁴ This effort has not only reduced costs and accelerated the procurement process but also catalyzed innovative solutions to improve key societal outcomes. For example, in response to the \$50,000 “Blue Button” challenge, the winning company developed and installed a solution—in just six weeks—that made personal health records downloadable from a system used by approximately 200,000 doctors. And the US Department of Agriculture’s “Apps for Healthy Kids” initiative challenged software developers, game designers, students, and others to develop fun and engaging software tools and games that encourage children to eat better and be more physically active. It generated 100 apps from only \$60,000 in government investment.⁷⁵

Many countries—more than 40 at the last count—are using open data to deliver savings in public-sector procurement.⁷⁶ In the United States, the states of California and Texas have identified millions of dollars a year in savings by releasing budgetary information and enabling citizens to spot potential opportunities to cut costs. Such savings can release resources to spend on high-value outcomes.

How to capture the opportunity: Go beyond purchase price and rethink demand management and procurement processes

How, then, can governments realize the huge savings and quality-improvement opportunity that procurement represents?

A look at the most successful procurement optimization efforts in both the public and private sectors shows that they focus not just on reducing the purchase price of goods and services supplied but also on recalibrating demand and on strengthening purchasing processes. McKinsey’s experience suggests that reduction in purchasing costs—the most visible opportunity—typically represents less than one-third of the potential impact of better procurement. A larger but mostly unexploited opportunity exists in demand management; this lever includes eliminating unnecessary purchases, adjusting specifications, and increasing standardization. And steps to improve procurement processes, also a significant and underexploited opportunity, include redesigning order management and inventory management.

⁷⁴“About,” Challenge.gov, www.challenge.gov/about/.

⁷⁵*Government by design: Four principles for a better public sector*, McKinsey & Company, December 2013.

⁷⁶*Open data: Unlocking innovation and performance with liquid information*, MGI, October 2013.



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Recent procurement optimization efforts by several governments around the world point to steps that can be taken under each of the following three procurement levers:

- *Improved supply management.* At the tendering stage, best-practice governments are grouping their purchases of commoditized items such as office supplies to achieve scale, thus increasing their negotiating power with vendors for improved pricing, terms, conditions, and service levels. One best practice is to standardize specifications, for example by creating order catalogs for commodity-like categories such as stationery and furniture, giving government departments a set of defined options and vendors to choose from. Once a contract is in place, governments can also strengthen ongoing vendor management, including by rigorously managing agreed service-delivery levels, conducting regular contract reviews, and ensuring that the results of those reviews inform future negotiations and contract decisions. Italy's national procurement optimization initiative, launched in 2016 with the target of achieving \$11 billion in annual savings, provides an example. Previously, Italy's public procurement was spread across 30,000 contract authorities, each making small-scale purchases across multiple categories, at widely varying purchase prices and contract terms. Now just 30 central procurement authorities will oversee government purchasing. Each of them will focus on standardizing specifications, reducing prices, and managing quantities for large-scale purchases in a single category.
- *Better demand management.* Governments can achieve significant reductions in demand by reviewing the consumption of goods and services across the entire public sector. Such reviews often reveal excess consumption that can be eliminated, duplicative purchasing where goods or services could be shared, or both. For large-expense categories, governments can review their policies to reduce total demand, for example by requiring that travel bookings be made a certain amount of time in

Eleven of the world's 50 largest corporations are state-owned, and in 2011, total sales of SOEs listed in the *Forbes* Global 2000 index amounted to \$3.6 trillion—equivalent to the GDP of Germany.

advance. An example of effective demand management comes from a US agency that achieved savings of about \$100 million in IT spending by eliminating unnecessary software licenses and enforcing existing rules on the allocation of electronic devices, among other things.

- *Strengthened procurement processes.* Many governments have significant opportunities to reduce the costs associated with the end-to-end procurement process. For example, one US state government found that for nearly half of all transactions, the cost of processing the items exceeded the purchase cost.

The OECD has recognized that e-procurement improves efficiency by boosting competition and reducing the administrative burden on government. It also increases transparency. But while all OECD countries announce tenders through online systems, far fewer have digitized the entire procurement cycle; fewer than half offer post-contract management through their e-procurement systems.⁷⁷ Countries at all levels of development can benefit from increased use of e-procurement.

STATE-OWNED ENTERPRISES: DESIGNING BETTER GOVERNANCE TO DRIVE VALUE

In many countries, SOEs are responsible for the efficient, reliable delivery of electricity, gas, water, transportation, telecommunications, and postal services—all critical enablers of economic growth and citizens' well-being. In some countries, SOEs' scope is much broader, covering sectors as diverse as financial services, real estate, oil and gas, mining, and manufacturing. These firms make up a major part of the world economy. Eleven of the world's 50 largest corporations are state-owned, and in 2011, total sales of SOEs listed in the *Forbes* Global 2000 index amounted to \$3.6 trillion—equivalent to the GDP of Germany.⁷⁸

Accordingly, improving the performance of SOEs is a critical avenue to boost government productivity, as well as citizen satisfaction and economic growth. Throughout the 20th century, research consistently indicated that “privately owned firms are more efficient and more profitable than otherwise-comparable state-owned firms.”⁷⁹ Efforts have been

⁷⁷Ibid. *Government at a glance 2015*, OECD, July 6, 2015.

⁷⁸Hans Christiansen and Yunhee Kim, *State-invested enterprises in the global marketplace: Implications for a level playing field*, OECD corporate governance working paper number 14, 2014; Przemyslaw Kowalski et al., *State-owned enterprises: Trade effects and policy implications*, OECD trade policy paper number 147, 2013.

⁷⁹William L. Megginson and Jeffrey M. Netter, “From state to market: A survey of empirical studies on privatization,” *Journal of Economic Literature*, volume 39, issue 2, June 2001.

made over recent years to reform SOEs, and more recent research is less conclusive as to the superior performance of privately owned firms.⁸⁰ However, there is still significant room for improvement in some countries and markets. For example, an EU study found that profitability and productivity of SOEs in new member states tend to be lower than that of private firms across all sectors analyzed (Exhibit 25).⁸¹ Researchers have found similar results regarding the efficiency of Chinese SOEs.⁸² Even the better performers should strive for continuous improvement.

In some cases, governments might consider whether state ownership is appropriate for particular enterprises. As discussed in Chapter 3, several countries have put in place

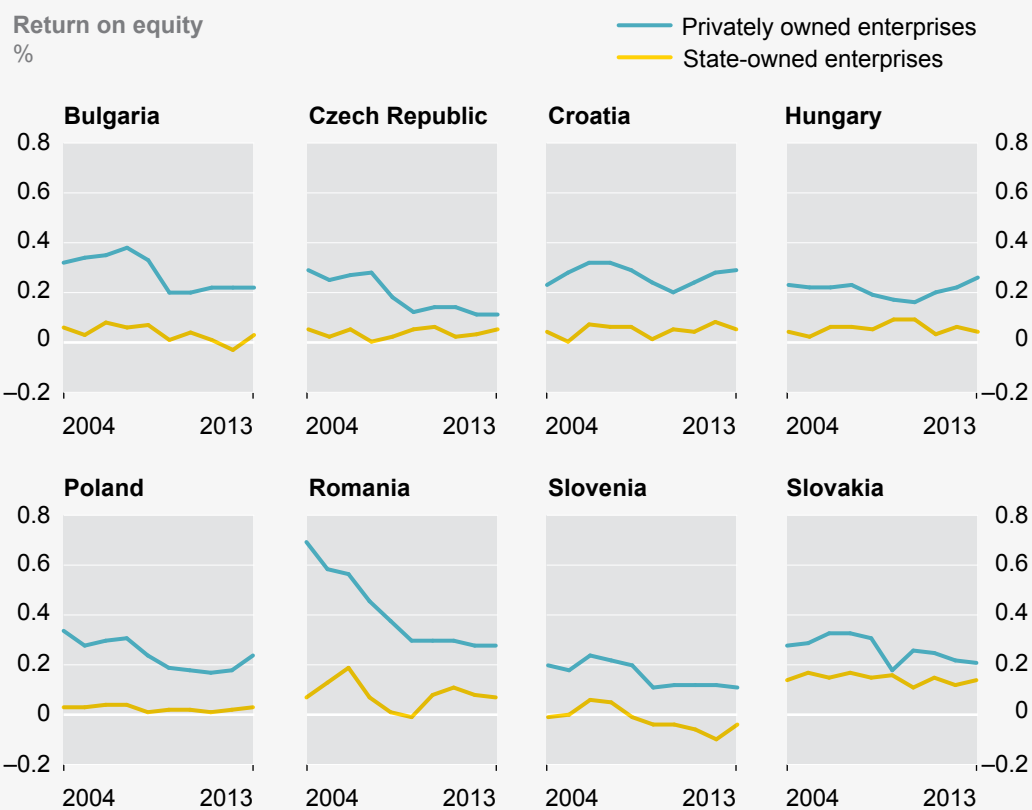
⁸⁰Holger Muehlenkamp, "From state to market revisited: A reassessment of the empirical evidence on the efficiency of public (and privately-owned) enterprises," *Annals of Public and Cooperative Economics*, volume 86, issue 4, 2015.

⁸¹*State-owned enterprises in the EU: Lessons learnt and ways forward in a post-crisis context*, European Commission institutional paper number 31, July 16, 2016.

⁸²Shaomin Li, Ying Chou Lin, and David D. Selover, "Chinese state-owned enterprises: Are they inefficient?" *The Chinese Economy*, volume 47, issue 5–6, 2015.

Exhibit 25

In new EU member states, returns from state-owned enterprises have been consistently lower than those in the private sector



SOURCE: *State-owned enterprises in the EU: Lessons learnt and ways forward in a post-crisis context*, European Commission institutional paper number 31, July 16, 2016

mechanisms to review the SOE portfolio on a regular and systematic basis—triggering privatization when government is deemed to no longer be the best owner of a specific entity.

But many enterprises will remain in government hands. These SOEs have a major opportunity to strengthen commercial capabilities, including by implementing lean operational improvement initiatives and by assessing and strengthening organizational health. We believe, however, that the most powerful way to drive meaningful, sustainable improvement is to put in place effective governance structures for SOEs.

Several countries have established governance boards or government holding companies (GHCs) to oversee clearly defined portfolios of SOEs. These bodies are led by senior managers from the public and private sectors, backed by a small, full-time staff with expertise in key areas such as finance, strategy, and legal. GHCs concentrate the government's ownership responsibilities in a single-governance body; their activities are typically limited to setting clear objectives and financial targets for SOEs, selecting SOE top management, linking objectives to metrics, and monitoring performance. GHCs can help create greater transparency on the management and performance of the portfolio.

The existence of a GHC can also prevent unstructured government interference in the day-to-day management of SOEs. Such interference can dilute leadership authority, confuse SOEs' priorities, and destabilize their performance. Structured mechanisms allow other government entities to have their say, but the GHC remains the only direct governance interface with SOEs. GHCs fundamentally change the relationship between the state and the enterprises it owns—enabling the government to behave much more like a private shareholder in overseeing performance and allocating resources to SOEs.

In countries that have established effective GHCs, the government itself retains a central policy role in respect to SOEs. It sets the strategic vision, including outcome priorities, for the sectors in which the state undertakes business activities; determines the capital allocation for SOEs; and decides on regulatory issues such as minimum service level requirements and antimonopoly legislation. However, governments do this in a structured way and at arm's length. For example, although a government might wish an SOE to locate its offices in a particular region or appoint certain individuals onto its board, it is important that these decisions be operationally independent and optimized to deliver maximum value from the SOE's activities.

Khazanah, the sovereign wealth fund of Malaysia, provides a good example of a GHC. Khazanah provides governance for more than 80 companies across multiple sectors and industries. It launched a ten-year transformation program for the country's SOEs in 2004, with the aim of improved shareholder value creation—and it has achieved noteworthy results. From 2004 to 2014, the combined profit before tax of Khazanah's portfolio companies rose from about \$70 million to more than \$800 million, a compound annual growth rate exceeding 10 percent.⁸³

As another example, Bahrain's Mumtalakat Holding Company was created in 2006 to manage the country's non-oil assets. The board intentionally features a mix of senior

⁸³*Eleventh Khazanah annual review: Review of 2014 and outlook for 2015*, Khazanah Nasional Berhad, January 14, 2015.

politicians and Bahraini nationals with experience in financial management. There is also a focus on transparency; Mumtalakat received ten out of ten on the Linaburg-Maduell Transparency Index in the fourth quarter of 2016.⁸⁴

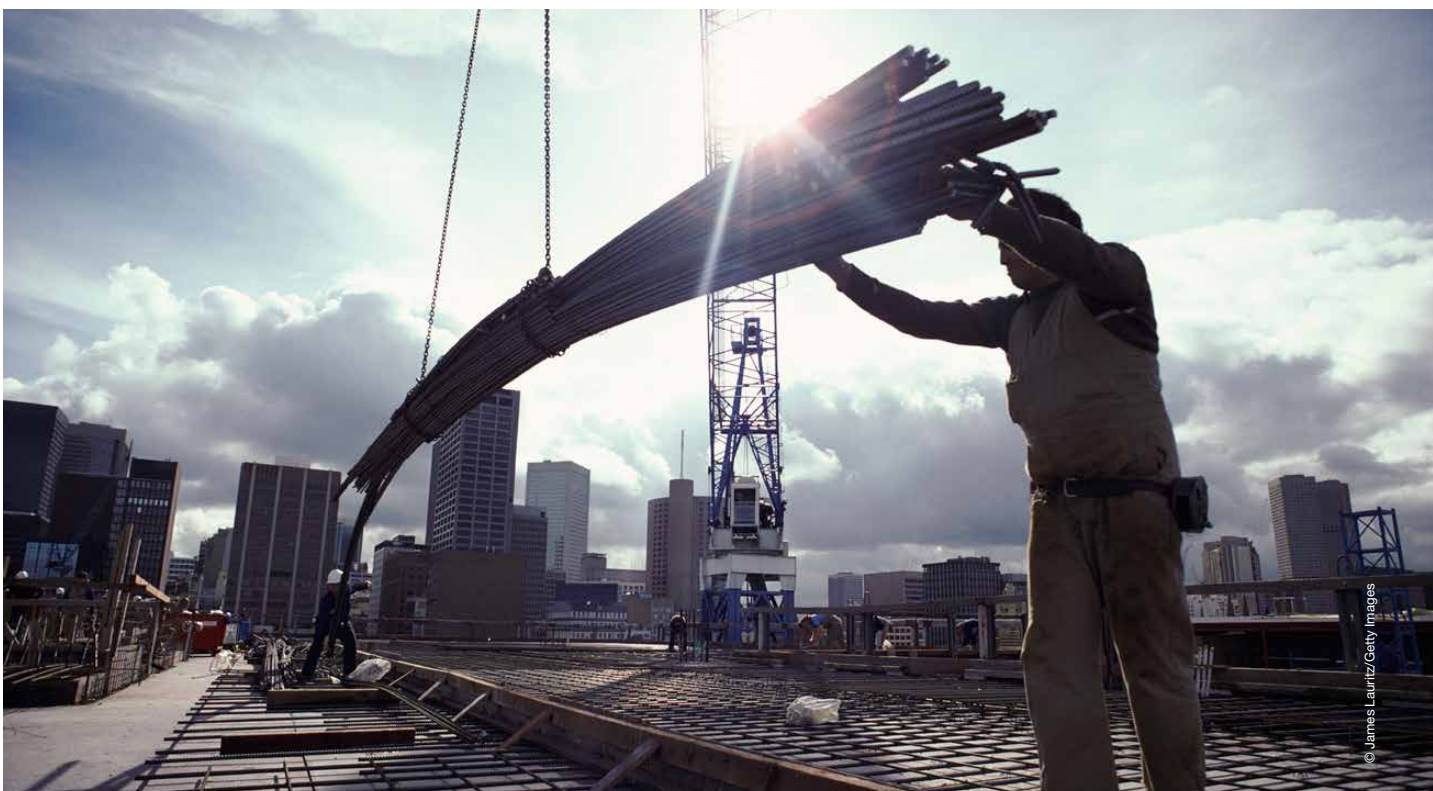
GHCs can also take a more hands-on management approach, as evident in China's State-owned Assets Supervision and Administration Commission of the State Council (SASAC) and Spain's Sociedad Estatal de Participaciones Industriales (SEPI). Such an approach is typically relevant if a major industry change such as consolidation requires a strong drive from the GHC or if the SOEs under management have potential for synergies. However, both these countries still assigned responsibility for SOE oversight to a single, highly capable body that can guide SOEs' leadership teams in driving best-practice management.

INCREASING THE PRODUCTIVITY OF MAJOR PROJECTS TO BOOST INFRASTRUCTURE DELIVERY AND DRIVE SAVINGS

Together, governments and SOEs are responsible for delivering a wide range of major projects, from railways to highways to electric power plants—at the cost of trillions of dollars a year. Defined more broadly, such projects include large-scale IT systems and major defense equipment such as fighter jets and submarines. Annual government investment in such projects can be equivalent to as much as 20 percent of GDP in some countries.

Delivering a large project successfully is a complex undertaking, and projects in both the public and private sector have a long history of cost overruns, multiyear delays, or failed delivery. One particularly well-known example is the iconic Sydney Opera House,

⁸⁴"Linaburg-Maduell Transparency Index," Sovereign Wealth Fund Institute, www.swfinstitute.org/statistics-research/linaburg-maduell-transparency-index/.



completed ten years late and at a cost overrun of 1,400 percent.⁸⁵ Focusing on major projects is thus a key priority in national efforts to improve government productivity.

Previous MGI research found that countries can pursue three major strategies to ensure that their infrastructure spending is as productive as possible, translating into successfully completed projects that support growth and citizens' well-being.⁸⁶ First, they can work harder to make maximum use of existing infrastructure. Second, they can optimize their capital portfolios, prioritizing the projects with the greatest social and economic impact and bringing greater rigor to planning and monitoring the chosen projects. Third, they can streamline the delivery of projects by adopting more-effective management approaches and practices. MGI found that this three-pronged approach could save 40 percent of the worldwide infrastructure bill—equivalent to \$1 trillion each year across both the public and private sector. There are equally significant savings opportunities in large-scale IT and defense projects.

Redesigning large IT projects for faster delivery and lower cost

Governments spend up to 2 percent of their budgets on IT, much of it on major projects such as developing digital interfaces for citizens and building cross-agency data systems.⁸⁷ Applying best-in-class commercial practices in this area can have significant upside. One successful approach is to standardize end-user working environments, such as laptops and network connections, and consolidate legacy systems to achieve significant cost savings. An example is the United Kingdom's Crown Hosting Data Centres, a joint venture between the Cabinet Office and the private company Ark Data Centres, which offers a catalog of data-hosting services to the public sector. New Zealand is building a government cloud program to make it easier for government to buy IT from small and midsize enterprises.

By building excellence in commercial capabilities, governments can also mitigate the risk of system failures and major budget overruns in IT—an area that is central to the day-to-day functioning of government. Indeed, IT is particularly susceptible to “black swans”—projects with budget overruns of more than 200 percent. A McKinsey-Oxford study of more than 4,000 IT projects found that those in the public sector are six times as likely to experience cost overruns as comparable projects in the private sector. They are also 20 percent more likely to run over schedule.⁸⁸

To ensure that major IT projects are delivered on time, on budget, and on specification, governments can take several key steps, including appointing experienced, capable project managers and establishing mechanisms to provide early indicators of potential overruns. They can also break down major projects into interim deliverables and set firm limits on the cost and timelines of major IT projects. Research by the OECD suggests that governments often scope IT projects with large budgets and implementation periods of three years or more—precisely the kind of project most at risk of a black-swan overrun (Exhibit 26).

⁸⁵Bent Flyvbjerg, Massimo Garbuio, and Dan Lovallo, “Delusion and deception in large infrastructure projects,” *California Management Review*, volume 51, number 2, winter 2009.

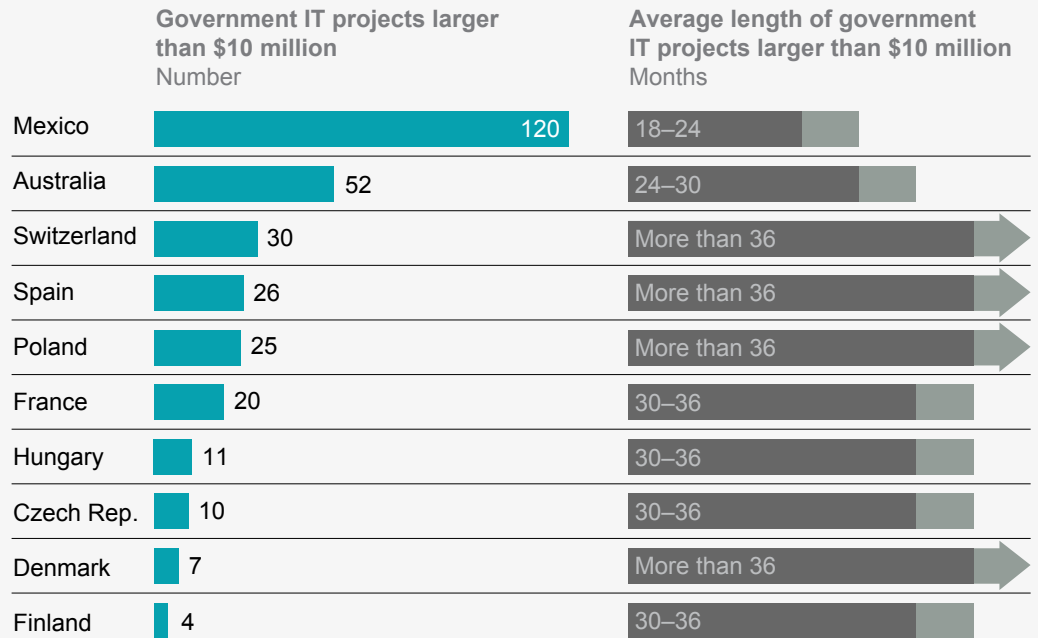
⁸⁶*Ibid.* *Infrastructure productivity*, MGI and the McKinsey Infrastructure Practice, January 2013.

⁸⁷*Ibid.* *Government at a glance 2015*, July 6, 2015.

⁸⁸*Ibid.* Cem Dilmegani, “Public-sector digitization,” *McKinsey Quarterly*, December 2014.

Exhibit 26

Multimillion-dollar, multiyear technology projects are common in the public sector



SOURCE: "Dataset on digital government performance," Organisation for Economic Co-operation and Development, 2014

Several governments have limited the size of IT projects to mitigate this risk. For example, the Netherlands tax authority has capped IT projects at \$10 million and to a length of one year. Estonia avoids large projects by breaking them up and sequencing them into smaller projects.⁸⁹ Governments also need to ensure that the policies they set and any associated legislation enables these sorts of smaller, more frequent deliverables. One European agency IT lead noted that while they try to be more agile and keep projects to a one-year maximum, they are often tasked with delivering end products by leadership or spending legislation in a way that does not allow smaller incremental deliverables.

Limiting the size of IT projects can also curb the scope and objectives of each project and provide clear boundaries. This limitation helps ensure the project is aligned with government strategy—both at the outset and throughout the project’s lifetime. Well-defined objectives can also help avoid shifting requirements during project rollout, and a smaller-scoped project can clarify ownership and accountability.

Defense: Three guiding principles to improve productivity in major projects

Best-practice approaches to major projects, including value-driven project selection and streamlined delivery, are wholly applicable to large-scale defense projects such as commissioning new fighter jets or submarines. The savings for governments could be

⁸⁹OECD Digital Government Performance database.

substantial, as total military spending globally amounts to nearly \$1.7 trillion.⁹⁰ Overbudget, overschedule, and failed defense projects are extremely costly—and unexceptional. A 2016 US Government Accountability Office review of major defense acquisition programs showed promising indications of reductions in cost and time overruns. However, since first estimates, total costs of the 79 programs have increased by \$469 billion, or 48 percent, and the average delay in delivering initial capabilities has increased to almost 30 months.⁹¹

The early stages of a defense project have been shown to be particularly crucial, further reinforcing the need to focus on the design and planning stages of a project. For example, the United States Office of the Under Secretary of Defense for Acquisition reviewed 500 defense contracts completed prior to 1993 and observed that once a contract is 15 percent complete, it is unlikely to recover from a cost overrun.⁹²

To drive greater productivity in defense projects, governments can adopt the following three guiding principles:

- *Clearly define requirements and avoid “gold plating” investments.* Governments have often invested in the latest and most-capable equipment, irrespective of price and the actual need to be addressed. This investment is driven by a natural inclination to have the best defense possible given global volatility. But McKinsey research has found the defense industry is trending toward affordability, as nearly 85 percent of defense industry executives surveyed believed their customers would shift their focus from highest possible specification to more affordable systems.⁹³ For example, India’s air force purchased French Rafale fighter jets despite these arguably not being the most capable available. The US Navy canceled an order for DDG-1000 Zumwalt-class destroyers in favor of upgrading an earlier model, the DDG-51, so allowing it to acquire more ships for the same amount of money.⁹⁴
- *Commit to either buy or make, but avoid the no man’s land in between.* Governments should commit to either buying or making equipment, avoiding the temptation to buy a major asset and then modify it. While the change in design may be minor, the cost of this customization can be considerable and ultimately outweigh the savings benefits of buying. A related point is that when governments consider any local manufacturing requirements, they should consider the full cost of ownership, including operating and decommissioning costs, to ensure that decisions take into account the full life cycle of the equipment.
- *If the decision is to make, then follow a carefully designed development approach.* When developing new defense technology, governments naturally seek to push the

⁹⁰Stockholm International Peace Research Institute Military Expenditure database, 2015.

⁹¹*Defense acquisitions assessments of selected weapon programs*, US Government Accountability Office, March 31, 2016.

⁹²David S. Christensen, “An analysis of cost overruns on defense acquisition contracts,” *Project Management Journal*, September 1993.

⁹³*McKinsey on defense*, number 9, McKinsey & Company, winter 2014/15.

⁹⁴Ronald O’Rourke, *Navy DDG-51 and DDG-1000 destroyer programs: Background and issues for Congress*, Congressional Research Service, March 14, 2013.

The business of government is massive, complex, and rife with opportunities to improve productivity. The potential prize is enormous, both in terms of financial savings and better services for citizens.

boundaries of the possible to outperform their potential adversaries. But governments need to invest enough in the early phases to mitigate the risk of the key technology before moving to actual manufacturing. The first version of the US F-117 stealth attack aircraft provides an interesting example of an innovative and efficient design approach. The US Air Force reduced the design timeline by as much 75 percent by reusing existing design content from four previous aircrafts, with two prototypes built and tested for only \$30 million.⁹⁵



The business of government is massive, complex, and rife with opportunities to improve productivity. Governments can look to their pioneering peers in many nations—as well as the world’s best-performing private companies—for insights and practical tools to improve commercial practices in procurement, SOE governance, and the delivery of major projects. The potential prize is enormous, both in terms of financial savings and better services for citizens. To realize these gains, however, governments will need to rethink their approach to both technology and talent management. We turn to these topics in the following chapters. ■

⁹⁵Donald G. Reinertsen, *Managing the design factory*, Simon and Schuster, 1997.

UPGRADING TO DIGITAL AND DATA-DRIVEN GOVERNMENT

Digital technology is changing the world around us and driving disruption across many industries. For example, Airbnb and online travel agencies such as Priceline.com have displaced hotel groups to own the primary customer relationship with millions of travelers.⁹⁶ Digital disrupters are also transforming many domains in which the public sector has traditionally played a leading role. Two examples are massive open online courses (MOOCs) in tertiary education and wearable fitness devices and wellness monitors in health care. These digital innovations are reducing complexity and making life easier for consumers—or, more specifically, citizens.

As discussed in the first chapter of this report, this digital revolution is changing citizens' expectations. Accustomed to the choice, convenience, and speed of digital apps, they are becoming increasingly impatient—and dissatisfied—with traditional government services that are cumbersome, time consuming, and inflexible. Practically all governments now have websites, but these do not improve overall experience if citizens must still stand in line, deal with paperwork, or call to apply for an identity card, register a vehicle, file taxes, or set up a business—as is the case in most countries (Exhibit 27).

As our GPS analysis shows, several pioneering governments have harnessed digital technologies—and the advanced data analytics they enable—to support real improvements in outcomes and cost in sectors ranging from policing to tax collection. A few countries have driven bold digitization strategies across government. In Estonia, for example, more than 94 percent of the population has digital identity cards, and 95 percent of tax returns are filed electronically. In the 2015 parliamentary elections, more than 30 percent of voters cast their ballots via the Internet.⁹⁷

Yet most governments still have a long way to go. Even in OECD countries, fewer than half of all citizens access government information online, and only one-third use government websites to submit completed forms.⁹⁸ MGI's Industry Digitization Index, which ranks the digital maturity of 22 different sectors, ranks the public sector 16th in Europe and 18th in the United States.⁹⁹

We do not underestimate the challenges of digitizing government and the responsibility of governments to protect individuals' information. But the potential rewards are huge: previous McKinsey research has estimated that digitization and advanced analytics could deliver productivity improvements worth at least a collective \$1 trillion in a number of different areas across the global public sector.¹⁰⁰ End-to-end process digitization can significantly reduce costs and boost efficiency, while smart use of data—in areas ranging from student attainment to health diagnostics to infrastructure maintenance—can lead to much-improved outcomes and citizen satisfaction. To take just one example, an Australian

⁹⁶The (ongoing) trouble with travel distribution: Customer experience, McKinsey & Company, February 2017.

⁹⁷"Facts," E-Estonia, <https://e-estonia.com/facts/>.

⁹⁸Ibid. *Government at a glance 2015*, July 6, 2015.

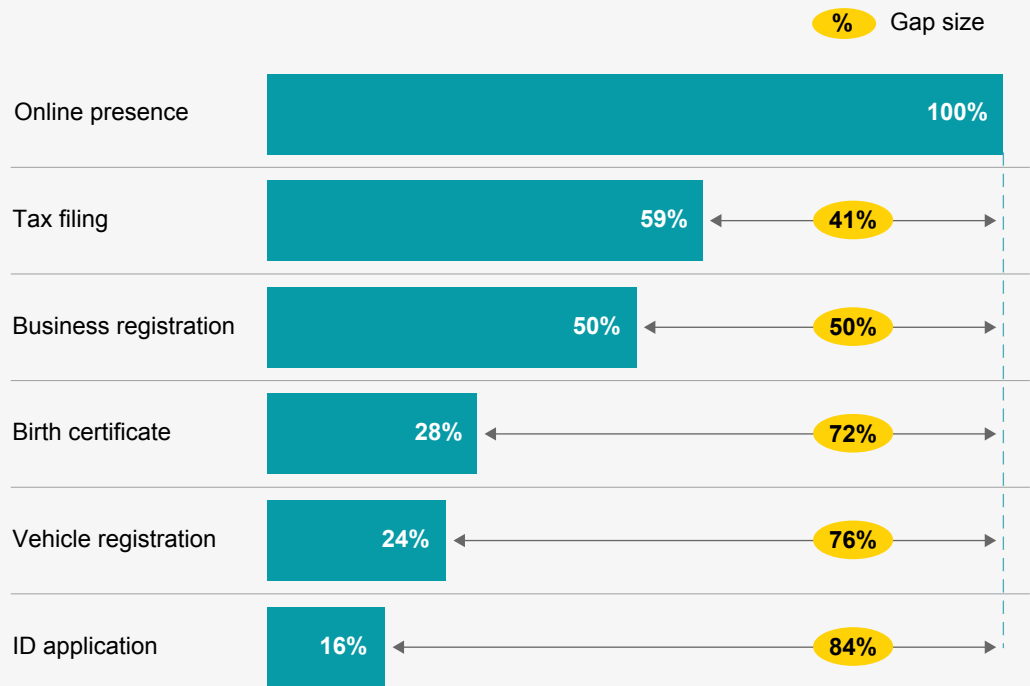
⁹⁹*Digital Europe: Pushing the frontier, capturing the benefits*, MGI, June 2016; *Digital America: A tale of the haves and have-mores*, MGI, December 2015.

¹⁰⁰Ibid. Cem Dilmegani, "Public-sector digitization," December 2014.

Exhibit 27

Practically all governments have websites—but many still require citizens to fill out forms and stand in line for common services

% of countries that have selected features and services available online



SOURCE: *E-government survey*, United Nations, 2016

state government is using digitization to share data across various agencies to prevent future domestic abuse cases.

How can governments capture this prize? Recent work by MCG suggests that there are two requirements for successful digitization and data-enabled government. The first requirement is a clear focus on how to use technology to drive improvements: digitizing interfaces with citizens, automating manual processes, integrating advanced analytics, and sharing useful data.¹⁰¹ The second requirement is putting in place the necessary enablers that support governments in delivering these opportunities. These enablers include strategy; governance and organization; leadership, talent, and culture; and technology.

In this chapter, we offer a detailed look at the focus areas and enablers required to make use of digital technologies and advanced analytics, along with examples of governments around the world that are harnessing the power of these new approaches to unlock productivity breakthroughs. We also address a critical question for leaders seeking rapid gains in efficiency and effectiveness across government—namely, what is the role of the center of

¹⁰¹*Digital by default: A guide to transforming government*, MCG, November 2016. For readers' convenience, we reprise the key points of that paper here.

government in enabling the adoption of digital technologies and data analytics across multiple departments and agencies?

THE CORE FOCUS AREAS FOR A DIGITAL AND DATA-ENABLED GOVERNMENT

Governments typically begin their digitization efforts by focusing on a few technologies, particularly those that can improve interactions with citizens. With experience, they can broaden their digitization programs, working toward providing world-class digital experiences to citizens, businesses, and other users of government services and transforming how they work internally. They can also use the vast data sets created by digitization to integrate advanced analytics into their decision making—and thus drive step-change improvements in cost containment, waste avoidance, and the impact of government programs.

Across the four digital and data focus areas, governments can typically progress from quick wins to transformative efforts that can generate substantial benefits for users.

Services: Digitizing interfaces with citizens

In recent years, some governments have used digital tools and channels to simplify and streamline their interactions with citizens and businesses.¹⁰² These improvements are helping governments adapt to the increasing digital savviness of their citizens—and deliver both dramatic improvements in user experience and substantial cost savings. The first step in digitizing the user-facing end of government services is to focus on a small number of high-volume activities. Since the typical government provides thousands of services, leaders should set digital priorities in line with larger strategic objectives.

The United Kingdom, for example, kicked off its digital transformation program by digitizing 25 basic services such as voter and motor vehicle registrations. Overall, the United Kingdom's digitization efforts saved about \$300 million in fiscal year 2013–14 against the fiscal year 2009–10 baseline and achieved high levels of citizen satisfaction.¹⁰³ The Netherlands plans to use e-services as its primary channel to achieve a planned 50 percent reduction in its employment-services budget and a two-thirds reduction in its number of offices. The city of Copenhagen has also identified major cost-savings potential from digitizing services: it calculated the costs of digital self-services to average only 4 percent of the cost of in-person contacts.¹⁰⁴

The benefits of digitization go far beyond cost saving, however; the opportunity to improve customer experience for citizens and businesses is, if anything, even greater. The Pension Fund of Baden-Württemberg, in Germany, replaced paper-based archives with a single digital archive, thus reducing access time by more than 99 percent—from days to seconds.¹⁰⁵ Namibia's Ministry of Trade and Industry transformed the company-registration

¹⁰²*Making government for the people*, McKinsey & Company, June 2016.

¹⁰³"Government unveils £14.3 billion of savings for 2013 to 2014," UK Cabinet Office press release, June 10, 2014.

¹⁰⁴*Digitizing public sector services: Norwegian eGovernment program*, Norwegian Ministry of Government Administration, April 2012.

¹⁰⁵*German Pension Fund gains instant access to pension data*, IBM Systems and Technology, 2013.

experience, going from ten-day to same-day turnaround times.¹⁰⁶ In the United Arab Emirates, e-Dirham, a prepaid card launched in 2011, can be recharged at ATMs to pay fees to any federal government entity, replacing mailed payments and those submitted to a government office in cash.¹⁰⁷

Governments should be careful, however, not to cover up old services with a digital facade that lets users gain information but forces them to visit an office or place a phone call when they want service. Previous McKinsey research shows that citizen satisfaction decreases as citizens are forced to use more channels to obtain a service.¹⁰⁸

Once a government has digitized some interfaces, it can move on to building systems that increase convenience for users and unlock the benefits of scale. For instance, Singapore developed an online business-licensing system with a “one-stop” license application. This innovation led to reductions of up to 90 percent in processing time, 50 percent in data entry time, and 10 percent in the number of licenses.¹⁰⁹ Likewise, the nation of Georgia has created digitally enabled “one-stop shops” where citizens can access multiple services—from passports to marriage licenses to business registrations—without ever touching a piece of paper.

Finally, governments can improve both cost effectiveness and outcomes by adding features to their digital services that resemble those provided by cutting-edge digital businesses. Providing self-service data entry in branches of Germany’s labor agency not only saved 20 percent of employees’ time on data entry but also resulted in a 14 percent increase in data accuracy. Personalized content is another feature. In Sweden, parents receive regular digital reminders about upcoming health checkups and vaccinations for their children.

Shifting services onto mobile platforms is also important, given that citizens are increasingly interacting with online content via mobile devices.¹¹⁰ Some provincial governments in China accept passport and visa applications and provide updates on weather and traffic through WeChat, one of the country’s most widely used mobile apps. And artificial intelligence engines can make it easier for citizens to find and obtain the services they need. Enfield, a borough in North London, is launching an artificial intelligence digital agent called Amelia to answer citizens’ questions; the borough government expects it to result in a 60 percent reduction in the cost of service provision.¹¹¹

Processes: Automating and redesigning manual tasks

Digitizing behind-the-scenes processes offers the greatest potential for efficiency gains in the public sector, with the possibility of significant savings of resources and processing

¹⁰⁶“Republic of Namibia’s Ministry of Trade and Industry ensures rapid, same day, transparent registration of 10,000 Namibian business each year,” Oracle, www.oracle.com/us/corporate/customers/customersearch/mti-namibia-1-db-ss-2282441.html.

¹⁰⁷*Innovation in the Gulf Cooperation Council (GCC) governments*, MCG, October 2015.

¹⁰⁸*Putting citizens first: How to improve citizens’ experience and satisfaction with government services*, McKinsey & Company, November 2014.

¹⁰⁹“E-government in Singapore,” Singapore Ministry of Finance, presentation to the United Nations, September 4, 2013.

¹¹⁰*Ibid. Digital by default*, November 2016.

¹¹¹“Meet Amelia: IPsoft’s new artificial intelligence platform interacts like a human,” IPsoft, press release, September 29, 2014.

time.¹¹² Well-executed automation can also significantly reduce errors and fraud. However, these processes are also the most difficult thing to get right. Many well-intentioned digital efforts have turned out to be costly and unhelpful. Examples include large-scale IT transformation projects that had to be abandoned due to cost overruns or lack of feasibility, those that resulted in little improvement in performance, and application-development projects that left analog operations in place. (See Chapter 4 for a discussion of how governments can best manage major IT projects.)

Governments should ensure they do not digitize waste. One trap to avoid is spending money to digitize the front end without realizing productivity improvements from automating and integrating the back end. For example, one city government interviewed for this report admitted that it offers an online front end for citizens to submit forms but still prints out and manually processes the completed forms at the back end. Governments can improve performance by using digitalization as the imperative to streamline back-end processes rather than simply automating inefficient and wasteful processes.

Just as governments should digitize their highest-volume services first, they should also digitize their most labor-intensive and expensive back-end processes before others. Sweden's social-insurance agency began its digitization program with five products that accounted for 60 percent of all manual processing work and more than 80 percent of the agency's call-center volume.¹¹³ El Salvador's tax authority replaced live calls and mail reminders to absent and delinquent taxpayers with "robocalls"—computer-generated telephone calls that deliver prerecorded messages—thus eliminating 3,500 letter notices annually and doubling tax collection from this group within one year.¹¹⁴

To digitize a process effectively, governments should digitize the entire chain of activities that make it up—which may mean reengineering a process that cuts across multiple departments. For example, when Denmark attempted to digitize its process for registering companies, it found that companies couldn't be automatically classified for tax purposes because national tax laws were too vague. Updating the laws with more precise definitions of tax categories made it possible to classify businesses using an algorithm. Now more than 98 percent of the tasks involved in registering new companies take place in seconds, with no human intervention. This experience highlights the need for governments to redesign and simplify inefficient or hard-to-automate processes before digitizing them.

Once governments have digitized routine processes from end to end, they can extend their efforts to more complex ones, including those of finance, HR, and other functions that rely heavily on people. They can also design new activities and processes to be digital from the beginning. In Sweden's government, a digital-first mandate calls for every new service to be digitized and automated.

Finally, it is worth noting that a far-reaching digitization or automation effort can profoundly change the work that agencies and employees are asked to perform. To ease any

¹¹²Across the economy, recent MGI research estimates that automation could raise productivity growth globally by 0.8 to 1.4 percent annually. See *Harnessing automation for a future that works*, MGI, January 2017.

¹¹³*Ibid.* *Digital by default*, November 2016.

¹¹⁴Terry Murdoch et al., *Tax administration reform: A primer*, United States Agency for International Development, November 2012.

adjustments, government agencies should provide workers with training in new skills, as well as assistance navigating what could be a disruptive career transition.

Decisions: Integrating advanced analytics

One big advantage of digital technology is that it allows organizations to make more-accurate predictions and more-intelligent decisions by analyzing vast amounts of data. Many private companies have transformed their business models to reap the benefits of this capability. The public sector, too, stands to gain from predictive and advanced analytics in many areas—including reducing improper payments, increasing revenue from tax compliance, and improving policy outcomes and tracking.

For example, governments can draw on best practices in the financial services sector, using analytics to ensure payment integrity and to reduce fraud. Credit card companies use data and algorithms to flag unusual purchases and spot fraud—often before the victim realizes it has occurred. With similar approaches, governments could achieve huge savings. We estimate that 5 to 10 percent of all global government transfers are improper payments, an amount equivalent to between \$0.5 trillion and \$1.1 trillion—or as much as six times the amount spent annually on global development aid.

Tax authorities can harness advanced analytics to improve their core functions of submissions processing, collections, taxpayer service, and compliance. One local government identified that error or fraud was often detected *after* refund checks had been sent and cashed by claimers. Efforts to recover refunds were often ineffective, costly, and time consuming. A predictive fraud detection model was embedded to flag the highest-risk returns before they were processed. This action reduced improper or questionable returns by \$1.2 billion in 2010 and increased delinquent tax collection by \$100 million.

Similarly, the Australian Taxation Office wanted to reduce the number of improper refunds paid out due to error or fraud. It created algorithms employing social network analysis and visualization tools to identify and understand complex relationships among individuals, trusts, and partnerships. In the 2010–11 fiscal year, these efforts prevented \$500 million in incorrect issuances.

Advanced analytics are also relevant for achieving improved policy outcomes. In public safety, for example, one US state used crime data from previous years, combined with geospatial techniques, to predict when and where armed robberies were most likely to take place—and to thus deploy police to high-risk areas. This preventive action led to a 40 percent reduction in armed robberies.¹¹⁵

¹¹⁵Charles Chieppo, “Harnessing data to fight crime in Maryland,” *Governing* magazine, February 3, 2015.

We estimate that 5 to 10 percent of all global government transfers are improper payments, an amount equivalent to between \$0.5 trillion and \$1.1 trillion—or as much as six times the amount spent annually on global development aid.

As discussed in Chapter 3, some governments are using advanced analytics to better understand the impact of their programs, tailor them to defined citizen segments, and drive cost savings. Others are drawing on data analysis to design interventions aimed at changing citizens' mindsets and behaviors—and thus tackle problems ranging from youth unemployment to diabetes prevalence to unsustainable water use (see Box 11, “Using data analytics to nudge changes in behavior”).

As these examples suggest, advanced analytics has the potential to deliver major productivity improvements in myriad areas of government endeavor. To realize this potential, though, governments will need to fully integrate the analysis and insights into policy development, decision making, and implementation.

Data sharing: Involving citizens in solutions

Once governments have digitized their data, they have another important opportunity: sharing that data between government agencies, with private-sector partners, and with the public at large. The potential upside from open data is sizable: previous MGI research estimated that the annual value of open data across seven different public and private domains exceeds \$3 trillion worldwide.¹⁶ Greater transparency can also strengthen citizens' trust in government and their engagement in civic affairs—as long as the government takes effective measures to safeguard personal data and defend against cybersecurity threats.

¹⁶Ibid. *Open data*, October 2013.

Box 11

Using data analytics to nudge changes in behavior

Governments are increasingly using randomized control trials based on behavioral science to test the impact of public-sector improvement initiatives.

In 2010, the UK government set up the Behavioural Insights Team (the “Nudge Unit”). Based on the insights gleaned from data, the unit designed interventions expected to save the government about \$450 million over five years. Using personalized text messages prompting people to pay fines on time helped the UK courts reduce the number of bailiff interventions by 150,000 and

generated annual savings of around \$45 million.¹

In 2014, the US White House Office of Science and Technology Policy established the Social and Behavioral Sciences Team to help apply behavioral science insights to policy and program design in many areas of government. Results included a 63 percent increase in the rate at which family farmers obtained small-business loans and a doubling of the rate at which student loan borrowers in default contacted default-resolution representatives.²

Similarly, in Australia, the Behavioural Insights Team sent text message reminders to people with outpatient appointments, pointing out the loss to the hospital if a patient does not show. This action resulted in 20 percent fewer missed appointments compared with a control group.³

¹ *The Behavioural Insights Team: Update report 2015–16*, The Behavioural Insights Team, September 15, 2016.

² “Fact sheet: New progress on using behavioral science insights to better serve the American people,” US Office of the Press Secretary, press release, September 15, 2016.

³ Ibid. *The Behavioural Insights Team*, September 15, 2016.

Deciding the most valuable use of data is not always straightforward, though. Governments have several difficult questions to answer: how should they organize their data and open it up across agencies? Should they make their data publicly available? If the data is of high value, should it be given out for free? Who is responsible for the consequences of potentially inaccurate or erroneous data? How do they address citizens' privacy concerns?

A crucial first step for sharing data among government agencies is unifying registries of public information, such as geographical data, real-estate records, addresses, company information, basic citizen profiles, and infrastructure logs. Turkey's ISASS is an example of this. It enables all social assistance processes to be carried out on an electronic platform, and it allows for exchange of data directly with citizens, municipalities, and non-profits. The level of integration ISASS has achieved goes beyond what has been accomplished in many other countries, linking data from 22 public institutions via web services and incorporating information from 1,000 local social-assistance offices.¹¹⁷

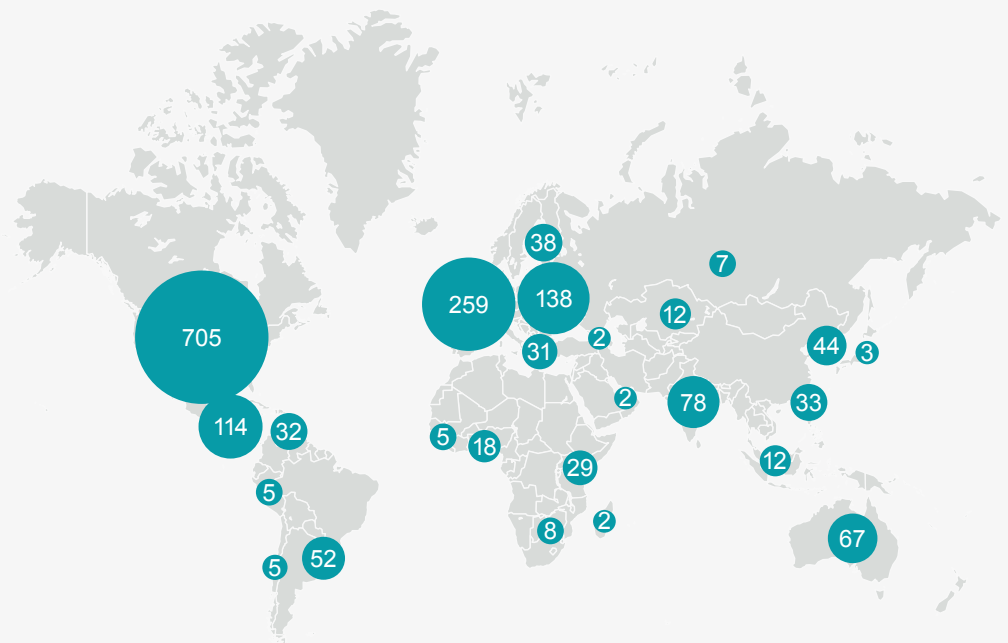
Once governments consolidate their data and remove personal information, it is possible to share it publicly. For example, many governments have released transit, weather, address, and geospatial data that has generated numerous free-to-use apps as well as commercial business models, providing enhanced services to citizens and businesses (Exhibit 28).

¹¹⁷"Turkey's integrated social assistance system," www.socialprotection.org webinar, June 2, 2016.

Exhibit 28

Worldwide, hundreds of organizations are using open government data to improve citizens' experience

Number of organizations using open government data, March 2017



SOURCE: "Open data impact map," www.opendataimpactmap.org

In many cases this open data sharing has resulted in cost savings for governments, too. For example, after the US city of San Francisco offered open access to real-time transit data, call volumes to the city's service center fell by 22 percent, resulting in savings of \$1 million annually.¹¹⁸

There are also examples of innovative uses of government health care, education, and labor data. The South Korean government worked with stakeholders to use open data to create a health-care application informing and empowering patients in their interactions with health-care providers. They translated 58 databases with more than 670,000 health data items into health “answers” for citizens that are easily searchable and understood.¹¹⁹ In the United States, the startup company BrightScope mined data from the US Department of Labor about management fees on employee retirement plans and discovered that small businesses were paying in excess of \$4 billion more in management fees than bigger companies. Based on those data, as well as data from a few public sources such as the US Securities and Exchange Commission and the US Census Bureau, BrightScope now provides an online tool to rate employer-financed retirement plans quantitatively.¹²⁰

Open data does raise a number of privacy concerns. For example, creating a “digital ID” for citizens to use when signing in to online government services is critical for accelerating digitization. However, a range of privacy considerations accompany the digital ID design choices, including the strength of security authentication required and whether the ID will be interoperable with third-party platforms. More broadly, citizens and businesses may object to data-sharing programs unless they have strong privacy protections. To address these considerations, countries such as France require agencies to secure approvals for sharing data sets that include personal information.

ENABLING THE DELIVERY OF DIGITIZATION AND DATA-ENABLED PRODUCTIVITY IMPROVEMENTS

Governments with the most successful digital technologies and data analytics capabilities use four enablers to support and accelerate their transformation efforts: their strategies reflect the capabilities and opportunities associated with digital technologies. Their governance models and organizational structures are built to handle the new tensions and risks associated with digital capabilities. They recruit and develop workers to manage transformation programs and new capabilities. And they create or acquire technological assets that are suited to the government's emerging digital functions. The center of government plays an instrumental role in putting these enablers in place.

Enabler 1: Alignment with overall strategy

Governments need to define clearly prioritized strategies for how they will harness digital technology and data to meet their overall productivity objectives. Denmark is a successful example of finding this alignment. From 2011 to 2015, Denmark pursued an ambitious digitization strategy that would move it toward fully digital delivery of government services. The motivation for this strategy, however, was not digitization but cost cutting, which was a top concern for the national administration. Designing the digitization strategy to support

¹¹⁸Resetsanfrancisco.com.

¹¹⁹Opengovawards.org.

¹²⁰*Big data: The next frontier for innovation, competition, and productivity*, MGI, June 2011.

the broader policy-making agenda helped to speed its execution and led to the results that the government had sought.

In the United Arab Emirates, the government's digital target was driven by a desire for a more customer-centric government. In 2013, government leadership set an ambitious goal for all government services to be accessible through mobile devices within two years. By 2015, 96 percent of citizen services in the government's 337 most important activities were accessible via mobile devices. Now a new target has been set: by 2018, 80 percent of people using government services should be accessing them via mobile.¹²¹

Once such a strategy is set, it is critical that government leaders commit to it. For example, Singapore's *iGov2010* report, published in 2006, committed the government to attaining 90 percent public satisfaction with e-government by 2010—a goal that was met.¹²² In Estonia, all cabinet decisions are available online 15 minutes after they are made—a visible commitment to digitization and transparency from the highest level of government.

Governments also need to create robust implementation plans to deliver on their digital strategies and exploit data. In some countries, these plans are developed by a central unit with cross-departmental responsibility for improving citizens' service delivery experience; in New Zealand, the chief information officer (CIO) plays this role. Alternatively, the development of implementation plans can remain a departmental responsibility guided by top-down target setting, which is the approach that Denmark and Estonia have taken. But as we discuss below, the center of government will almost invariably have a role in facilitating the creation of such plans, offering support and standards as required, and pressure testing the quality of the plans.

Finally, governments will often need to review and adjust laws and regulations that impede digitization and data usage. For example, different laws might contain inconsistent definitions of the same concept, such as the characteristics of a small vs. a large business, and regulations might require physical signatures for applications for ID cards or business registration, preventing the expansion of online services. Again, the center of government has a key role to play in working with departments to remove regulatory and legal barriers (real or perceived) to digitization. A central entity can also conduct a systematic review of rules affecting priority digitization use cases across government—and actively lead the push to change those rules.

Enabler 2: Governance and organization designed for cooperation

The experience of successful government digitization efforts points to the advantages of consolidating data and coordinating the delivery of services across government agencies and functions. Enacting these approaches, however, is difficult. Many government agencies have a deeply ingrained preference for operating independently. That means the center of government—whether at the federal, state, or local level—has a critical responsibility not just to set strategy but also to ensure effective delivery against that strategy. That responsibility translates into one or some combination of the following three distinct roles (Exhibit 29):

¹²¹Ibid. *Innovation in the Gulf Cooperation Council (GCC) governments*, October 2015.

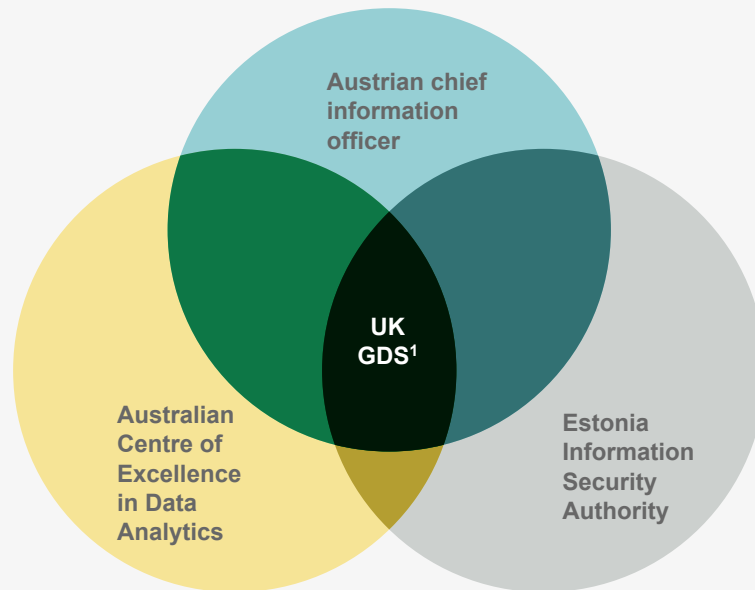
¹²²See the report at <http://workspace.unpan.org/sites/internet/Documents/UNPAN042757.pdf>.

Exhibit 29

To implement their digital and data strategy, central governments can take on three distinct roles

1 Strategic shaper and coordinator

Develops and coordinates digital and data strategy and sets the accompanying policies



2 Center of excellence

Concentrates specialist expertise on particular areas, such as user-centric design

3 Development and solution center

Executes on the digital strategy and is responsible for developing key cross-government tools and services

1 GDS = Government Digital Service; other similar functions exist globally, e.g. Australian Digital Transformation Agency

SOURCE: McKinsey Center for Government GPS analysis

- *Strategy shaper and coordinator.* In this role, the center of government develops and coordinates digital and data strategy and sets the accompanying policies. In Austria, for example, the CIO advises the federal government at both strategic and technical levels, supports the formulation of its e-government policies, directs the Digital Austria platform, and promotes Austrian e-government solutions in the European and international arena.¹²³
- *Center of excellence.* The center might choose to focus on building specialist expertise in particular areas such as user-centric design. This role is useful when developing capabilities in a new area that requires high-caliber talent and the investment of resources. As it builds expertise, a center of excellence can be deployed to build up a broader capability base in departments and agencies across the government. Australia's Centre of Excellence in Data Analytics, for example, builds capabilities across government and fosters links with universities. Such a unit can promote

¹²³OECD Digital Government Performance database.

standardized ways of working to ensure digital compatibility across the whole of government and define practical rules to guide the day-to-day development of all digital initiatives.

- *Development and solution center.* In this role, the center of government focuses on executing the digital and data strategy. A central unit of this kind can develop key cross-government tools and services, which might include a single point of access to government registers such as for business, land, and property; a single sign-on for electronic identification, authentication, authorization, and signature; digital payments and transactions portals; and secure messaging and notifications between government and citizens. Estonia's Information Security Authority is an example of a central government body playing such a role. It has developed dozens of modular components that power e-services across the entire government, in areas ranging from health insurance to vehicle registration.¹²⁴

The United Kingdom's Government Digital Service (GDS) demonstrates elements of all these roles. It sets the government's digital strategy, runs a Digital Academy that offers training courses to civil servants, and has built a range of cross-government solutions. This model has achieved real success, with the United Kingdom ranked first in the United Nations *E-government survey 2016*, a measure of a country's progress in adopting e-government.¹²⁵ The online one-stop shop, www.gov.uk, is widely regarded as one of the most accessible digital government services. Within its first year of operation, it is estimated to have saved \$65 million.¹²⁶

Government centers will reach differing decisions on the most appropriate organizational and reporting structure to deliver each of the four digital and data focus areas discussed above (digitizing interfaces with citizens, automating manual processes, integrating advanced analytics, and sharing useful data). The choice might be determined by factors such as the country's size, its degree of centralization, and its digital maturity. Typically, though, we see new capabilities developed in a center of excellence or specialized delivery unit and gradually integrated into departments as their capabilities mature.

Government leaders need to put in place the right governance mechanisms to support both overall strategy delivery and the day-to-day activities of the central unit discussed above. This task can be a challenge. In one Middle Eastern country, for example, significant funding was committed to a central unit to digitize parts of the government, yet ministries were able to maintain their existing IT budgets, so they had no incentive to adopt the centrally developed technology.

To overcome such barriers, the center of government needs to provide active leadership to ensure cross-government outcomes are achieved. It also needs to ensure that incentives within and across departments are aligned with the government's strategic goals and regularly evaluate whether digital and data programs are providing their intended benefits.

¹²⁴"Components for digital society," E-Estonia, <https://e-estonia.com/components/>.

¹²⁵*E-government survey 2016*, United Nations, 2016.

¹²⁶Stephen Foreshew-Cain, "How digital and technology transformation saved £1.7bn last year," UK Government Digital Service, October 23, 2015.



Finally, the center can earmark funds for critical cross-agency projects. For example, the US government set aside \$345 million in 2002 to cover the first four years of its pioneering E-Government Fund.¹²⁷ The Philippines government allocated about \$55 million to its own such fund in 2014.¹²⁸

Enabler 3: Committed leadership, the right talent, and a culture that rewards risk taking

Public-sector leaders need to show that their top priority is to provide the government as a whole with digital and data capabilities that will increase the quality and efficiency of services. The commitment of leaders is crucial. They need to take an active role in the planning of digital initiatives, reinforce priorities through frequent communications, and closely monitor the progress of implementation. For example, when the Danish Business Authority initiated a major digital program, the CIO rearranged his priorities to devote more time and attention to the program. The Authority’s CEO chaired the weekly meetings held to review progress, bring up challenges, and come up with solutions.¹²⁹

In many cases, governments will need to build digital awareness and capabilities—starting at the top. New Zealand, for example, introduced its senior leaders to digital and innovation concepts with a full-day executive class that covered topics such as digitization best practices and hiring digital talent. It also included a live hackathon that let the participants redesign and digitize a series of citizen interactions, using agile methods.

¹²⁷Ari-Veikko Anttiroiko, *Electronic government: Concepts, methodologies, tools and applications*, Information Science Reference, 2008.

¹²⁸“What is e-government fund (EGF)?” Philippines Department of Information and Communications Technology, www.dict.gov.ph/what-is-e-government-fund-egf/.

¹²⁹*From waterfall to agile: How a public agency launched new digital services*, McKinsey & Company, March 2016.

More broadly, governments need to mobilize the right talent—both specialized technical talent such as data scientists, cybersecurity experts, and machine-learning programmers, as well as professionals with skills in areas such as user-interface design, supply-chain management, and marketing. (In the next chapter, we discuss approaches for attracting such talent into government—and for drawing on the skills of external partnerships, secondments, and volunteers to drive digitization efforts.)

Succeeding with digitization and data analytics requires governments to experiment, celebrate their successes, and learn from their failures. Few governments have workplace cultures that reward risk taking of this sort. The United Kingdom's GDS is one exception. Another is the Israeli Defense Force's Unit 8200, which performs functions such as electronic intelligence gathering and cybersecurity. The unit has built a strong culture of innovation and a tolerance for failure, as soldiers are rewarded for tackling problems with creative intelligence. Alumni of the unit are among the most sought-after hires in the tech world.¹³⁰

Enabler 4: Thoughtful technology rollout

Most governments are burdened with legacy IT systems that can be risky to replace with new ones. Indeed, as discussed in the previous chapter, major IT projects are prone to cost and schedule overruns. A successful technology transformation requires not only investment but also excellence in project management on the part of government. Governments can also adopt what is known as a two-speed IT model: a reliable and low-risk foundation of familiar systems, plus a more flexible digital layer that accommodates the rapid creation and deployment of new services.¹³¹

There are also promising opportunities for governments to share knowledge and borrow one another's technology systems so they do not have to build them from scratch. Finland is experimenting with Estonia's system for exchanging data among government agencies, and Estonia and the United Kingdom have established a partnership called TechLink to exchange knowledge of cybersecurity, digital government, and smart-city development. Agencies within the same government are also consolidating their infrastructures in the cloud, which lets them deploy new services more easily and increase their purchasing power.



The digital and data-enabled transformation of a government is challenging but ultimately rewarding for citizens and government workers alike—and it can yield tremendous productivity benefits in terms of both cost savings as well as improved services and experience for citizens. For most countries, the journey to digitization is in its early stages; greater sharing of best practices offers exciting opportunities to accelerate this transformation and its impact in improving citizens' lives and reap economies of scale. ■

¹³⁰Matthew Kalman, "Israel's military intelligence unit drives country's hi-tech boom," *The Guardian*, August 12, 2013; Robert Lakin, "The secretive Israeli army unit that recruits like Harvard—and churns out high-profile startups," *Battery Ventures*, August 31, 2015.

¹³¹For further discussion on deploying a two-speed IT model, see *Digital by default: A guide to transforming government*, MCG, November 2016; and *Digitizing the delivery of government services*, McKinsey & Company, March 2016.

THE TALENT TO LEAD: NURTURING CAPABILITIES AND MOBILIZING HIGH PERFORMANCE

If governments are to achieve a step-change in productivity in key sectors such as health care or education—and drive high performance in finance, commercial capabilities, and digital technologies and data analytics—they will need a new approach to talent and leadership.

For one thing, Government 3.0 will require a range of functional skills that are currently underrepresented in the public sector—such as technologists, data analysts, and commercial project managers. To achieve sustained improvements in productivity, governments will also need to nurture a particular set of competencies in their leadership and management, including strategic foresight, mastery of delivery, effective change management, and the ability to foster rapid innovation.

In many cases, governments will need to look outside their current organizations to find the skills they need, both to tackle immediate challenges and to build their capabilities for the long term. That search will require a keen understanding of the changing labor market, particularly the expectations and motivations of younger workers. It will require smart approaches to attract the right talent into government, as well as the readiness to draw on external contractors, secondments from the private sector, and even volunteers when needed.

Just as important, though, governments will need to find new ways to manage and mobilize their vast existing workforces—and to inspire and energize their senior managers. Public-sector organizations often have deep capabilities and dedicated cultures of service, but a drive for greater productivity will call for new levels of agility and adaptability. As one key step to develop leaders and broaden their perspectives, governments can make much greater use of job rotation among agencies and departments and create greater permeability between public- and private-sector careers.

To master these complex talent challenges, public-sector HR leaders will need to embrace an expanded role. Historically, their focus has been on providing services to the line organization, focusing on administration, compliance, benefits policies, and payroll. Few are yet playing a major role in contributing to their governments' broader strategic agenda, driving performance, and strengthening long-term organizational health.¹³² In this respect they can look to their peers in the private sector, who increasingly are close confidants of CEOs—offering strategic advice while also ensuring the right people are appointed, aligned, managed, and motivated to deliver on the company's goals.¹³³

In several countries, HR functions are already taking on a more strategic talent-management role. They are developing a holistic view of what skills are needed across departments and learning where to find or develop them. They are also presenting a

¹³²We define “organizational health” as the ability to align around a clear vision, strategy, and culture; to execute with excellence; and to renew the organization's focus over time. We explore this imperative further in the next chapter.

¹³³Neel Gandhi and Bryan Hancock, “Getting beyond bureaucracy in human resources,” *McKinsey Quarterly*, April 2015.



compelling case to senior executives and elected officials about the need for external recruitment to attract the right talent in a competitive marketplace. The experience of these pioneers points to the following four imperatives in any effort to achieve excellence in public-sector talent management:

- Reimagine and reconfigure the HR function as a strategic confidant of civil-service leaders.
- Develop and communicate clear, targeted value propositions to attract the right talent in a competitive labor market.
- Engage the workforce and energize leaders to drive productivity, including by strengthening performance management and creating clear pathways for career growth—inside and outside the public sector.
- Make better use of external contracting, volunteering, and partnerships to gain more flexible access to complement government expertise.

STRENGTHENING STRATEGIC TALENT LEADERSHIP

Historically, many public-sector HR functions have been limited to providing government departments with a narrow set of services—such as arranging new-hire interviews or administering the health plan—and have rarely been asked for strategic advice. Often there is little central alignment among the HR functions dispersed across delivery departments. If the public sector is to upgrade its talent management, the status quo must change.

The HR function must anticipate the talent needed to deliver not just today’s but also tomorrow’s capabilities to a high standard. This foresight includes taking a long-term view of workforce trends.

Several countries are showing the way. They have created a centralized or coordinating HR function—or strengthened an existing unit—that can take a strategic, government-wide view of talent. These powerful HR functions have the authority and visibility to support overall talent acquisition and management. While they typically do not replace the HR functions in delivery departments, they work with colleagues in every part of government to drive excellence and consistency. For example, they facilitate intradepartmental transfers to encourage mobility and career development for high performers, implement flextime policies to cater for the preferences of diverse talent, and manage engagement with public-sector unions to implement organizational change.

The Public Service Division (PSD) in Singapore is one example. It is the central HR function of the Singapore Civil Service and reports directly to the Prime Minister’s Office. It sets employment policy for the entire government, although individual ministries retain authority to directly manage their employees. The PSD is also responsible for developing leaders within the civil service and works closely with the country’s Civil Service College to build competencies across government.

An effective, strategy-driven HR function typically focuses on the following five core responsibilities:

- *Understanding future capability requirements across government.* The HR function must anticipate the talent needed to deliver not just today’s but also tomorrow’s capabilities to a high standard. This foresight includes taking a long-term view of workforce trends, including demographic challenges such as population aging. The HR function can help departments identify the talent needed to deliver on their short-, medium-, and long-term priorities, as well as highlight current and future capability gaps that must be filled through external recruitment or internal talent development.
- *Building an agile workforce.* Best-practice HR functions, whether at the center of government or within departments, offer coordinated training and development to help employees reach their full potential, with a particular emphasis on current and future leaders. They also make it easier and quicker for high performers to progress to new positions and responsibilities—and between different departments—throughout their careers. To support such career mobility, they ensure that policies and performance-management processes are compatible across government. As we discuss below, such mobility is important in rounding out the experience of top performers and keeping them engaged. One example is the structured rotation program in the US intelligence community, which allows staff members to move among multiple organizations on “joint-duty assignments” that are coordinated through a central job-listings portal.

- *Anticipating leadership transitions.* The HR function has a key role to play in supporting transition planning across government, especially for senior leadership positions and expert roles, where transition planning becomes increasingly important—and challenging. Failure to plan for such transitions can undermine the implementation of key government programs and result in deteriorating organizational performance.
- *Simplifying and aligning HR processes across government.* HR functions can ensure that simple, standardized HR processes are implemented and monitored across government. For example, they can track metrics across different departments on the time needed to onboard new hires or on the employee-retention rate—and invest in analysis of data to drive insight-led decisions and policies. In many cases, the central HR function must lead the automation and standardization of legacy people-management systems, which often differ widely across departments. But HR leaders should avoid the common pitfall of leaving such projects in the hands of IT specialists, who are typically ill-equipped to deal with the complexity of government or to understand its objectives and challenges. While these changes have a significant IT component, it is important that HR itself oversees the change.
- *Understanding and mitigating talent-related risks.* Such risks might include controversial dismissals, diversity issues, or any other personnel-related subject that may involve interaction with unions, non-profits, or the news media. Governments typically face a high degree of scrutiny, and the HR function needs both a strategic view and specific skills to manage external communication and union engagement.

We should note that even the most well-executed HR centralization and coordination efforts can create tensions with delivery departments, which may seek to retain independent HR processes and policies that do not align with the broader talent-management approach. To avoid this “shadow HR” problem, central HR leaders must thoroughly consider each department’s needs—and make a compelling case to departmental managers for why those needs are best met through standardized policies and processes. They can also clearly define the role that local or departmental HR functions should play within the broader talent management approach.

DEVELOPING AND COMMUNICATING A CLEAR, TARGETED TALENT PROPOSITION

In competing for managerial and specialist talent, public-sector institutions are often at a disadvantage compared with private-sector industries such as financial services, which tend to offer higher pay (Exhibit 30). On average, public-sector wages are generally higher than those in the private sector—but that is not the case for top-performing talent, who typically earn a significant premium in the private sector.¹³⁴ People interested in public service also have more options than in the past. In many countries, the philanthropic and social sector is booming. For those seeking to contribute to the public good, jobs in such organizations can offer similar levels of personal satisfaction as working in the public sector.

In this context, it is especially important that governments develop a compelling value proposition to attract the right talent. This proposition should target the specific workforce

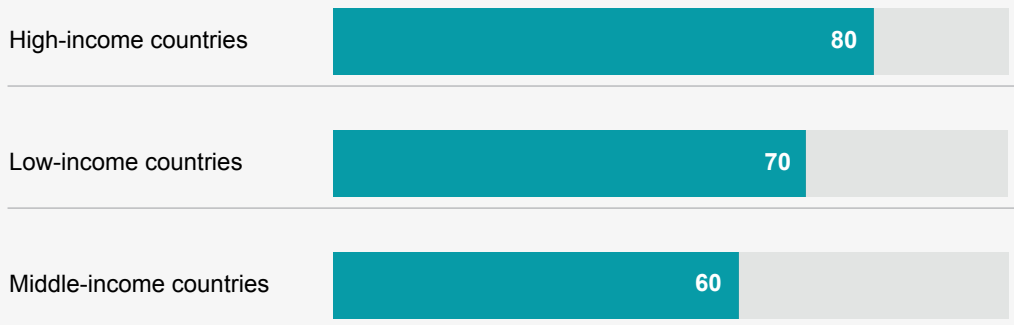
¹³⁴Rafaella Giordano et al., *The public sector pay gap in a selection of Euro area countries*, European Central Bank working paper number 1406, December 2011.

Exhibit 30

The financial sector offers significantly higher pay than the public sector

Ratio of public sector to comparable financial sector wages

%



SOURCE: Benedict Clements et al., *Evaluating government employment and compensation*, International Monetary Fund, September 2010

segments essential to meeting the government's identified talent needs, as well as cater to the priorities and preferences of those segments. Governments need to tailor their recruitment marketing accordingly—and ensure recruits' real-life interviewing and onboarding experience lives up to the promises made in that marketing.

Increasingly, government talent propositions must take into account the motivations of younger workers. Millennials—people born between roughly 1980 and 2000—make up a large share of the workforce, but they are typically underrepresented in the public sector. While their career expectations are similar to those of previous generations, research suggests that millennials are quicker to quit their jobs if their expectations are not met. Research also suggests that younger talent is looking for work that offers meaning, flexibility, autonomy, variety, mentoring, recognition, and rapid career growth.¹³⁵ The factors most likely to dissatisfy them in their work environment are hierarchy, bureaucracy, and a slow pace of career development (Exhibit 31). For many traditional public-sector organizations, these priorities make it challenging to shape a value proposition that truly engages next-generation talent.

To develop and communicate such talent propositions effectively, governments can take the following steps:

- *Identify target talent segments to meet government's capability requirements.* As discussed above, a core responsibility of a strategic HR function is to identify current and future capability gaps across government. Based on these insights, the HR function can specify which specific roles—for example, quantitative analysts, digital communications specialists, and hospital managers—need to be targeted in recruitment campaigns. Just as important, HR departments can target demographic segments that are underrepresented across the government workforce. In particular, recent MGI research shows that female talent is underutilized in both the public and

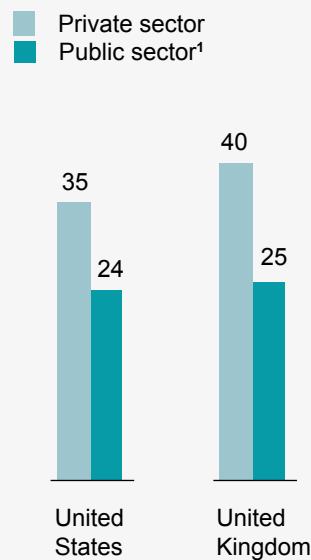
¹³⁵Ibid. Joanna Barsh, *Mind the gap*, 2015.

Exhibit 31

New strategies in attraction and retention are required to meet the demands of the millennial workforce

The public sector employs fewer millennials than the private sector . . .

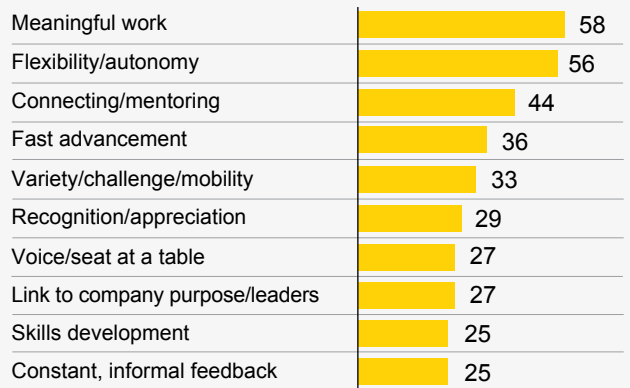
Proportion of millennials in the workforce by sector, 2014
% of workforce aged 16 to 34



. . . but millennials' preferences present an opportunity to review the public sector's value proposition

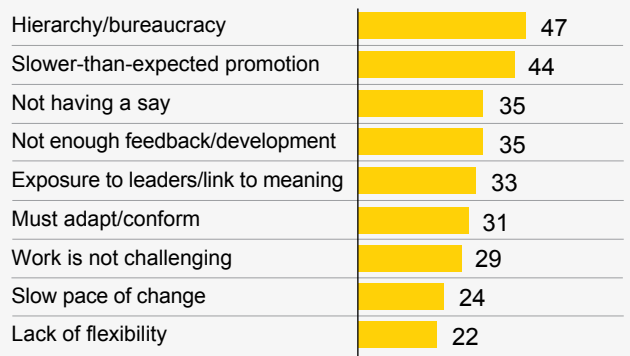
What millennials want from their job . . .

% of interviewed talent professionals mentioning the topic



. . . and what stands in the way

% of interviewed talent professionals mentioning the topic



¹ For the United States, based on employees classified as "public administration"; for the United Kingdom, based on employees classified in all public-sector roles.

SOURCE: US Bureau of Labor Statistics; UK Office for National Statistics; Joanna Barsh, *Mind the gap: Young leaders show the way*, McKinsey Centered Leadership Project, 2015

private sectors.¹³⁶ To strengthen the value proposition for women, governments can ensure meritocratic recruitment and job placements with clear, transparent criteria and evaluation processes. They can also create genuine job-sharing options so that even senior leaders are able to work as few as three days a week.¹³⁷

¹³⁶*The power of parity: How advancing women's equality can add \$12 trillion to global growth*, MGI, September 2015.

¹³⁷Ibid.

- *Understand targeted talent’s priorities and values.* Different segments can have significantly different personal priorities and values. For example, digital experts just out of college or university may have expectations about career mobility or working environment that are dramatically different from those of highly experienced operations managers. These differences must be understood in detail and form the basis for tailored recruitment strategies. To meet younger workers’ priorities, governments can play to their natural advantage in being able to offer a sense of meaning to employees. Governments can build on this advantage by creating new employment contracts and career pathways that meet millennials’ expectations of flexible hours and opportunities for rapid progression. For example, the UK Civil Service Fast Stream program enlists promising secondary school graduates in government employment by offering apprenticeship training and the opportunity for accelerated promotions.
- *Create compelling career paths for each segment.* Armed with a clear and detailed understanding of workforce segments and their preferences, governments can create targeted recruitment strategies to attract people with specific experience, backgrounds, or skills. The United Kingdom’s GDS, for instance, provides a useful model: it has created a distinctive culture and creative environment that attracts top digital talent who want to use their skills to serve the public good.
- *Communicate the talent offering through targeted, tailored marketing.* Once governments understand their key capability gaps, discern the priorities of targeted talent, and create compelling career pathways to attract them, they must then ensure they communicate effectively with potential recruits. For example, the New York Police Department (NYPD) seeks recruits with critical-thinking skills, physical fitness, discipline, and the ability to work in a chain of command. Such characteristics are frequently possessed by military veterans, whom the NYPD leadership actively targets in its hiring process through tailored recruitment material, preferential points in entrance exams, and additional incentives for veteran recruits. Singapore’s SPF has also had success using social media and streaming video to attract exceptional recruits (see Box 12, “A career to “like”: Using social media to attract police recruits in Singapore”).
- *Move quickly to hire and onboard the best talent.* Once governments have attracted the interest of target talent segments, they should move quickly to hire and onboard them. But moving quickly can be a challenge, as government recruitment can often take twice as long as that in the private sector and up to 50 percent longer than in non-profits (Exhibit 32). As a result, governments risk losing out on the best talent as these individuals either are put off from applying for public-sector openings in the first place or accept other job offers while waiting to hear back from government. Public-sector HR leaders could improve their chances of hiring highly qualified job applicants by driving down the time between receiving an application and making an offer. The goal should be to reduce this “time to hire” toward private-sector levels while also preserving priorities such as security and diversity compliance.

Box 12

A career to “like”: Using social media to attract police recruits in Singapore

The SPF finds and hires superior new officers by knowing the kind of people it wants to recruit, learning how to reach them, and communicating the benefits it has to offer. It begins by carefully aiming SPF recruitment efforts at its target audience: smart and ambitious young men and women seeking a challenge. It then reaches out to them on communication channels that are most popular with these prospects: digital media and television.

For example, the SPF has built an engaging Facebook page that

features photos of cheerful, bicycle-riding male and female officers; the page has received more than half a million “likes.”¹ The SPF has also built a large library of online videos showing actual police work, friendly community meetings, and four seasons of a police procedural television series that the SPF produces in collaboration with a major media group, MediaCorp Singapore. Throughout these offerings, the SPF clearly communicates its employee value proposition. Potential recruits are told not only that they will be “protecting our country, our community, and

our loved ones” but also that joining the police force will make applicants themselves “richer, more mature, and developed.”

The SPF attracts the brightest applicants by offering scholarships for university study in Singapore and abroad. The SPF Overseas Scholarship program, for example, covers all costs of earning an undergraduate degree at Oxford or Cambridge in the United Kingdom or Ivy League universities in the United States.

¹ See the page at www.facebook.com/singaporepoliceforce/.



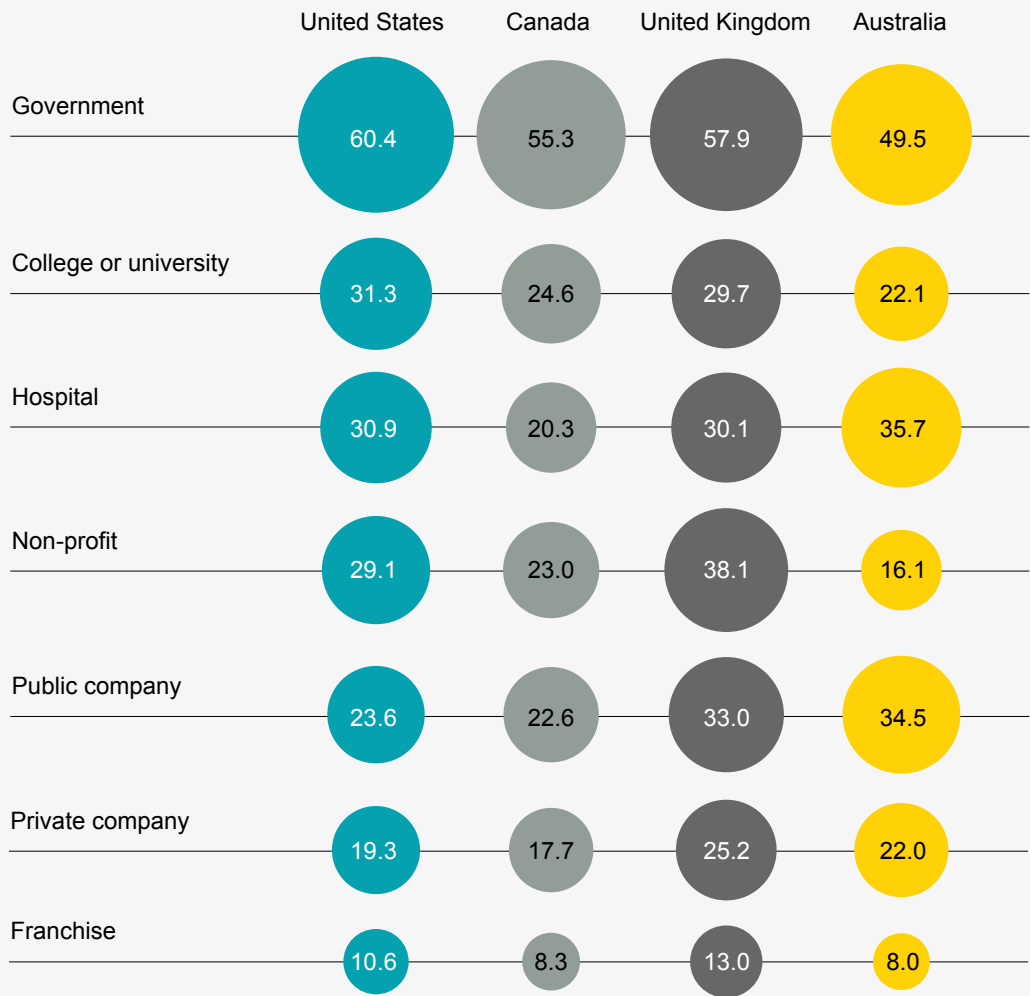
ENGAGING TALENT AND DEVELOPING LEADERS TO DRIVE PRODUCTIVITY

Even with the right talent on board, governments face a deep-seated challenge in motivating and managing their workforces for high performance. One part of this challenge is the sheer scale of the government workforce. In OECD countries, public-sector employees typically make up more than 20 percent of the total workforce, and government-wage bills generally account for 10 percent of GDP or more (Exhibit 33). Moreover, public-sector

Exhibit 32

Government recruitment processes take significantly longer than those in other sectors

Average length of interview process by type of employer and country, 2014
Days



SOURCE: Glassdoor Economic Research, 2014

institutions generally lag behind private-sector businesses in organizational health (Exhibit 34). This latter point is a clear finding of McKinsey’s Organizational Health Index (OHI), a survey-based analysis of more than 1,300 organizations across nine elements of performance.¹³⁸

Strengthening performance management

The public sector lags behind the private sector across all OHI performance elements, but the difference is greatest on the “coordination and control” dimension, which relates to employee performance reviews, operational management, financial management, and

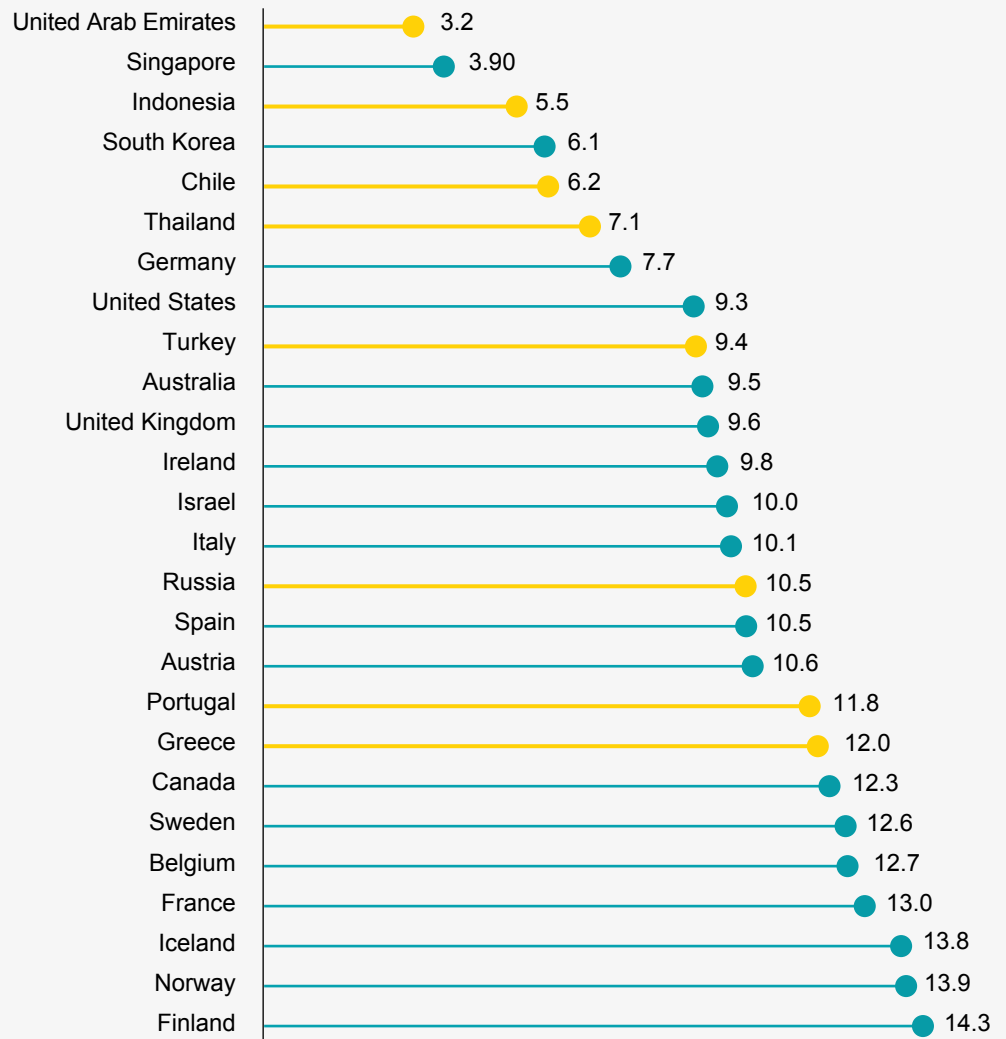
¹³⁸The nine elements of the OHI framework are direction, leadership, climate and culture, accountability, coordination and control, capabilities, motivation, innovation and learning, and external coordination.

Exhibit 33

Public-sector wages account for a significant portion of GDP in most countries

Public-sector wages, 2014
% of GDP

● Medium- and low-income countries
● High-income countries



SOURCE: Organisation for Economic Co-operation and Development; International Labour Organization; International Monetary Fund; national statistics

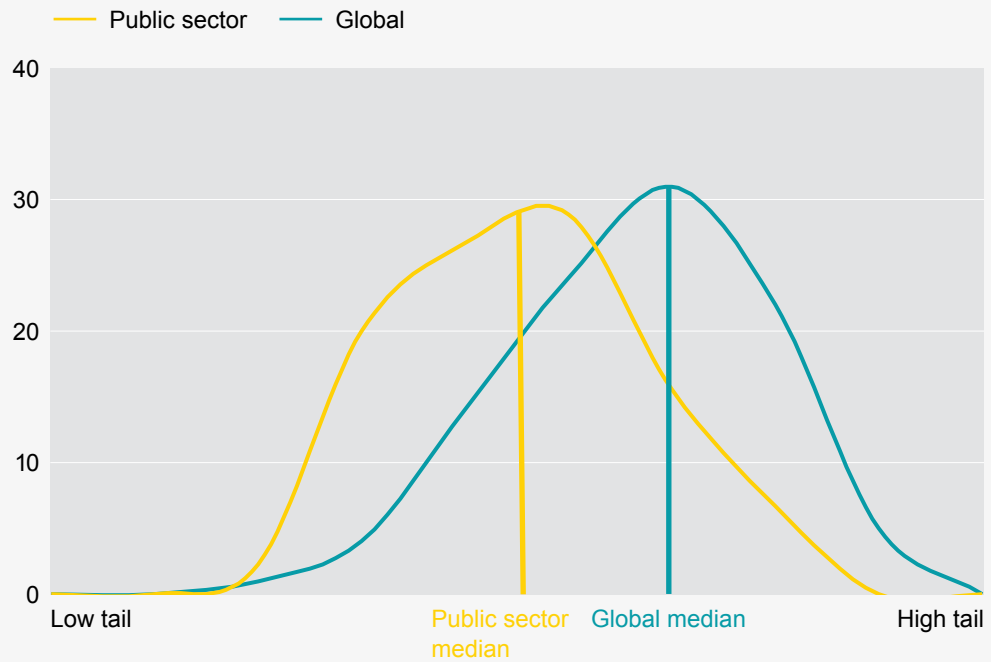
professional standards. That deficiency points to a need for governments to strengthen their general management and performance management practices—and this is a key focus of HR functions in countries such as Denmark, Singapore, and the United States.

When the Danish government embarked on a top-to-bottom HR modernization effort, it began with an “open and honest” review of how to evaluate staff—both high and low performers—and how to get senior leaders to engage fully in the evaluation process. Leadership adapted evaluation criteria to give greater emphasis to delivery and execution capabilities, as well as broad experience across departments and sectors. They also

Exhibit 34

Public-sector organizations have significantly lower organizational health than the global average

Distribution of organizations based on their Organizational Health Index (OHI) score
% by OHI score



SOURCE: McKinsey Organizational Health Index database; public sector: 45 surveys, 82,778 respondents; global benchmark: 761 surveys, 1,591,923 respondents

reviewed every legacy policy they could find in order to ensure that the full scope of options were on the table; they found that many practices believed to have a specific business purpose or to be legally required actually were just habit and routine. Finally, they worked with unions, spending time to build trust and understanding about the goals of the evaluation and plans for the future. The approach, initially trialed in one department, is now being rolled out across the Danish government.

Singapore, meanwhile, assesses its civil servants using criteria adapted from high-performing private companies such as Goldman Sachs as well as leading public-sector organizations such as the US Air Force. The process produces both a backward-looking “performance grade” and a forward-looking “potential score.” Both are benchmarked against each person’s own performance and those of his or her peers. Good reviews can result in substantial bonuses; poor reviews may be followed by an invitation to leave government service.

The US government improved accountability and performance management of its Senior Executive Service (SES) by increasing both risks and rewards associated with performance reviews. SES members, the top tier of civil servants, set annual performance targets for their organizations and subordinates, and over the course of the year they are rated on how

well they deliver on those targets. At stake are annual bonuses of at least 5 percent of the executive's salary.

Creating attractive career pathways—and permeability with the private sector

As important as these practices are, they are unlikely to sufficiently engage talent and sustainably drive productivity if they are implemented alone. Systematic performance management must go hand in hand with clear, compelling career pathways. These pathways need not be linear—and they may be part of a journey that involves periods in the private sector—but it is critical they are understandable, achievable, and aligned with governments' strategic talent needs.

Mobility between departments and roles is one key aspect of effective career pathways—yet many of the government officials we interviewed expressed frustration that mobility remains difficult in the public sector. That frustration is particularly acute with millennials. To many, a lack of mobility reduces the potential for professional development and increases the perceived risk of being “stuck” in unfulfilling careers. To tackle this challenge, governments can implement policies that reward and protect staff who move between roles and departments. To make such moves smoother, they can ensure that standardized talent frameworks are in place across departments. They can also set up digital systems to make it easier for departments to attract the best internal talent and for individuals to find new roles within government.

To encourage permeability between public- and private-sector careers, governments can actively stay in touch with former civil servants who have left to work in business or non-profits—and they make it easier for them to return to the public sector after working for extended periods elsewhere. These alumni can bring with them valuable skills, experience, and perspectives obtained at other employers. Such initiatives will also signal to existing staff that a stint working in the private sector is not just tolerated—it is valued and respected.

In this respect, governments can draw on the experience of leading private-sector organizations, which engage with their former employees and create efficient channels for them to return. These efforts include offering continued career progression for returning employees; streamlining recruitment, for example by minimizing the time taken in the interview process and onboarding; and instigating policies to protect accrued benefits and seniority for alumni who return.

DRAWING ON THE TALENT OF EXTERNAL PARTNERS AND VOLUNTEERS

Not every public service has to be performed by the public sector. When properly designed, meaningful partnerships with private-sector and non-profit organizations can greatly improve the quality and speed of public-service delivery. Where it is not possible to build internal capabilities within required time frames, governments can sometimes boost productivity by engaging external contractors in key capabilities such as digital technologies and data analytics. The HR function can manage risk and safeguard resources by developing cross-government visibility into contractor activity and creating strategic training interventions to build internal capabilities at lower costs.

Box 13

How volunteers got schoolchildren reading again in the Philippines

At the turn of the 21st century, corrupt education officials in the Philippines were regularly awarding textbook-printing contracts to favored publishers who were often unqualified for the job. As a result, textbooks were rarely in the hands of students when the school year began—if they arrived at all. Books that were delivered often had missing pages, substandard bindings, or other serious printing defects.

To address the issue, the country's department of education asked two non-governmental organizations (NGOs) to monitor the bidding process for publication contracts and then visit factories to observe the printing process and track delivery to schools around the Philippines. The NGOs performed the first two tasks themselves, but tracking shipments across the archipelago was beyond their resources. Instead, they mobilized thousands of volunteers to

track deliveries to schools, and the Coca-Cola Company offered the use of its trucks to ship books to schools in remote villages.

After four years, textbook prices had fallen by half, the quality of the books rose significantly, and volunteer observers saw to it that 95 percent of all books arrived on time and at the right location.¹

¹ "Textbook count in the Philippines," World Bank, October 28, 2015.

Governments can also bring top external talent into the public sector on a temporary basis through secondments. An example is the US Presidential Innovation Fellows program, established in 2012. This program offers technologists and other innovators the opportunity to serve in government for 12 months, during which they collaborate with federal agencies on targeted, high-profile initiatives aimed at saving lives, saving resources, creating jobs, and encouraging cultural change within government. The projects incubated in the program include a digital platform that allows US government agencies to pool their purchases of goods and services, thus cutting costs, and an online catalog of employment resources available to military veterans.

Governments can sometimes tap into external capabilities at little or no cost by creating partnership agreements and volunteering opportunities. An example is the Estonian Defense League's Cyber Unit, a voluntary organization that helps protect Estonian cyberspace.¹³⁹ The unit consists of hundreds of civilian volunteers, including specialists in cybersecurity as well as teachers, lawyers, and economists. This volunteer army is constantly on hand to respond to cyberattacks on Estonia's information infrastructure and has become an example for other governments around the world.¹⁴⁰

Another high-tech example comes from the city government of New York City, which set up an integrated and automated call center to track and collate city service issues such as noise complaints and damage to public infrastructure. The system allows citizens to call a three-

¹³⁹"Estonian Defence League's Cyber Unit," Estonian Defence League, www.kaitseliit.ee/en/cyber-unit.

¹⁴⁰David Blair, "Estonia recruits volunteer army of 'cyber warriors,'" *The Telegraph*, April 26, 2015.



digit number (“311”), which automatically directs requests to the right agency, and uses geographic information system (GIS) technology to provide automatic mapping of citywide issues. This service has had a dramatic response from the public, fielding more than 60,000 calls per day, and effectively serves as a free, on-the-ground monitoring workforce.¹⁴¹

Volunteering can be just as effective in low-tech environments, as the Philippines demonstrated in a nationwide effort to improve on-time delivery of textbooks to schools (see Box 13, “How volunteers got schoolchildren reading again in the Philippines”).



To deliver on the productivity-improvement opportunity, the public sector must make a step-change in the way it attracts and develops its people. Creating a strategically focused, highly empowered HR function is the essential first step in driving this change. That function must take the lead in understanding government’s future talent needs and in shaping compelling value propositions to targeted talent segments. In addition to attracting the right talent, governments must engage their current employees to drive productivity. Systematic and robust performance review processes are crucial, but these efforts must go hand in hand with compelling training and development pathways. Finally, governments can think more broadly about who needs to perform public services—and find opportunities to involve citizens more widely in improving the societal outcomes that matter most. ■

¹⁴¹“About NYC311,” City of New York, www1.nyc.gov/311/our-story.page.

CLOSING VIEW

Moving to action





To realize the productivity-improvement opportunity in a particular sector—and to develop the cross-cutting functional excellence described in the previous chapters—governments will need to drive far-reaching transformations. Success won't be easy: public-sector organizations are typically large, complex, and cautious about change. As a result, most public-sector transformations fail to achieve their targets. Governments that overcome these odds create clear direction for change, build a well-oiled delivery machine, and drive continued engagement to sustain momentum.

TRANSFORMING GOVERNMENT: LESSONS FROM THE REAL WORLD

To create a practical road map for public-sector transformation, we have taken a close look at several governments that have delivered large-scale change programs and achieved sustained improvements in productivity. We have also mined McKinsey's public-sector experience for real-world insights on the success factors—and pitfalls—in government transformation efforts. In particular, we have examined the experience of countries that have used our breakthrough delivery approach, an integrated delivery methodology that we have developed and applied working with more than 20 governments over the past decade.¹⁴² These insights provide a rich source of lessons from the field.

The first such lesson is simple but critical: look before you leap. The urgent desire to solve societal problems and improve outcomes can cause government leaders to overlook the deep-seated challenges involved in achieving lasting change in the public sector. Before embarking on a transformation, leaders should take a frank look at those challenges and ensure that the change effort is designed and sequenced to overcome them. Common barriers include the following:

- *Tension at the top.* Unlike private-sector businesses, governments do not have shareholders or a single CEO to whom the whole of government is accountable, nor do they have a single top management team with shared incentives and a common view of performance. There is often tension between political appointees, who typically have short tenures and are under pressure to implement new policies, and permanent staff, who are more focused on long-term institutional stability and tend to be risk-averse.¹⁴³
- *Multiple stakeholders to engage.* In any given sector, change usually requires the engagement of multiple internal and external stakeholders who may have divergent goals, vested interests, or entrenched positions. For example, many public health-care services are complex ecosystems of commissioning groups, professional bodies, regulators, local governments, hospitals, patient groups, charities, and suppliers of drugs and medical equipment.
- *The glare of publicity.* Governments attract constant external scrutiny and media attention. In part, this visibility explains the risk aversion common among civil servants. The glare of publicity can also prompt short-term thinking and policy U-turns, which hamper effective project management and delivery.
- *Regulatory scrutiny.* Failure to take into account legal and regulatory requirements can stall reforms. Everything from public consultations to HR procedures to procurement policies can make it hard to build momentum for change. In the United Kingdom, for example, a 2013 report found that legal requirements forced managers in the National Health Service (NHS) to spend more time writing plans to improve services than actually making improvements.¹⁴⁴

¹⁴² *Deliverology: From idea to implementation*, McKinsey & Company, February 2011.

¹⁴³ In the United States, for example, the average tenure of political appointees is 18 months, whereas that of permanent staff is 7.2 years. See Grover Starling, *Managing the public sector*, Wadsworth Publishing, 2010; and US Bureau of Labor Statistics, 2010.

¹⁴⁴ *Challenging bureaucracy*, NHS Confederation, 2013.

- *Lack of follow-through on implementation.* In many countries, the political cycle can prompt leadership attention to shift to new initiatives—before existing projects have been fully implemented or achieved impact. This constant shifting can easily result in change fatigue among civil services.

Given these barriers, it is not surprising that at least 60 percent of public-sector transformations fail to achieve their targets.¹⁴⁵ The governments that have overcome these odds have embraced several common essential actions for achieving sustained improvement in outcomes. We think of the following imperatives as the three dimensions of government transformation:

- *Direction*—creating a clear, compelling vision and strategy for change.
- *Delivery*—building a fine-tuned, well-oiled machine to plan, manage, monitor, and support implementation of the change program.
- *Drive*—providing inspirational leadership, engaging the organization and stakeholders, and building capabilities to sustain momentum over the longer term.

Each of these three dimensions of transformation requires a very different approach and mindset. To set a bold new direction for a government or a specific sector, leaders must engage in creative, disruptive thinking—and be open to debating radical new ideas before coming to consensus on a clear way forward. Effective delivery, on the other hand, requires discipline, consistency, and a constant focus on implementation—through relentless cycles of action, monitoring, measuring, and refining. Finally, maintaining the drive for change requires high levels of emotional intelligence, people engagement, and long-term thinking, but it may also involve more structural elements, such as changes in legislation or institutions.

DIRECTION: CREATE A CLEAR, COMPELLING VISION AND STRATEGY FOR CHANGE

Given the complexity of managing change in the public sector—and the real barriers to success—it is essential to create clear direction for any transformation effort. Governments must craft a powerful overarching vision that can focus the efforts of multiple departments, break through organizational inertia, and provide a rallying cry that remains fresh and relevant for several years. They also need to translate that vision into clearly defined strategic priorities and quantified objectives.

Distilling such a direction is no easy task. The vision must be simple enough to be memorable and measurable, but it must also connect meaningfully with the real priorities and challenges of government. To get it right, leaders must be ready to engage in debate and disruptive thinking—and to listen to the priorities of citizens and the ideas of outside experts. Only after they have opened the solution space in this way should they narrow down to a specific vision.

France’s government transformation program, implemented from 2009 to 2013, provides a good example. In setting the objectives for the program, government leaders used surveys

¹⁴⁵ *Leading transformational change in the public sector*, MCG, May 2013.

and focus groups to build a deep understanding of what citizens actually valued. They discovered a strong desire to simplify “life events” that involved interaction with the state—such as getting married or opening a business. That appetite prompted the government to define “simplicity” as the key metric in the transformation (see Box 14, “How France improved public services by focusing on citizens’ experience”).

In other countries, government leaders have set a broad transformation vision using their own judgment and then engaged stakeholders to translate that vision into specific priorities, targets, and action plans. For example, Malaysia’s Economic Transformation Program, launched in 2010, had a single, overarching aspiration: to make Malaysia a high-income nation by 2020. The government convened 1,000 leaders from the public and private sectors to help identify the 12 priority sectors that would drive the achievement of that aspiration.

Some transformation efforts are prompted by crises that are beyond governments’ control. In such cases, too, government leaders need to create a clear change vision to reassure

Box 14

How France improved public services by focusing on citizens’ experience

In 2007, France launched the General Review of Public Policies (known by its initials in French, RGPP).¹ The program had three major objectives: improve the quality of public-service delivery, achieve savings in public spending, and modernize the civil service. For its savings objective, the government set a target of reducing spending by \$16 billion from 2009 to 2013. To achieve its objective of strengthening the public-sector workforce, it pursued several broad thrusts including increasing career mobility and improving salaries in a smaller, better-performing civil service.

Beyond these more traditional metrics, however, the government wanted the transformation to create

a step-change in citizens’ experience of public services. Using surveys and focus groups, it discovered a strong desire among citizens and businesses to simplify “life events” that involved the state—such as getting married or opening a subsidiary. The government listed approximately 50 life events for citizens and 30 for businesses and gauged their perceptions of the complexity of each. With the visible support of the country’s most senior leaders, the government then asked departments to work together to increase the simplicity of each metric. As a result, it reduced the perceived complexity of priority life events by 20 percent for citizens and 25 percent for businesses in three years—while building a culture of innovation and collaboration across the public sector.

By securing support from political leaders and citizens at an early stage, the RGPP obtained a mandate to deliver. It stated its aims and scope publicly and communicated progress transparently through published quarterly performance indicators. National newspapers published progress updates, driving up public awareness of the effort.

¹ See McKinsey & Company’s interview with François-Daniel Migeon, who led the Direction Générale de la Modernisation de l’État (DGME), an interministerial body launched to coordinate the transformation of French government: Tony Danker, *Transforming government in France*, McKinsey & Company, October 2012. See also *The public-sector productivity imperative*, McKinsey & Company, March 2011.

citizens and civil servants, as well as build acceptance for the tough measures that may be needed. During Sweden's budget crisis in the 1990s, for instance, the government analyzed how the burdens of the reform program would be distributed and explained to the public how those burdens would be shared within each annual budget. In so doing, it signaled that it recognized the importance of Sweden's egalitarian values.

A more recent example comes from Sierra Leone, whose economy was devastated by the Ebola epidemic and falling commodity prices from 2014 to 2015. In response, the government launched the President's Recovery Priorities. This program galvanized local and international stakeholders to take rapid, coordinated action to strengthen the country's health-care, education, energy, water, and business sectors.¹⁴⁶

DELIVERY: BUILD A CONSISTENT PROCESS TO MANAGE IMPLEMENTATION

Once the direction of the transformation has been clearly defined, it is time to shift to a very different mode: delivery. The mindsets and disciplines required here are the opposite of the imaginative, disruptive thinking required to create a compelling vision for change. What is needed now is a well-oiled machine that drives a tireless, consistent process to keep things moving according to plan. The experience of successful government transformations points to four essential features of the delivery approach: putting in place effective cross-functional coordination, managing execution through detailed plans, aligning budgets with transformation objectives and delivery plans, and creating ownership and accountability for delivery.¹⁴⁷

Put in place an effective cross-department mechanism to manage delivery

Meaningful transformations typically require action by multiple departments, ministries, and other stakeholders. These entities are often asked to move faster than they are accustomed to moving, collaborate in joint teams and initiatives, and experiment with bold new approaches. The more complicated the intergovernmental dependencies, the greater the risk of misaligned efforts, roadblocks, and inertia.

To tackle these challenges and ensure effective coordination, several governments manage transformation via newly established "delivery units"—small, agile, cross-functional teams comprising exceptional personnel who have direct access to top government leadership and are fully dedicated to driving delivery. While some units are established for just a few years to manage the delivery of specific programs, others have more permanent roles spanning multiple administrations. Examples include the following:

- Malaysia's Performance Management and Delivery Unit (PEMANDU) was set up to manage the country's Government Transformation Program, which focused on effective service in priority result areas including reducing crime, improving student outcomes, and raising living standards of low-income households. PEMANDU reported directly to the prime minister.
- Sierra Leone's President's Delivery Team was charged with managing the country's recent cross-departmental program to drive recovery from the Ebola crisis. The team

¹⁴⁶ *Lessons learned from government transformation*, World Government Summit and McKinsey & Company.

¹⁴⁷ *Ibid. Deliverology*, McKinsey & Company, February 2011.

Once the direction of the transformation has been clearly defined, it is time to shift to a very different mode: delivery. What is needed now is a well-oiled machine that drives a tireless, consistent process.

was empowered to escalate pressing issues directly to the president's chief of staff and the president himself.

- The UK Prime Minister's Delivery Unit (PMDU) under Tony Blair was set up to provide support and scrutiny to delivery of the government's highest-priority objectives.

To be successful, a delivery unit must be led by a senior official or business executive with a peer-like relationship with ministers. It must be staffed by talented people—from either the public or the private sector—who are effective problem solvers, communicators, and influencers.

Establishing a dedicated delivery unit is not the only approach for managing a transformation; some governments have assigned coordination responsibility to an existing department. As discussed in Chapter 3, the finance function is often well positioned to play this role. In Denmark, for example, ministers meet weekly under the Committee of Economic Affairs to assess proposals and initiatives with significant consequences for the economy and the budget. The minister of finance now runs the committee and reviews all the initiatives before the committee gathers. This detailed interministerial approach to planning has played a vital role in implementing and coordinating reforms across Denmark's public sector since the 1990s.¹⁴⁸

Whichever delivery mechanism is chosen, governments should ensure not only that the unit or department is empowered to work across departments to drive delivery but also that it has strong leadership support and a clearly defined institutional role. That way it can stay focused on the delivery of agreed long-term priorities, even when political turbulence creates day-to-day distractions.

Manage execution through detailed, data-driven plans

To monitor delivery against targets and ensure that impact is achieved, the delivery unit or other coordinating function should work with the accountable ministries, departments, and agencies to create detailed implementation plans, define robust performance indicators, and use hard data and statistical analysis to monitor and manage progress. Such data can also be used to benchmark a government's performance against that of peer nations, as discussed in Chapter 2.

¹⁴⁸ Personal experience of Bjarne Corydon, global director of MCG and former minister of finance of Denmark.

In Malaysia, PEMANDU was responsible for creating and driving action plans that its leaders described as being at a level of detail “three feet above the ground”—the opposite of a high-level strategy whose view of the landscape was akin to that from an airplane cruising at 30,000 feet. Based on these plans, PEMANDU convened departments in weekly problem-solving meetings and daily interventions to monitor and manage progress. One of the first areas PEMANDU focused on was public safety. It worked with the police force to identify crime hot spots and develop a detailed plan to reallocate police resources and put more officers where they were most needed. More than 20,000 police officers were redeployed in just 12 months, reducing crime by 15 percent.¹⁴⁹

Such “quick wins” are crucial in building momentum and creating alignment for transformation, but they rely on thoughtful planning. This planning should be detailed enough to assign responsibility for specific tasks to particular teams and individuals, with agreed milestones and deadlines, and with practical tools and interventions to help frontline government employees deliver improvements with speed. In one country, an intensive “lab” process of the kind described above was established to improve education outcomes. It ranked all 10,000 schools across the nation by their scores in a public examination and developed a school improvement tool kit, along with more targeted interventions for schools with the lowest scores.¹⁵⁰

Align budgets with transformation objectives and delivery plans

In the words of a McKinsey adviser, “A plan without a budget is a draft.” The delivery process should therefore develop a robust budget for each transformation priority, since even the best laid plans will not succeed without funding.

While the creation of a budget may seem straightforward, it actually requires careful coordination among stakeholders and a solid understanding of all fiscal issues. The delivery unit must therefore collaborate closely with the finance ministry (or other equivalent body) to develop a detailed picture of both the funding requirements for each element of the transformation program and the available government funds. The budgeting process should involve external experts and use international benchmarks to challenge conventional wisdom and identify ways to deliver better outcomes for less. Some transformation programs define specific performance milestones that must be completed satisfactorily before funds are released for the next stage of the program.

Where the budget is tight, governments can bridge shortfalls in a number of ways—such as reallocating existing funding to priority areas, improving tax collection, seeking private donor contributions, or collaborating with SOEs for coinvestment in improvement initiatives. One Asian country, for example, identified sufficient procurement savings to finance a two-year economic and social transformation program. Another country used an “impact per dollar of government spending” metric to allocate funding to the most effective initiatives, while the least effective ones were discontinued.¹⁵¹

¹⁴⁹ *National transformation programme annual report 2015*, Performance Management and Delivery Unit (PEMANDU), 2016; Charles Sabel and Luke Jordan, *Doing, learning, being: Some lessons learned from Malaysia's national transformation program*, Competitive Industries and Innovation Program, January 2015.

¹⁵⁰ *The delivery challenge: A systematic approach to achieving breakthrough impact*, McKinsey & Company, March 2015.

¹⁵¹ *Ibid.*

The delivery process itself will also generally require funding—to build teams, hire leaders, recruit experts, establish communications and marketing, and organize public consultation activities—while benefits such as increased productivity and improved service come later. For that reason, budgeting discussions should set aside sufficient funds to establish an effective delivery mechanism and thus set up the transformation for success.

Create ownership and accountability for delivery

The right delivery approach, excellent planning, and sufficient budgets are all prerequisites for transformational change—but if individuals are not held accountable for each significant step along the way, change may never happen. It is essential to make senior civil servants personally responsible for achieving interim objectives as well as major milestones on time and within budget. The delivery unit should therefore involve these individuals in intensive, regular performance dialogues focused on solving problems rather than just monitoring. When accountable managers and their agencies meet or exceed their targets, senior government leaders should publicly praise them or offer performance incentives.

To drive accountability, governments can choose to publicize targets and performance against them. For example, the United Kingdom's PMDU regularly published detailed reports to ensure transparency on progress. One PMDU innovation, the Street Crime Initiative, developed metrics to monitor the effectiveness of efforts to reduce street crimes such as robbery and snatch theft. The prime minister held cabinet ministers individually accountable for key performance indicators and personally attended weekly progress reviews of the task force, armed with the latest data. Within a year, street crime had declined by 16 percent.¹⁵²

¹⁵² *Streets ahead: A joint inspection of the street crime initiative*, UK Home Office Communication Directorate, July 2003.



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Active, open support from the highest levels of leadership signals to citizens the importance of a transformation program and provides vivid role modeling of what is expected of everyone in the public service.

In other cases, senior government leaders invite external scrutiny to encourage transformations, as was the case with Sierra Leone's President's Recovery Priorities. The president took personal accountability for delivery of the priorities in a 2016 address before his ministers, chiefs, other high-ranking government officials, civil society advocates, donors, and the media. He listed the targeted outcomes—such as training 40,000 teachers, providing safe drinking water for 1.3 million people, and doubling the country's power-generation capacity—and told the audience to expect delivery of those results within 14 months.

DRIVE: SUSTAIN THE MOMENTUM FOR CHANGE

When a transformation program is delivering early results, those should be celebrated—but the key to a successful transformation is to build the momentum and organizational capabilities to sustain improvement over the longer term. To do so, governments need to invest in providing inspirational leadership, communicating effectively with citizens and civil servants, and strengthening organizational health. In this way, they can institutionalize a focus on productivity improvement—and the capability to deliver it—across government. Such institutional know-how will outlive specific change programs.

Lead the transformation with authenticity and commitment

Active, open support from the highest levels of leadership signals to citizens the importance of a transformation program and provides vivid role modeling of what is expected of everyone in the public service. Frequent, sustained, and visible action from such leaders is needed if change and innovation are to cascade across an organization. In one US government agency, for example, a transformation effort began with a “listening tour” in which senior leaders visited dozens of field offices around the country. During these visits, the top leaders actively engaged with frontline staff and developed a strong understanding of the challenges they faced. The leaders later developed a vivid “change story” for the organization. As recent McKinsey research shows, a transformation is six times more likely to be successful when senior leaders craft such a change story and communicate it effectively.¹⁵³

Visible leadership commitment can be enhanced with bold symbolic actions, as Saudi Arabia has demonstrated in its transformation currently underway. When political leaders began to discuss selling off state-owned industries, many stakeholders expected something similar to prior, limited privatizations: one or two services but by no means a major change in the overall role that government plays in the economy. This perception changed when the

¹⁵³ *How to beat the transformation odds*, McKinsey & Company, April 2015.

deputy crown prince revealed his plans to sell a minority stake in the national oil company, Saudi Aramco. The company is revered not just as the main source of the kingdom's exports and government revenues but also as the manager and implementer of last resort for any high-profile government project. Many outside the government had assumed Saudi Aramco would be the last state asset in line for privatization. But the deputy crown prince's announcement signaled unmistakably that this time would be different—so boosting the credibility of the entire transformation process.

Communicate impact—constantly and credibly

Effective communication of delivery results promotes public support for additional reforms. The most successful government transformation programs focus on achieved results, not just intentions. Citizens are more impressed with concrete achievements—such as increased school enrollment rates or a reduction in low-performing schools—than aspirations, especially if governments have failed to deliver in the past. This fact-based communication can be combined with more emotionally centered approaches, such as interviews with citizens who benefited from the impact.

To keep the public's attention and demonstrate their ongoing commitment, governments should ensure that communication is regular and credible. Some governments publish outcomes weekly or biannually in the national newspaper, while others put together an annual report. Increasingly, governments are also using innovative digital formats to reach more citizens and engage with them. Even when governments deliver results, citizens may still be skeptical; to enhance the credibility of their reports, governments can use external validation or an international panel that can comment on the progress.

Nurture organizational health to sustain impact for the long term

Successful change programs should transform both performance (the delivery of immediate results) and organizational health (the ability to sustain and improve performance for the long term). McKinsey research has found that private-sector businesses with strong organizational health generated total returns to shareholders three times higher than those of unhealthy ones.¹⁵⁴ Healthy public-sector organizations have the same potential for improved outcomes.

Critical components of organizational health—the capabilities of the people, the design of the organization, and its core processes—may seem either unrelated or too intractable for leaders to tackle when in a rush to deliver productivity improvements. When transformation programs are struggling to deliver immediate results, however, it is often due to deep-seated organizational weaknesses. In one public-sector transformation, the critical weakness to emerge was the organization's entire approach to performance management, which was underpinning poor results in both the short and long term. Performance management therefore became a core transformation theme; the government moved to align individual performance indicators with targets and priorities and to integrate the delivery of outcomes into civil-service evaluation.

Successful delivery programs catalyze a change in the government's underlying capacity and capability to deliver so that results are not just achieved but sustained. Developing

¹⁵⁴ Aaron De Smet, Bill Schaninger, and Matthew Smith, "The hidden value of organizational health—and how to capture it," *McKinsey Quarterly*, April 2014.

people—from the leadership to the frontline public servants—at every stage of the program is important for sustained delivery. Transformations geared for long-term impact should therefore include training government employees in core delivery skills (such as target setting, problem solving, and communication) as well as building sector-specific knowledge in the priority areas (such as literacy programs in education) that can be applied during the program and beyond.

Indeed, strengthening functional capabilities, such as in financial and talent management, helps address many common organizational health issues—as they are intimately related.



A fundamental public-sector productivity transformation is as difficult to execute as it is necessary to accomplish. In addition to the challenging task of organizational transformation itself, government leaders must manage institutional inertia, multistakeholder complexity, and public scrutiny. It is for these reasons that a transformational approach is needed to achieve significant, sustainable productivity improvements. To be successful, any such transformation must embrace some key steps: creating clear direction with a compelling change vision; ensuring effective delivery by coordination across departments; and making and tracking detailed, budgeted plans. Last but not least is the crucial element of driving momentum. It must be created by early wins and decisive leadership—and then carefully nurtured as the transformation progresses.

Government transformation is difficult, but it is possible and sorely needed. When achieved, it can unlock new sources of productivity to improve the lives of citizens around the world. ■

GLOSSARY

ATM

automated teller machine

CEO

chief executive officer

CFO

chief financial officer

CIO

chief information officer

GDP

gross domestic product

GDS

Government Digital Service
(United Kingdom)

GHC

government holding company

GIS

geographic information system

GPS

Government Productivity Scope

GVA

gross value added

HLE

healthy life expectancy

HR

human resources

ID

identity document

IMF

International Monetary Fund

ISASS

Integrated Social Assistance
Services System (Turkey)

IT

information technology

MCG

McKinsey Center for Government

MGI

McKinsey Global Institute

MOOC

massive open online course

NGO

non-governmental organization

NHS

National Health Service
(United Kingdom)

NYPD

New York Police Department

OECD

Organisation for Economic
Co-operation and Development

OHI

Organizational Health Index

PEMANDU

Performance Management and
Delivery Unit (Malaysia)

PISA

Programme for International Student
Assessment

pkme

passenger kilometer equivalent

PMDU

Prime Minister's Delivery Unit
(United Kingdom)

PPP

purchasing power parity

PSD

Public Service Division (Singapore)

RGPP

General Review of Public Policies
(France)

SASAC

State-owned Assets Supervision
and Administration Commission of
the State Council (China)

SEPI

Sociedad Estatal de Participaciones
Industriales (Spain)

SES

Senior Executive Service
(United States)

SOE

state-owned enterprise

SPF

Singapore Police Force

UK

United Kingdom

US

United States

WEF

World Economic Forum

WHO

World Health Organization

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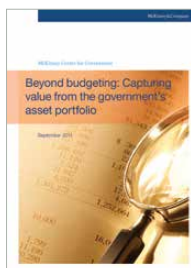
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