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GOVERNMENT PRODUCTIVITY

UNLOCKING THE $3.5 TRILLION OPPORTUNITY

Executive summary

DISCUSSION PAPER
APRIL 2017

McKinsey&Company

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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

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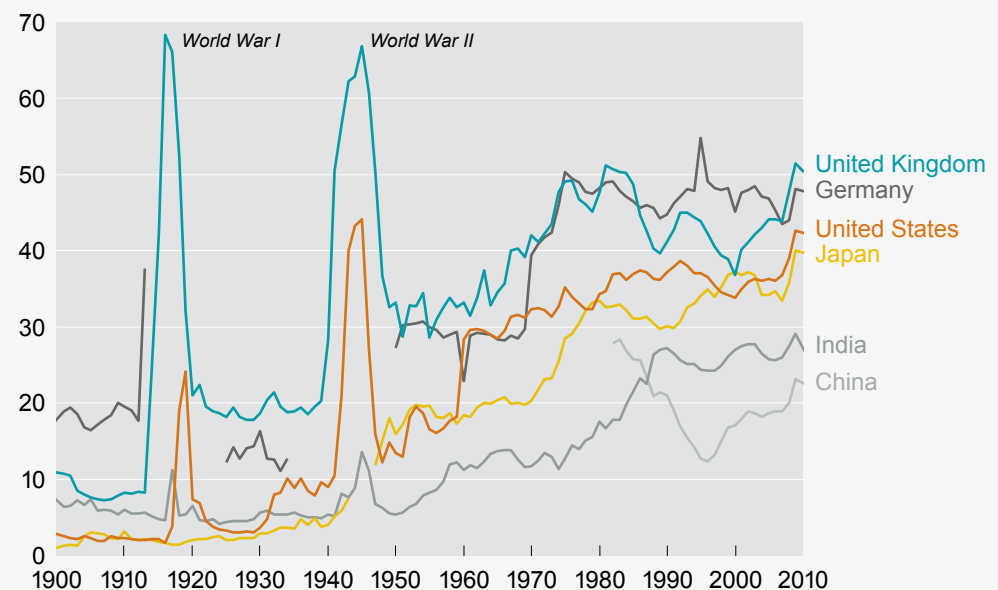
SOURCE: Paulo Mauro et al., *A modern history of fiscal prudence and profligacy*, International Monetary Fund working paper number 13/5, 2013

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

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[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.

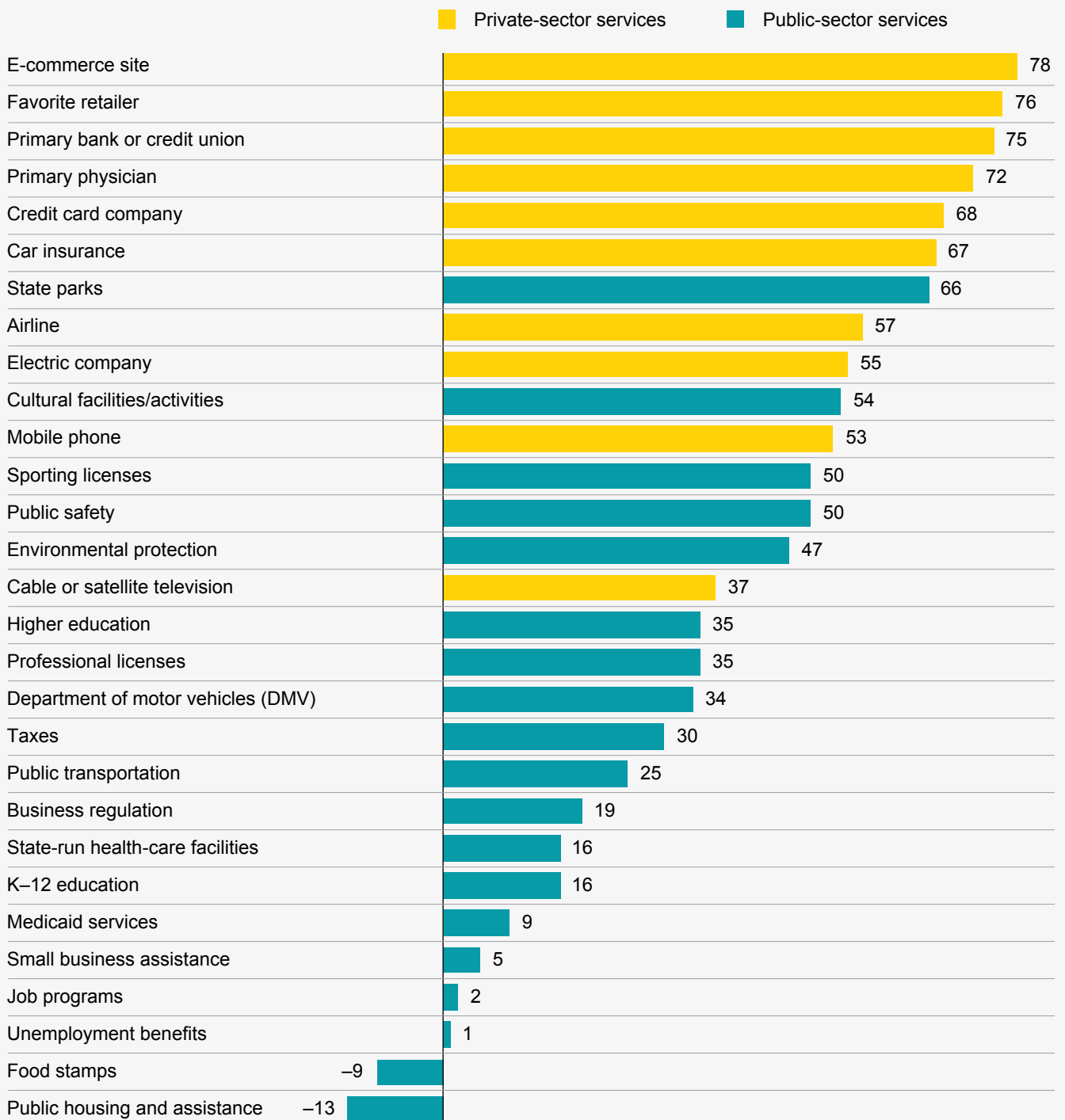[4] World Economic Outlook Database, International Monetary Fund (IMF).

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, 2015[1]

■ Private-sector services   ■ Public-sector services

E-commerce site	78
Favorite retailer	76
Primary bank or credit union	75
Primary physician	72
Credit card company	68
Car insurance	67
State parks	66
Airline	57
Electric company	55
Cultural facilities/activities	54
Mobile phone	53
Sporting licenses	50
Public safety	50
Environmental protection	47
Cable or satellite television	37
Higher education	35
Professional licenses	35
Department of motor vehicles (DMV)	34
Taxes	30
Public transportation	25
Business regulation	19
State-run health-care facilities	16
K–12 education	16
Medicaid services	9
Small business assistance	5
Job programs	2
Unemployment benefits	1
Food stamps	–9
Public housing and assistance	–13

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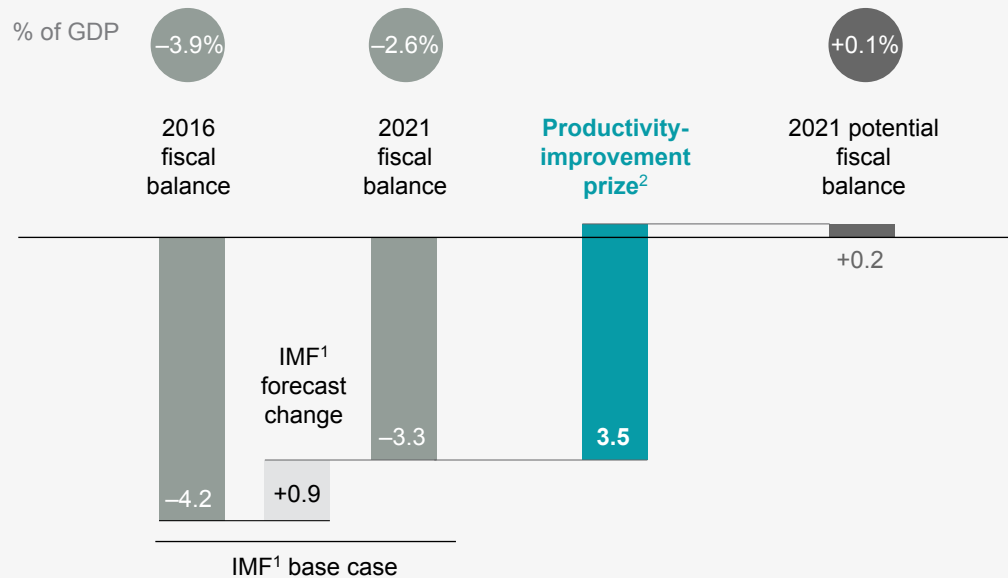
In primary and secondary education, such productivity gains would have brought the performance of the average school system up to the level of today's top-quartile education nations, without spending more per student. And such improved activity would have enabled the 28 countries whose tertiary education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

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[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

% of GDP   −3.9%   −2.6%   +0.1%

2016   2021   Productivity-   2021 potential
fiscal   fiscal   improvement   fiscal
balance   balance   prize[2]   balance

                                                          +0.2

              IMF[1]
              forecast
              change
                          −3.3   3.5

−4.2   +0.9

              IMF[1] base case

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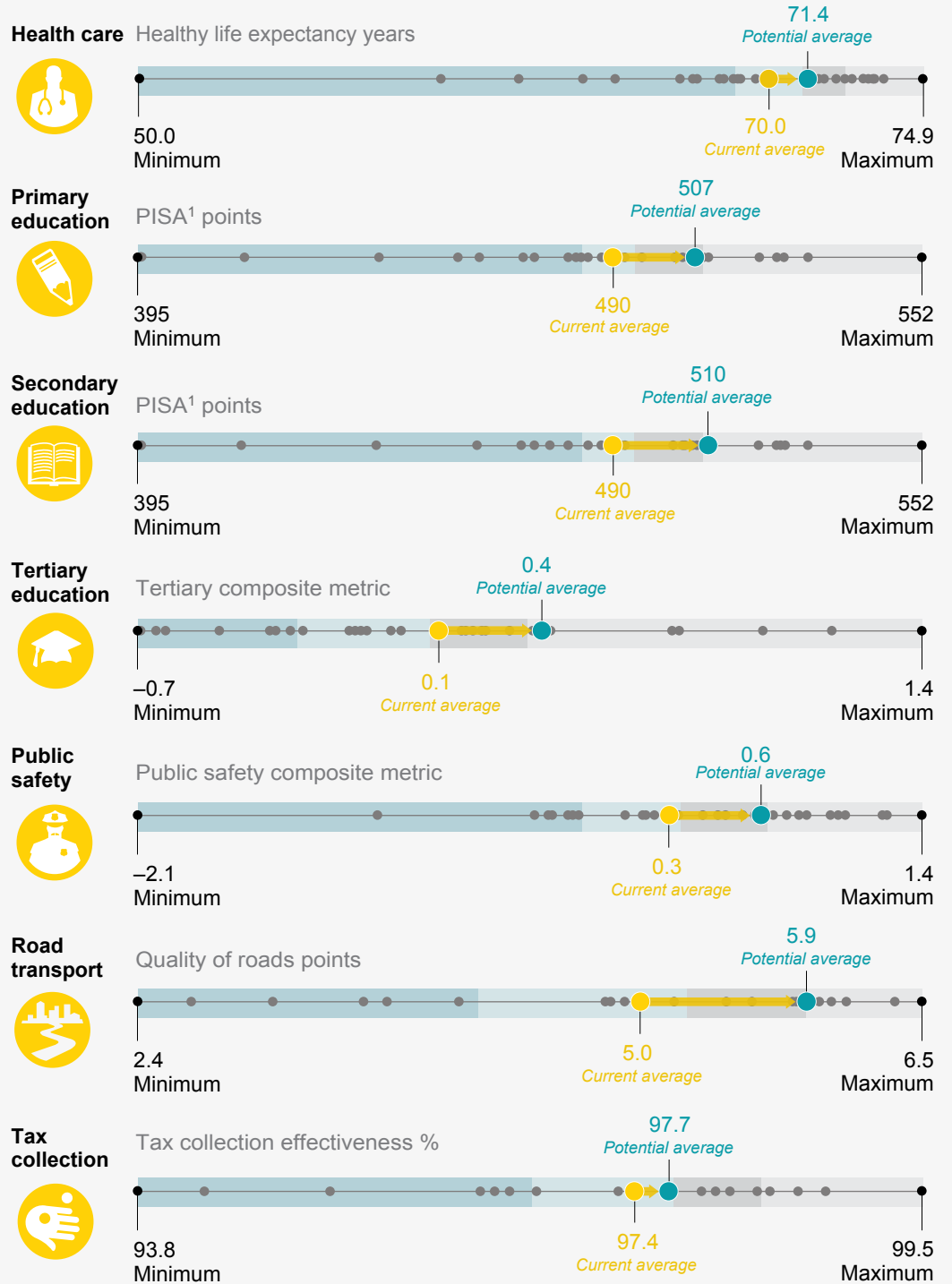
NOTE: These savings would result if all governments improved their productivity at the rate of the best improvers in their peer group and if they used that improvement solely to reduce expenditure.

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

The productivity opportunity can deliver improved outcomes for citizens

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

Health care Healthy life expectancy years

71.4
Potential average

50.0
Minimum

70.0
Current average

74.9
Maximum

Primary education PISA[1] points

507
Potential average

395
Minimum

490
Current average

552
Maximum

Secondary education PISA[1] points

510
Potential average

395
Minimum

490
Current average

552
Maximum

Tertiary education Tertiary composite metric

0.4
Potential average

−0.7
Minimum

0.1
Current average

1.4
Maximum

Public safety Public safety composite metric

0.6
Potential average

−2.1
Minimum

0.3
Current average

1.4
Maximum

Road transport Quality of roads points

5.9
Potential average

2.4
Minimum

5.0
Current average

6.5
Maximum

Tax collection Tax collection effectiveness %

97.7
Potential average

93.8
Minimum

97.4
Current average

99.5
Maximum

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

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?
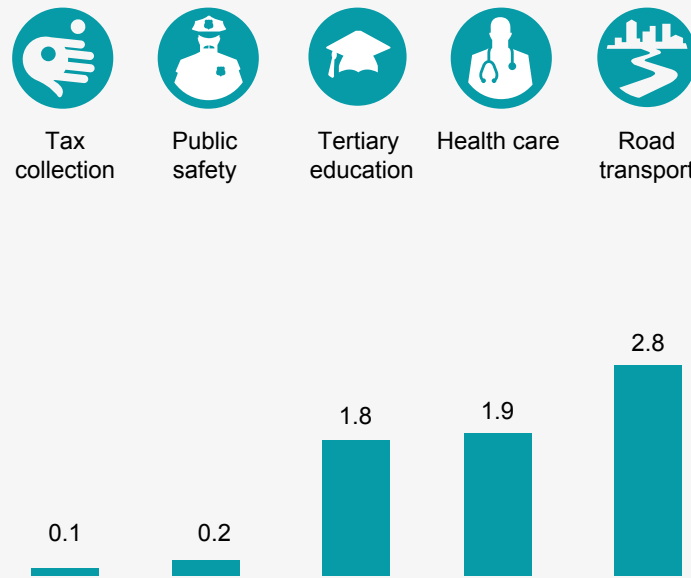
The real lessons, though, are to be found by looking at the variation of country performance within sectors, hidden by international averages. The results show many countries seem to be a long way from the frontier of efficiency. Within peer groups of countries that achieved similar outcomes (for instance, similar student test scores), the least-efficient country
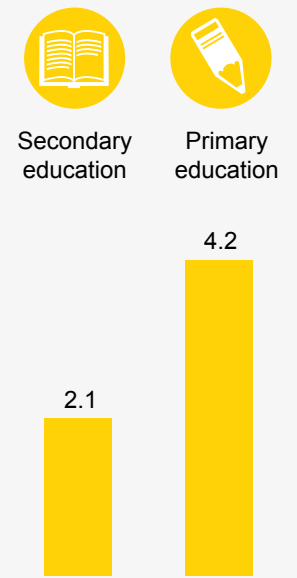
Exhibit E5

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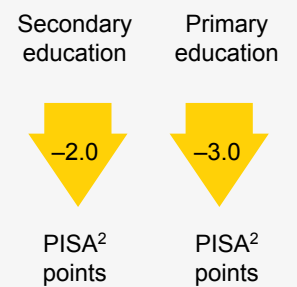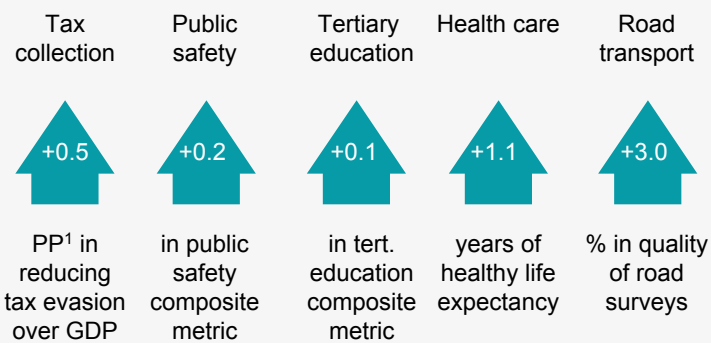
Higher outcomes and higher cost per unit

Lower outcomes and higher cost per unit

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

Tax collection	Public safety	Tertiary education	Health care	Road transport	Secondary education	Primary education
0.1	0.2	1.8	1.9	2.8	2.1	4.2

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

Tax collection	Public safety	Tertiary education	Health care	Road transport	Secondary education	Primary education
+0.5	+0.2	+0.1	+1.1	+3.0	−2.0	−3.0
PP[1] in reducing tax evasion over GDP	in public safety composite metric	in tert. education composite metric	years of healthy life expectancy	% in quality of road surveys	PISA[2] points	PISA[2] points

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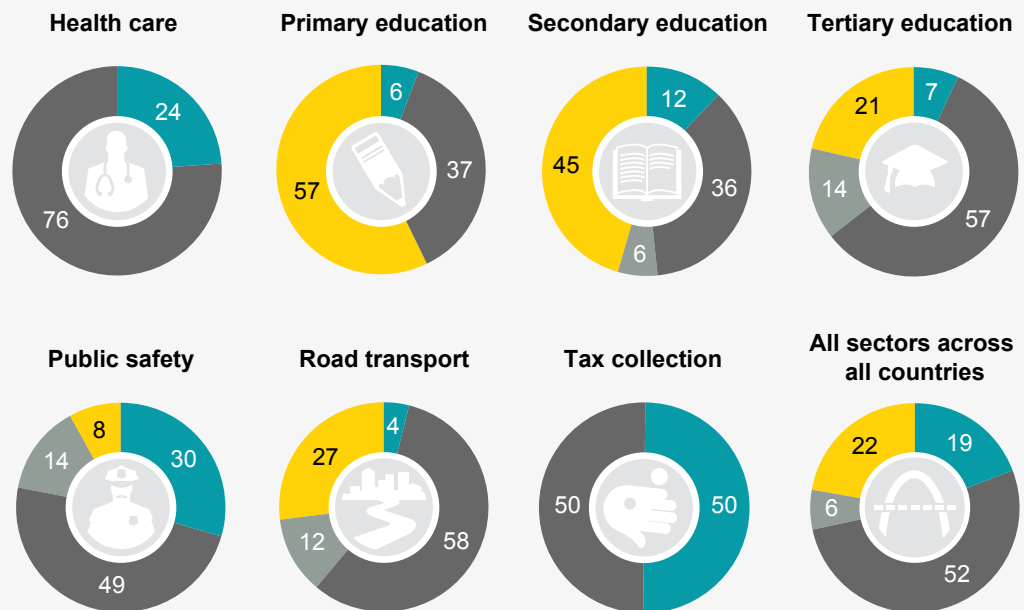
Of course, productivity variances between countries are driven in part by structural differences such as population density, topography, and cultural factors. For instance,

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

Health care
76 / 24

Primary education
6 / 37 / 57

Secondary education
12 / 36 / 6 / 45

Tertiary education
7 / 57 / 14 / 21

Public safety
8 / 30 / 49 / 14

Road transport
4 / 58 / 12 / 27

Tax collection
50 / 50

All sectors across all countries
19 / 52 / 6 / 22

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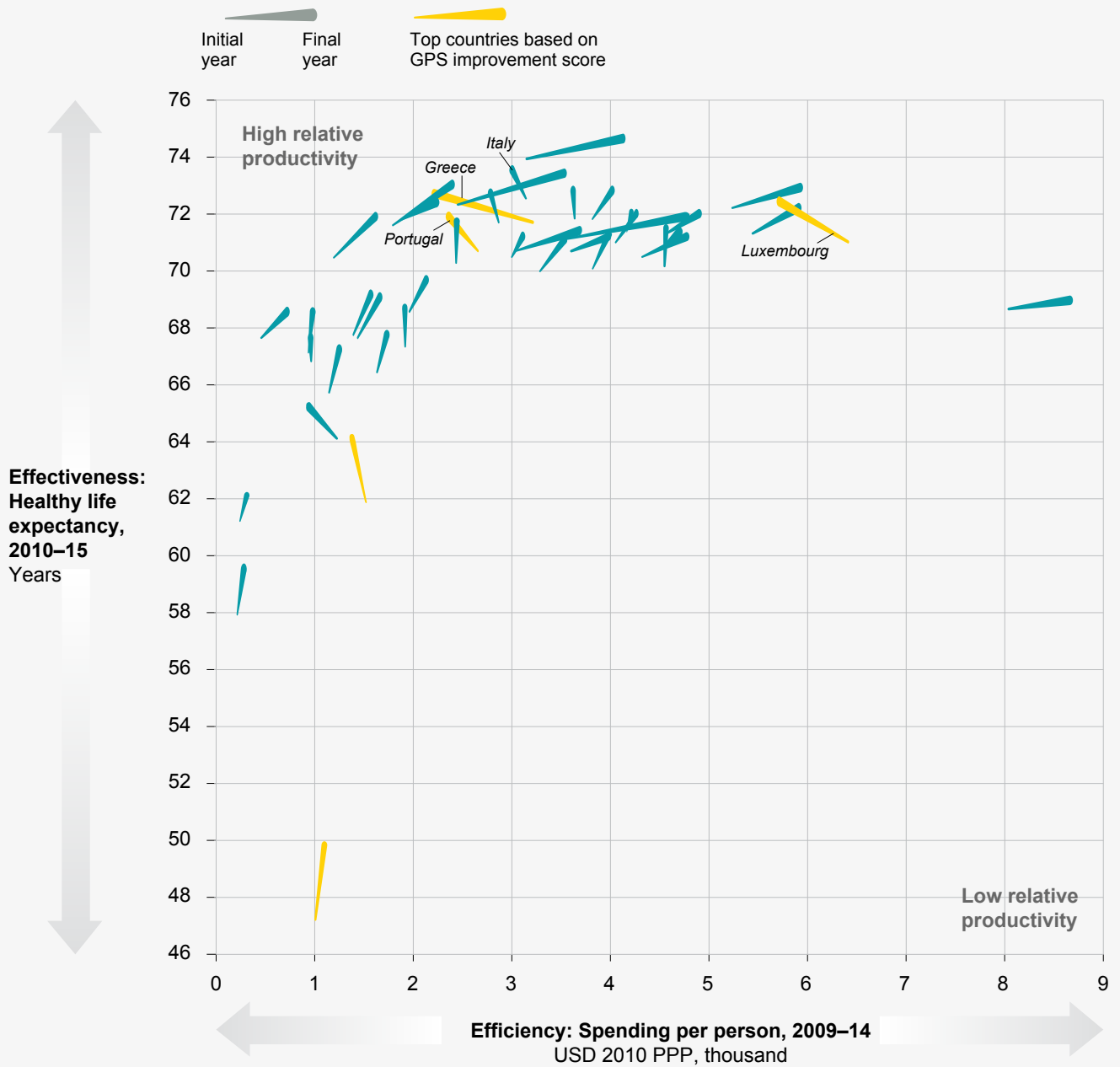
NOTE: Structural differences between countries significantly impact both costs and outcomes. This chart does not correct for these structural differences, and it is therefore not appropriate to directly compare countries with each other.

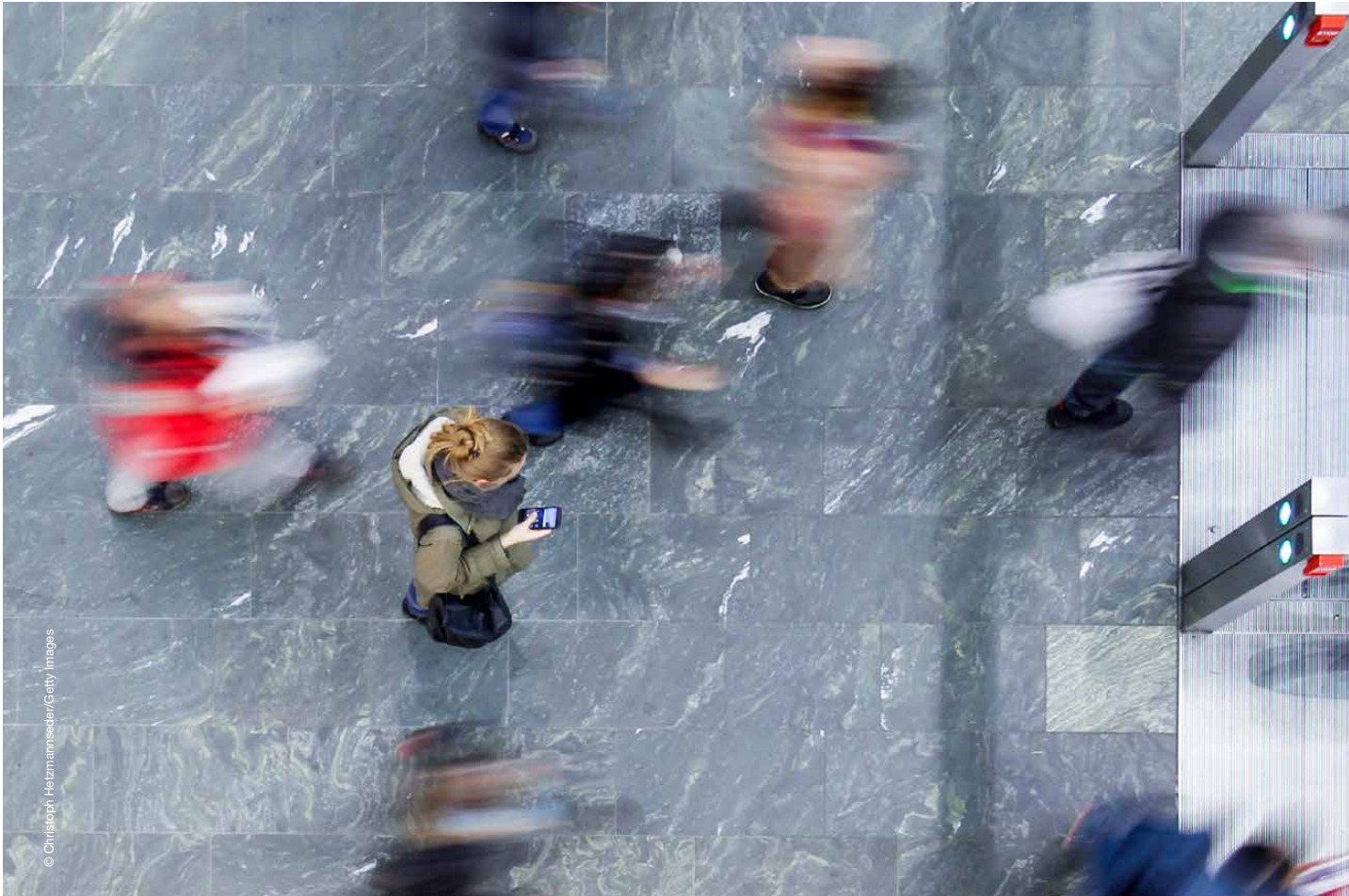SOURCE: McKinsey Center for Government GPS analysis

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.

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. Aquiring 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.
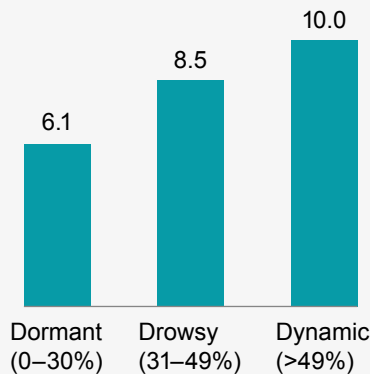
Exhibit E8

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

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

Frequency with which sector allocation changed year-on-year, 2006–14
Total reallocations[1] across EU countries, %
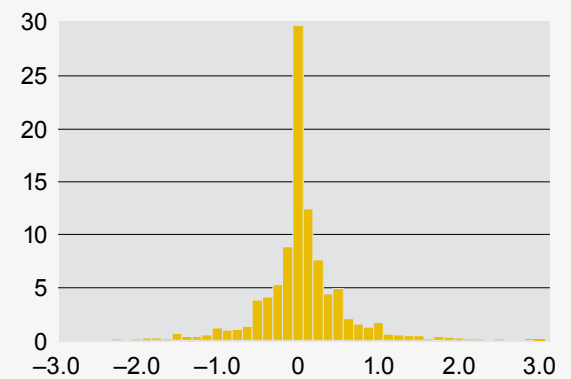
1 Percent of total budget spend for each Eurostat sector of culture, defense, economic affairs, education, environmental protection, general government, health, housing, legislative/executive, old age, public debt transactions, public safety and order, sickness and disability, social protection, transport, 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

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[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

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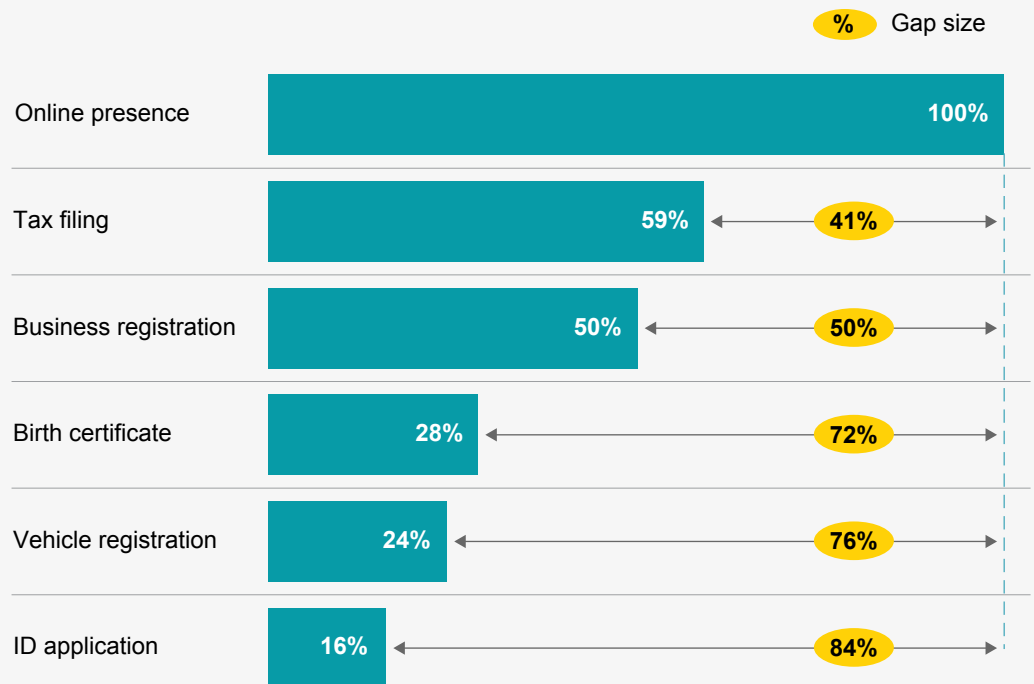
SOURCE: *E-government survey*, United Nations, 2016

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

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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. ■