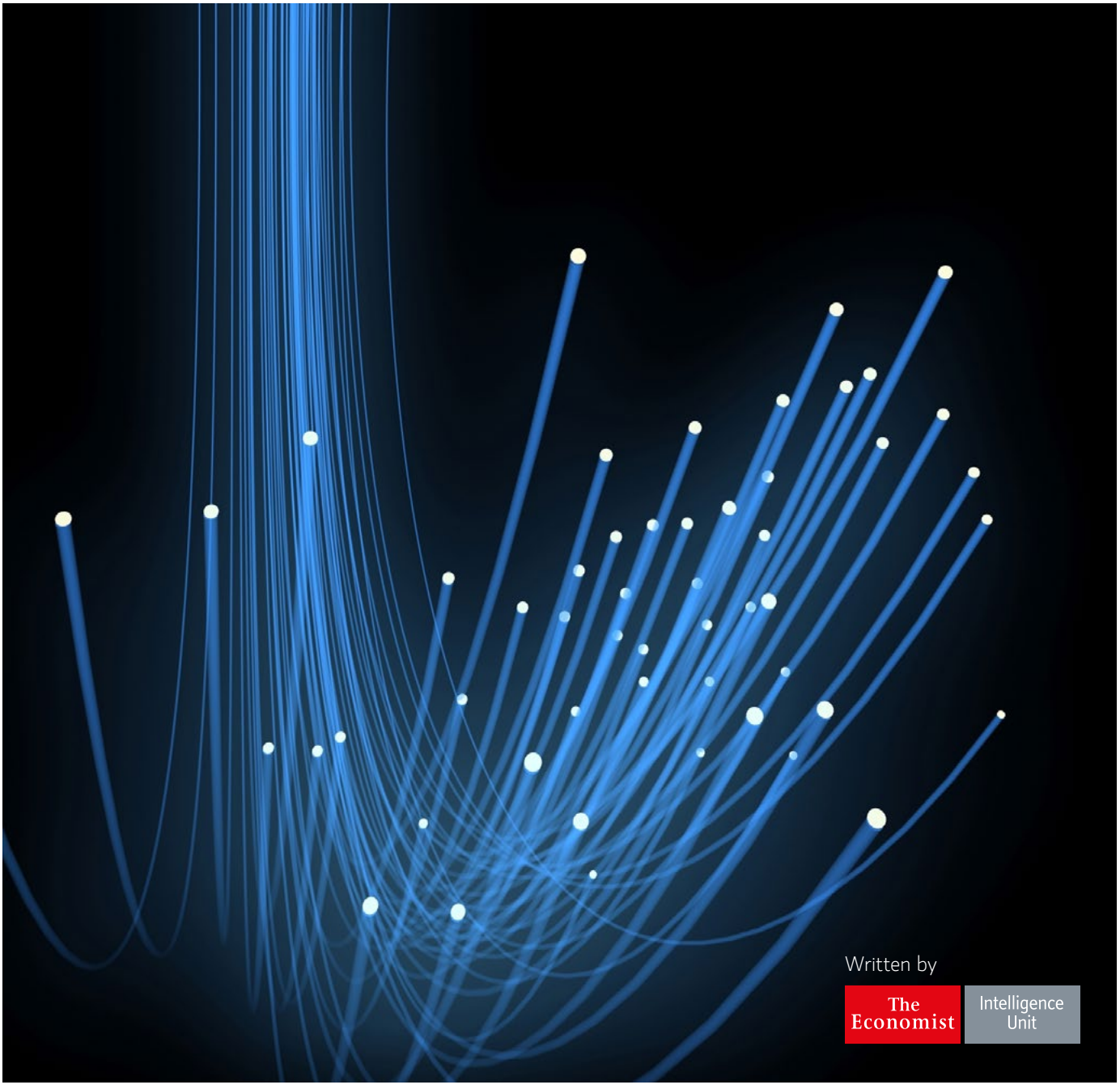
Morgan Stanley

INSTITUTE FOR SUSTAINABLE INVESTING

Inclusive Growth Opportunities Index 2017

Navigating In-Country Opportunities for Technology-Enabled Sustainable Investing



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Foreword from the Morgan Stanley Institute for Sustainable Investing

Economic growth over the past several decades has led to advances in income, wealth and education for many across the globe. However, not everyone has had the opportunity to participate, and for some, the impacts have been negative. While goods, labor and capital now move more freely than ever thanks to technological advances and globalization, there has also been an increase in income stagnation, inequality and job losses due to automation. What's more, unequal access to the benefits of economic growth is increasingly manifesting as political turmoil and growing populist and nationalist sentiments in many markets around the world.

At the Morgan Stanley Institute for Sustainable Investing we believe economic growth does not have to lead to increasing polarization, and instead we see an opportunity to achieve broad based inclusive growth that benefits society and is sustainable over time. In our view, ensuring that economic growth is inclusive and lasting is not just the concern of governments and civil society, but also of business leaders and investors.

We see a good opportunity to accelerate progress towards an inclusive economy through the capital markets. We established the Institute because we believe that private sector capital plays a critical role in driving resources toward solving some of the biggest social and environmental challenges we face. We also recognize that positive environmental, social and governance (ESG) outcomes are compatible with, and complementary to, financial returns. Our goal is to help clients and investors understand how to integrate these considerations into market-rate investment strategies.

Against this backdrop, we engaged The Economist Intelligence Unit to develop the first-of-its-kind index and report to examine the risks and opportunities of inclusive growth for investors. As technology can play an important role in whether economic growth is inclusive or not, we focused on technology as a key lever globally that can help promote inclusive growth. For this study, we selected twenty countries as indicative examples of different markets around the globe. The country list is not exhaustive, but instead aims to illustrate inclusive growth technology opportunities through interesting examples across a range of geographies and economies.

This research illustrates the enabling environment and challenges we found in each country in the index to help to inform investors around specific opportunities and risks. We highlight several key pillars of investment opportunities in technology that can promote inclusion, such as access to financial services, education and healthcare. Technologies like mobile financial services, cloud computing, wearables, optimized transportation and delivery, and learning technologies all have the potential to accelerate the level of inclusion in a society.

We hope that investors will see this analysis of twenty countries as interesting insights that can help them uncover opportunities more broadly. Some investors may be inspired by the perhaps counterintuitive opportunities the index highlights, such as the opportunity in Rwanda and Bangladesh to invest in inclusive financial technology in emerging markets, while others might find interest in exploring investments in technologies that support vocational and job training in high-income countries like the UK and the Netherlands, where there is significant youth unemployment and long-term unemployment. This work offers directional insights for investors to probe deeper.

The Inclusive Growth Opportunities Index is the first of a two-part study that seeks to equip investors with data-driven tools to identify sustainable investment opportunities in support of two outcomes—driving inclusive growth and mitigating climate change. Climate mitigation is addressed in a separate, forthcoming index and report, The Climate Change Mitigation Opportunities Index, expected to launch in mid-2017. As a body of work, the study offers structured analytic frameworks and dynamic benchmarking tools to help investors make informed decisions about sustainable investing opportunities through the lens of technology—a key accelerant of change.

In addition to this report, we encourage readers to explore the dynamic index tool <www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley> which will allow for the exploration of this work in greater detail. The tool can be customized based on areas of interest, such as countries, risk tolerance or inclusive growth topics.

We wish to thank our colleagues at The Economist Intelligence Unit and all the experts who have provided feedback for this project—their input has been invaluable.

We believe that we can maximize capital to create a more sustainable future and we hope you find this research a thought provoking place to start.

New York, May 2017

Project Teams

About The Economist Intelligence Unit

The Economist Intelligence Unit is the research arm of The Economist Group, publisher of ***The Economist***. As the world's leading provider of country intelligence, we help governments, institutions and businesses by providing timely, reliable and impartial analyses of economic and development strategies. Through our public policy practice, we provide evidence-based research for policymakers and stakeholders seeking measureable outcomes in fields ranging from gender and finance to energy and technology. We conduct research through interviews, regulatory analysis, quantitative modeling and forecasting, using interactive data visualization tools to display the results. Through a global network of more than 350 analysts and contributors, we continuously assess and forecast political, economic and business conditions in more than 200 countries. For more information, visit www.eiu.com.

About the Morgan Stanley Institute for Sustainable Investing

The Morgan Stanley Institute for Sustainable Investing builds scalable finance solutions that seek to deliver competitive financial returns while achieving positive environmental and social impact. We create innovative financial products, develop thoughtful insights and design capacity-building programs that help maximize capital to create a more sustainable future. For more information about the Morgan Stanley Institute for Sustainable Investing, visit www.morganstanley.com/sustainableinvesting.

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The Inclusive Growth Opportunities Index 2017 is the first edition of a study developed by The Economist Intelligence Unit with the Morgan Stanley Institute for Sustainable Investing.

The following researchers, specialists and country analysts contributed to the report. We thank them for their participation.

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Expert panel members

The following experts on inclusion and sustainable investing contributed significantly to shaping the index methodology, vetting the indicators and analytical framework and providing input into the weighting aggregation framework. Their diverse backgrounds and extensive experience ensured that a wide variety of views were considered. The panel met as a group in June 2016 in New York City to review the initial analytic framework and has provided ongoing support throughout the research process.

Jaime Garcia Alba (Inter-American Investment Corporation); Andrea Armeni (Transform Finance); Terry Babcock-Lumish (Islay Consulting); Maitreyi Bordia Das (The World Bank); Monica Brand Engel (Quona Capital); Ryan Falvey (Center for Financial Services Innovation); Henry González (responsAbility Investments); Nancy Hafkin (ICT and development expert); Katie Harrison (motive); Brian Nagendra (Living Cities); Elisabeth Rhyne (Accion); Paula Campbell Roberts (Morgan Stanley); Jennifer Tescher (Center for Financial Services Innovation); Paul Wasinger (Morgan Stanley); Jenifer Willig (motive).

Executive Summary

Technological advances and globalization have led to major advances for many, but have seen others' income and well-being stagnate or even decline. These disparities, both real and perceived[i]—and, more broadly, how to make growth inclusive—are some of the greatest challenges facing the world today. Support for inclusive growth—that is, economic growth that is broad-based, sustainable, and provides opportunities for all to participate in its benefits—is gaining momentum. The hoped-for result: dramatic reduction of poverty and inequality. As the world seeks to address these challenges, there is significant potential for private sector actors to pursue unique opportunities that support inclusive growth.

The Inclusive Growth Opportunities Index, developed by The Economist Intelligence Unit with the Morgan Stanley Institute for Sustainable Investing, seeks to connect the need for inclusive growth solutions with investment opportunity. A first-of-its-kind, the Inclusive Growth Opportunities Index offers an analytic framework to rate and rank countries, identifying investment opportunities in technology-based solutions to support inclusive growth.

Technology has lifted millions of people out of poverty in developing economies, but has also been one of the principal drivers of exclusion through automation and the globalization of value chains. Despite its double-edged sword, technology investment is a key potential lever towards inclusiveness of growth: Innovations drive growth, improve connectivity, bring marginalized people into knowledge networks and allow vulnerable populations to gain the skills needed to participate in the global economy.

The current analysis explores a small set of 20 potentially high-opportunity markets. They were selected by The Economist Intelligence Unit and the Morgan Stanley Institute for Sustainable Investing in consultation with a volunteer panel of experts to reflect a range of different levels of economic development and represent various regions.

Categories of the Inclusive Growth Opportunities Index	
Demand for inclusive growth	Enabling environment for inclusive growth
Technology and infrastructure environment	General business environment
Current investment activity	Financial risk

Noteworthy markets from the Inclusive Growth Opportunities Index	
The high-potential nascent markets	The relatively nascent and risky markets of India, Rwanda and Nigeria have strong development trajectories that point to growing demand for educated and healthy workforces, along with a growing pool of innovative, tech-savvy entrepreneurs.
The traditionally strong investment markets plagued by economic dislocations	The US and Netherlands are examples of sophisticated stable investment markets characterized by deeply divided electorates with large portions of the population who feel they have been left behind. This situation provides added impetus for private investment, as business leaders and activists look for solutions not only through traditional civil society mechanisms, but also through market-based behavior.
The emerging markets seeking new equilibria	In China and Mexico, rapid economic development has led to stresses, including high inequality and rural-urban divides. In Mexico, proximity and historically friendly trade relations with the US have supported rising incomes and a relatively developed investment environment, but the benefits of growth have not reached everyone. China is attempting to continue to reduce poverty and raise living standards while navigating a structural economic shift. Both countries present significant potential markets for technology-based products that meet current and future inclusiveness demands.

i. Inequality and economic exclusion have many real economic impacts—as many leading economists have argued. While empirical evidence has been mixed, a 2015 OECD study found consistent evidence that rising income inequality shaved 4.7 percentage points off output growth across advanced economies over 1990-2010.

Key Findings

Investment opportunities in support of inclusive growth are found within the pillars of inclusion: finance, healthcare, education and gender equity. Technologies like remote diagnostics, mobile financial services, optimized transportation and delivery, and adaptive learning all have the potential to radically improve economic inclusion. Opportunities for private investment within these pillars are present in all countries examined, but the characteristics of each country's inclusion (or exclusion) patterns often determine the form of opportunity.

Financial technology inclusion opportunities are of particular note in Rwanda and Bangladesh (for risk-tolerant investors). For more risk-adverse investors, attractive markets for financial-inclusion solutions are found in advanced economies, specifically in improving affordability of housing and day-to-day purchases in places like the UK, the Netherlands and the US.

Healthcare technology inclusion opportunities are strong in Nigeria, Kenya and India, with Nigeria leagues ahead of the other two in terms of its needs for inclusive healthcare—though it is one of the riskiest markets assessed for investment. Among the developed economies, Israel (high and growing out-of-pocket expenditures) and Saudi Arabia (lagging health outcomes for an advanced economy) offer potential opportunities.

Education technology inclusion opportunities are strong in India and China, which have large gaps in basic education despite reputations for high workforce technical expertise and large pools of science, technology, engineering and mathematics (STEM) graduates. In high-income economies like the UK and the Netherlands, education opportunity is strongly tied to employment market woes, including high youth and long-term unemployment.

Countries assessed in the Inclusive Growth Opportunities Index 2017 were chosen as indicative examples of different types of markets across the globe:

North America: United States (US)

Latin America: Mexico, Brazil, Argentina, Cuba

Asia-Pacific: China, India, South Korea, Indonesia, Australia, Bangladesh

Europe: United Kingdom (UK), Netherlands, Poland, Turkey

Middle East: Saudi Arabia, Israel

Africa: Nigeria, Kenya, Rwanda

Gender inclusive technology investments cut across the finance, healthcare and education sectors. Basic access to technology is perhaps the biggest issue for gender inclusion, particularly in India and Turkey, which rank as the least-inclusive technological access markets for women.

Investable technologies have much in common across markets, supported by the intuitive interfaces and simple offerings of modern information and communication technologies (ICTs). That said, local market features generate unique opportunities to leverage technological platforms. For

How Can Investors Use the Study?

This report and the accompanying index dashboard assess potential market opportunity, which may help to inform investor decisions and deepen understanding of investment opportunities connected to inclusive growth. The index aggregates more than 150 individual metrics into 50 indicators organized into six categories. The Economist Intelligence Unit worked closely with the Morgan Stanley Institute for Sustainable Investing and a panel of experts to select the 20 countries in this year's index and to develop the analytic framework; The Economist Intelligence Unit also undertook extensive research to develop the index and rate and rank the countries. The index is housed in an interactive Excel-based dashboard tool (available for download at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley) that allows users to customize data to reflect specific priorities and interests (e.g., risk appetite or regional focus), providing unique and actionable intelligence.

This report highlights key findings, for example, where market potential appears strong, and identifies some specific channels or areas to which private investment might be directed.

example, products related to remittance payments have larger markets in countries where in-bound and out-bound migration is high. Drones for medical supply delivery and insurance for smallholder farmers may be in greater demand in developing markets. Advanced economies may see bigger markets for online product aggregators or mobile apps that make personal financial security more accessible.

Understanding local needs matters for maximum impact. The investable technologies will have greater impact on inclusion where they bring previously unserved populations into the market, and a smaller impact on inclusion where they are substitutes for existing services.

Digital divides remain prevalent, even in advanced economies, offering both challenges and opportunities. For example, in Australia, around 40% of low-income people lack broadband access because of the cost. In Cuba only 6% of households have internet access, despite a well-educated population with a high level of technical ability.

In developing markets, technology provides significant leapfrog potential and the ability to overcome obstacles presented by underdeveloped physical infrastructure. The most successful investments, however, rely on uptake and sustained use, which may require ancillary support in areas like electricity provision and digital literacy.

In the least-developed markets, potential payoffs from technology-based solutions are tempered by lack of basic services like energy, clean water and sanitation. In Kenya, more people have access to a mobile phone than to clean water. Gaps in vital infrastructure have far-reaching implications for growth and inclusiveness; alongside the core human development benefits, bridging such basic gaps opens new potential markets for more technology-based inclusiveness solutions.

Introduction

Rapid economic growth has lifted millions out of poverty, raised living standards for people on every continent and generated enormous levels of wealth and prosperity.[1] While growth has led to major advances for many, particularly in emerging markets, others have seen income stagnate, jobs move overseas and income inequality worsen.

The disparities between those who have gained and those who have lost, economically speaking, have contributed to the recent resurgence of populism and economic nationalism in many countries—forcing leaders to reckon with the fact that existing economic systems have not been working for everyone. In response, many global leaders and policymakers have embraced the idea that concentrating solely on economic growth is no longer sufficient.

Adopting the goal of inclusive growth has gained momentum: the concept that growth should be sustainable and shared across sectors, produce productive employment opportunities, reduce poverty and, more generally, provide opportunity for all to participate in its benefits. Patterns matter in addition to the pace—all groups must be allowed to contribute to and benefit from economic growth.

Inequality and economic exclusion have real economic impacts, as many leading economists have argued, including Ben Bernanke, Joseph Stiglitz and Raghuram Rajan.[2, 3, 4] While empirical evidence has been mixed, a 2015 OECD study found consistent evidence that rising income inequality shaved 4.7 percentage points off output growth across advanced economies over 1990-2010.[5] Inequality also contributes to economic instability. The affluent are less likely to spend an extra dollar than the less affluent, dampening consumption. And as the affluent accumulate wealth and savings, interest rates fall and asset prices rise, promoting excessive borrowing and raising the risk of economic and financial instabilities.[6] Just as troubling is the impact on social capital. A recent landmark study by the IMF found that higher inequality has reduced trust in governments, business and other people.[7]

Inclusive growth has become a focus of global leaders, but policy circles are not alone in seeking fresh ideas for addressing inequalities and for ensuring the sustainability of growth. These issues are also top of mind for a growing set of investors who recognize that positive social outcomes are compatible with—and should accompany—economic returns. In the end, the goals of inclusive growth will only be met through cooperation and complementary actions of those in the public, private and nongovernmental spheres.

Technology and Inclusive Growth

Technology is a key lever towards achieving inclusive growth. Innovations drive economic growth, promote connectivity and are tools for marginalized people to gain and share information and develop skills to participate in the global economy. Technology has lifted millions out of poverty in developing countries through employment and better access to services (water, healthcare, internet). But technology is a double-edged sword, as it is also a principal driver of exclusion. Automation has eliminated jobs. Connectivity has allowed global relocations of different value functions, shifting the location of jobs.[8] These trends are likely to continue. A 2017 McKinsey study found that about half of paid work globally could be automated based on current technology—amounting to nearly US$16 trillion in wages.[9]

Recent technological advancements have the potential to generate unprecedented access to quality services and information for disadvantaged and excluded populations. Mobile financial services, wearable technologies, optimized transport and delivery, and learning technologies all have the potential to radically improve inclusiveness.

The Inclusive Growth Opportunities Index focuses on technology-oriented investment opportunities to promote inclusion and highlight how technology can be harnessed for positive social and economic outcomes. The index includes a dedicated category designed to reflect each country's inclusive technology environment—including infrastructure, the capacity of people and businesses to adopt or innovate, and indicators signaling the presence of digital divides.

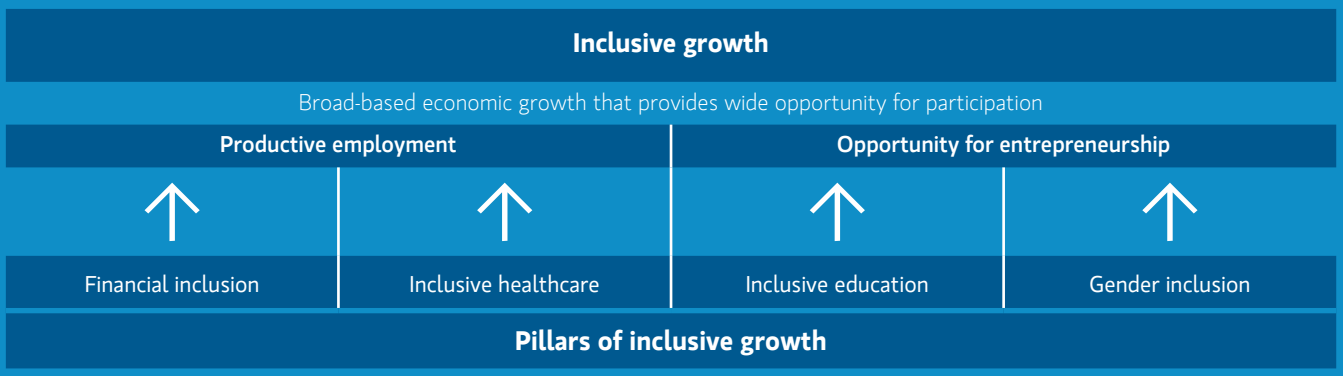
The Economist Intelligence Unit and the Morgan Stanley Institute for Sustainable Investing note that a broad universe of other potential investment opportunities that support inclusive growth outcomes is available that we do not detail

Defining Inclusive Growth

The Economist Intelligence Unit defines inclusive growth as economic growth that is shared across sectors, that is sustainable, that produces productive employment opportunities, that reduces poverty and inequality and, more generally, that provides for broad participation in the benefits of growth.

Inclusive growth helps ensure that people have the means and tools to contribute to and benefit from growth. This entails having the necessary building blocks to engage in employment and entrepreneurship: namely affordable healthcare and education alongside financial tools to promote security and provide opportunity for risk-taking. Quality financial, healthcare and education services—the "pillars" of inclusion—as well as other vital services must be accessible, regardless of income, gender, minority status, ethnicity or location.

This study aims to highlight the role that private investment can play in support of inclusive growth and to provide an analytic framework to enable investors to explore where opportunity may be strongest.



through this technology-lens analysis—ranging from investing in women-led businesses, education loan funds, direct healthcare and infrastructure provision, among many others.

As the world seeks to address the inclusive growth challenge, economic and social structures will shift. New markets will form and existing markets will be reshaped. Investors must understand these movements in order to navigate the new markets and opportunities for investment to support inclusive growth.

The Inclusive Growth Opportunities Index establishes an analytic framework to build a bridge between inclusion gaps and opportunities for private investment in technology-oriented solutions that contribute to inclusive growth.

This study does not aim to comprehensively analyze the complex drivers of and necessary actions to move toward the goal of inclusive growth; a large body of existing and ongoing research is already available.[ii] Rather, the Inclusive Growth Opportunities Index, developed by The Economist Intelligence Unit with the Morgan Stanley Institute for Sustainable Investing, establishes an analytic framework to build a bridge between inclusion gaps and opportunities for private investment in technology-oriented solutions that contribute to inclusive growth.

This report finds that the 20 countries analyzed offer many varied investment opportunities in support of different areas of inclusive growth—opportunities that will appeal to investors of all risk appetites and sectoral interests. In this report, we approach the analysis via the pillars of inclusion—

ii. For example, ethnic and racial divides, commonly associated with inequality and other exclusions, are not analyzed. And we only touch on the important role of government, international bodies, nongovernmental organizations and philanthropic institutions.

finance, healthcare, education and gender—where much of the investable opportunity lies and highlight high-potential markets.

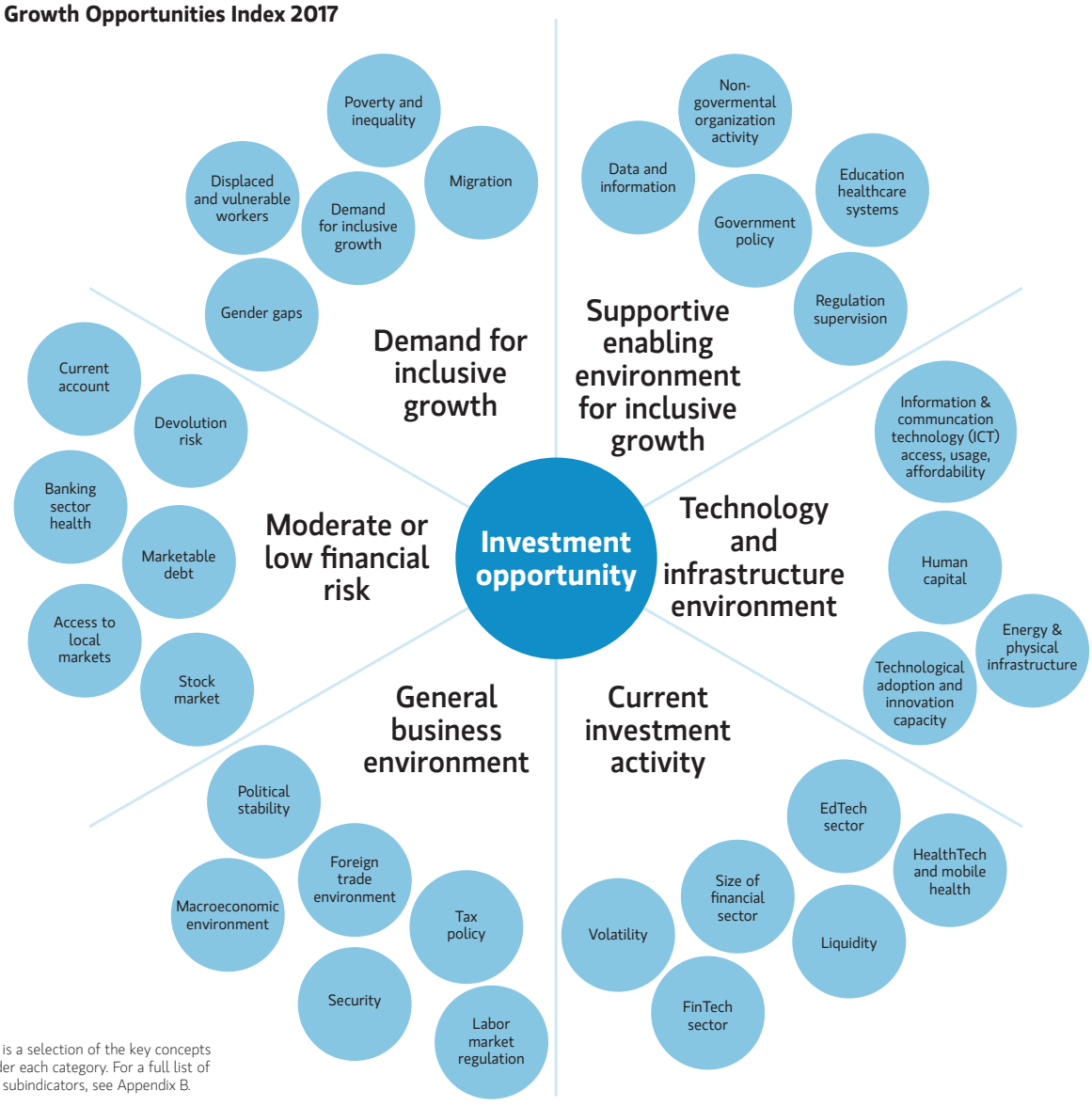
This report outlines key findings by focusing on where investment opportunity appears strongest and identifying some specific areas for investment. The report also aims to showcase the depth of data available; the broader study, including the interactive Excel-based dashboard tool, provides analyses that can enable investors to engage in data-driven decision-making that may direct private capital to one of the foremost issues facing the world today. Users can customize the analysis to suit their interests. Investors can use this powerful tool to uncover and benchmark opportunities, achieve additional insights and, using future updates to the index, track such opportunities over time.

The Inclusive Growth Opportunities Index Framework

The Index comprises more than 150 metrics combined into 50 indicators, organized across six categories that measure the demand for inclusive growth solutions as well as the strength of a country's investment environment.

The index framework was developed in consultation with a panel of experts convened in June 2016. Experts include investors, academics, social-inclusion specialists, information and communication technology (ICT) experts and financial services innovators (see Acknowledgments on page 4). Experts were invited by The Economist Intelligence Unit to take part in this volunteer advisory panel. Experts provided input into the index framework (categories, indicators and weighting) and country selection. The country research was conducted from July through October 2016.

Inclusive Growth Opportunities Index 2017



Note that this is a selection of the key concepts addressed under each category. For a full list of indicators and subindicators, see Appendix B.

Country Selection

The Inclusive Growth Opportunities Index assesses the market opportunities for inclusive growth technologies in a select set of 20 countries. These countries were chosen by The Economist Intelligence Unit and the Morgan Stanley Institute for Sustainable Investing, in consultation with the volunteer expert panels, to explore a non-exhaustive range of interesting, potentially high-opportunity markets.

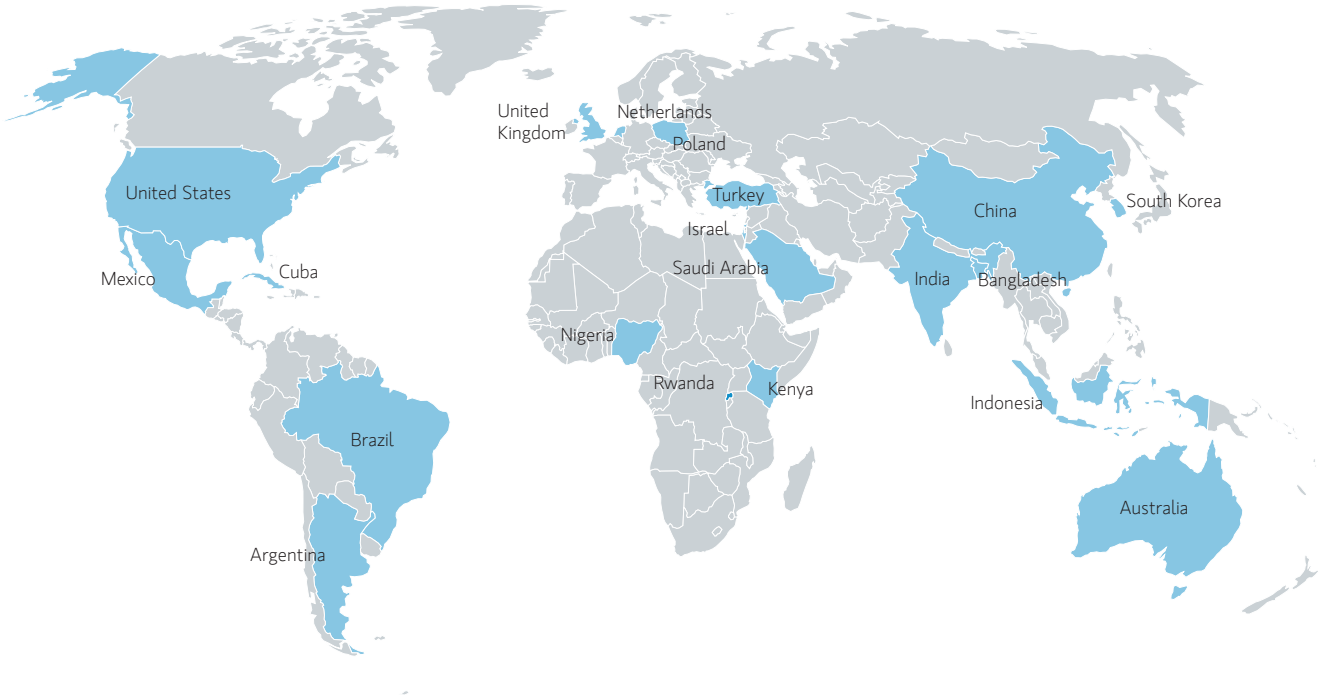
The country choice reflects a mix of regions as well as high-income, middle-income, and low-income countries. The Economist Intelligence Unit and the Morgan Stanley Institute for Sustainable Investing looked to various criteria to guide the country selection, including economic and demographic indicators, financial sector indicators, topic-related indicators, and indicators of risk. But in the end, the final selection came down to choice: which markets were most interesting to explore and assess for investment opportunities across the fields in question and over time.

In this way, some of the countries selected may represent others within a broader group. For example, the UK and the Netherlands were chosen as examples of mature Western European economies, whose characteristics and dynamics may be reflective of other mature Western European markets that were not explored in the 2017 study.

The countries selected for the 2016 index represent 61% of global GDP and 65% of the global population.

For more information on the country selection, please see Appendix A.

Map of Inclusive Growth Opportunities Index countries



Weight Profiles of the Inclusive Growth Opportunities Index

In its assessment of market opportunity, the index aggregates indicators that reflect demand for inclusive growth solutions with measures of the strength of the investment environment. The weighting assigned to each category and indicator aims to reflect different assumptions about their relative importance to market potential. As investor appetite for risk and exposure to nascent markets will vary, the study provides two sets of indicative weight options: base weights and demand-centric weights.

One possible option, described as **base weights**, assigns relative importance to categories and indicators based on a consensus of expert opinion, developed with input from the study's volunteer panel of experts (see Acknowledgments on page 4).

The second option, known as **demand-centric weights**, provides an indicative weighting framework for investors who prefer to give market demand factors a heavier weighting. In this setting, a lighter weighting is given to investment environment factors (compared with the base, expert-assigned weights). No penalizing adjustment is made for financial risk.

These weighting frameworks are built into the index dashboard, available at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley. As investors' individual preferences may differ, the dashboard allows users to tailor core weight settings (or input new ones) to reflect their interests and risk appetites.

Demand-centric weight settings allow some of the less developed and riskier investment markets, e.g., India, Rwanda and Nigeria, to rise to the top. Interestingly, the US still features on this list. While the US score takes the biggest hit in the move from base weights to demand-centric weights (it loses nearly 10 points), the overall strength and size of the US market, its technology orientation, and deep inclusiveness gaps indicate that it remains a high potential market even excluding the advantages from its low financial risk and well-developed investment environment.

Weight settings

Category	Base weight settings		Demand-centric weight settings	
Demand for inclusive growth	3	33%	5	56%
Inclusive growth enabling environment	2	22%	2	22%
Technology and infrastructure environment	1	11%	1	11%
Business environment	2	22%	1	11%
Current investment activity	1	11%	0	0%
Financial risk (adjustment factor)	25%	--	0%	--

Notes: Weight setting numbers reflect the relative importance assigned to that category. For example, a weight setting for the Demand category of 3, compared with a weight setting for the Technology and infrastructure environment category of 1, indicates that demand factors are assumed to be three times as important in an assessment of market opportunity, compared with the technology and infrastructure factors.
Gray shading indicates different setting compared with risk-neutral weight profile.

The tables below provide the top-ranked countries under the two different weight settings. Countries are listed in rank order starting with most favorable market opportunity.

Base country rankings

	Country	Index score
1	United States	64.0
2	Netherlands	56.3
3	Australia	55.2
4	United Kingdom	53.9
5	South Korea	52.0

Rankings for demand-centric investors

	Country	Index score
1	India	55.4
2	United States	54.3
3	Rwanda	54.1
4	Mexico	51.8
5	Turkey	51.3

Key Findings

Investment opportunities that support inclusive growth are found in the pillars of inclusion—finance, healthcare, education and gender

Technologies like mobile financial services, wearable technologies, optimized transportation and delivery, and learning technologies all have the potential to radically improve the level of inclusion in a society. Opportunities for private investment within these pillars are present in all countries examined, but the characteristics of a country's inclusion (or exclusion) patterns shape the form of opportunity.

Financial technology inclusion opportunities are of note in Rwanda and Bangladesh

Rwanda's large financial inclusion needs are complemented by supportive policy, a fast-developing high-tech sector and a business environment that punches above the low-income country's weight.

The need for financial inclusion remains strong in **Bangladesh** despite the country's pioneering role in microfinance; the country's government has specific goals for using technology to broaden financial inclusion.

For less risk-tolerant investors, advanced economies offer strong markets for financial inclusion solutions particularly connected to personal financial security and improving the affordability of housing and day-to-day purchases. In many high-income countries, including the UK, the Netherlands and the US, wage growth has barely kept pace with consumer price inflation, while housing expenses account for around 30% of income.[10]

Opportunities for healthcare technologies to improve access are strong in many developing economies

Nigeria has both a fast-growing population with significant demand for access to quality healthcare services and a government with ambitious healthcare aspirations. The country's risky investment environment, however, may dissuade all but the most risk-tolerant investors.

Kenya and **India** also offer significant market potential with broad healthcare needs. Kenya, sometimes referred to as the Silicon Valley of Africa, has a fast-developing tech sector to support market readiness, while India's tech sector is world-class.

Among the developed economies, **Israel**, **South Korea** and **Saudi Arabia** offer interesting potential investment opportunities. Saudi Arabia's Vision 2030, the country's national transformation plan, is in part aimed at expanding private healthcare provision and improving the country's lagging health outcomes.[11] Israel and South Korea have high and fast-growing out-of-pocket healthcare expenditures, signaling a potential market opportunity to reduce cost-based barriers to access and to improve the inclusiveness of these healthcare systems.

Education technology inclusion opportunities are strong in India and China

This may surprise given their reputations for significant technical expertise in their workforces and large pools of science, technology, engineering and math (STEM) graduates. Both countries have large gaps in basic education inclusion. **India's** education system is highly unequal, with children in the bottom three income brackets passing minimum international math standards less than half as often as students from the top income bracket.[12] **China's** schools have issues related to retention throughout secondary school.

However, both governments are committed to strengthening the quality of the workforce and have world-class technology sectors, signaling strong opportunity to invest in technology-oriented inclusive education products.

In high-income economies, inclusive education investment opportunity is most strongly tied to employment market woes like high youth- and long-term unemployment

Examples include vocational products and services that aim to retrain displaced workers and connect young people with formal employment markets. Mature Western European economies like the **UK** and the **Netherlands** are among the promising high-income markets—both have significant youth and long-term unemployment.

Technology solutions that improve gender inclusiveness cut across the finance, healthcare and education pillars

Gender gaps are especially pronounced in high-income **Saudi Arabia**—well-known for its structural embedding of traditional gender roles. Recent developments that aim to open the economy and improve gender outcomes may signal a market increasingly ready for investment in gender-inclusion solutions.

India pairs sizable gender gaps in financial access with gaps in female access to technology, signaling investment potential in expanding technology access for women. Such access would, in turn, unlock further potential for technology-oriented gender-inclusion solutions.

Digital divides remain prevalent, even in advanced economies, offering both challenges and opportunities

Over 4.5 billion people are still without access to the internet—one of the largest opportunities of the next decade, according to Bain & Company.[13] While gaps in technology access (for example, gender divides, rural-urban gaps or income-based gaps) are most stark in developing countries, they exist in high-income markets, too.

In **Cuba** only 6% of households in the upper-middle-income country have internet access despite a well-educated population.[14] The reestablishment of diplomatic and economic relations with the US gives rise to significant market potential.

In **Australia**, cost issues prevent access to broadband for around 40% of low-income people[15]; in the **US**, around 25% of rural Americans lack fixed broadband access.[16] For comparison, access to the internet averages around 32% within the emerging and nascent markets in the study.[17]

Expanding connectivity has direct inclusion benefits, and also unlocks complementary markets for related technology-oriented inclusiveness products, like mobile finance, education and healthcare products.

Inclusive investment potential exists in every market examined

Gaps in the ability to generate inclusive growth run the gamut from economic concentration, lack of productive employment, skills shortfalls, poverty and inequality, demographic stress points, gender disparities and access to inclusive finance, healthcare and education. Patterns in gaps typically follow levels of economic development, though deep gaps exist in highly advanced economies. Some highlights:

The **US** and **Brazil** rank as the two most unequal economies, according to the six-part inequality measure.

Turkey and **Australia** are subject to high levels of demographic stress— on par with Kenya, Nigeria and Rwanda.

In **Bangladesh** and **India**, the middle-income population is forecast to grow 97% and 80%, respectively, over the next five years—the "middle-income bulge."[18]

Investable technologies have much in common across markets …

Simple interfaces and back-to-basics offerings make technology-enabled inclusive products and services ever more accessible, to broad audiences, across developed and developing markets alike. Smartphones and laptops are more prevalent in advanced markets; in developing markets, mobile phones remain the most common device. But beyond the specifics of the device and platform, the inclusive technologies are often strikingly similar.

For example, all markets benefit from technologies that ease access to savings, loans and insurance. Adaptive learning and remote training fill gaps left by teacher shortages equally in the US and in Bangladesh. Mobile healthcare services improve diagnostics and training for medical professionals as much in rural Australia as in rural India.

… but understanding local needs matters for maximum impact

The inclusion impact of investable technologies depends on local market needs. Technologies have greater inclusion impacts where they bring previously unserved populations into the market and smaller (though important) inclusion impact where they act as substitutes for existing services.

For example, mobile money services, which lower the cost of financial services and expand access, have value in developed markets like the UK, but the inclusion benefits will be higher in less developed markets like Indonesia, where many lack access to basic financial services because of physical or cost barriers.

Local market features generate unique opportunities to leverage technological platforms

Cross-border payments technologies targeted at remittances enjoy larger markets in countries with high in-bound and out-bound migration, like the US or Australia—or in Bangladesh where remittances account for nearly 10% of the economy.[19]

Technologies that overcome physical barriers, like drones that deliver medical supplies to remote places, have greater application in countries like Indonesia (geographic barriers) and Rwanda (undeveloped infrastructure). There is greater opportunity for insurance for smallholder farmers and remote access to commodity markets in less-developed economies where agricultural sectors remain large and fragmented, for instance, Nigeria, Kenya and Rwanda.

In advanced markets, online aggregators, which provide a single entry point to compare, for example, mortgages, consumer loans and insurance, can help reduce the barriers to accessing products and services. And mobile apps that make retail investment and portfolio management more accessible support increased engagement with financial systems.

In the least-developed markets, technology provides significant leapfrog potential, but investment impact is tempered by weak digital literacy and a lack of basic services, like energy, clean water and sanitation

Technology can overcome obstacles from poor physical infrastructure with tablets that educate teachers, or remote diagnostics machines in place of doctors. But successful investment relies on uptake and sustained use. Electricity supply and digital penetration remain barriers in many developing countries—and also represent potential markets. Digital divides in terms of know-how persist. The most successful solutions combine the core technology product with programs to improve digital literacy among target populations. Some solutions have also included supporting energy infrastructure (eg small-scale solar panels on homes, for example).

In **Kenya**, more households have access to a mobile phone (68%) than to clean water (63%). In **Nigeria**, **Kenya** and **India**, less than 40% of the population has access to modern sanitation.[20] Indoor plumbing, electric lighting and air conditioning transform households and workplaces, supporting economic opportunity and growth.[21] Gaps in vital infrastructure have far-reaching implications for growth and inclusiveness. Alongside the core human development benefits, bridging basic gaps like these opens new potential markets for more technology-based inclusiveness solutions.

Noteworthy Markets

The results from this year's Inclusive Growth Opportunities Index point to a number of markets that may be of interest to investors. These noteworthy markets are highlighted in this section.

Large emerging markets where fast growth has not reached all

In **India**, **China** and **Mexico**, rapid economic development has led to stresses, including high inequality and rural-urban divides. Each presents significant potential markets for technology-based products that meet current and future inclusiveness demands.

Country rankings under demand-centric weights

	Country	Index score
1	India	55.4
2	US	54.3
3	Rwanda	54.1
4	Mexico	51.8
5	Turkey	51.3
6	Kenya	50.8
7	Indonesia	50.5
8	Nigeria	49.3
9	Netherlands	49.2
=10	Australia	49.1
=10	China	49.1
12	Israel	48.1
13	UK	47.9
14	Brazil	47.7
15	Bangladesh	47.6
16	Poland	47.3
17	South Korea	46.5
18	Saudi Arabia	46.1
19	Argentina	42.1
20	Cuba	33.4

The demand-centric settings weight demand for inclusive growth more heavily than the base settings, reduce the weight of the business environment and do not incorporate current investment activity and financial risk.

For a detailed explanation of the weight profiles, please see page 13.

'=' denotes a tied rank between two or more countries.

- **India** ranks at the top on demand-centric weights, with a globally competitive tech sector, large population, fast-growing economy and improving investment environment—all accompanying still-deep gaps in inclusiveness. Investment opportunities exist within the finance, healthcare and education pillars, showing particular strength in India's rapidly expanding middle-income population (80% growth is forecast to 2020) and with the country's large gender gaps (41% disparity in labor force participation).[22]
- High levels of investment in **China's** large market and strict cross-border transfer rules may deter some investors. But the country is attempting to navigate a structural economic shift, from an investment-driven economy to a consumer and services-oriented model, while continuing to raise living standards. Structural transitions are often destabilizing—through this process new markets will continue to open for more inclusive products and services, seeking to draw the losers from the transition back into economic opportunity. Inequality is extremely high in China, with mean income 6.6 times higher than the median[23], indicating that the benefits of growth are concentrated at the top. Healthcare remains expensive, and rural-urban divides persist. But the country is highly technology-oriented, indicating a significant market for technology-based products that support bridging the current inclusiveness gaps and those that will emerge throughout the structural shift.
- In **Mexico**, a top-15 global economy, proximity and historically friendly trade relations with the US have supported economic growth and a relatively developed investment environment. But the benefits of growth have not reached everyone. Over half the population lives below the national poverty line, and high inequality persists. Mexico presents a strong potential market for tech-based products that support inclusive finance, in particular small business finance and housing affordability.

High-potential nascent markets

These markets have strong development trajectories that point to growing demand for educated and healthy workforces and entrepreneur pools with inclusive access to finance. However, these markets have relatively weak enabling environments and high financial risk, thus making them more attractive for risk-tolerant investors.

- Here, **Rwanda** stands out, ranked third under demand-centric weights. The sole low-income country in this year's index, it offers a small, relatively high-risk and underdeveloped investment market. But Rwanda has a stronger business environment than many wealthier countries—including Kenya, potentially better known to investors—and has a fast-emerging tech sector. The government's ambition to be a high-tech hub in Africa is matched by public investment to promote connectivity by, for example, digitizing public services like bus fare payments. Rwanda's inclusiveness needs are broad and deep: The population is poor (81% poverty rate) and young (41% under the age of 14). Only 39% of children are enrolled in secondary school, and it has high maternal and infant mortality rates despite the government's universal healthcare policy.[24] The economic growth outlook is strong, reinforcing the potential market for products and services that enable the population to share in and contribute to growth.

Country rankings under base weights

	Country	Index score
1	US	64.0
2	Netherlands	56.3
3	Australia	55.2
4	UK	53.9
5	South Korea	52.0
5	Israel	50.2
7	India	49.8
8	China	48.6
9	Mexico	48.2
10	Poland	46.0
11	Turkey	44.7
12	Brazil	44.6
13	Indonesia	43.6
14	Saudi Arabia	41.5
15	Rwanda	41.4
16	Kenya	40.7
17	Bangladesh	38.3
18	Argentina	35.5
19	Nigeria	34.0
20	Cuba	26.6

The base settings weight categories and indicators according to a consensus of experts.
For a detailed explanation of the weight profiles, please see page 13

Market Challenges for Investors

The Economist Intelligence Unit and Morgan Stanley Institute for Sustainable Investing recognize that investors face challenges in places like India, Rwanda, China and others, where business environment factors like intellectual property protection, contract enforcement, and corruption may present risks. These factors are included in the overall index model and reflected in these countries' low scores for business enabling environment. (For more, see dashboard www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley). ESG investors must always be mindful about these considerations, but our goal is to highlight—for those who can navigate these obstacles—the interesting and potentially high impact investment opportunities available in these markets.

Traditionally strong investment markets are plagued by economic dislocations

Countries like the **US** and the **Netherlands** are sophisticated and stable investment markets characterized by deeply divided electorates, with large portions of the population who feel they have been left behind. The political upheavals in 2016 that many have partly attributed to a lack of inclusiveness may provide added impetus for private investment—with business leaders and activists looking for solutions outside of traditional civil society mechanisms.

- The **US** ranks first on the base weight settings. The US will remain the engine of economic growth across high-income markets; it also ranks at the top in terms of inclusive growth needs among the advanced countries, displaying deep gaps stemming from inequality and worker dislocation. The highly tech-oriented market presents significant opportunities for solutions that keep workers connected to the labor force, that improve personal financial security and that open up opportunity for education and small business ownership.
- The **Netherlands** may surprise: It ranks second on base weight settings. The country has a proud history of fighting income inequality, but its wealth inequality is one of the worst in Europe.[25] Similar to many other Western European economies, wage growth has been stagnant; with consumer prices rising faster than wages, workers have been left worse off. There is high inequality in housing spending between the richest and poorest. This market presents strong opportunity for technology products that strengthen worker connection with the labor market and assist in promoting resilience and affordability of day-to-day and life purchases.

Pillar 1: Inclusive Finance

Quality financial services play a critical role in supporting inclusive growth by providing the means to smooth income, mitigate risk and open doors to pursue economic opportunity.

Access to financial services can enhance personal financial security, make housing more affordable, and allow people to pursue education, employment and entrepreneurship. Credit can help dislocated workers continue to support themselves and their families while seeking jobs of equal quality, rather than being forced into lower-paid jobs or into the informal sector. Smallholder crop insurance can protect some of the most vulnerable farmers in developing markets from the consequences of falling commodity prices or unexpected weather.

Mobile banking and payment technologies have revolutionized

Investment Opportunities to Watch:

- FinTech in Rwanda, with goals to be the new "Silicon Valley of Africa"
- Investment momentum is strong in Bangladesh's FinTech sector
- Mexico's large consumer market needs access to more inclusive financial products

Inclusive Finance

The use of connective technology to improve financial inclusion has attracted significant attention, and over the past decade, investment has piled into ventures that aim to include millions of unserved people. Despite recent activity, future market potential remains strong: In 2015, Accenture, a consultancy, estimated that banks alone could generate annual revenues of $380 billion globally by targeting unbanked people in emerging markets[26].

Inclusive FinTech—financial technology—encompasses a broad range of offerings, including Destacame,[27] an alternative credit scoring platform that uses utility bill payment histories to assess payment capacity and creditworthiness for individuals in Latin America; to Nigeria-based Paga,[28] which provides financial services that work on the most basic of mobile phones and allows payments without a formal account; to Mexico's Konfio,[29] an online lending platform that helps micro-businesses in Latin America without access to credit obtain affordable loans; to Shiksha Finance,[30] an Indian education lending company offering financing to low-income students.

One of the notable opportunities for inclusive FinTech is the agriculture sector. In Kenya, for example, a typical smallholder farmer has a land plot smaller than two hectares and limited access to markets and services.[31] Accessing finance to improve their circumstances is nearly impossible, with only 3% of commercial loans in East Africa going to agriculture.[32] However, as farmers get access to mobile phones, they are able to keep track of their farming activities and generate crucial data that lenders can use to make more informed decisions.

A group called FarmDrive28[33] connects smallholder farmers in Kenya to financial institutions and products like loans and insurance customized to crop, land size and season. It also offers financial institutions a suite of products and services to efficiently acquire clients, assess and mitigate risk, and manage the loan process from applicant to repayment. In addition to enabling financial institutions to approve more farmers as borrowers, FarmDrive helps increase yields and earnings.

FarmDrive28 is part of a large and growing business-to-consumer technology market designed to provide access to agriculture-related financing. Indeed, GSMA, the global mobile operator association, estimates that mobile money service providers could garner $2 billion in annual revenue by 2020, just from agricultural financial technologies.[34]

Demand for inclusive growth	Enabling environment	Current investment activity
Demand for financial inclusion	**Government support for financial inclusion**	**Investment dynamics**
• Access to financial services • Female-to-male gap in access to financial services • Access to financial services for MSMEs	• Existence of a documented financial inclusion strategy • Existence of a documented financial inclusion strategy with specific commitments for vulnerable groups	• US$m invested in FinTech companies • FinTech start-up funding momentum

To explore in more detail, see the Inclusive Growth Opportunities Index dashboard, at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley

the financial services industry in both developing and developed countries, expanding access to previously unserved populations, lowering transaction costs, improving convenience and making more information available so people can make informed decisions—a core tenet of inclusive finance. Technology also provides remote access to markets, enabling farmers, for example, to sell at market prices and thus reduce traditional disadvantages that have contributed to economic exclusion.

The Inclusive Growth Opportunities Index has **seven metrics related to the market opportunities for access to inclusive finance**, reflecting different countries' demand for (or gaps in) inclusive finance, the strength of the enabling environment and the current investment activity in the market.

Nigeria ranks top in terms of demand for inclusive financial services, but **Rwanda**, in second place, stands out as also scoring full marks for its financial inclusion-enabling environment, alongside countries like the US and Mexico. Rwanda has focused on improving financial inclusion, with the government's five-year plan (covering 2013-2018) containing specific commitments to bring more smallholder farmers, women and young people into the formal financial sector.[35] Rwanda, the only low-income country in this year's index, is a small, relatively high-risk and underdeveloped investment market, but has a stronger business environment than many of the wealthier countries—including Kenya. Rwanda also boasts a burgeoning tech sector, supported by government desire to develop as a high-tech hub—which is attracting capital and accelerating the technology orientation of the economy.

Bangladesh ranks third on demand for inclusive finance, which may surprise given the country's reputation as a pioneer of microfinance through the Grameen Bank. Bangladesh has the biggest gaps in basic access to finance of the countries analyzed in this year's index, with only 31% of adults having access to a financial account[36], despite nearly 90% having access to a mobile phone[37]. Entrepreneurs also face issues, with 23% of micro-, small- and medium-sized (MSMEs) enterprises reporting access to finance as a significant obstacle[38]. But Bangladesh has strong potential. The economy is expected to grow at an average annual rate of 6.5% to

Bangladesh has the biggest gaps in basic access to finance of the countries analyzed in this year's index.

2020, providing a strong growth environment for investments that improve inclusiveness.[39] The government is committed to using technology to expand financial access, promoting digital uptake and literacy through its use of mobile financial services in various social programs.[40, 41] Remittances account for around 10% of Bangladesh's economy, according to data from the central bank, creating demand for affordable and reliable payments' technologies. While Bangladesh has relatively low levels of current investment in financial technology ("FinTech") start-ups, there is recent activity, including a US$2m funding for a payment solutions start-up.[42]

Demand for inclusive financial products and services

	Country	Score
1	Nigeria	79.6
2	Rwanda	78.7
3	Bangladesh	77.0
4	Mexico	67.2
5	Argentina	63.2
6	India	62.8
7	Indonesia	62.0
8	Turkey	60.2
9	Brazil	54.4
10	Saudi Arabia	54.1
11	Kenya	35.4
12	Poland	34.3
13	China	23.6
14	Cuba	13.0
15	South Korea	12.0
16	Israel	10.0
17	United States	9.3
18	United Kingdom	6.8
19	Netherlands	6.2
20	Australia	6.1

'=' denotes a tied rank between two or more countries
Source: Inclusive Growth Opportunities Index 2017

Government support for financial inclusion

	Country	Score
=1	China	100.0
=1	India	100.0
=1	Indonesia	100.0
=1	Mexico	100.0
=1	Rwanda	100.0
=1	US	100.0
=7	Netherlands	75.0
=7	Nigeria	75.0
=9	Brazil	50.0
=9	Kenya	50.0
=11	Argentina	25.0
=11	Australia	25.0
=11	Bangladesh	25.0
=11	Poland	25.0
=11	Saudi Arabia	25.0
=11	South Korea	25.0
=11	Turkey	25.0
=11	UK	25.0
=19	Cuba	0.0
=19	Israel	0.0

Highest FinTech investment momentum is found in the large emerging markets

Amount invested (US$m)		Momentum
$2.0	Bangladesh	
$572.0	Indonesia	
$33.6	Nigeria	
$8.1	Turkey	
$56.0	South Korea	
$35.5	Mexico	
$8,892.8	China	
$64.0	Brazil	
$159.8	Israel	
$2,327.8	United Kingdom	
$2.2	Poland	
$208.6	Australia	
$1,880.8	India	
$27.5	Argentina	
$13,101.4	United States	
$341.4	Netherlands	
$2.1	Kenya	

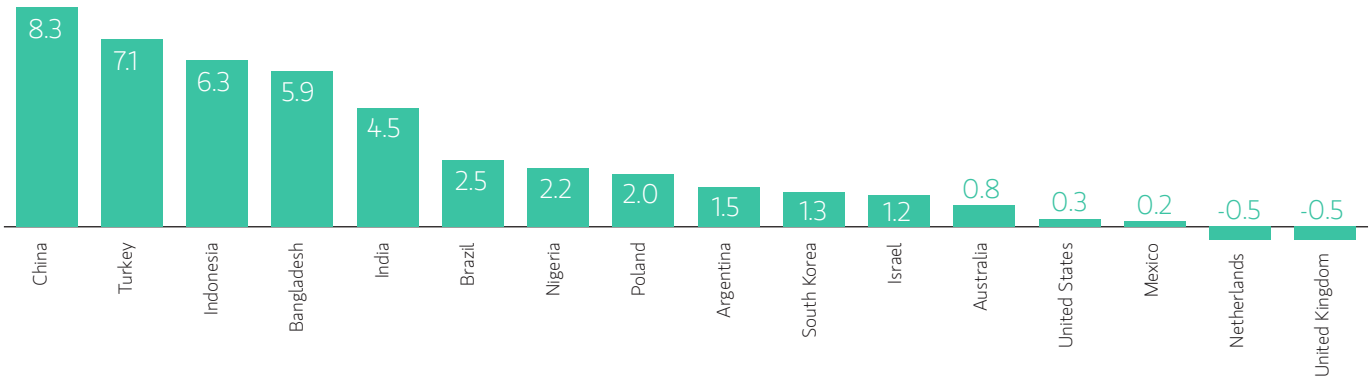
Amount invested is the total funding of startups in the fintech sector. Startups are defined as companies less than 15 years old raising money in the pre-IPO market. Momentum is proxied by the last round of capital raised as a % of total capital raised.
Source: The Economist Intelligence Unit calculations based on data from Crunchbase

Mexico's performance also stands out, particularly for a less risk-tolerant investor. Nearly 60% of Mexico's adult population lacks access to a formal account, with almost 30% of MSMEs identifying finance as a major or severe obstacle.[43] The MSME financing gap has been estimated to be US$10bn per year, according to TechCrunch.[44] Mexico is one of the world's largest consumer markets—supported by a large and emerging middle class and a growing services and manufacturing economy. The government has recently moved to strongly promote improved financial inclusion, including a June 2016 policy committed to, among other things, the use of technology to improve access to financial services for underserved populations. This indicates a supportive environment for investment in technology-oriented financial inclusiveness products in Mexico.

Investment opportunities are also present in advanced markets, which exhibit signs of lingering issues that improved financial inclusion may help to address. High-income economies show a particular need for solutions connected to personal financial security (the affordability of day-to-day consumer goods and housing) captured in a key indicator (the personal financial security indicator) within the index. Workers in high-income countries have fared poorly compared with their emerging-market peers. In the UK and the Netherlands, prices of consumer goods have grown faster than wages over the past five years, thus decreasing an average worker's purchasing power.

Average worker's purchasing power has grown in many emerging markets, while declining in Western European economies

Wage growth minus consumer price growth, 5-year average. A positive (negative) number indicates wages have grown faster (slower) than inflation, indicating growth (a decline) in real wages and purchasing power. (%)



Source: The Economist Intelligence Unit

Housing inequality between the richest and poorest is particularly pronounced in the UK

The US, Australia, Israel and South Korea—and, interestingly, Mexico—have all seen wages grow only slightly faster than prices on average over the past five years. This is in stark contrast with workers in the emerging world, where strong wage growth has outstripped consumer price inflation by a large margin.

The other component of the personal financial security indicator, housing affordability, again shows there is a need in the high-income countries. In particular, Poland, the Netherlands and the US stand out, with people spending a significant portion of their income on housing—more than 30% on average. And housing inequality between the richest and poorest is particularly pronounced in the UK, where the bottom quintile spends 28 percentage points more of their income on housing than the top quintile.[45]

Inequality is another major issue, particularly in fast-growing emerging markets and advanced countries. Inclusive financial products can help to reduce the structural barriers that low-income people face in improving their economic circumstances; these products include loans for education, more affordable housing and small business funding. **Brazil** and the **US** rank as the two most unequal economies of the 20 countries on the

Indicators of housing affordability and wage-price growth gap comprise the Personal Financial Security indicator

Housing affordability Average % share of income spent on housing	**Wage-price growth gap** Difference between wage growth and consumer price inflation (average over past five years)

To explore in more detail, see the Inclusive Growth Opportunities Index dashboard at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley

The index contains a 6-part indicator to measure income and consumption inequality

Income inequality (GINI coefficient)

Change in GINI coefficient over the last 10 years

Mean to medium income ratio

Expenditure gap: Top bracket to vulnerable bracket

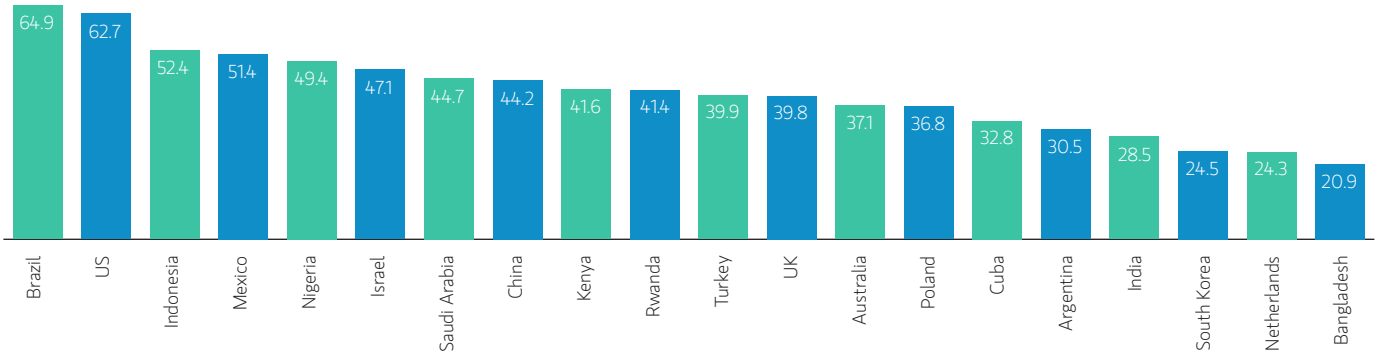
Expenditure gap: Top bracket to middle class bracket

Share of income spent on housing: Bottom income bracket to top income bracket

To explore in more detail, see the Inclusive Growth Opportunities Index dashboard at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley

Inequality is most pronounced in Brazil and the US

Inequality indicator (aggregated score of all six subindicators)



Source: Inclusive Growth Opportunities Index 2017

basis of the index's six-part inequality measure, which looks at inequalities in income and expenditures. Both countries have high (and increasing) levels of income inequality along with deep disparities between the rich and the poor in terms of

Brazil and the US rank as the two most unequal economies.

consumption and housing affordability. There will be continued strong demand for solutions, like inclusive finance products, that help to ensure that economic growth is broad-based and sustainable in these countries.

Pillar 2: Inclusive Healthcare

Investment in quality and inclusive healthcare improves workforce health and supports individual health, allowing people to pursue economic opportunity.

Healthy people are better able to gain education and sustained employment or to start a viable business. Access to medicine, treatment and medical support can also improve the ability to take care of ailing family members, further increasing the chance to pursue economic opportunity. Technologies like mobile information-sharing and improved ability to diagnose and track diseases allow countries to leverage limited resources to provide greater access to quality, inclusive care. Mobile communications technologies, telehealth and biometric identification technologies have great potential to continue to improve previously marginalized populations' access to healthcare and knowledge.

The Inclusive Growth Opportunities Index has **12 metrics related to the market opportunities for inclusive healthcare investment**, reflecting different countries' demand for (or gaps in) inclusive healthcare, the health of the workforce, the strength of the enabling environment and the current investment activity in the market.

Investment Opportunities to Watch:

- Nigeria needs investment to reach its ambitious universal healthcare target
- India's HealthTech sector, capitalizing on tech-savvy local population
- Solutions to address high out-of-pocket health spending in the US, South Korea and Israel

In the emerging markets, the gaps are starkest and the investment opportunity most broad. **Nigeria** tops the list in terms of demand for inclusive healthcare—more than 30 points ahead of second-ranked Kenya, reflecting Nigeria's deep shortfalls in quality healthcare. Nigeria's government has set an ambitious target to achieve universal healthcare; however,

Inclusive Healthcare

The global mobile health market—which provides innovative healthcare solutions using mobile technology—expects average annual growth of over 25% to reach almost $116 billion by 2025.[46] The rapid growth in mobile health supports a diverse market of inclusive healthcare technology investments.

Peek Vision, for example, manufactures medical devices that use smartphones to do professional eye exams. This technology enables doctors in both developed and emerging countries to leapfrog existing health infrastructure and provide mobile eye exams. These low-cost, portable eye examination kits can be used in the most remote settings. The technology was developed by a team of medical and technology professionals to empower more health workers to diagnose eye diseases and manage treatment, regardless of location. Currently, testing is occurring in Kenya, Mali, Tanzania, India and Scotland.[47]

More broadly, the mobile health market covers ailments from terminal diseases to maternal health and also helps to streamline medical knowledge management systems. In Israel, Biop is pioneering a remote care device to diagnose cervical cancer.[48] To combat counterfeit drugs in Nigeria, Kenya and Ghana, mPedigree, a Ghana-based social enterprise, has developed a way for patients to check the authenticity of their medicines free of charge using a basic mobile phone.[49] APMIS in Nigeria uses ICT to capture, store, exchange and use healthcare information easily, transparently, affordably and securely, thus solving problems in knowledge management for healthcare stakeholders.[50] In China, Huayi offers long-distance medical training and services[51], while Healthline in Bangladesh—a subscriber service offered by the Grameen mobile telephone company—allows patients and informal providers to seek 24-hour advice from doctors.[52]

Demand for inclusive growth	Enabling environment	Current investment activity
Demand for inclusive healthcare	**Government support for healthcare**	**Investment dynamics**
• Maternal mortality rate per 100,000 live births • Infant mortality rate per 1,000 live births • Under 5 mortality rate per 1,000 live births • Out-of-pocket healthcare expenditure per head • Growth of out-of-pocket expenditure on healthcare • Hospital beds per 1,000 • Physicians per 1,000 • Skills and productivity gaps: Health of the workforce	• Does the country have universal healthcare policy? • Does the documented policy on universal healthcare have specific commitments for women, youth, minorities, low-income persons, older persons, and/or other vulnerable groups in the country?	• US$m invested in HealthTech companies • HealthTech start-up funding momentum

To explore in more detail, see the Inclusive Growth Opportunities Index dashboard, at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley

it requires funding, signaling a private investment opportunity. That said, Nigeria remains a highly risky investment market with poor governance and a weak legal and regulatory environment—it may be most suited to a highly risk-tolerant investor.

Kenya, **Bangladesh** and **India** rank next, clustered together in their demand for inclusive healthcare. All three display shortfalls in healthcare outcomes and are plagued by a shortage of trained health providers, large rural-urban disparities in service provision and public financing gaps. These markets also have fast-growing middle-income populations, with large proportions of so-called vulnerable middle class—the newly minted members at risk of slipping back. All these factors point to potential private investment opportunities. Each country has documented aspirations to achieve universal healthcare by the 2030s; policies supporting these aspirations are most advanced in **Kenya**, underpinning a strong private investment market for inclusive healthcare solutions.

India's healthcare market is polarized. India attracts high levels of medical tourism,[53] reflecting some high-quality and low-cost services. But it continues to lag on basic health outcome indicators, with nearly 70% of total healthcare spending out-of-pocket,[54] which excludes many from receiving treatment. India's strong technology sector and relatively developed business environment indicate a significant inclusive healthcare technology investment opportunity.

The **US**, **Israel** and **South Korea** have high out-of-pocket spending on healthcare, at $1,038, $785 and $743 respectively, compared with the advanced country average of $550. And in Israel and South Korea this burden on individuals is growing rapidly, at nearly 12% per year (in the US, annual growth has slowed to 1%).[55] Adding in supportive government policy for universal healthcare in Israel and South Korea, there is potential opportunity for inclusive healthcare products and services in these countries. In South Korea, however, this opportunity is presently limited by tight restrictions on mobile health solutions, with the government allowing activity only in a few remote parts of the country.[56] Interestingly, Israel has the fourth-highest current investment in healthcare technology ("HealthTech") start-ups, according to Crunchbase data, with

Nigeria's government has set an ambitious target to achieve universal healthcare; however, it requires funding, signaling a private investment opportunity.

total investment of more than $582m, nestled between the larger markets of China ($843m) and India ($128m).[57] Foreign investments in Israeli innovative medical technology companies are growing, attracted by the country's high-tech medical device industry.[58]

South Korea's and Israel's demands for inclusiveness, including in healthcare, but also in other pillars, are also attributable to high levels of inbound migration. Migration is a significant demographic stress point across the high-income markets. Economists generally consider inbound migration as supportive of economic growth (larger labor pool and consumer market), but short-term stresses are present, including in healthcare provision. Technology provides a potential avenue to support the inclusion of migrant populations into healthcare systems, thus broadening reach, reducing costs and easing multilingual service provision. South Korea ranks second (after Turkey) in

Demand for inclusive healthcare products and services

	Country	Score
1	Nigeria	83.6
2	Kenya	50.8
3	Bangladesh	44.6
4	India	42.6
5	Rwanda	38.0
6	Israel	34.4
7	United States	33.6
8	Indonesia	29.8
9	South Korea	29.1
10	Mexico	27.2
11	Turkey	26.7
12	China	26.4
13	Saudi Arabia	25.1
14	United Kingdom	24.6
15	Australia	22.8
16	Brazil	22.5
17	Poland	18.8
18	Netherlands	17.9
19	Argentina	17.2
20	Cuba	12.8

Government support for inclusive healthcare

	Country	Score
=1	Australia	100.0
=1	Brazil	100.0
=1	China	100.0
=1	Cuba	100.0
=1	Israel	100.0
=1	Mexico	100.0
=1	Netherlands	100.0
=1	Rwanda	100.0
=1	South Korea	100.0
=1	Turkey	100.0
=1	UK	100.0
=12	Kenya	83.3
=12	Nigeria	83.3
14	India	66.7
=15	Argentina	50.0
=15	Poland	50.0
=15	Saudi Arabia	50.0
18	US	41.7
19	Indonesia	33.3
20	Bangladesh	16.7

'=' denotes a tied rank between two or more countries
Source: Inclusive Growth Opportunities Index 2017

Israel has a leading HealthTech market, following only the US, UK and China

Amount invested (US$m)		Momentum
$2.2	Mexico	
$47.7	Netherlands	
$843.1	China	
$3.5	Brazil	
$8.6	South Korea	
$128.4	India	
$124.6	Australia	
$582.0	Israel	
$1,675.2	United Kingdom	
$25,495.5	United States	
$9.0	Poland	

Amount invested is the total funding of startups in the HealthTech sector. Startups are defined as companies less than 15 years old raising money in the pre-IPO market. Momentum is proxied by the last round of capital raised as a % of total capital raised.
Source: The Economist Intelligence Unit calculations based on data from Crunchbase

Migration and Inclusive Growth

Investments in technologies that enhance education and training, skills recognition and entrepreneurship can improve countries' ability to absorb migrants, supporting inclusive growth.

The beacons of improved work and prosperity draw millions of people across borders, particularly when there is a lack of opportunity in their home country. War and violence have forced many more to flee in search of safety. Inflows of migrants can help relieve stresses from an aging workforce, but also put short-term pressure on the system to provide access to housing, healthcare and education.[59]

Whether it's a high-skilled tech worker or a refugee, promoting smooth absorption of migrants into local economies, and supporting access to services and opportunity for expanding populations, is key to promoting social stability and long-term benefit for the new arrivals and broader economy.

For example, trellyz, a cloud-based resource-management and collaboration provider, developed the Refugee AID App, which allows refugees to see the type of aid available nearby.[60] Entrepreneurial Refugees, a web portal, connects refugees with investors and mentors to assist in the development of business ideas.[61]

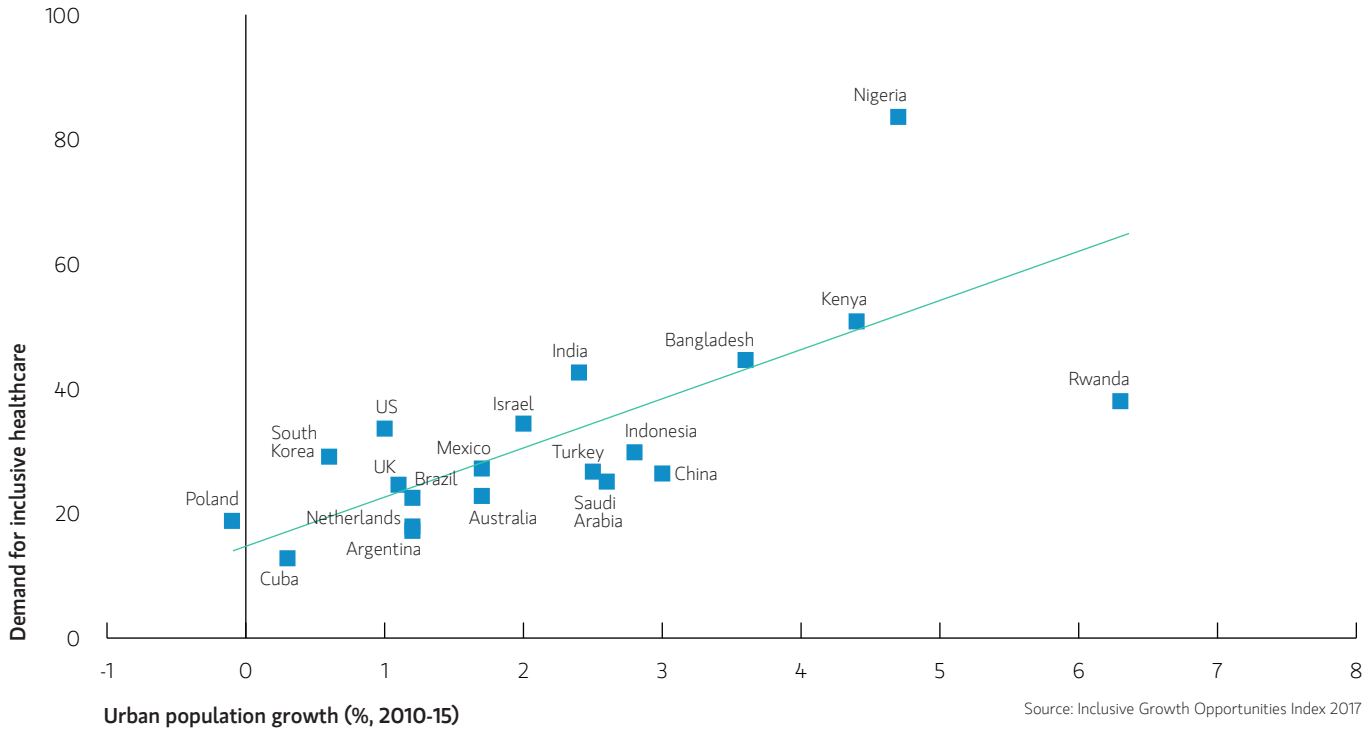
growth of migrant populations. **Australia**, which has strong health outcomes, also presents a potential market for inclusive health products that meet the needs of its growing migrant population (Australia has a net in-migration rate of 5.7%, the highest of the 20 countries).[62]

In developing markets, urbanization trends also stress cities' healthcare systems. Cities often struggle to meet the demand for healthcare and other services from the influx of people. Countries with high urban population growth show a greater need for quality healthcare, according to the index analysis. These countries are also typically less developed and have existing gaps in provision of quality healthcare. **Rwanda**, which ranks fifth in terms of inclusive healthcare demand, trailing fourth-place Bangladesh by more than 16 points, ranks highest in urban population growth. Its urban population is expanding

Australia has a net in-migration rate of 5.7%, the highest of the 20 countries.

by more than 6% per year; the result: strong demand for inclusive healthcare solutions by and for these new city dwellers.[63]

Fast-growing urban populations demand more inclusive healthcare systems, especially in Nigeria



Source: Inclusive Growth Opportunities Index 2017

Pillar 3: Inclusive Education

Technology fosters inclusive growth by democratizing access to education. Education improves people's ability to access economic opportunity through work or entrepreneurship: by raising or transforming skills to meet the needs of the economy, spurring digital literacy, promoting a technology culture and expanding innovative capacity.

Virtually every inclusiveness shortfall examined in the index—productive employment, inequality, economic concentration—can be at least partly remedied by investment in education.

ICT networks are increasingly being leveraged to provide opportunities for youth and adults to gain the skills most valued in the global economy, thus improving productivity and economic growth at a macro level while also bolstering inclusiveness of growth for individuals. By utilizing mobile platforms for skills development in both higher education and technical vocational training, many education technology ("EdTech") start-ups are developing creative ways to improve access to quality education both in and out of the classroom.

The Inclusive Growth Opportunities Index includes **ten metrics related to the market opportunities for inclusive education investment**, reflecting different countries' demand for (or gaps in) inclusive education, the strength of the enabling environment and the current investment activity in the market.

Investment Opportunities to Watch:

- EdTech in China and India: High demand in large markets
- Job training in the US to close skills gaps
- Vocational training in Europe to improve prospects of long-term unemployed

The developing economies cluster at the top in terms of demand for inclusive education, indicating a large potential investment market for products and services to help close these gaps. India and China show large inclusive education needs, which may surprise given their reputations for high

Inclusive Education

Access to and quality of education is a major issue in many countries—developed and developing alike. A study by Stanford University professor Sean F. Reardon documents the widening gap in academic achievement between the rich and poor in the United States.[64]

The number of new educational models that leverage technology to improve the quality of education in vulnerable communities has expanded rapidly. The value of the global education technology market continues to grow at double digit rates and is expected to reach over $250 billion by 2020.[65]

In India, where the number of internet users is increasing quickly and is expected to reach 550 million—or 40% penetration—by 2020, digital education's potential is enormous.[66] Technopak, a consultancy, estimates that the Indian digital learning market will almost triple between 2016 and 2020, growing from $2 billion to $5.7 billion[67] as companies like Learning Delight, an India-based digitized-learning company, designs technologies to improve education quality.[68]

There are many other examples of inclusive education technologies found around the world. Bridge International Academies, a large chain of low-cost private schools, uses a technology-enabled approach (i.e., collecting real-time data on a student's performance, comprehension, attendance and more) to provide standardized primary education to poor and vulnerable children in Kenya, Nigeria and India.[69] Coursera, a California-based platform, aims to provide universal access to the world's best education.[70] And Edmodo—a global education network that connects teachers, students, administrators and parents—shares data and resources that enable schools to take advantage of data analytics. It has more than 65m users across more than 370,000 schools worldwide.[71]

Demand for inclusive growth	Enabling environment	Current investment activity
Demand for inclusive education	**Government support for healthcare**	**Investment dynamics**
• Access to education: secondary school enrolment • Transition rates: primary to secondary • Inequality in education system • Female-to-male gap in access to education: secondary school enrollment • Female-to-male gap in transition rates: primary to secondary	• Does the country have universal education policy (primary and secondary)? • Does the documented strategy (or strategies) on universal education have specific commitments for females, minorities, low-income persons, and/or other vulnerable groups in the country? • Is there a documented strategy for adult technical and vocational education and training?	• Total investment in EdTech companies • EdTech start-up funding momentum

To explore in more detail, see the Inclusive Growth Opportunities Index dashboard, at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley

levels of technical skills and large pools of highly qualified engineers and programmers. But both have large gaps in the inclusiveness of their education systems.

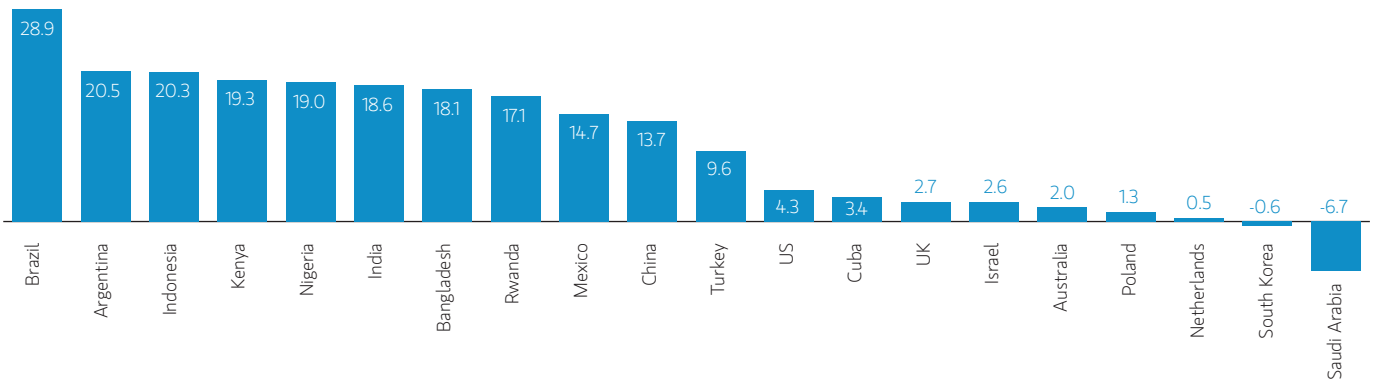
In **India**, ranked sixth on inclusive education needs, children in the top income bracket pass international math standards at a rate twice as high as children in the lowest three income brackets (on average).[72] In **China**, there is a large gender gap in transition rates, with a 4 percentage point gap between females and males in continuing on to secondary school—more than any other country in this year's index.[73] China's government is focused on improving retention rates through senior secondary school as well. Official statistics report that 87% of students remain for the final three years[74]; in rural areas, studies have estimated that the rate is only 37%.[75] This points to a sizable market for technology-oriented education products to improve retention through China's education system and to close rural-urban gaps.

Combined with relatively developed technology environments and governments committed to strengthening workforce quality, these two countries are strong potential markets for inclusive education technologies. Both are currently seeing investment in EdTech start-ups, signaling present interest in and receptiveness to technology-oriented education solutions. China is well ahead of India, with around $955m in total EdTech start-up funding, compared with India's $34m, according to Crunchbase data.[76] Many current investments are related to online tutoring, exam preparation and technical training for employees.

Closely connected to education solutions, youth unemployment has long troubled governments and policymakers in developing countries, particularly in places where political stability and security are lacking and the

Education inequality tends to follow a country's income and level of development

This indicator represents the gap in the percentage of students achieving international minimum standards in math, between the top income quintile and the bottom three income quintiles. A higher number indicates a greater gap. %



Source: Inclusive Growth Opportunities Index 2017

Demand for inclusive education products and services

	Country	Score
1	Nigeria	63.6
2	Bangladesh	62.5
3	Kenya	60.9
4	Rwanda	59.3
5	China	57.3
6	India	54.5
7	Brazil	53.8
8	Mexico	46.6
9	Argentina	45.9
10	Turkey	40.6
11	Indonesia	39.3
12	Poland	38.6
13	Saudi Arabia	37.2
14	United States	36.0
15	Australia	35.2
16	Israel	34.2
17	South Korea	33.7
18	Cuba	33.5
19	Netherlands	32.7
20	United Kingdom	28.9

Government support for inclusive education

	Country	Score
=1	Argentina	100.0
=1	Cuba	100.0
=1	Indonesia	100.0
=1	Mexico	100.0
=1	South Korea	100.0
=1	Turkey	100.0
=1	US	100.0
=8	Brazil	88.9
=8	China	88.9
=8	Rwanda	88.9
=11	Australia	83.3
=11	India	83.3
=11	Israel	83.3
=11	Kenya	83.3
=11	Netherlands	83.3
=11	Saudi Arabia	83.3
=11	UK	83.3
=18	Nigeria	66.7
=18	Poland	66.7
20	Bangladesh	61.1

'=' denotes a tied rank between two or more countries
Source: Inclusive Growth Opportunities Index 2017

US and China lead EdTech market, but investments in Brazil and India have momentum

Amount invested (US$m)		Momentum
$10.0	Brazil	
$0.6	Netherlands	
$33.7	India	
$82.9	United Kingdom	
$0.6	Mexico	
$955.7	China	
$16.0	Kenya	
$0.3	Argentina	
$2,892.0	United States	
$12.9	Australia	
$6.0	South Korea	
$6.2	Israel	

Amount invested is the total funding of startups in the Edtech sector. Startups are defined as companies less than 15 years old raising money in the pre-IPO market. Momentum is proxied by the last round of capital raised as a % of total capital raised.
Source: The Economist Intelligence Unit calculations based on data from Crunchbase

chance of young people becoming militarized is high. Youth unemployment is also a growing issue in developed markets. In **South Korea**, **Saudi Arabia** and **Poland**, less than 30% of the youth population is employed; this compares with youth employment rates of around 60% in Australia and the Netherlands.[77] One root issue is a growing skills gap among youth. An indicator developed by The Economist Intelligence Unit charts the evolution of youth unemployment against GDP growth and highlights countries where youth skill sets do not match the skill sets desired by employers. The **US**, **UK** and **Netherlands** display large gaps here, indicating a potential market for inclusive education solutions.

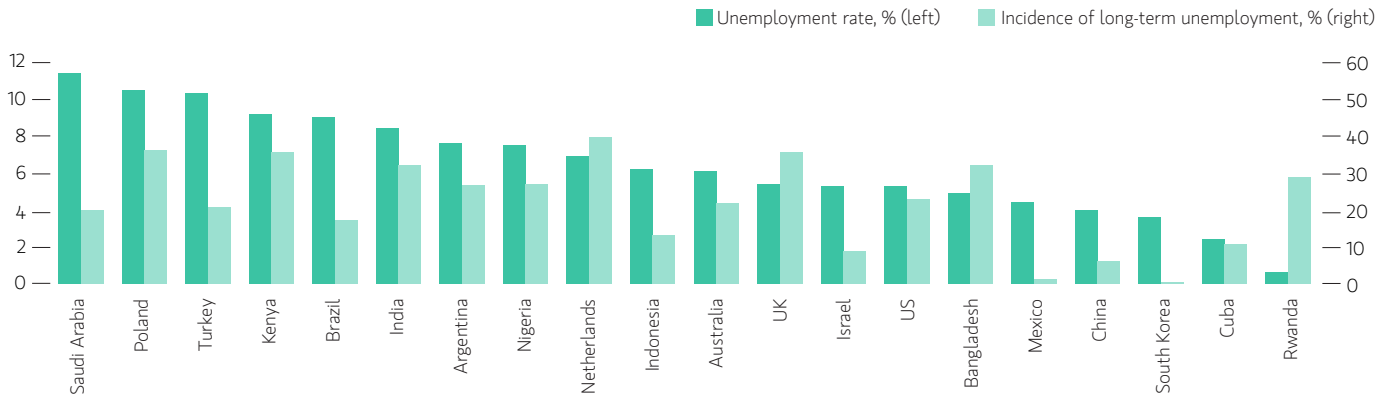
Improving US educational test scores to equal levels achieved by Canadian students could lead to economic gains of $2.7 trillion by 2050 and $17.3 trillion by 2075.

In the **US**, shortfalls in education compared with other high-income countries are well-documented. A 2015 study by the Washington Center for Equitable Growth found that improving US educational test scores to equal levels achieved by Canadian students could lead to economic gains of $2.7 trillion by 2050 and $17.3 trillion by 2075.[78]

Employment market woes in developed markets run deep, characterized by long-term unemployment and declining workforce participation. High incidence of long-term unemployment inflicts significant costs to economies and societies. Chronic joblessness reduces consumer spending and creates shortfalls in productivity, harming economic

High unemployment and incidence of long-term unemployment indicate gaps in the inclusiveness of growth

Unemployment (%) and incidence of long-term unemployment (%)



Sources: The Economist Intelligence Unit calculations based on data from the International labor Organization and the World Bank

output.[79,80] People who have been unemployed for a long time tend to re-enter the workforce in lower-paid positions, which can have a social impact on people and families. According to the Urban Institute, long-term unemployed workers in the US were almost four times as likely to be poor compared to consistently employed people.[81] This underscores the imperative, from both the public and private spheres, to address chronic long-term unemployment: for example through investing in education and other products and services to keep workers connected with the labor market.

There is sizable potential for private solutions in vocational education technologies targeted at young people struggling to enter formal employment or at retraining displaced workers and other long-term unemployed.

In the **UK**, the **Netherlands** and **Poland**, more than 35% of unemployed people have been jobless for more than one year—higher than the rates in Nigeria, Rwanda, India, Bangladesh and Kenya. Retraining and vocational education-focused products connect people with jobs, include these workers in the benefits of growth, and expand overall economic potential. Public solutions to long-term unemployment are typically small-scale and limited in reach because of constrained public budgets and competing priorities. There is sizable potential for private solutions in vocational education technologies targeted at young people struggling to enter the formal employment or retraining displaced workers and other long-term unemployed.

Pillar 4: Gender Inclusion

The economic costs of excluding women and girls are becoming more widely appreciated. A 2015 study by the McKinsey Global Institute estimates that most countries could boost their GDP by 5-20% if women's workforce participation was on par with men's.[82] The potential gains are even higher when accounting for gaps in hours worked and pay rates.

Technology—in particular information and communication technology (ICT)—presents a strong means of bridging these gender gaps. Access to the internet provides opportunities to undertake flexible education, to seek employment, to connect to other business owners and to access independent financial services—all core issues in women's economic participation. The technology solutions that improve gender inclusiveness cut across the pillars of finance, healthcare and education. Smart and inclusive investments in FinTech, HealthTech and EdTech can expand women's (and girls') access to education, financial services and credit; improve healthcare and health-related knowledge; provide the means to obtain child care; and otherwise let women become independent—all of which will help reduce gender exclusion and bring women into economic systems.

Access to technology remains a challenge—and highlights a potential market for gender-inclusive investment. Globally, 250 million fewer women than men have internet access, and the gap is widening.[83] The gap is largest in the least-developed markets, where 31% fewer women are using the internet than men and are 14% less likely to own a mobile phone. GSMA, the global mobile operator association, estimates that providing mobile access to women in low- and middle-income countries could unlock a $170bn market opportunity by 2020 (in addition to the broader benefits of promoting economic growth and enabling women to take full advantage of financial and digital opportunities).

Investment Opportunities to Watch:

- Closing gender-based digital divides in India
- Saudi Arabia's new plan, Vision 2030, is promoting women in the workforce, though questions remain on implementation

The **Inclusive Growth Opportunities Index has 12 metrics connected to market opportunities in support of gender inclusiveness**, reflecting countries' gender gaps across job markets, education, healthcare and finance; the enabling environment in support of gender outcomes; and the inclusiveness of the technology environment. These indicators help identify digital divides in basic access to technology.

Saudi Arabia is well-known for its structural embedding of traditional gender roles. It comes in first of the countries on the Inclusive Growth Opportunities Index in terms of gender gaps and near the bottom in terms of current technology gender inclusiveness. The country's maternal and infant health outcomes remain weak: The infant mortality rate is more than twice that of the next nearest high-income country. Saudi Arabia has a 60 percentage point gap between male and female employment, stemming from a 57 percentage point gap in labor force participation rates. And there is a 14 percentage point gap in access to basic financial services (for comparison, the next high-income country is South Korea, with just a 2

Indicators of gender inclusion

Demand for inclusive growth	Enabling environment for inclusive growth	Technology and infrastructure environment
• Female-to-male gap, employment • Female-to-male gap, labor force participation • Female-to-male gap, vulnerable employment • Female-to-male gap, secondary education • Female-to-male gap, transition rates (primary to secondary) • Female-to-male gap, financial access	• Inclusive growth strategy: specific commitments for women • Financial inclusion strategy: specific commitments for women • Inclusive healthcare strategy: specific commitments for women • Inclusive education strategy: specific commitments for women	• Female-to-male gap, internet usage • Female-to-male gap, mobile phone usage

To explore in more detail, see the Inclusive Growth Opportunities Index dashboard, at www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley

Demand for gender inclusiveness
(high = larger gender gaps)

	Country	Score
1	Saudi Arabia	63.4
2	Nigeria	61.6
3	India	60.0
4	Turkey	57.4
5	Kenya	49.0
6	Bangladesh	44.3
7	China	39.4
8	Rwanda	36.9
9	Poland	35.7
10	Indonesia	35.0
11	Mexico	33.7
12	Cuba	32.7
13	South Korea	32.4
14	Brazil	31.1
15	Argentina	29.1
16	Australia	27.9
17	Netherlands	27.0
18	Israel	23.7
19	United States	23.2
20	United Kingdom	22.4

Note: Rankings and scores are based on a simple average of the country's scores across the seven gender-related demand category indicators. For a detailed explanation of the risk profiles, please see page 13.
Source: Inclusive Growth Opportunities Index 2017

Technology environment, gender inclusiveness rank
(high = more inclusive)

	Country	Score
1	Cuba	94.6
2	Brazil	88.6
3	United States	84.1
4	Argentina	80.2
5	Netherlands	79.9
6	Poland	79.1
7	United Kingdom	79.0
8	South Korea	78.1
9	Australia	75.4
10	Israel	73.0
11	Indonesia	72.2
=12	Kenya	67.0
=12	Nigeria	67.0
=12	Rwanda	67.0
15	Mexico	66.0
16	China	63.7
=17	Bangladesh	61.2
=17	India	61.2
19	Saudi Arabia	38.0
20	Turkey	0.0

Notes: Rankings and scores are based on a simple average of the two gender-related technology environment category indicators.
'=' denotes a tied rank between two or more countries

percentage point gap). Inequality in basic technology access is stark: Saudi Arabia has a 17 percentage point gender gap in internet use and a 6 percentage point gap in access to mobile phones.

But recent developments have indicated support for improved gender outcomes and, more broadly, for a more open market and improved investment environment. The country conducted its first international bond sale in October 2016, raising $17.5 billion. Saudi Arabia's recently announced strategic plan, Vision 2030, emphasizes inclusive growth goals, specifically promoting women in the workforce. The question is whether these moves indicate an immediate shift in circumstances or a slow evolution. Early signs are promising. Private sector employment has risen rapidly, doubling between 2011 and 2015; the number of Saudi women working in the private sector has nearly quintupled, from about 100,000 to almost half a million.[84]

Saudi Arabia's recently announced strategic plan, Vision 2030, emphasizes inclusive growth goals, specifically promoting women in the workforce. The question is whether these moves indicate an immediate shift in circumstances or a slow evolution.

Nigeria and **India**, ranked second and third on demand indicators for gender inclusiveness, show particularly large gaps between men and women in terms of access to finance. In Nigeria, only 33% of women have access to basic financial services, compared with 54% of men, according to the World Bank's Findex survey. In India, 43% of women have access, compared with 62% of men.[85] In high-income markets like Australia and the UK, these percentages are over 98% for both men and women. These indicators point to large potential markets for financial products targeted at women;

such products would improve independence, the ability to pursue education, employment, and entrepreneurship and the chances to achieve strong health outcomes. Interestingly, with a globally competitive tech sector, India scores poorly in terms of technology access for women, partly attributable to some social traditions that discourage women from possessing mobile phones.[86] Investment opportunity in India, therefore, also exists in expanding internet and mobile phone access for women, which would in turn open broader market opportunities for technology-enabled inclusiveness solutions.

Turkey ranks as one of the least-inclusive markets in terms of technology access for women. Only 44% of women use the internet compared with 64% of men; only 70% have access to a mobile phone compared with 90% of men, according to data from the ITU, the United Nation's ICT-focused agency. Turkey also shows deep gender gaps on other indicators, including financial access for women—the country has the largest gap

India scores poorly in terms of technology access for women, despite a globally competitive tech sector, partly attributable to some social traditions that discourage women from possessing mobile phones

(25 percentage points) between men and women in terms of access to a financial account. Turkey's poor performance is echoed in other gender data; for example, the World Economic Forum's Global Gender Gap rankings, where Turkey is consistently among the poorest performers. Investment to expand technology access would unlock additional opportunities for much-needed investment in technology-enabled solutions that open opportunities for women.

COUNTRY SPOTLIGHTS: Bridging Gender Gaps in India and Rwanda

Across most emerging and nascent markets, the digital gender gap is well-documented: globally 1.7 billion women and girls do not have access to a mobile phone.[87] And in the world's least developed countries, 31% fewer women are internet users than men.[88]

This digital divide presents significant opportunity, especially for the mobile industry, as most internet access in emerging and nascent markets is provided through mobile. GSMA, the global mobile operator association, estimates that closing the gender gap in mobile phone ownership and usage in South Asia alone could be a $23 billion revenue opportunity for the industry in 2015-2020.[89]

Recognizing that opportunity, numerous private sector initiatives are aimed at increasing mobile access and training for women. Telenor ASA, a large Norway-based IT company, employs a network of women in India that go door-to-door in rural communities selling discounted SIM cards to women, with the aim of overcoming social convention that discourages women from possessing mobile phones. Alphabet, Google's parent, has female tutors with smartphones and tablets who travel rural India by bicycle providing women mobile training. The program gives women a better understanding of how connectivity could improve their lives and, since its launch in 2015, more than 9,000 trainers have reached over one million women.[90]

In Sub-Saharan Africa, mobile companies are also innovating to reduce gender gaps. Business Women Connect, a partnership between TechnoServe, Vodacom, the Centre for Global Development and the World Bank, is building on the success of well-known mobile money platforms M-Pesa and M-Pawa. Launched in March 2016, the program is designed to empower female business owners in Tanzania by providing business and mobile savings account training. It will eventually serve more than 5,000 women.[91]

Conclusion

The inclusive growth movement is driving a structural evolution, as economic systems and markets open to the idea that inclusiveness is key to ensuring long-term sustainability.

As the world seeks to address the inclusive growth imperative, economic and social structures will shift, new markets will form and existing markets will be reshaped. Investors must understand such movements if they are to identify and capitalize on new market opportunities—where investment in technology-oriented solutions can benefit them and also support and contribute to inclusive growth outcomes.

Investment opportunities are present across every market examined. The inclusion challenges of high-income countries differ from those of emerging markets, with different levels of technological capacity, infrastructure development, financial risk and other business environment characteristics. The sum of the parts may direct some investors to pursue opportunities connected to the targeted but deep inclusion gaps present in advanced economies; others may find the opportunities more attractive in nascent markets, where demand for inclusiveness is great but risk is high.

Sectoral or issue focus may also shape investor focus. The key investment opportunities lie in the pillars that support inclusive growth: finance, healthcare, education and gender. And prevailing gaps in basic technology access—the digital divide—offer both challenges and market opportunity. Promoting access has direct inclusiveness benefits and also broadens the market for technology-oriented solutions across the areas of finance, healthcare, education and gender.

Looking ahead, the inclusiveness challenges facing the world are great. Reaching the ultimate goal will require cooperation and coordinated action across multiple spheres, including government, international organizations, NGOs and philanthropy, alongside the private sector. In this study, we have aimed to highlight the role that private investment can play– and the unique opportunities available for the private sector decision-maker – to support inclusive growth. The analytic framework and user-friendly dashboard tool enable investors to explore specific areas of interest and identify where investment opportunity is strongest. We hope that this is one step along a more comprehensive journey to a sustainable, inclusive global economy.

Sustainable Investing: Connecting Investments in Inclusive Growth and Climate Change Mitigation

This study by The Economist Intelligence Unit and the Morgan Stanley Institute for Sustainable Investing aims to develop frameworks to understand sustainable investment opportunities across countries.

Sustainable investment opportunities exist across a range of different, but related, areas. This year's study explores two areas—inclusive growth and climate change mitigation—in separate benchmarking indices and reports. These two important and distinct areas are, in many ways, related and complementary.

The goal of inclusive growth refers to an environment where economic growth and prosperity are complemented by broad opportunity to access the benefits of that growth. The consequences of climate change interfere with these goals.

Climate change threatens to hit the poorest among us the hardest, reducing or removing their ability to share in the benefits of growth. Many emerging markets are geographically vulnerable to sea-level rise and warmer temperatures. Many poorer people live in inadequately reinforced housing, and insurance or other risk-mitigation options may be unaffordable or nonexistent. Poorer countries often rely on agricultural sectors for output and employment; climate change puts this sector at high risk. Climate change will also impact availability of clean water and exacerbate food security challenges. Developing economies, with strained budgets and limited financing options, are typically poorly equipped to invest in mitigation, build disaster resilience and respond to extreme weather.

Investments can have complementary benefits for both inclusive growth and climate mitigation. For example, there is high and growing demand for affordable senior housing in countries like the US. One way to make housing more affordable is to cut building energy costs. In Anchorage, Alaska, new low-income senior housing complexes are using alternative-energy ground-source heat-pumps in housing developments, supplemented with solar panels, thus reducing reliance on expensive, and less climate-friendly, natural gas heating systems.[85]

Similarly, investments in climate-change mitigation can support inclusive growth goals by ensuring that economic development does not occur at the expense of the environment. For example, Enel, a multinational energy company with a presence in 30 countries across four continents, has established a program to bring clean, affordable sustainable energy solutions to rural communities lacking ready access to energy. The program constructs and maintains small-scale solar power stations in communities and also trains semi-illiterate women from villages lacking sufficient electricity to install and maintain solar panels. Initially launched in Latin America in 2015, the program has since expanded to Kenya and Tanzania.

As part of the study, The Economist Intelligence Unit has evaluated the investment opportunities connected to climate-change mitigation technologies in the same 20 countries covered in the Inclusive Growth Opportunities Index. The launch of the next and complementary study, the Climate Change Mitigation Opportunities Index, is planned for mid-2017.

Index Rankings

The table below contains the overall index scores as well as scores for each of the underlying five categories and the financial risk adjustment factor. Overall scores displayed here use base weights settings. For more information on indicator weightings, please see Appendix A.

Index scores, ranked by overall index ranking*

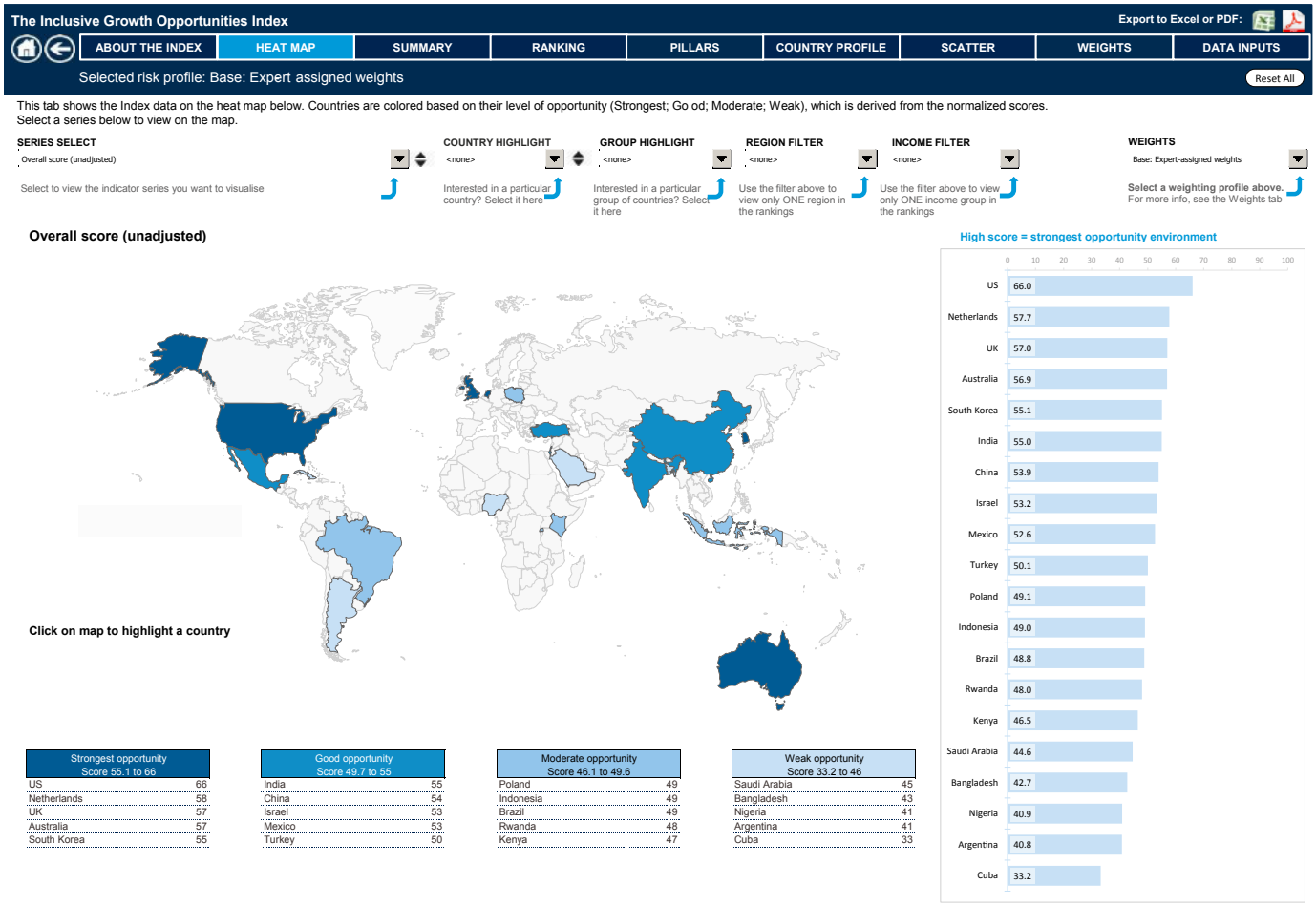
	Demand for inclusive growth		Enabling environment		Technology and infrastructure environment		Business environment		Current investment activity		Financial risk adjustment factor
Overall index score	**Rank**	**Score**	**Rank**	**Score**	**Rank**	**Score**	**Rank**	**Score**	**Rank**	**Score**	**Score**
1 US **64.0**	14	30.6	2	84.8	1	85.8	2	79.9	1	86.6	88.1
2 Netherlands **56.3**	20	23.2	1	86.5	4	74.5	3	79.1	6	43.5	90.5
3 Australia **55.2**	16	28.5	10	69.3	5	74.4	1	86.4	7	41.0	88.1
4 UK **53.9**	18	24.4	3	80.6	3	75.9	4	71.7	3	58.9	78.6
5 South Korea **52.0**	19	23.9	4	77.3	2	76.9	6	67.5	4	57.6	77.4
6 Israel **50.2**	15	29.5	6	73.7	6	67.8	5	70.2	10	34.4	77.4
7 India **49.8**	4	52.8	11	65.7	12	49.3	12	54.2	5	47.9	61.9
8 China **48.7**	12	36.6	7	72.5	8	58.6	10	55.5	2	61.3	60.7
9 Mexico **48.2**	8	42.7	5	76.6	15	42.8	9	56.3	8	36.4	66.7
10 Poland **46.0**	11	37.0	15	56.8	7	62.2	7	64.8	13	25.2	75.0
11 Turkey **44.7**	7	43.8	8	71.2	10	52.8	17	47.1	11	29.8	57.1
12 Brazil **44.6**	10	38.2	9	70.8	13	45.6	15	51.0	9	35.1	65.5
13 Indonesia **43.6**	6	46.4	13	62.9	14	43.1	13	53.6	12	25.8	56.0
14 Rwanda **41.4**	3	54.5	12	65.6	20	28.1	11	54.7	=19	0.0	45.2
15 Saudi Arabia **41.4**	9	39.6	17	52.6	9	53.7	8	58.1	18	7.6	71.4
16 Kenya **40.6**	5	51.8	14	60.9	17	34.1	19	42.3	14	21.4	50.0
17 Bangladesh **38.3**	2	54.7	20	36.0	16	34.2	16	48.1	15	17.5	58.3
18 Argentina **35.4**	13	35.1	16	54.9	11	50.0	18	43.8	17	14.4	47.6
19 Nigeria **33.9**	1	58.6	18	46.4	19	30.0	20	27.1	16	15.0	32.1
20 Cuba **26.6**	17	27.5	19	39.0	18	32.8	14	52.7	=19	0.0	20.2

* '=' denotes a tied rank between two or more countries

About the Dashboard

The interactive dashboard allows users to explore the data in a variety of ways. Go to www.morganstanley.com/ideas/eiu-inclusive-growth-morgan-stanley to download the interactive Excel dashboard that accompanies this report to:

- Use comparison tools to contrast different countries, regions and income groups
- Look at profiles for each of the 20 countries in the Inclusive Growth Opportunities Index 2017
- Delve deeper into the index, leveraging its wealth of data to develop unique and actionable intelligence tailored to your specific priorities and interests
- Adjust the weights for each category and indicator to tailor the rankings to your specific risk preferences



If You're a Private Investor

Download the tool to carry out more detailed assessments of target countries and use the Inclusive Growth Opportunities Index scores as a starting point to explore countries, regions and sectors of interest. You can review countries in which you already invest—or are considering investing—to see where the index scores highlight new opportunities for investing in technologies that support inclusive growth or where you already face or anticipate challenges to current or future investments.

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Appendix A: Index Methodology

The Inclusive Growth Opportunities Index evaluates the strength of technology-oriented investment opportunities that support inclusive growth in 20 countries. The index was constructed to rate, rank and analyze the need for investment, the current market for inclusive growth technologies, and the business, financial and policy environments that support (or do not support) investment in each country.

Research Process

The development of the Inclusive Growth Opportunities Index followed a multi-step process. After conducting a literature review and detailed due diligence, The Economist Intelligence Unit developed a draft analytic framework to benchmark investment opportunities connected to inclusive growth. In June 2016, a volunteer panel of experts, from policymaking, private sector, academic, and non-governmental organizations convened in New York to attend a day-long workshop to refine this framework and discuss the intended country coverage. The insights from the expert panel were incorporated into the development of a full scoring model, which includes over 150 metric combined into nearly 50 indicators, organized across six categories, outlined in this appendix and in Appendix B.

Economist Intelligence Unit analysts and researchers conducted extensive research to develop the research. The expert panelists were again consulted to provide input into the core weighting scheme (an expert-assigned scheme) used to aggregate the data into a benchmarking index that rates and ranks the countries.

The research was modeled in an interactive workbook, allowing for country comparisons and identifying good practices, trends and insights contained in the analysis section of this report.

Table 1: The research process

Preliminary research and draft indicator framework	Expert panel	Development of scoring analytic framework	Country research	Model finalization
We conducted a detailed literature review and secondary research related to sustainable investing and inclusive growth models, and developed a draft analytical framework	In June 2016, in collaboration with the Morgan Stanley Institute for Sustainable Investing, The Economist Intelligence Unit hosted a panel of 13 experts to refine the framework and provide input into country selection	The Economist Intelligence Unit team implemented the panel's input into a refined analytical framework, with over 150 quantitative and qualitative sub-indicators and detailed scoring methodology	Our team of country analysts and researchers conducted in-depth research into country-specific inclusive growth gaps and investment environment indicators	We produced an interactive dashboard model in Excel, allowing users to compare countries, deep dive into individual countries and indicators, and build customized analytical profiles

Scoring Criteria and Categories

Categories and indicators were selected on the basis of Economist Intelligence Unit expert knowledge and analysis, consultation with external investment and inclusion experts, and with input from the Morgan Stanley Institute for Sustainable Investing.

The Index contains over 150 metrics combined into nearly 50 indicators, organized across six categories that measure (1) the demand for inclusive growth, (2) the enabling environment for investment in inclusive growth, (3) the technology and infrastructure environment, (4) the business environment, (5) the current investment activity, and (6) financial risk. Each category receives a score, calculated from a weighted mean of the underlying indicator scores (see "Weights"), and scores are scaled from 0 to 100, where 100 = the strongest opportunity or environment for investment in technologies that support inclusive growth. The overall country score (adjusted) is a weighted mean of the category scores, adjusted for financial risk.

Country Selection

The Inclusive Growth Opportunities Index evaluates the strength of investment opportunity in inclusive growth technologies in 20 countries that were carefully selected by The Economist Intelligence Unit and the Morgan Stanley Institute for Sustainable Investing, in consultation with the expert panels, to explore a range of interesting, potentially high-opportunity markets. The country choice reflects a mix of high-income, middle-income, and low-income countries, with geographic representation. We looked to various criteria to guide the country selection, including economic and demographic indicators, financial sector and investment activity indicators, climate change and inclusion market indicators, and indicators of risk. But in the end, the final selection came down to choice: which markets we thought were most interesting to explore and assess for investment opportunities across these fields and over time. For example, Cuba and Argentina were added to the mix, as markets likely to experience interesting and substantive development in the next two to five years.

The countries selected for the 2017 index represent 61% of global GDP and 65% of the global population. The 20 markets explored are:

Africa	Asia Pacific	Eastern Europe	Latin America	Middle East	North America	Western Europe
Kenya, Nigeria, Rwanda	Australia, Bangladesh, China, India, Indonesia, South Korea	Turkey, Poland	Argentina, Brazil, Cuba, Mexico	Israel, Saudi Arabia	United States	Netherlands, United Kingdom

The current World Bank income groupings break out the countries into the following buckets:

High-income countries	Upper-middle income	Lower-middle and low-income
Australia, Israel, Netherlands, Poland, Saudi Arabia, South Korea, United Kingdom, United States	Argentina, Brazil, China, Cuba, Mexico, Turkey	India, Indonesia, Bangladesh, Kenya, Nigeria; Rwanda (low income)

The Inclusive Growth Opportunities Index evaluates the strength of investment opportunity in these countries across six categories, which have been identified as key drivers of investment opportunity. The six categories are:

1) Demand for inclusive growth: this category assesses the demand for inclusive growth solutions in a country. Do the country's economic growth and socioeconomic patterns reveal gaps in inclusiveness, for example inequality, gender gaps, high youth unemployment, a rural-urban divide? The broader and deeper the gaps, the stronger the opportunity for investment in solutions that support and promote inclusive growth. This category uses traditional "output" indicators, including unemployment rates, health and education outcomes and financial access statistics, to assess where the gaps, and therefore the strongest demand for inclusiveness solutions, lie.

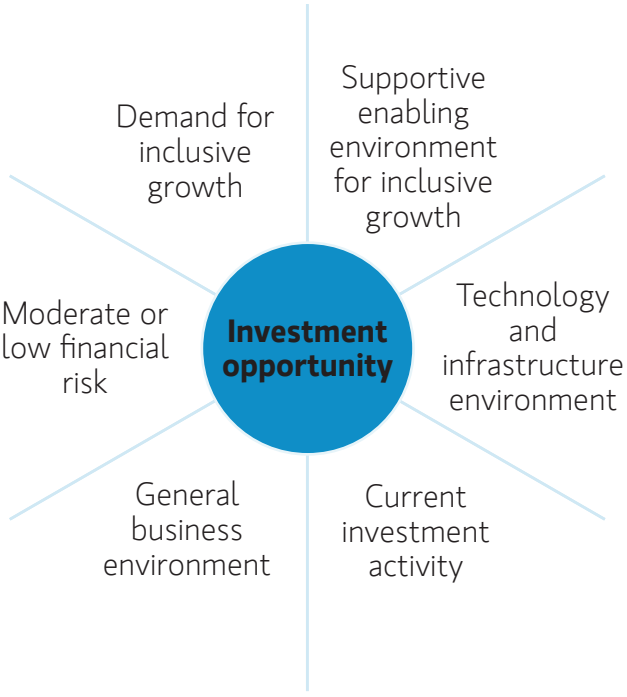
2) Enabling environment (specific to inclusive growth): the enabling environment category measures the support and commitment to inclusive growth and its supporting pillars—healthcare, education, financial services and gender equality—that influencers, particularly the government, provide in a country. While most indicators are on designed to assess government action, the category also explores activities of multilateral development banks and non-governmental organizations (NGOs) in creating a friendly environment for inclusive growth solutions.

3) Technology and infrastructure environment: this category evaluates the development of critical supporting markets that drive inclusiveness, including the population's tech-savviness and the country's innovative capacity, technological infrastructure and usage (eg mobile and internet), physical infrastructure (eg roads, rail, air transport, ports), and energy infrastructure.

4) Business environment: the business environment assesses the ease of doing business in the country. Are there protections and rules in place that make the market navigable and attractive to private investors? Do political and social factors in a country make the business environment unfavorable? This category leverages the proprietary business ranking and operational risk models of The Economist Intelligence Unit.

5) Current investment activity: this category aims to measure the current investment activity dynamics in the market. Are investors currently active in the market? The assessment includes general investment market indicators (financial sector size, liquidity, volatility) as well as investment activity specifically connected to inclusive growth (FinTech, HealthTech, EdTech).

6) Financial risk (adjustment factor): a measure of each country's financial risk—including depth of financing, market access, debt, devaluation and capital account—that is used to temper a country's score on the remaining categories. This category provides a "real-world" investment profile to the Inclusive Growth Opportunities Index results and gives investor an understanding of where investments might be more or less risky.



Weights

Two sets of weightings are provided in the dashboard tool.

The first, "Base weights: Expert assigned", is the core weighting scheme, and the weighting scheme used in Economist Intelligence Unit analysis. In the "expert-assigned weights", levels of importance were assigned to the Inclusive Growth Opportunities Index based on the assessment and recommendation of The Economist Intelligence Unit project team and The Economist Intelligence Unit experts, as well as internal input from the Morgan Stanley Institute for Sustainable Investing. The base weight setting is derived from expert input and is the default weight setting in the model.

The second option, known as "Demand-centric weightings", is a weighting framework for investors who prefer to give market demand factors a heavier weighting. In this setting, a lighter weighting is given to investment environment factors (compared with the base, expert-assigned weights). No penalizing adjustment is made for financial risk.

The weighting assigned to each category and indicator can be changed by users to reflect different assumptions about their relative levels of importance. This functionality enables users to create customized weightings that allow them to test their own assumptions about the relative importance of each category and indicator. Users can also set a weighting to zero to completely remove the influence of any category, indicator or sub-indicator on the index results and country rankings.

Data Modeling

Indicator scores are normalized and then aggregated across categories to enable a comparison of broader concepts across countries. Normalization rebases the raw indicator data to a common unit so that it can be aggregated. All indicators in this model are normalized to a 0–100 scale, where 100 indicates the strongest investment opportunity and 0 indicates the weakest investment opportunity.

Most indicators are transformed on the basis of a min/max normalization, where the minimum and maximum raw data values for across the 20 countries are used to bookend the indicator scores.

The indicators for which a higher value indicates a more favorable environment for investment— such as access to mobile phones or readiness to adopt technology—or a greater demand or opportunity for investment (such as a high youth unemployment rate or access to financial services) have been normalized on the basis of:

$$x = (x - \text{Min}(x)) / (\text{Max}(x) - \text{Min}(x))$$

where Min(x) and Max(x) are, respectively, the lowest and highest values in the 20 countries for any given indicator. The normalized value is then transformed from a 0-1 value to a 0-100 score to make it directly comparable with other indicators. This in effect means that the country with the highest raw data value will score 100, while the lowest will score 0 for all indicators in the Index.

Sources and Definitions

All of the quantitative and qualitative data in the Inclusive Growth Opportunities Index was collected and analyzed by The Economist Intelligence Unit project team. Data was gathered from reputable international, national and industry sources including the internal databases of The Economist Intelligence Unit. In cases where data was incomplete or missing, Economist Intelligence Unit analysts developed custom estimation models to estimate data points, where appropriate.

The main sources used in the Inclusive Growth Opportunities Index are The Economist Intelligence Unit, International Labor Organization (ILO), World Bank Group, Central Intelligence Agency (CIA), International Monetary Fund (IMF), World Income Inequality Database (WIID), Eurostat, EIU Canback C-GIDD database, World Health Organization (WHO), Doing Business Enterprise Survey, World Inequality Database on Education (WIDE), UNESCO, OECD, UN E-Government Survey 2016 (UNPACS), World Economic Forum (WEF), Scimago Journal and Country Rank, Crunchbase, Bloomberg, World Intellectual Property Organization (WIPO), International Telecommunication Union (ITU), World Summit on the Information Society (WSIS), Bank for International Settlements, St. Louis Federal Reserve, World Federation of Exchanges, Securities Industry and Financial Markets Association (SIFMA), Brücker et al (2013), national statistical offices and analyst estimations.

Whilst every effort has been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor the sponsor of this report can accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in the report.

Appendix B: Detailed Indicator List

Number	Indicator	Units	Description
1	**DEMAND**	0-100	The category score is the weighted sum of the following indicator scores: 1.1 to 1.12
1.1	**Economic growth**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.1.1, 1.1.2. A high rate of economic growth reflects opportunity and demand to ensure the growth is broad-based and inclusive.
1.1.1	Real GDP growth	%	Forecast growth rate in real GDP - 5 year average (2015-2020).
1.1.2	Real GDP growth per head	%	Forecast growth rate in real GDP per head - 5 year average (2015-2020).
1.2	**Broad-based nature of economy (Economic Complexity Index score)**	0-100	Inclusive growth relies on economies that are broad-based and sustainable. An economy reliant on a single sector presents a gap. The Economic Complexity Index is a measure of the knowledge in a society that gets translated into the products it makes. The economic complexity of a country is dependent on the complexity of the products it exports. A country is considered 'complex' if it exports not only highly complex products, but also a large number of different products. Countries that produce complex goods in addition to a high number of products are typically more economically developed or can be expected to experience fast economic growth in the near future.
1.3	**Productive employment gaps**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.3.1 to 1.3.12
1.3.1	Employment sector diversification	0-100	Herfindahl Index score for employment diversity based on ILO aggregate categories of economic activity (Agriculture; Manufacturing; Construction; Mining and quarrying; Electricity, gas and water supply; Trade, Transportation, Accommodation and Food, Business and Administration; Public Administration; Other). Some countries with significant data gaps were estimated using a comparable approach, based on region and level of economic development.
1.3.2	Employment elasticity	n/a	% change in employment (2014-2015) over % change in GDP (2014-2015).
1.3.3	Unemployment rate	%	Unemployment as a percentage of total labor force (2015 or most recent).
1.3.4	Incidence of long-term unemployment (%)	%	The incidence of long-term unemployment measures those unemployed one year or more as a percentage of the total unemployed. Unemployment tends to have more severe effects the longer it lasts. Short periods of joblessness can normally be managed through unemployment compensation, savings and, perhaps, assistance from family members. Unemployment lasting long periods, however, can cause substantial financial hardship, especially when unemployment benefits either do not exist or have been exhausted.
1.3.5	Female-to-male gap in employment rate	Percentage points	The employment-population ratio is the number of persons who are employed as a percent of the total working age population. This indicator measures the male ratio minus the female ratio. A positive number indicates a gap between female and male employment ratio.
1.3.6	Female-to-male gap in labor force participation rate	Percentage points	The male labor force participation rate (ages 15+) minus the female labor force participation rate (ages 15+). A positive number indicates a gap between female and male participation rates. The labor force participation rate is the labor force as a percent of the working age population.
1.3.7	Youth employment rate	%	The youth employment-to-population ratio is the number of persons ages 15-24 who are employed as a percent of the total of population ages 15-24.
1.3.8	Youth labor force participation rate	%	The youth labor force participation rate is the labor force ages 15-24 as a percent of the 15-24 year old population.
1.3.9	Time-related underemployed as a % of total employment	%	Time-related underemployed as % of total employment. Underemployment reflects underutilization of the productive capacity of the labor force. Time-related underemployment, as the only component of underemployment, to date, that has been agreed on and properly defined within the international community of labor statisticians, is, therefore, the best available proxy of the underutilized labor force.

Number	Indicator	Units	Description
1.3.10	Vulnerable employment, total (% of total employment)	%	Vulnerable employment is unpaid family workers and own-account workers as a percentage of total employment.
1.3.11	Female-to-male gap in vulnerable employment	%	Female vulnerable employment (% of total employment) minus male vulnerable employment (% of total employment). A positive number means women face a greater incidence of vulnerable employment than men. Vulnerable employment is unpaid family workers and own-account workers as a percentage of total employment. This indicator calculates the ratio between the female vulnerable employment (as a % of total employment) minus the male vulnerable employment (as a % of total employment).
1.3.12	Brain drain: high skilled emigration rate	%	25 years and older emigration rates, both genders together, by country of origin and educational level (high skilled).
1.4	**Skills and productivity gaps**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.4.1 to 1.4.5
1.4.1	Youth unemployment skills gap	0-3	Qualitative indicator characterizing the youth skills gap based on youth unemployment trends relative to macroeconomic growth: 0 = A score of 0 means the country increased the youth technology skills gap (youth fell out of employment at a faster rate than GDP growth, thereby leaving them behind and facing skills erosion); 1 = A score of 1 means the country slightly increased the youth technology skills gap (youth fell out of employment at a slightly faster rate than GDP growth, thereby leaving them behind and facing skills erosion); 2 = A score of 2 means the country slightly reduced the youth technology skills gap (brought youth into employment slightly faster than GDP growth); 3 = A score of 3 means the country reduced the youth technology skills gap (brought youth into employment faster than GDP growth).
1.4.2	Labor productivity, growth rate	%	Growth rate of labor productivity (2014-15).
1.4.3	Quality of workforce	0-4	Qualitative assessment to measure opportunity to invest in the quality of work force (flexibility, adaptability, initiative): 0 = Very low; 1 = Low; 2 = Moderate; 3 = High; 4 = Very High.
1.4.4	Health of the workforce	0-4	Qualitative assessment to measure opportunity to invest in the health of the workforce (based on average life expectancy): 0 = Very poor: if less than 65; 1 = Poor: if between 65 and 69.9; 2 = Moderate: if between 70 and 74.9; 3 = Good: if between 75 and 77; 4 = Very good: if life expectancy higher than 77.
1.4.5	Degree to which language skills meet the needs of business	0-4	Qualitative assessment to measure opportunity to invest in the skills of the workforce (Degree to which language skills meet the needs of business): 0 = Very low; 1 = Low; 2 = Moderate; 3 = High; 4 = Very High.

Number	Indicator	Units	Description
1.5	**Poverty**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.5.1 to 1.5.2
1.5.1	Poverty rate (% living below the national poverty line)	%	Percent of population below national poverty line. Investing in economies with high levels of poverty reflect opportunities to invest in inclusive growth (to close the poverty gap).
1.5.2	Poverty rate (% living on less than $3.10 per day)	%	Poverty headcount ratio at $3.10 a day is the percentage of the population living on less than $3.10 a day at 2011 international prices.
1.6	**Personal financial security**	0-100	This indicator score is a weighted sum of the following sub-indicator scores: 1.6.1 to 1.6.2. The personal financial security indicator assesses the affordability of consumer goods and housing. A higher personal financial security score reflects a situation where consumer goods are less affordable, and that housing is expensive relative to income.
1.6.1	Wage-Price growth gap	Percentage points	The difference between growth in wages, and consumer price inflation (5 year average). A positive difference means that wages have grown faster than consumer prices. A negative difference means that price growth has outstripped wage growth.
1.6.2	Access to housing – share of income spent on housing (average)	%	Access to housing - share of income spent on housing (average).
1.7	**Inequality**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.7.1 to 1.7.6
1.7.1	Income inequality (GINI)	0-100	World Bank's Gini index, which measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.
1.7.2	Change in GINI (10 years)	0-4	Change in Gini index score over the past 10 years. Note that the raw data has been banded in the indicator transformation, according to the scoring scheme below: 0 = Improved by more than 5 points; 1 = Improved by 2 to 5 points; 2 = Stable: change has been less than 2 points; 3 = Worsening between 2 and 5 points; 4 = Worsened by 5 or more points.
1.7.3	Mean to median income	Ratio	Median income (PPP) to mean GDP per head (PPP)
1.7.4	Expenditure gap, top bracket to vulnerable bracket	Ratio	The ratio of the average individual household consumption expenditure in real USD between the AB class (top 1-5%) and the D class (vulnerable middle class), as defined by the C-GIDD (EIU Canback Global Income Distribution Database).
1.7.5	Expenditure gap, top bracket to total middle class	Ratio	The ratio of the average individual household consumption expenditure in real USD between the AB class (top 1-5%) and the E and D classes (total middle class), as defined by the C-GIDD (EIU Canback Global Income Distribution Database).
1.7.6	Share of income spent on housing, bottom income bracket gap to top bracket	%	Gap between the share of income spent on housing by the lowest income bracket and the highest income bracket.

Number	Indicator	Units	Description
1.8	**Demographic stress points**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.8.1 to 1.8.9
1.8.1	Migration rate	%	Net migration rate compares the difference between the number of persons entering and leaving a country during the year per 1,000 persons (based on midyear population).
1.8.2	Migrant population growth	%	Annual growth in the number of people born in a country other than that in which they live, 2010-15.
1.8.3	Youth population (% of total population)	%	Population between the ages 0 to 14 as a percentage of the total population. Population is based on the de facto definition of population.
1.8.4	Youth population growth	%	Historical growth rate (2010-15) of the youth population (ages 0-14 years).
1.8.5	Rural population growth	%	Growth in the percentage of people living in rural areas, 2010-15. High rates of growth expand the pool of people with potentially lower access to vital systems and services that are pillars of inclusive growth.
1.8.6	Urban population growth	%	Growth in the number of people living in urban areas, 2010-15. High rates of growth in urbanization put pressure on the provision of vital systems and services in cities that are pillars of inclusive growth.
1.8.7	Middle income population growth (2015-20)	%	Forecasted growth in the middle class and lower middle class, 2015-2020.
1.8.8	Vulnerable population (% of total population)	%	Total lower class population as a share of the total population.
1.8.9	Vulnerable population growth rate (2015-20)	%	Forecasted growth in the lower class population, 2015-2020.
1.9	**Demand for inclusive healthcare**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.9.1 to 1.9.7. This indicator examines demand for more inclusive healthcare, through gaps in access to quality healthcare.
1.9.1	Maternal mortality rate per 100,000 live births	#	The maternal mortality ratio (MMR) is the annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births, for a specified year.
1.9.2	Infant mortality rate per 1,000 live births	#	Infant mortality rate is the probability of a child born in a specific year or period dying before reaching the age of one, if subject to age-specific mortality rates of that period. Infant mortality rate is strictly speaking not a rate (i.e. the number of deaths divided by the number of population at risk during a certain period of time) but a probability of death derived from a life table and expressed as rate per 1,000 live births.
1.9.3	Under 5 mortality rate per 1,000 live births	%	The probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period. Under-five mortality rate as defined here is strictly speaking not a rate (i.e. the number of deaths divided by the number of population at risk during a certain period of time) but a probability of death derived from a life table and expressed as rate per 1,000 live births.
1.9.4	Out-of-pocket healthcare expenditure per head	US$	Out-of-pocket healthcare expenditure per head in US dollars. Higher out-of-pocket expenditure represents higher healthcare burden on individuals.
1.9.5	Growth of out-of-pocket expenditure on healthcare	%	Growth rate in out-of-pocket healthcare expenditure per capita in US$ (CAGR 2012-14).
1.9.6	Hospital beds per 1000	#	The number of hospital beds per 1,000 population.
1.9.7	Physicians per 1000	#	The number of physicians per 1,000 population.

Number	Indicator	Units	Description
1.10	**Demand for inclusive education**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.10.1 to 1.10.5. This indicator examines demand for more inclusive education, through gaps in access to quality education.
1.10.1	Access to education: secondary school enrollment	%	Gross enrollment ratio, secondary school, both sexes (%). Note that "Gross" enrollment includes students of all ages (ie, including students whose age exceeds the official age group). Thus, if there is late enrollment, early enrollment, or repetition, the total enrollment can exceed the population of the age group that officially corresponds to the level of education, leading to ratios greater than 100%.
1.10.2	Transition rates: primary to secondary	%	Number of new entrants to the first grade of the higher level of education in the following year expressed as a percentage of the students enrolled in the last grade of the given level of education in the given year who do not repeat that grade the following year.
1.10.3	Inequality in education system	Percentage points	Gap between children in the bottom three income quintiles compared to the top income quintile in the percentage of children taking part in an assessment who achieved an international minimum learning standard in mathematics (average).
1.10.4	Female-to-make gap in access to education: secondary school enrollment	%	Female to male gap in gross enrollment ratio (secondary).
1.10.5	Female-to-male gap in transition rates: primary to secondary	%	Female to male gap in transition rates: primary to secondary school.
1.11	**Demand for financial inclusion**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.11.1 to 1.11.3. This indicator examines demand for more inclusive financial services, through gaps in access to quality financial services.
1.11.1	Access to financial services (% age 15+)	%	Denotes the percentage of respondents who report having an account (by themselves or together with someone else) at a bank or another type of financial institution; having a debit card in their own name; receiving wages, government transfers, or payments for agricultural products into an account or through a mobile phone at a financial institution in the past 12 months; paying utility bills or school fees from an account at a financial institution in the past 12 months; receiving wages or government transfers into a card in the past 12 months; or personally using a mobile phone to pay bills or to send or receive money through a GSM Association (GSMA) Mobile Money for the Unbanked (MMU) service in the past 12 months (% age 15+).
1.11.2	Female-to-male gap in access to financial services	%	% of males with an account minus the % of females with an account. A positive number indicates a gender gap. (See indicator 1.11.1 for explanation of access to financial services).
1.11.3	Access to financial services for micro, small and medium enterprises (MSMEs)	%	Percentage of firms identifying access/cost of finance as a "major" or "very severe" obstacle from the World Bank Enterprise Survey.
1.12	**Gaps in other vital services**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 1.12.1 to 1.12.5
1.12.1	Access to clean water	%	Access to an improved water source refers to the percentage of the population using an improved drinking water source. The improved drinking water source includes piped water on premises (piped household water connection located inside the user's dwelling, plot or yard), and other improved drinking water sources (public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, and rainwater collection).
1.12.2	Rural-to-urban gap in access to clean water	Percentage points	Gap between percentage of rural population with access to an improved water source and percentage of urban population with access to an improved water source.
1.12.3	Access to sanitation	%	Access to improved sanitation facilities refers to the percentage of the population using improved sanitation facilities. Improved sanitation facilities are likely to ensure hygienic separation of human excreta from human contact. They include flush/pour flush (to piped sewer system, septic tank, pit latrine), ventilated improved pit (VIP) latrine, pit latrine with slab, and composting toilet.

Number	Indicator	Units	Description
1.12.4	Rural-to-urban gap in access to sanitation	Percentage points	Percentage of urban population with access to an improved water source minus the percentage of rural population with access to an improved water source.
1.12.5	Food security	0-100	Country's overall level of food security, as measured by the Global Food Security Index (The Economist Intelligence Unit, 2016).
2	**ENABLING ENVIRONMENT**	0-100	The category score is the weighted sum of the following indicator scores: 2.1 to 2.13
2.1	**Government's inclusive growth strategy**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 2.1.1 to 2.1.2
2.1.1	Is there a specific documented strategy on inclusive growth?	0-1	An inclusive growth strategy establishes a framework to achieve broad-based, sustainable and inclusive economic growth, specifically in terms of creating productive employment opportunities for the population (and socially excluded populations in particular). These strategies contain a wide array of potential policies and reforms to accomplish this task, including, but not limited to: Fiscal policy, tax reform, capital expenditure (including infrastructure), housing, education and skills, research and development, labor market reform, poverty reduction and social inclusion. For countries to receive credit for an inclusive growth strategy, its policy must contain objectives and actionable plans for the majority of the above areas of reform (actionable plans include funding, proposed laws, and/or other government initiatives and programs). Strategies must also have an established timeline (e.g. Europe 2020). *Scoring scheme:* 0 = No 1 = Yes
2.1.2	Does the government's inclusive growth strategy have specific commitments for women, youth, minorities, low-income persons, older workers and/or other vulnerable groups in the country?	0-2	To receive credit, the country's inclusive growth strategy must have specific commitments/initiatives for at least two of the following groups: - Women - Youth - Disabled persons - Ethnic/indigenous minorities - Low-income people - Older people - Other key marginalized group in the country *Scoring scheme:* 0 = None of these groups; 1 = One or two of these groups; 2 = Three or more of these groups.
2.2	**Government support for healthcare**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 2.2.1 to 2.2.2
2.2.1	Does the country have universal healthcare policy?	0-3	Access to affordable healthcare is a building block for inclusive growth. *Scoring scheme:* 0 = The country does not have universal healthcare policy; 1 = The country does not have universal healthcare policy BUT the government has made significant advances to expanding health coverage; 2 = The country has a policy to achieve universal healthcare; 3 = The country has universal healthcare.

Number	Indicator	Units	Description
2.2.2	Does the documented policy on universal healthcare have specific commitments for women, youth, minorities, low-income persons, older persons, and/or other vulnerable groups in the country?	0-2	For countries to receive credit for this indicator, the documented universal healthcare policy (or charter, for countries where universal healthcare is in place) must have specific safety nets/ commitments for X number of the following groups: - Women - Youth - Disabled persons - Ethnic/indigenous minorities - Low-income people - Older people - Other key marginalized group in the country *Scoring scheme:* 0 = None of these groups; 1 = One or two of these groups; 2 = Three or more of these groups.
2.3	**Government support for education**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 2.3.1 to 2.3.3
2.3.1	Does the country have universal education policy (primary and secondary)?	0-3	Universal education is a building block of educating a workforce with the skills needed for productive employment. Secondary education is our key focus for universal education (though we ask about both primary and secondary), as it is widely believed to provide the optimum setting to prepare young people, predominantly adolescents, for healthy and productive adult lives, including participation in social, political, and economic spheres." (USAID) *Scoring scheme:* 0 = The country does not have universal education policy covering both primary and secondary education; 1 = The country has universal primary education, BUT not universal secondary education; 2 = The country has universal primary education AND is working to achieve universal secondary education; 3 = The country has universal education policy (both primary and secondary).
2.3.2	Does the documented strategy (or strategies) on universal education have specific commitments for females, minorities, low-income persons, and/or other vulnerable groups in the country?	0-2	For countries to receive credit for this indicator, the documented universal education strategy must have specific commitments for X number of the following groups: - Females - Disabled persons - Ethnic/indigenous minorities - Low-income people - Other key marginalized groups in the country For countries with universal education, please assess this indicator based on whether or not the government has policies to improve equity and access (i.e. inclusion) for X number of the above groups. *Scoring scheme:* 0 = None of these groups; 1 = One or two of these groups; 2 = Three or more of these groups.
2.3.3	Is there a documented strategy for adult technical and vocational education and training?	0-2	*Scoring scheme:* 0 = The country does not have an adult technical and vocational education and training (TVET) strategy OR there is no substantial activity on the part of the government to promote adult TVET; 1 = The government has a documented TVET strategy , but it does not contain specific commitments for adults OR there is no documented strategy, but there are recent activities to promote adult TVET; 2 = The government has a documented TVET strategy that contains specific provisions for adults. Note: This can include skill development, professional training, adult completion of primary, secondary and/or tertiary education.

Number	Indicator	Units	Description
2.4	**Government support for financial inclusion**		The indicator score is a weighted sum of the following sub-indicator scores: 2.4.1 to 2.4.2
2.4.1	Is there a documented strategy on financial inclusion?	0-2	For financial services to be more inclusive, the financial and regulatory environments need to: - Offer a wide range of products, including access to savings, insurance, payment systems and pensions - Have a wider range of providers - Target diverse groups and sub-populations - Facilitate new ways to deliver financial products or services - Provide adequate financial education *Scoring scheme:* 0 = There is no documented strategy for financial inclusion AND no recent activities in two or more areas of financial inclusion 1 = The government has a documented financial inclusion strategy, but it does not contain specific commitments, OR there is no documented strategy, but there are recent activities in two or more areas of financial inclusion; 2 = The government has a documented financial inclusion strategy, containing specific commitments, including government to individuals payments and financial capability.
2.4.2	Does the documented strategy on financial inclusion have specific commitments for women, minorities, and/or other marginalized groups in the country?	0-2	For countries to receive credit for this indicator, the inclusive growth strategy must have specific commitments/initiatives for X number of the following groups: - Women - Youth - Disabled persons - Ethnic/indigenous minorities, and/or - Other key marginalized groups *Scoring scheme:* 0 = None of these groups; 1 = One or two of these groups; 2 = Three or more of these groups.
2.5	**Government provision of social safety nets**	0-4	Proxied by government funding for social protection (% of GDP). Social expenditure comprises cash benefits, direct in-kind provision of goods and services, and tax breaks with social purposes. Benefits may be targeted at low-income households, the elderly, disabled, sick, unemployed, or young persons. To be considered "social", programs have to involve either redistribution of resources across households or compulsory participation. Social benefits are classified as public when general government (that is central, state, and local governments, including social security funds) controls the relevant financial flows. All social benefits not provided by general government are considered private. Private transfers between households are not considered as "social" and not included here. Net total social expenditure includes both public and private expenditure. It also accounts for the effect of the tax system by direct and indirect taxation and by tax breaks for social purposes. This indicator is measured as a percentage of GDP. *Scoring scheme:* 0 = Very low: funding is 0-4.9% of GDP; 1 = Low: funding is 5-9.9% of GDP; 2 = Moderate: funding is 10-14.9% of GDP; 3 = High: funding is 15-19.9% of GDP; 4 = Very high: funding is 20%+ of GDP.
2.6	**Government's stance on digital services**	0-1	Degree to which government provides online services to citizens. Reflects the support of the government for bringing social systems into the digital age. Measured by the UN E-Government Development Index Online Service score.

Number	Indicator	Units	Description
2.7	**Enabling environment for PPPs**	0-4	Composite score of regulatory framework, institutional framework, and operational maturity. 1) Regulatory framework: consistency and quality of PPP regulations; efficiency of decision-making process for PPP project selection; fairness/openness of bids and contract changes; dispute resolution mechanisms. 2) Institutional framework: quality of institutional design; PPP contract enforcement and holdup / expropriation risk 3) Operational maturity: Public capacity for project preparation and oversign; methods and criteria for awarding projects; risk allocation and financial enhancement record; experience with transport, water and electricity projects; quality of transport, water and electricity projects. *Scoring scheme:* 0 = EIU Infrascope score between 0-20 (out of 100, where 100=best); 1 = EIU Infrascope score between 20-40 (out of 100, where 100=best); 2 = EIU Infrascope score between 40-60 (out of 100, where 100=best); 3 = EIU Infrascope score between 60-80 (out of 100, where 100=best); 4 = EIU Infrascope score between 80-100 (out of 100, where 100=best).
2.8	**Government's support for productive and inclusive business**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 2.8.1 to 2.8.3
2.8.1	Does the government provide favorable conditions for starting a business?	0-100	World Banking Doing Business distance to frontier score: Starting a Business ("Does the government provide favorable conditions for starting a business?").
2.8.2	Does the government provide favorable conditions for FDI?	0-10	Assessment of FDI policy and environment based on qualitative analysis of Government policy toward foreign capital; Openness of national culture towards foreign influence; Risk of expropriation of foreign assets; Availability of investment protection schemes; Government favoritism. Source: The Economist Intelligence Unit
2.8.3	Is the tax regime favorable for business investment?	0-10	Assessment of tax regime based on qualitative analysis of Corporate tax burden; Top marginal personal income tax rate; Value-added tax; Employers' compulsory social security contributions; Degree to which the fiscal regime encourages new investment; Consistency and fairness of the tax system; and Complexity of the tax system. Source: The Economist Intelligence Unit
2.9	**Data and information**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 2.9.1 to 2.9.4
2.9.1	Do official national sources regularly release data on employment, disaggregated by age?	0-1	Data should be available for the previous calendar year, e.g. 2015 data should be available by mid-2016. *Scoring scheme:* 0 = No; 1 = Yes.
2.9.2	Do official national sources regularly release data on employment, disaggregated by gender?	0-1	Data should be available for the previous calendar year, e.g. 2015 data should be available by mid-2016. *Scoring scheme:* 0 = No; 1 = Yes.
2.9.3	Do official national sources regularly release data on employment, disaggregated by ethnicity/race?	0-1	Data should be available for the previous calendar year, e.g. 2015 data should be available by mid-2016. *Scoring scheme:* 0 = No; 1 = Yes.

Number	Indicator	Units	Description
2.9.4	Quality of official data	0-4	Does official data provide an accurate, comprehensive and timely picture of the economy? Data quality encompasses credibility (eg whether the CPI is a true reflection of changes in the price level), periodicity (availability of monthly, quarterly as well as annual data) and timeliness. Refer to the IMF's General and Special Data Dissemination Standards. *Scoring scheme:* 0 = Data fails to meet three of the criteria; 1 = Data fails to meet two of the criteria; 2 = Data fails to meet one of the criteria; 3 = Data meets all criteria; 4 = Exemplary data standards.
2.10	**Quality of financial regulation and supervision**	0-4	Assess the financial regulatory framework and the quality of banking supervision. The regulatory framework encompasses banks' solvency (capital adequacy ratios) and liquidity (liquid assets as a % of total liabilities), the bankruptcy code (banks' ability to foreclose on defaulted loans) and deposit insurance schemes. Supervision relates to the authorities' capacity to monitor banks and ensure that they are complying with regulations. *Scoring scheme:* 0 = Failings in regulation and or supervision. No moves to address these; 1 = Deficiencies in regulation and/or supervision. Reforms in progress/planned to address these; 2 = System works adequately but reforms needed to bring up to OECD standard; 3 = Well designed regulatory framework. Sufficient numbers of trained staff engaged in supervision; 4 = Regulatory framework and supervision viewed as exemplary.
2.11	**Government support for development of technology and ICT**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 2.11.1 to 2.11.2
2.11.1	Government spending on R&D (% of GDP)	0-4	Government spending on R&D (% of GDP) *Scoring scheme:* 0 = If less than 0.1%; 1 = If between 0.1% and 0.49%; 2 = If between 0.5% and 0.99%; 3 = If between 1.0% and 1.8%; 4 = If more than 1.8%.
2.11.2	Total ICT spending by the government (% of GDP)	%	Total ICT spending by the government (% of GDP).
2.12	**Operational track record set by development banks**	US$m	Proxied by IFC's total project investment in the country. This indicator reflects the track record of operations that have been developed by the DFIs over time in emerging markets. Developed markets (with no history or need for IFC investment) score full credit. Note that the raw data has been banded in the indicator transformation, according to the scoring scheme below: 0 = Investment is under $500 million; 1 = Investment is between $500 million and $1 billion; 2 = Investment is between $1 billion and $5 billion; 3 = Investment exceeds $5 billion; or the country is a developed market without need for development bank track record.

Number	Indicator	Units	Description
2.13	**NGOs on inclusive growth**	0-2	Consider the extent to which NGOs fill the local gap in job training and promote of productive employment by: - Providing vocational and technical training to job-seekers, particularly among youth and displaced adults; - Providing educational services and financial support to build job-readiness among the unemployed; - Providing skills training in information and communication technologies (ICTs) for workers and job-seekers to compete in an increasingly technological global economy; - Working with private organizations (e.g. employers) or universities to train/re-train workers to meet changing skills demands; - Advocating for the inclusion for those in informal or vulnerable employment (e.g. through financial services, safety nets, etc.) into society; - Providing academic and/or financial support for adults pursing re-training or further education; - Working with local, regional and/or national governments to promote access to productive employment opportunities (e.g. through skills development, training programs, vocational and technical education, etc.). *Scoring scheme:* 0 = NGO activities in promoting opportunity and access to productive employment do not impact the market; 1 = NGO activities promote opportunity and access to productive employment but do not have significant impact on the market; 2 = NGO activities promote opportunity and access to productive employment and have a significant impact on the market.
3	**SUPPORTING INFRASTRUCTURE AND MARKETS**	0-100	The category score is a weighted sum of the following sub-indicator scores: 3.1 to 3.10
3.1	**Technology adoption capacity**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.1.1 to 3.1.4
3.1.1	Readiness to adopt technology	0-6	In your country, to what extent do business adopt new technology? [0 = not at all; 6 = adopt extensively[
3.1.2	Technical skills of the workforce	0-4	Qualitative assessment of the technical skills of the country's workforce, based on the following scoring scheme: 0 = Multinationals need to import all but the most basic technical skills; 1 = Widespread shortage of technical skills; few technical education opportunities; 2 = Technically skilled available but at a high price; training for a fraction of workforce. Older workers resistant to new technology; 3 = Reasonable supply of technically skilled labor; some availability of training and development programs; 4 = Abundant supply, at a reasonable cost, of technically skilled professionals; full range of training and development programs.
3.1.3	Availability of skilled labor	0-4	Availability of skilled labor; mean years of schooling. *Scoring scheme:* 0 = Very poor: if less than 4; 1 = Poor: if between 4 and 6.9; 2 = Fair: if between 7 and 8.9; 3 = Good: if between 9 and 11; 4 = Very good: if more than 11.
3.1.4	Level of competition index for internet and telephony sectors	0-2	Level of competition index for Internet services, international long distance services, and mobile telephone services on a 0-to-2 (best) scale

Number	Indicator	Units	Description
3.2	**Technological innovation capacity**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.2.1 to 3.2.3
3.2.1	Innovation capacity	0-6	In your country, to what extent do companies have the capacity to innovate? [0 = not at all; 6 = to a great extent]
3.2.2	Availability and quality of local research infrastructure	0-4	Qualitative assessment of the availability and quality of the local research infrastructure. Considers the quality of domestic research institutions; the extent of university-industry cooperation; the availability of scientists and engineers and the availability of skilled researchers. *Scoring scheme:* 0 = Very low; 1 = Low; 2 = Moderate; 3 = High; 4 = Very high.
3.2.3	Journal impact (the H index)	#	Measures journal impact factor based on the distribution of citations of a given publisher/ publication.
3.3	**Technological innovation and adoption developments**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.3.1 to 3.3.4
3.3.1	Number of startups in the tech sector	#	Number of tech start-ups in the country. This includes companies founded after the year 2000 that have received at least US$1m in the last round of funding. Post-IPO companies are not included.
3.3.2	Capital raised by startups in tech sector	US$m	Total funding amount of capital raised by start-ups in the country's tech sector. This includes companies founded after the year 2000 that have received at least US$1m in the last round of funding. Post-IPO companies are not included.
3.3.3	Startup funding momentum: last round capital raised as % of total capital raised	%	Momentum of startup funding in the country, proxied by last round capital raised as % of total capital raised.
3.3.4	Development of technology IP: number of technology patents (per 1m people)	#	Sum of patent publications by technology (per 1m people).
3.4	**Energy infrastructure**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.4.1 to 3.4.2
3.4.1	Electricity access (% of population)	%	Access to electricity is the percentage of population with access to electricity. Electrification data are collected from industry, national surveys and international sources.
3.4.2	Quality of power grid	0-4	What is the risk that power shortages could disrupt business activities? Scores assigned based on the following scoring scheme: 0 = Very high: Sustained power shortages are the norm; 1 = High: There are often power shortages; 2 = Moderate: There are occasionally power shortages; 3 = Low: Power shortages are rare; 4 = Very low: Power shortages are very rare.

Number	Indicator	Units	Description
3.5	**Physical infrastructure**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.5.1 to 3.5.6
3.5.1	Port facilities	0-4	What is the risk that port facilities will prove inadequate to business needs? Evaluate the risk based on three criteria: degree of modernity, maintenance and sufficient supply to meet demand. *Scoring scheme:* 0 = Very high: Port facilities are very poor, and inadequate across all three criteria; 1 = High: Port facilities are poor, and inadequate across at least two of the three criteria; 2 = Moderate: Port facilities are inadequate in some limited respects; 3 = Low: Port facilities are adequate across all three criteria; 4 = Very low: Port facilities are very good across all three criteria.
3.5.2	Air transport facilities	0-4	What is the risk that air transport will prove inadequate to business needs? Evaluate the risk based on three criteria: degree of modernity, maintenance and sufficient supply to meet demand. *Scoring scheme:* 0 = Very high: Airport facilities are very poor, and inadequate across all three criteria; 1 = High: Airport facilities are poor, and inadequate across at least two of the three criteria; 2 = Moderate: Airport facilities are inadequate in some limited respects; 3 = Low: Airport facilities are adequate across all three criteria; 4 = Very low: Airport facilities are very good across all three criteria.
3.5.3	Road network	0-4	What is the risk that the road network will prove inadequate to business needs? Evaluate the risk based on three criteria: degree of modernity, maintenance and sufficient supply to meet demand. *Scoring scheme:* 0 = Very high: The road network is very poor, and inadequate across all three criteria; 1 = High: The road network is poor, and inadequate across at least two of the three criteria; 2 = Moderate: The road network is inadequate in some limited respects; 3 = Low: The road network is adequate across all three criteria; 4 = Very low: The road network is very good across all three criteria.
3.5.4	Rail network	0-4	What is the risk that the rail network will prove inadequate to business needs? Evaluate the risk based on three criteria: degree of modernity, maintenance and sufficient supply to meet demand. *Scoring scheme:* 0 = Very high: The rail network is inadequate across all three criteria (modernity, maintenance and sufficient supply); 1 = High: The rail network is inadequate across two of the three criteria (modernity, maintenance and sufficient supply); 2 = Moderate: The rail network is inadequate for one of the three criteria (modernity, maintenance and sufficient supply); 3 = Low: The rail network is adequate across all three criteria with only limited/small drawbacks (modernity, maintenance and sufficient supply); 4 = Very low: The rail network is very good across all three criteria (modernity, maintenance and sufficient supply).
3.5.5	Telephone network	0-4	What is the risk that the telephone network will prove inadequate to business needs? Evaluate the risk based on three criteria: degree of modernity, maintenance and sufficient supply to meet demand. *Scoring scheme:* 0 = Very high: less than 2 land lines and less than 35 mobile phone subscriptions per 100 people; 1 = High: at least one of 2-10 land lines or 35-67 mobile phone subscriptions per 100 people; 2 = Moderate: at least one of 10-20 land lines or 67-95 mobile phone subscriptions per 100 people; 3 = Low: at least one of 20-40 land lines or 95-120 mobile phone subscriptions per 100 people; 4 = Very low: at least 40 land lines or 120 mobile phone subscriptions per 100 people.

Number	Indicator	Units	Description
3.5.6	IT infrastructure	0-4	What is the risk that the information technology infrastructure will prove inadequate to business needs? *Scoring scheme:* 0 = Very high: IT infrastructure is a major impediment to business; 1 = High: IT infrastructure will often be an impediment to business; 2 = Moderate: IT infrastructure will sometimes be an impediment to business; 3 = Low: IT infrastructure will rarely be an impediment to business; 4 = Very low: IT infrastructure is very unlikely to prove an impediment to business.
3.6	**Human capital**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.6.1 to 3.6.3
3.6.1	Tertiary enrolment in STEM per 100,000	#	Student enrolment at the tertiary level in Science and Engineering, Manufacturing, and Construction per 100,000 people
3.6.2	Tertiary enrolment in the arts per 100,000	#	Student enrolment at the tertiary level in Humanities and Arts per 100,000 people
3.6.3	Quality of math and science education	0-4 (%)	Percentage of children taking part in an assessment who achieved an international minimum learning standard in mathematics and science (average). Note that the raw data has been banded in the indicator transformation, according to the scoring scheme below: 0 = 0-49%; 1 = 50-74%; 2 = 75-84%; 3 = 85-94%; 4 = 95-100%.
3.7	**ICT access and usage**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.7.1 to 3.7.7
3.7.1	Percentage of the population with internet access	%	Percentage of households with access to the internet
3.7.2	Female-to-male gap, internet access	Percentage points	Percentage of male individuals using the internet minus the percentage of female individuals using the internet. Positive values indicate a female gender gap in internet use.
3.7.3	Access to mobile phones	%	Proportion of households with a mobile cellular telephone.
3.7.4	Female-to-male gap in access to a mobile phone	Percentage points	Percentage of male individuals using a mobile phone minus the percentage of female individuals using a mobile phone. Positive values signify a female gender gap in mobile phone use..
3.7.5	Access to smartphones	%	Proxied by percentage of the population covered by at least a 3G mobile network refers to the percentage of inhabitants that are within range of at least a 3G mobile-cellular signal; irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by at least a 3G mobile-cellular signal by the total population and multiplying by 100.
3.7.6	Number of secure servers in the country	#	Number of secure servers in the country. Secure servers are servers using encryption technology in Internet transactions.
3.7.7	Number of secure servers in the country, per capita (m)	# per 1m persons	Number of secure servers in the country per 1m persons. Secure servers are servers using encryption technology in Internet transactions.
3.8	**ICT affordability**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.8.1 to 3.8.4
3.8.1	Fixed broadband price, % of GNI per capita	%	Fixed-broadband sub-basket price per month as a % of GNI per capita.
3.8.2	Mobile broadband price, % of GNI per capita	%	Mobile-broadband, prepaid handset-based (500 MB) basket price as % of GNI per capita.
3.8.3	Fixed-broadband sub-basket price per month	US$	Fixed-broadband sub-basket price per month.

Number	Indicator	Units	Description
3.8.4	Mobile-broadband (500MB) price per month	US$	Fixed-broadband sub-basket price per month.
3.9	**ICT literacy**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.9.1 to 3.9.2
3.9.1	Internet prevalence in schools	0-4	Percentage of schools with internet access. *Scoring scheme:* 0 = Less than 30% of schools have internet access; 1 = 30-59% of schools have internet access; 2 = 60-79% of schools have internet access; 3 = 80-94% of schools have internet access; 4 = 95-100% of schools have internet access.
3.9.2	Programming talent	0-4	Number of programmers in the country with a rating greater than 5000. *Scoring scheme:* 0 = Less than 200 programmers with a rating greater than 5000; 1 = 201-500 programmers with a rating greater than 5000; 2 = 501-1000 programmers with a rating greater than 5000; 3 = 1000-2000 programmers with a rating greater than 5;000 4 = 2000+ programmers with a rating greater than 5000.
3.10	**Government system to provide recognized personal identification**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 3.10.1 to 3.10.2
3.10.1	Does the government (national, state or local) provide a system (or systems) residents to for recognized personal identification to allow access to basic services?	0-1	Lack of a recognized identification system can be a barrier to access vital services. *Scoring scheme:* 0 = No; 1 = Yes.
3.10.2	To what extent does the recognized identification system (or systems) present full coverage of the adult population, or discriminate against vulnerable groups?	0-1	Lack of a recognized identification system can be a barrier to access vital services. *Scoring scheme:* 0 = The system(s) cover less than 90% of the population; or otherwise is significantly prejudiced against a key vulnerable segment of the population (e.g. women or ethnic minorities); 1 = The system(s) cover more than 90% of the population and is not significantly prejudiced against a key vulnerable segment of the population (e.g. women or an ethnic minority).
4	**BUSINESS ENVIRONMENT**		The category score is a weighted sum of the following sub-indicator scores: 4.1 to 4.8
4.1	**Political stability**	0-100	Composite of indicator scores for social unrest, orderly transfers, opposition stance, excessive executive authority, international tensions.
4.2	**Government effectiveness**	0-100	Composite of indicator scores for stance of policy formulation, quality of bureaucracy, excessive bureaucracy/red tape, vested interests/cronyism, corruption, accountability of public officials, human rights.
4.2.1	Corruption	0-4	How pervasive is corruption among public officials? *Scoring scheme:* 0 = Very high: Corruption among public officials is the norm; 1 = Very high: Corruption among public officials is the norm; 2 = High: Corruption is often encountered among public officials; 3 = Moderate: Corruption is sometimes encountered among public officials; 4 = Low: Corruption among public officials is unusual.

Number	Indicator	Units	Description
4.3	**Legal & regulatory environment**	0-100	Composite of indicator scores for fairness of judicial process, enforceability of contracts, speediness of judicial process, discrimination against foreign companies, confiscation/expropriation, unfair competitive practices, protection of intellectual property rights, protection of private property, integrity of accounting practices, price controls.
4.3.1	Enforceability of contracts	0-4	Assess the risk that contract rights will not be enforced.
4.3.2	Protection of intellectual property rights	0-4	The protection of intellectual property in this country will be: 0 = Very poor: IP protection is not codified or enforced; 1 = Poor: IP laws have substantial gaps and are often not enforced; 2 = Fair: IP laws are of a moderate standard with some gaps and enforcement may be inconsistent; 3 = Good: A good standard of comprehensive IP laws is generally enforced effectively; 4 = Very Good: A high standard of comprehensive IP laws is strongly enforced.
4.4	**Security environment**	0-100	Composite of indicator scores for armed conflict, terrorism, violent demonstrations, hostility to foreigners, violent crime, organized crime, and kidnapping/extortion.
4.5	**Macroeconomic environment**	0-100	Composite of indicator scores for exchange rate volatility, recession risk, price instability, crowding out, interest rate volatility.
4.6	**Foreign trade environment**	0-100	Composite of indicator scores for trade embargo risk, discriminatory tariffs, excessive protection, excessive procedural trade barriers.
4.7	**Labor market environment**	0-100	Composite of indicator scores for trade union power, labor strikes, restrictiveness of labor laws, skilled labor availability, specialized labor availability, meritocratic remuneration, freedom of association.
4.8	**Tax policy environment**	0-100	Composite of indicator scores for clear tax regime, stable tax regime, risk of discriminatory corporate taxes, level of corporate taxation.
5	**CURRENT MARKET**		The category score is a weighted sum of the following sub-indicator scores: 5.1 to 5.4
5.1	**Size of financial sector**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 5.1.1 to 5.1.5
5.1.1	Financial assets	US$bn	Total assets of the financial sector (domestic financial institutions, including the central bank). Equals the sum of total liabilities of the domestic household, government and non-financial sectors.
5.1.2	Equity market capitalization	US$bn	Market capitalization of listed domestic companies (current US$).
5.1.3	Debt securities outstanding	US$bn	Total debt securities, amount outstanding from resident issuers US$bn as of 2015Q3. Note that the raw data has been banded in the indicator transformation, according to the scoring scheme below.
5.1.4	Financial assets (% of GDP)	%	Total financial assets of the whole domestic economy (institutional units resident in domestic economic territory), as a % of GDP. Note that the raw data has been banded in the indicator transformation, according to the scoring scheme below.
5.1.5	Institutional investors, assets under management	US$bn	Total assets from all objectives (fixed income, mixed allocation, equity, money market, commodity, real estate, etc.).
5.2	**Liquidity of the financial sector**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 5.2.1 to 5.2.2
5.2.1	Equity volume traded	0-4 (US$m)	Share monthly turnover (includes exchange traded and reported over-the-counter) (October 2016). Note that the raw data has been banded in the indicator transformation, according to the scoring scheme below: 0 = Low liquidity in market. Monthly turnover under $1 billion; 1 = Relatively low liquidity in market. Monthly turnover between $1 billion and $25 billion; 2 = Moderately liquid market. Monthly turnover between $25 billion and $50 billion; 3 = Relatively liquid market. Monthly turnover between $50 billion and $100 billion; 4 = Highly liquid market. Monthly turnover over $50 billion.

Number	Indicator	Units	Description
5.2.2	Bond volume traded	0-4 (US$m)	Bond monthly turnover (includes exchange traded and reported over-the-counter) (October 2016). Note that the raw data has been banded in the indicator transformation, according to the scoring scheme below: 0 = Low liquidity in market. Monthly turnover under $10 million; 1 = Relatively low liquidity in market. Monthly turnover between $10 million and $500 million; 2 = Moderately liquid market. Monthly turnover between $25 billion and $50 billion; 3 = Relatively liquid market. Monthly turnover between $5 billion and $20 billion; 4 = Highly liquid market. Monthly turnover over $20 billion.
5.3	**Stability of the financial sector**	Standard Deviation	Standard deviation of the average daily price change of major equity index, LTM
5.4	**Investment dynamics in inclusive growth technologies / companies**	0-100	The indicator score is a weighted sum of the following sub-indicator scores: 5.4.1 to 5.4.6
5.4.1	$ investment in FinTech companies	US$m	Total funding of startups in the FinTech sector. Startups defined as companies less than 15 years old raising money in the pre-IPO market.
5.4.2	FinTech startup funding momentum: last round capital raised as % of total capital raised	%	Momentum of FinTech startup funding in the country, proxied by last round capital raised as % of total capital raised.
5.4.3	$ investment in EdTech companies	US$m	Total funding of startups in the EdTech sector. Startups defined as companies less than 15 years old raising money in the pre-IPO market.
5.4.4	EdTech funding momentum: last round capital raised as % of total capital raised	%	Momentum of EdTech startup funding in the country, proxied by last round capital raised as % of total capital raised.
5.4.5	$ investment in HealthTech companies	US$m	Total funding of startups in the HealthTech sector. Startups defined as companies less than 15 years old raising money in the pre-IPO market.
5.4.6	HealthTech funding momentum: last round capital raised as % of total capital raised	%	Momentum of HealthTech startup funding in the country, proxied by last round capital raised as % of total capital raised.
6	**FINANCIAL RISK**	1-100	The category score is a weighted sum of the following sub-indicator scores: 6.1 to 6.9
6.1	**Devaluation risk**	0-4	What is the risk of a major devaluation? 0 = Very high: Currency appears significantly overvalued (e.g. over 20%) and devaluation appears highly likely; 1 = High: Currency appears moderately overvalued (e.g. over 10%) and devaluation is likely; 2 = Moderate: Currency appears slightly overvalued (e.g. over 5%) and devaluation is moderately likely; 3 = Low: Currency appears close to fair value (e.g. less than 5% overvalued) and devaluation is unlikely; 4 = Very low: Currency appears to be at fair value or undervalued.
6.2	**Depth of financing**	0-4	What is the availability and depth of financing in the local market? 0 = < 15% private claims to nominal GDP; 1 = 15% - 27% private claims to nominal GDP; 2 = 28% - 39% private claims to nominal GDP; 3 = 40% - 70% private claims to nominal GDP; 4 = > 70% private claims to nominal GDP.

Number	Indicator	Units	Description
6.3	**Access to local markets**	0-4	Are there restrictions on foreign companies gaining access to local capital markets? 0 = Very high restrictions: Foreign companies invariably face significantly greater restrictions than local companies in accessing funding from domestic sources; 1 = High restrictions: Foreign companies often face significantly higher restrictions than local companies in accessing funding from domestic sources; 2 = Moderate restrictions: Foreign companies sometimes face moderately higher restrictions than local companies in accessing funding from domestic sources; 3 = Few restrictions: e.g. foreign companies may to a small degree face restrictions which are slightly higher than those for local companies in accessing funding from domestic sources; 4 = No restrictions: Foreign companies can rely on funding from domestic sources to the same extent as domestic companies.
6.4	**Marketable debt**	0-4	Is there a liquid, deep local-currency denominated fixed-rate medium-term (five-years or more) bond market in marketable debt? 0 = No government securities market in fixed rate financing over 1 year; 1 = Government securities only, limited to short maturities (1-2 years) on fixed rate financing; 2 = Government is fostering medium-term market and while maturities do not yet exist expect this to be in place soon; 3 = Yes, but for government bonds only; 4 = Yes, for both private and public sector issuers.
6.5	**Banking sector health**	0-4	What is the risk of a systemic crisis in the banking sector? 0 = Very high: A crisis seems likely; 1 = High: There are signs of serious instability and a high risk of a systemic crisis; 2 = Moderate: There are reasons for serious concern, and a moderate risk of a systemic crisis; 3 = Low: There is little reason to expect that a systemic crisis could develop; 4 = Very low: The banking sector appears fully sound.
6.6	**Stock market liquidity**	0-4	How liquid is the stock market? 0 = Very illiquid; 1 = Quite illiquid; 2 = Average; 3 = Quite liquid; 4 = Very liquid.
6.7	**Financial crisis**	0-4	What is the risk that a financial crisis could curtail access to foreign exchange for direct investors? 0 = Very high: Financial crisis seems likely; 1 = High: Considerable danger of a financial crisis; 2 = Moderate: Some indications of a potential financial crisis; 3 = Low: Very few indications of a potential financial crisis; 4 = Very low: No indications of a potential financial crisis.
6.8	**Capital account**	0-4	Can investors move money in and out of the country with ease for financial transactions (capital account)? 0 = Capital flows are highly restricted; 1 = Government approval required for outward capital movements above a low threshold; heavy restrictions on inward flows; high risk of controls being extended during a crisis; 2 = Inward/outward capital flows are allowed, but there are significant regulatory restrictions; significant risk of controls being tightened during a crisis; 3 = Almost all capital flows are free; minor administrative procedures; little risk of capital controls being imposed during a crisis; 4 = Full liberalization and no risk of capital controls being imposed during a crisis.
6.9	**Current account convertibility**	0-4	Can investors make payments for goods and services and access foreign exchange without restriction? (current-account convertibility) 0 = Very restricted; 1 = Only partial liberalization; multiple exchange rates; 2 = High degree of formal liberalization but significant restrictions remain; 3 = Currency almost fully convertible; minor restrictions in place; 4 = Full IMF Article 8 convertibility.

IMPORTANT DISCLOSURES

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