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Senior Vice President
World Bank Group
December 15, 2017
Mega Trends and Challenges
Addressing Global Megatrends & Challenges

Demographic transitions

Urbanization

Climate and resources

Commodity cycles

Technological disruptions

Fragility and violence

Shifts in the global economy

Debate about globalization
Demographic shifts

The world can be divided into four major demographic groups

Most of the global population lives in early- and late-dividend countries and while 78 percent of global growth was from late- and post-dividend countries, 90 percent of global poverty is in pre- and early-dividend countries.

- **Pre-dividend**: High fertility rate, low life expectancy
- **Early-dividend**: Declining fertility rate, increasing life expectancy
- **Late-dividend**: Fertility rate approaching replacement rate, increased life expectancy
- **Post-dividend**: Low fertility rate, high life expectancy

*Source: McKinsey Global Institute, 2012*

### Demographic Groups

<table>
<thead>
<tr>
<th>Demographic Groups</th>
<th>Key Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Dividend countries</td>
<td>Lagging in human development outcomes</td>
</tr>
<tr>
<td>Early-Dividend countries</td>
<td>Job creation for rapidly growing share of working-age people, mostly youth</td>
</tr>
<tr>
<td>Late-Dividend countries</td>
<td>Populations beginning to age; potential slowdown in growth of labor supply</td>
</tr>
<tr>
<td>Post-Dividend countries</td>
<td>Adapting to aging to maintain living standards</td>
</tr>
</tbody>
</table>

Countries at all stages of development can harness demographic transitions as a development opportunity.
Urbanization

96% of increase in developing country population between now and 2030 will be in urban areas

Proportion of population living in urban areas, 1960-2011

Source: World Bank, 2017
Urbanization

If urbanization is not managed properly, slums emerge

Source: World Bank, 2017
Climate change and resources:
The total number of disasters and losses has been rising, 1980–2012

Global disaster losses from 1980-2012

Losses due to disasters worldwide (1980-2012)

- Weather-related losses averaged 74% of all disasters losses

Number of disasters worldwide (1980-2012)

- Weather-related disasters averaged 87% of all disasters

Source: Building Resilience report, World Bank, 2014
Climate change and resources:

Process of integrating climate resilience into development

[Diagram: Process of integrating climate resilience into development]

Index of risk preparation across countries

[Map: Index of risk preparation across countries]

Source: Building Resilience report, World Bank, 2014
Commodity cycles:
Commodity price indexes, annual

Source: Commodity Markets Outlook, World Bank, 2017
Technological disruption: The rate of advancement is unprecedented

Source: GSMA Intelligence (2017), World Bank – World Development Indicator (2017)
Technological disruption:
Half of the world’s population is not benefiting from the digital economy

Source: Atul Mehta, World Bank Group, 2017
Technological Disruption:
Not just any digital connectivity will do

Voice

Simple Data

Broadband

Faster Broadband

Mobile 1G
AMPS, NMT, TACS

Mobile 2G
D-AMPS, GSM/GPRS, cdmaOne

Mobile 3G
CDMA2000/EV-DO, WCDMA/HSPA+, TD-SCDMA

Mobile 4G LTE
LTE, LTE Advanced

Analog Voice

Digital Voice + Simple Data

Mobile Broadband

Faster and Better

Peak data rate for GSM/GPRS, latest Evolved EDGE has peak DL data rates capable of up to 1.2 Mbps; 2 Peak data rate for HSPA+ DL 3-carrier CA; HSPA+ specification includes additional potential CA+ use of multiple antennas, but no announcements to date; 3 Peak data rate for LTE Advanced Cat 6 with 20 + 20 MHz DL CA; LTE specification includes additional potential CA + Additional use of multiple antennas, but no announcements to date

Source: Disruptive Tech Forum, World Bank, 2017
Fragility and violence:
Violent conflict is increasing and becoming more complex

Number of people killed by violent conflict

Map of terror attacks in 2016

Number of conflicts, by type

Violent deaths and conflicts in Africa

Source: Ian Bremmer, 2017

Source: World Bank Regional Update on Africa, 2017
Fragility and violence:
Refugees and forced displacement

A threefold crisis: The global forcibly displaced population

The crisis primarily affects the developing world

Source: Forcibly Displaced, World Bank, 2017
Fragility and violence: Refugees and forced displacement

The crisis primarily affects the developing world

Source: Forcibly Displaced, World Bank, 2017
Fragility and violence

Migration

Refugees are only a small share of people on the move

Shifts and changes in the global economy

Growth is picking up but is still lower than the pre-crisis average

Real GDP Growth, 2013-2018
(Percent, PPPGDP weighted averages)

Source: World Economic Outlook and Sean Nolan, 2017
Shifts and changes in the global economy

Public debt burdens are rising and growth of international trade is slowing

Public Debt, 2007-2017
(Percent of GDP, weighted averages)

Import Volume, Goods and Services, 2000-2016
(Constant prices, Index 2000=100)

Source: World Economic Outlook and Sean Nolan, 2017
Inequality within countries is rising

Global Inequality, 1988-2013

Although inequality is rising within countries, it is declining across the global population.

Relative gain in real per capita income by global income level, 1988-2008

The largest negative effect is on the lower and middle classes in developed economies.

Source: Adapted from Branko Milanovic and Christoph Lakner, 2013
Inequality within countries is rising

The share of US pre-tax income accruing to the bottom 50 percent and top one percent of income earners, 1962-2014

Blaming international trade for inequality is a mistake

USA - current account % GDP

USA - Employment in manufacturing - the role of technology
Is globalization retrenching?

Global Gross Financial Flows, 1990-2016 (percent of world GDP)

Trade
Capital
Information
People

Depth of Globalization: Change vs 2005

Source: Braga, 2017

Trade and FDI depth through 2016

Source: Ghemawat, 2017
Reflections on the new global economy: multipolarity

The world’s economic center of gravity, 1980-2016, in black, at three-year intervals

Evolution of the earth’s economic center of gravity: 1 CE to 2025

Source: Danny Quah, 2011

Source: McKinsey Global Institute, 2012
Solutions: What to Avoid and What to Pursue
Solutions:
Avoid bad ideas

1. Dealing with joblessness by relying on the civil service;
2. Underpaying civil servants compared to the private sector;
3. Cutting fiscal deficits by sacrificing public investment in infrastructure;
4. Subsidizing energy except for very limited subsidies to highly vulnerable sections of the population;
5. Open ended protection for specific sectors;
6. Imposing administrative price controls;
7. Banning exports;
8. Exchange rate misalignment;
9. Resisting urbanization/underinvesting in infrastructure;
10. Ignoring environmental implications;
11. Poorly regulating the Banking sector and excessive interference;
12. Measuring educational progress solely by higher enrollments and ignoring the quality of education
Solutions:
The policy ingredients of growth strategies

A list of common policies between countries with 7+ % growth over 25+ years
The 2030 Agenda and the Sustainable Development Goals

Data
An Opportunity for Transformation: From MDGs to SDGs

The global development agendas serve as a compass and guide for countries to determine their national development path.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Goals</strong></td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td><strong>Targets</strong></td>
<td>21</td>
<td>169</td>
</tr>
<tr>
<td><strong>Indicators</strong></td>
<td>60</td>
<td>~231</td>
</tr>
<tr>
<td><strong>Priority Areas</strong></td>
<td>Human Development</td>
<td>Holistic: Economic, Social, Environmental</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Developing Countries</td>
<td>Universal</td>
</tr>
</tbody>
</table>

The global development agendas serve as a compass and guide for countries to determine their national development path.
Looking Back: MDG Progress
By number of countries

<table>
<thead>
<tr>
<th>MDG 1.1 - Extreme Poverty</th>
<th>71</th>
<th>11</th>
<th>7</th>
<th>2</th>
<th>27</th>
<th>27</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDG 1.9 Under-nourishment</td>
<td>35</td>
<td>8</td>
<td>4</td>
<td>13</td>
<td>52</td>
<td>33</td>
</tr>
<tr>
<td>MDG 2.1 - Primary Completion</td>
<td>40</td>
<td>12</td>
<td>11</td>
<td>17</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>MDG 3.1 - Education Gender Parity</td>
<td>67</td>
<td>10</td>
<td>7</td>
<td>11</td>
<td>28</td>
<td>22</td>
</tr>
<tr>
<td>MDG 4.1 - Under-5 Mortality</td>
<td>38</td>
<td>18</td>
<td>16</td>
<td>37</td>
<td>34</td>
<td>2</td>
</tr>
<tr>
<td>MDG 4.2 - Infant Mortality</td>
<td>6</td>
<td>9</td>
<td>23</td>
<td>28</td>
<td>77</td>
<td>2</td>
</tr>
<tr>
<td>MDG 5.1 - Maternal Mortality</td>
<td>15</td>
<td>3</td>
<td>11</td>
<td>20</td>
<td>88</td>
<td>8</td>
</tr>
<tr>
<td>MDG 7.8 - Improved Water</td>
<td>67</td>
<td>52</td>
<td>12</td>
<td>40</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>MDG 7.9 - Improved Sanitation</td>
<td>36</td>
<td>7</td>
<td>7</td>
<td>14</td>
<td>58</td>
<td>23</td>
</tr>
</tbody>
</table>

- **Target Met**
- **Sufficient Progress**
- **Insufficient Progress**
- **Moderately Off Target**
- **Seriously Off Target**
- **Insufficient Data**

*Source: World Bank data, staff calculations*
Progress on the MDGs

Share Of Global Poverty

1990

Global poverty: 1.96 billion
37.1 % of global population

2015

Global poverty: 702 million
9.6% of global population

East Asia and Pacific
Latin America and the Caribbean
Sub-Saharan Africa
Europe and Central Asia
South Asia
An Opportunity for Transformation: Lessons learned from the field

• Improve coordination and ensure the timeliness and effectiveness of policy instruments
• Localize implementation and prioritize engagement of communities and community mobilization
• Increase efficient allocation of resources
• Recognize and identify interrelatedness of development goals at the onset
• Ensure strong government involvement
• Promote quality data
• Increase cross-institutional collaboration
• Bridge the humanitarian and development agendas

Based on report: “Transitioning from the MDGs to the SDGs” jointly written by the World Bank Group and the UN Development Programme
Data:
Crucial to understand how trends are shifting
SDG Interlinkages and Data Visualization

The case of Japan:

Japan’s goals interlinked to SDG 1
The 2030 Agenda and the Sustainable Development Goals

Finance
Financing sustainable development: The key components

- US$ 135 Billion
  - Global development community provides each year.

- US$ 440 Billion
  - Remittances 2015

- US$ 765 Billion
  - Foreign Direct Investment 2015

Official development assistance must catalyze and leverage new development resources.

To unlock these resources, countries must improve the business climate, develop local capital markets, and mitigate investment risk.

To unlock these resources, countries must build effective tax regimes and government institutions and improve public spending.

Financing sustainable development

Annual Average Infrastructure Investment until 2030

$ Trillion

0 1 2 3 4 5 6 7

Gap

Committed

How much is out there?

More than $10 trillion invested in negative interest rate bonds

$24.4 trillion in low-yield government securities

$8 trillion sitting in cash

$24.4 trillion
Financing sustainable development

Private sector engagement is critical
Financing sustainable development

Private sector engagement needs to increase

1. COMMERCIAL FINANCING

Can commercial financing be cost-effectively mobilized for sustainable investment? If not...

2. UPSTREAM REFORMS & MARKET FAILURES
   • Country and Sector Policies
   • Regulations and Pricing
   • Institutions and Capacity

Can upstream reforms be put in place to address market failures? If not...

3. PUBLIC AND CONCESSIONAL RESOURCES FOR RISK INSTRUMENTS & CREDIT ENHANCEMENTS
   • Guarantees
   • First Loss

Can risk instruments & credit enhancements cost-effectively cover remaining risks? If not...

4. PUBLIC & CONCESSIONAL FINANCING, INCLUDING SUB-SOVEREIGN
   • Public finance (incl. national development banks and domestic SWF)
   • MDBs and DFIs

Can development objectives be resolved with scarce public financing?
Financing sustainable development
Opportunities for the private sector

12 largest business themes in a world economy heading for the SDGs

<table>
<thead>
<tr>
<th>Theme</th>
<th>Value of incremental opportunities in 2030 (US$ billions: 2015 values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility systems</td>
<td>2,020</td>
</tr>
<tr>
<td>New healthcare solutions</td>
<td>1,650</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>1,345</td>
</tr>
<tr>
<td>Clean energy</td>
<td>1,200</td>
</tr>
<tr>
<td>Affordable housing</td>
<td>1,080</td>
</tr>
<tr>
<td>Circular economy manufacturing</td>
<td>1,015</td>
</tr>
<tr>
<td>Healthy lifestyles</td>
<td>835</td>
</tr>
<tr>
<td>Food loss &amp; waste</td>
<td>685</td>
</tr>
<tr>
<td>Agricultural solutions</td>
<td>665</td>
</tr>
<tr>
<td>Forest ecosystem services</td>
<td>365</td>
</tr>
<tr>
<td>Urban infrastructure</td>
<td>355</td>
</tr>
<tr>
<td>Buildings solutions</td>
<td>345</td>
</tr>
<tr>
<td>Other</td>
<td>740</td>
</tr>
</tbody>
</table>
Financing sustainable development

Opportunities for the private sector

The SDGs open up **US$12 trillion** of market opportunities in four economic opportunities:

- These economic systems represent around **60 percent** of the real economy and are critical to meeting the SDGs.

- To capture these opportunities in full, businesses need to **pursue social and environmental sustainability** as avidly as they pursue market share and shareholder value.

- If a critical mass of companies joins us in doing this now, **they will become an unstoppable force**.

- If they don’t, the costs and uncertainty of unsustainable development could swell **until there is no viable world in which to do business**.

*Source: Better Business Better World Report, January 2017*
Financing sustainable development:  
“Digitization” is disrupting every part of financial services

<table>
<thead>
<tr>
<th>Digitization Of:</th>
<th>Money</th>
<th>Cash Transfers</th>
<th>Identity</th>
<th>Origination / Lending</th>
<th>Payments</th>
<th>Capital Markets Infrastructure</th>
<th>Supply Chain/Invoicing</th>
<th>Savings and Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drivers</td>
<td>Ecommerce</td>
<td>Govt efficiencies</td>
<td>KYC, security</td>
<td>Big data (KYC automation)</td>
<td>Global trade</td>
<td>Search for global returns</td>
<td>Business need for efficiency, convenience, transparency</td>
<td>Data analytics &amp; underwriting</td>
</tr>
<tr>
<td></td>
<td>Convenience</td>
<td>Govt policy programs</td>
<td>SIM reg., govt payments</td>
<td>Need for transparency &amp; efficiency</td>
<td>Ecommerce</td>
<td>Convenience of personal investments</td>
<td>Govt push for transparency &amp; tax compliance</td>
<td>Falling interest rates &amp; invest income</td>
</tr>
<tr>
<td></td>
<td>Govt actions (e.g. India)</td>
<td>Fraud reduction</td>
<td>E-services, elections</td>
<td>Convenience</td>
<td>Business &amp; leisure travel</td>
<td>Democratization of share ownership</td>
<td>Business need for efficiency &amp; risk assessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transport</td>
<td>Mobile devices</td>
<td>Falling costs biometrics</td>
<td>Digital identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>Account service providers; cash collection networks; regulatory advice to govs</td>
<td>Govt payment contractors (govts may unintentionally create largest payment banks)</td>
<td>Govt platforms for digital ID followed by innovative private-sector led applications</td>
<td>Digital lenders, marketplaces, originators, Scale SME Lending, Robo advice</td>
<td>Money transfer operators, cross border payment networks, FX operators</td>
<td>Back office operations, main exchanges (stock, currency, bonds, derivatives)</td>
<td>Back office operations, exchanges, value chain securitization</td>
<td>Direct insurance, online brokers &amp; advisors, data and analytics, aggregators</td>
</tr>
<tr>
<td>Location</td>
<td>Global - populous countries first</td>
<td>Markets with cash transfer programs</td>
<td>Country specific and global (ID4D is global, regional, country specific)</td>
<td>Global - focus on large demographics</td>
<td>Global - main trade corridors</td>
<td>Financial market capitals (NY, London, Tokyo)</td>
<td>Regional &amp; cross border</td>
<td>Global, regional and country specific</td>
</tr>
<tr>
<td>Impact</td>
<td>1.5 Bn wallets in 6 years</td>
<td>Over 300m accounts</td>
<td>1.5 Bn people without ID</td>
<td>$34 Bn in China alone</td>
<td>$3.6Trn value globally p.a.</td>
<td>$20Trn p.a.</td>
<td>$1Trn p.a. in LAC alone</td>
<td>$5 Trn GWP, &gt;15 Trn AUM</td>
</tr>
<tr>
<td>Examples</td>
<td>Paytm, Lemonade</td>
<td>FINO, Adhaar</td>
<td>Kredit, Remitly</td>
<td>LMRKTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: World Bank Group, 2017
Financing sustainable development: Fintech will become critical

Source: FSB, Financial Stability Implications of FinTech, July 2017
The 2030 Agenda and the Sustainable Development Goals

Implementation
The practice of sustainable development

Achieve the twin goals of ending extreme poverty and boosting shared prosperity

Sources: World Bank Group, 2017
The practice of sustainable development

Invest in inclusive growth:
Each industrial revolution shifts the manufacturing opportunities and patterns of specialization

Three “C”s determine the feasibility of success in export-led manufacturing:

• Competitiveness
• Capabilities
• Connectedness

Source: © Shutterstock. Used with permission; further permission required for reuse.

The practice of sustainable development

Invest in inclusive growth: Harnessing technology and the digital dividend

Number of years to reach 100 million users

<table>
<thead>
<tr>
<th>Technology</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone</td>
<td>1878</td>
</tr>
<tr>
<td>Mobile</td>
<td>1979</td>
</tr>
<tr>
<td>Internet</td>
<td>1990</td>
</tr>
<tr>
<td>Facebook</td>
<td>2004</td>
</tr>
<tr>
<td>WhatsApp</td>
<td>2009</td>
</tr>
<tr>
<td>Instagram</td>
<td>2010</td>
</tr>
</tbody>
</table>

Source: Adapted from World Economic Forum, 2017
The practice of sustainable development

Invest in inclusive growth:
Harnessing technology and the digital dividend

The practice of sustainable development

Digital revolution has brought many private benefits

A typical day in the life of the internet

- 186 million Instagram photos
- 152 million Skype calls
- 36 million Amazon purchases
- 8.8 billion YouTube videos watched
- 2.3 billion GB of web traffic
- 803 million tweets
- 207 billion emails sent
- 4.2 billion Google searches

The practice of sustainable development

Invest in inclusive growth: Harnessing technology and the digital dividend

The Capability to Innovate in 1900 Drives Income Levels Today

Leapfrogging

Disruptive Innovation

The Capabilities Escalator

Source: CodigoDelSur, 2017

Source: Dassault Systemes, 2017

Source: Cirera; Maloney, The Innovation Paradox, 2017
The practice of sustainable development
Invest in inclusive growth: Dashboard for inclusive, sustainable, and multidimensional growth

SDGs and the 4th Industrial Revolution
Disruptive Technology and Development: Three components

Faster, more affordable and higher quality development interventions:

Changing technological landscape is enabling developing countries to “leapfrog,” as seen in Rwanda with blood-delivering drones, while, posing procurement challenges and risk of being locked-in to obsolete and expensive solutions.

Innovation for economic transformation, growth and jobs:

The “Fourth Industrial Revolution” has the potential to boost productivity, raise global income levels and improve the quality of life. However, it also requires adaptation and reallocation.

Science for human capital:

STI policy capacity and STEM human capital in developing countries, especially in Africa, remain inadequate to devise solutions to local problems and set the conditions for the expanding workforce to adapt to new economic realities.
New Technology is enabling inclusive growth

**World Bank-financed:**
Pay As You Go technology enabled 800,000 residents in low income areas in Kenya to be connected to sustained energy supply
Digital solutions are key to accelerating the SDGs

3 Good Health and Well-being
E-health can serve some of the neediest patients in the world’s hardest to reach places

4 Quality Education
Digital education creates classrooms at scale and connects world-class teachers to students who need them most

7 Affordable and Clean Energy
Digital payments and monitoring enable off-grid, renewable energy sources to be deployed years in advance of traditional approaches

8 Decent Work and Economic Growth
Digital financial services provide new opportunities for SME savings, credit, and insurance thereby spurring expansion

Source: International Finance Corporation
Digital Connectivity is fundamental to achieving the SDGs

Source: International Finance Corporation
What Can Korea Do?
The Korean Example: From LDC to OECD member

Per Capita Income ($)

- 1945: 65
- 1953: 79
- 1960: 1,000
- 1970: (increasing)
- 1980: (increasing)
- 1990: 12,197
- 1996: (drop)
- 1998: 7,355
- 2008: 21,695

Key Events:
- Foundation of Republic of Korea (1948)
- Korean War (1950-53)
- Receiving Foreign Aid
- Joining OECD
- Global Financial Crisis

The graph shows the dramatic increase in per capita income, highlighting key periods of growth and challenges in Korea's economic development.
The Korean Example:
Growth of trade

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Iron Ore</td>
<td>Textiles</td>
<td>Textiles</td>
<td>Electronics</td>
<td>Semiconductors</td>
</tr>
<tr>
<td>2</td>
<td>Tungsten Ore</td>
<td>Plywood</td>
<td>Electronics</td>
<td>Textiles</td>
<td>Computers</td>
</tr>
<tr>
<td>3</td>
<td>Raw Silk</td>
<td>Wigs</td>
<td>Iron and Steel Products</td>
<td>Footwear</td>
<td>Automobiles</td>
</tr>
<tr>
<td>4</td>
<td>Anthracite</td>
<td>Iron Ore</td>
<td>Footwear</td>
<td>Iron and Steel Products</td>
<td>Petrochemical Products</td>
</tr>
<tr>
<td>5</td>
<td>Cuttlefish</td>
<td>Electronics</td>
<td>Ships</td>
<td>Ships</td>
<td>Ships</td>
</tr>
</tbody>
</table>

<Changes of Export Products by Period>

Annual Export Increase 43.5% (62-76)

Source: Korea’s Economic Development and its Lessons, Kyung Wook Hur, Ambassador to OECD
The Korean Example:
Role of government

Number of the Civil Servants?
NO!!

Government Portion in the GDP?
NO!!

Impact on the Economy?
YES!!

Source: Korea’s Economic Development and its Lessons, Kyung Wook Hur, Ambassador to OECD
Changes within one generation

With no natural resources, capital and technology......

Korea after the Korean War...

However, Korea achieved the Miracle of Han River.

Cheong-Gye-Cheon Stream in Seoul in the 1950s

Cheong-Gye-Cheon Stream in Seoul, Today

Source: Korea’s Economic Development and its Lessons, Kyung Wook Hur, Ambassador to OECD
At the end of hardship comes happiness
MOOC: Sharing Korea’s Compelling Story with Developing Countries

Policy Lessons from South Korea’s Development

#KoreaMOOC

ENROLL for the Massive Open Online Course (MOOC) on Korea

Course period:
January 17th - February 13th, 2017

Korean’s Digital Dividends: How public-private partnership helped build the internet backbone

Broadband in the Republic of Korea and other selected economies

![Graph showing broadband adoption in Korea](source)

- Broadband investment program in the Republic of Korea

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>806 (2.4%)</td>
<td>981 (38.0%)</td>
<td>1,787 (5.1%)</td>
</tr>
<tr>
<td>Private</td>
<td>31,721 (97.5%)</td>
<td>1,599 (62.0%)</td>
<td>33,320 (94.9%)</td>
</tr>
<tr>
<td>Total (US$ million)</td>
<td>32,527</td>
<td>2,580</td>
<td>35,107</td>
</tr>
</tbody>
</table>

Sources: Kim, Kelly, and Raja 2010; World Bank and Korean Development Institute 2015.
In Korea, need investment advice? Call a Robot!

- In February last year, the Financial Services Commission, Korea’s financial regulatory agency, approved the use of so-called robo advisers, paving the way for the commercialization of automated investment services.

- Alpha asks investors three questions about the amount of risk they’re willing to take and their preferred type of investment, and based on the answers, the robot can generate a list of recommended funds for the client.

Source: Korea Joongang Daily
The ROK’s STI for Better Life Initiative:

- It aims to establish and develop an appropriate innovations system—by supporting science and technology education—to strengthen the R&D capacity in developing countries. The Initiative addresses the SDGs, such as Goal 4 (quality education), Goal 9 (infrastructure), and Goal 17 (global partnerships).

- The STI for Better Life Initiative comprises three approaches, including STI education, R&D support and private sector assistance.

- It also emphasizes inclusive partnerships through cooperation with civil society organizations, universities, and businesses in partner countries; partnership with the Center for Creative Economy and Innovation, science and technology research institutes and businesses in the ROK; triangular cooperation among partner countries with help from innovation programs of other donor countries; and collaboration with multilateral organizations worldwide.
Thank You

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