Partnerships for the 2030 Agenda: Role of Science, Technology, and Innovation

United Nations University
October 18, 2018
Tokyo, Japan
Global Megatrends
Global Megatrends

Demographic transitions and Urbanization

Fragility and violence

Climate change

Market volatility and commodity cycles

Technological changes

Shifts in the global economy

Renewed debate about globalization
Demographic Transitions and Urbanization

Global Working Age Population and Urbanization are Increasing

Life Expectancy in Asia and the World

Source: World Development Indicators, World Bank

Source: GlobalPost, 2014

Percent of total population that is working age

Source: World Bank Global Economic Prospects, 2018
Fragility and Violence

Violent conflict is increasing and becoming more complex

Number of conflicts, by type

Number of people killed by violent conflict

The global forcibly displaced population

The crisis primarily affects the developing world

Source: World Bank 2017
Climate change and resources

Percentage point increase in poverty rate

Climate change could raise extreme poverty rates substantially by 2030

Development progress needs to integrate resilience to avoid undoing hard fought development gains

Source: Building Resilience report, World Bank, 2014
Market Volatility and Commodity Cycles

Commodity price indexes, annual

Source: Commodity Markets Outlook, World Bank, 2018

Note: Last observation is March 2018.
The Impact of Technology
Changing Demand for Changing Skills

According to Oxford University 47% of jobs in the US will disappear in the next 25 years

Source: GSMA Intelligence (2017), World Bank – World Development Indicator (2017)
See Annex, pp20-24 for additional data on the emerging digital divide and trends in the digital sector

Source: Presentation by Ben Pring, The Future of Labor & Work in a Post Bretton Woods World, September 2018

Impact of Technology

Growth of the Global Labor Force

Industrial Jobs are Falling in the West and Rising in the East

Impact of Technology

Boundaries of Firms Are Changing Rapidly

Reflections on Multipolarity

Channels of growth spillovers from a growth pole

Renewed Debate about Globalization

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

Source: Braga, 2017

Trade and FDI depth through 2016

Source: Ghemawat, 2017
A Framework
Technology Drives the Pace and Scope of Change

• Taking advantage of the opportunities and mitigating the risks of global megatrends will require an enabling policy framework

• Harnessing the impact of technological changes requires a comprehensive policy framework

Source: Adapted from World Bank World Development Report 2019: Changing Nature of Work
Meeting the SDGs: Human Capital, Resilience, Infrastructure, and Technology
Inclusive Growth for Sustainable Development

Investing in Human Capital

Launched in October during World Bank Group Annual Meetings

Building blocks of the human capital:

- **Survival** – Will kids born today survive to school age?
- **School** – How much school will they complete and how much will they learn?
- **Health** – Will kids leave school in good health and be ready for further learning and/or work?

Ratings in First Human Capital Index

Source: Human Capital: A Project for the World, World Bank, 2018
Investing in Resilience

Social protection and labor regulation can help manage labor market challenges.

Investing in Resilience

Just 10 countries account for two-thirds of global forest cover.

Forest area, by region with top 10 countries, 2015

- Russian Federation
- Brazil
- Canada
- China
- Australia
- Peru
- Indonesia
- India
- Rest of the world

Of these, only China’s cover has been growing substantially.

Forest area, 1990 & 2015 (% of land area)

- Brazil
- Peru
- Indonesia
- Russian Federation
- Canada
- United States
- World
- India
- China
- Australia

Source: FAO. WDI (AG.LND.FRST.K2).

Source: FAO. WDI (AG.LND.FRST.ZS).

Source: SDG Atlas, World Bank, 2018
Investing in Infrastructure

Infrastructure Outlook: Africa

- Current trends
- Investment need
- Investment need inc. SDGs

Infrastructure Outlook: Asia

- Current trends
- Investment need
- Investment need inc. SDGs

Source: Global Infrastructure Hub, 2018
World Bank Group’s Technology Vision
Supporting Clients to Maximize Technology Benefits

**Build:** Develop the foundational building blocks for sustainable, technology-led economies

**Boost:** Expand the capacity of people and institutions to thrive in a resilient society in the face of disruption

**Broker:** Harness disruptive technology, data, and expertise to solve development challenges and manage risks
Data is a Problem, even in Canada

Seventy-eight of 169 SDG targets describe potentially assessable outcomes for Canada.

SDG Interlinkages and Data Visualization

The case of Japan

Japan’s goals interlinked to SDG 1
Finance for the SDGs will need to come from multiple sources

A LARGE POOL OF PRIVATE CAPITAL IS YET TO BE CATALYZED

WITH JUDICIOUS USE OF SCARCE PUBLIC AND CONCESSIONAL RESOURCES
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>Convenience</td>
<td>Govt efficiencies</td>
<td>KYC, security</td>
<td>Global trade</td>
<td>Search for global returns</td>
<td>Business need for efficiency, convenience, transparency</td>
<td>Direct insurance, online brokers &amp; advisors, data and analytics, aggregators</td>
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<td></td>
<td>Govt action (e.g. India)</td>
<td>Govt policy programs</td>
<td>Govt payments</td>
<td>SIM reg., Govt payments</td>
<td>E-commerce</td>
<td>Convenience of personal investments</td>
<td>Govt push for transparency + tax compliance</td>
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<td></td>
<td>Transport</td>
<td>Fraud reduction</td>
<td>E-services, elections</td>
<td>Need for transparency + efficiency</td>
<td>Business &amp; leisure travel</td>
<td>Democratization of share ownership</td>
<td></td>
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<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></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></td>
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<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. global flows</td>
<td>$1Trn p.a. in LAC alone</td>
<td>&gt;5 Trn GWP, &gt;15 Trn AUM</td>
</tr>
<tr>
<td>Examples</td>
<td>Paytm, Fwisy, Net1, FINO</td>
<td>AADHAAR, Kreditech, Kabbage, Remitly, banksfacil</td>
<td>Aadhaar</td>
<td>Kreditech, CompareAsia, LMRKTS, TiAMERICAS</td>
<td>eBonds, eFactor, eRupi</td>
<td>VIACAPITAL, INCOACE</td>
<td>Global, regional and country specific</td>
<td></td>
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</tbody>
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Source: World Bank Group, 2017
Maximizing Fintech’s Potential

Opportunities, Challenges, Risks

- Develop Robust Financial and Data Infrastructure to Sustain Fintech Benefits
- Ensure Stability of Domestic Monetary and Financial Systems
- Modernize Legal Frameworks to Provide an Enabling Legal Landscape
- Enable New Technologies to Enhance Financial Service Provision
- Monitor Developments Closely to Deepen Understanding of Evolving Financial Systems
- Foster Fintech to Promote Financial Inclusion and Develop Financial Markets
- Adapt Regulatory Framework and Supervisory Practices for Orderly Development and Stability of the Financial System
- Enhance Collective Surveillance of the International Monetary and Financial System
- Reinforce Competition and Commitment to Open, Free and Contestable Markets
- Embrace the Promise of Fintech
- Safeguard the Integrity of Financial Systems
- Encourage International Cooperation and Information Sharing
- Encourage International Cooperation and Information Sharing

Source: The Bali Fintech Agenda, World Bank, 2018
STI for Implementation

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

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

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

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

Source: Presentation to the UAEU, Mohieldin, 2017
Japan’s Commitment to Sustainable Development Goals
WBG Partnership with Japan
Strong and Steadfast Development Partnership over 55 years

Japan is the second largest share-holder (7.2% in IBRD)

Japan borrowed total USD 863 million for 31 projects in 1950s and 60s. Repayment completed in 1990

Japan joined the World Bank in 1952

Current priority topics include Health, disaster risk management, and infrastructure and urban development

Opened WB Tokyo Development Learning Center in 2004
The SDGs Promotion Headquarters

Chief of Headquarters: Prime Minister
Deputy chief: Chief Cabinet Secretary, Minister for Foreign Affairs
Members of Headquarters: All other Ministers of State

Administrative Meetings
Chairperson: Assistant Chief Cabinet Secretary (foreign affairs)
Acting Chair: Assistant Chief Cabinet Secretary (domestic affairs)
Deputy Chairperson: Assistant Vice-Minister for Global Issues/Director-General for Global Issues, Ministry of Foreign Affairs
Members: Representatives of other relevant government agencies

Source: 2030 Agenda, MoFA
## Japan’s Voluntary National Review

### Five Ps: People; Prosperity; Planet; Peace; Partnership

#### Correlation of Japan’s Priority Areas with SDGs

<table>
<thead>
<tr>
<th>People</th>
<th>1. Empowerment of All People</th>
<th>2. Achievement of Good Health and Longevity</th>
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<tbody>
<tr>
<td>Prosperity</td>
<td>3. Creating Growth Market, Revitalization of Rural Areas and Promoting Technological Innovation</td>
<td>4. Sustainable and Resilient Land Use, Promoting Quality Infrastructure</td>
</tr>
<tr>
<td>Peace</td>
<td>7. Achievement of Peaceful, Safe and Secure Societies</td>
<td></td>
</tr>
<tr>
<td>Partnership</td>
<td>8. Strengthening the Means and Frameworks of the Implementation of the SDGs</td>
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Development of Rapid Diagnostics and the Establishment of an Alert System for Outbreaks of Yellow Fever and Rift Valley Fever in Kenya (2011-2016)

- Diagnostic technology developed in Nagasaki University to produce affordable and rapid diagnostic kits that facilitate early identification of disease outbreaks.

- An outbreak early warning system through the use of mobile phones (mSOS) was established to effectively and rapidly relay information from peripheral areas to the central government in collaboration with WHO and other international partners.

Japan Civil Society Network on SDGs (SDGs Japan) is a non-government organization supporting the efforts to accelerate the implementation of the SDGs in Japan.
Partnerships with Japanese Academic Institutions
Achieving SDGs will demand that private companies exercise their powers of creativity and innovation.

If a diverse mix of stakeholders comes together in forging organic links among these innovative offerings and other revolutionary technologies, products, and services, Keidanren’s vision of “Society 5.0 for SDGs” will come to fruition.

Source: Keidanren
From Industry 4.0 to “Society 5.0”

Society 5.0: A Super Smart Society where social challenges can be resolved by incorporating the revolutions of the Fourth Industrial Revolution (IoT; Big Data; Artificial Intelligence; Robotics) into every industry and social life.

Evolution of Societies up to Society 5.0

Source: Keidanren
Thank You

worldbankgroup.org/sdgs

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