Disruption, Digital Economies, and the Sustainable Development Goals

Nile University
Global Megatrends and Challenges

Demographic transitions
Urbanization
Fragility and violence
Climate change
Market volatility and commodity cycles
Technological changes
Shifts in the global economy
Renewed debate about globalization
Middle East & North Africa Life expectancy at birth, total (years)

Middle East & North Africa Urban population (% of total)

Median Age

Source: World Development Indicators, World Bank
Technological changes
The Impacts of Technology

- Boundaries of the firm
- Changes in industrial relations (capitalism without capital)
- Demand for skills
- The future of the informal economy
- Scenarios of robots replacing workers
- Expectations vs. perception vs. reality
The Impacts of Technology

Boundaries of the firm

Source: WDR 2019
The Innovation Paradox

The “Capabilities Escalator”
Impact of Technology

Changes in industrial relations

<table>
<thead>
<tr>
<th>Tangible Investments</th>
<th>Intangible Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>Software</td>
</tr>
<tr>
<td>ICT equipment (e.g., computer hardware, communications equipment)</td>
<td>Databases</td>
</tr>
<tr>
<td>Noncomputer machinery and equipment</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>Vehicles</td>
<td>Minerals exploration</td>
</tr>
<tr>
<td></td>
<td>Creating entertainment</td>
</tr>
<tr>
<td></td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Training</td>
</tr>
<tr>
<td></td>
<td>Market Research and branding</td>
</tr>
<tr>
<td></td>
<td>Business Process reengineering</td>
</tr>
</tbody>
</table>

Demand for skills

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

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

Impact of Technology

The future of the informal economy

- Adjusting to the next wave of jobs requires universal social protection.
- Eight in 10 people in developing countries receive no social assistance.
- 6 in 10 work informally and consequently do not benefit from insurance.

Source: WDR 2019
Impact of Technology

Scenarios of workers replacing robots...

And the history of man vs. machine

Elizabeth I
Died 1603

Luddites
1811-16

Joseph Jacquard
Died 1834

Santana of Mexico
Died 1876

“The summary of economic science”
Published 1913
Impact of Technology

Expectations vs. Perception vs. Reality

It is really confusing!!!

Four

No Three

EXPECTATION

REality

WHEN YOU WAKE UP
What is the best way to categorize countries?

The Middle East, North Africa, Afghanistan, and Pakistan

Sources: IMF Regional Economic Outlook database, and Microsoft Map Land.
Note: The country names and borders on this map do not necessarily reflect the IMF's official position. The gray area on the map denotes disputed territory.
## Change Readiness Index: MENA

<table>
<thead>
<tr>
<th>Country</th>
<th>Enterprise Capability</th>
<th>Government Capability</th>
<th>People &amp; Civil Society Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>119</td>
<td>84</td>
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<td>Egypt</td>
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<tr>
<td>Yemen</td>
<td>98</td>
<td>112</td>
<td>136</td>
</tr>
</tbody>
</table>

Source: KPMG Change Readiness Index, 2017
Digital Infrastructure in MENA: Highlights

1. High prices, low speed: limited access to broadband internet
2. Good backbone networks, lack of investment in local access; monopolies in international access
3. Affordability constraints deepen the digital divide across regions and people
4. Highly concentrated markets
5. *Challenges with storage capacity*
6. Lack of competition in international and data communications
7. Outdated business model
8. Lack of investment in broadband

Source: Adapted from presentation on Digital Infrastructure in MENA; High Speed Internet and the Digital Economy, World Bank MENA Chief Economist Series, 2018
ICT Development Index: Access Sub-Index

Source: ICT Development Index, ITU, 2017
ICT Development Index: Use Sub-Index

Source: ICT Development Index, ITU, 2017
ICT Development Index: Skills Sub-Index

Mean years of schooling

Secondary gross enrolment ratio

Tertiary gross enrolment ratio

Source: ICT Development Index, ITU, 2017
Investing in Inclusive Growth

The Common Characteristics of High, Sustained Growth:

Investing in Inclusive Growth

Dashboard for inclusive, sustainable, and multidimensional growth


• Large reduction of extreme poverty over last quarter-century: 36% in 1990 to 10% in 2015
• Reduction in extreme poverty is equivalent to one-fourth of the world’s population
• Most gains have come from East Asia & Pacific and South Asia
  • A recent slowdown in reduction due to: change in regional composition of the poor; now mostly in Sub-Saharan Africa with lower growth rates and less shared prosperity

Global Poverty Rate Projections to 2030

![Graph showing global poverty rate projections from 2012 to 2030 with different growth assumptions. The graph indicates a decrease in poverty rates over time, with projected rates below the 3% target by 2030.]
Harnessing the impact of technological changes requires a comprehensive policy framework.
Investing in Human Capital

The Human Capital Project

“How much human capital will a child born today acquire by the end of secondary school, given the risks to health, education and social protection that prevail in the country where she was born?”

Three main indicators, reflecting building blocks of the human capital:

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

The Human Capital Index

FIGURE 3 The Human Capital Index, 2018

Source: WDI 2018 dataset.

NB! The Human Capital Index ranges between 0 and 1. The index is measured in terms of the productivity of the next generation of workers relative to the benchmark year of 2010 and is adjusted for differences in productivity. The higher the index value, the more productive the country's workforce is. For the full list of countries and their index values, please refer to the World Bank’s Human Capital Index database.
Social protection and labor regulation can help manage labor market challenges.
Investing in Infrastructure

Infrastructure Outlook: Africa

2016 2018 2020 2022 2024 2026 2028 2030

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

Infrastructure Outlook: Asia

2016 2018 2020 2022 2024 2026 2028 2030

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

Source: Global Infrastructure Hub, 2018
Investing in Digital Infrastructure

In low income countries, only 12 percent of people use the internet, but usage is growing.

Source: SDG Atlas 2018
The digital economy can help achieve the Sustainable Development Goals (SDGs) and WBG’s twin goals.

The scale and speed of disruption is affecting traditional sectors.

**Changing** how we collect, store, access, analyze and present data.

**Improving** production techniques to increase efficiency, affordability, and speed.

**Transforming** how we interact with the world and deliver/receive services.

*Digital economies require safeguards to ensure robust job markets, and possible downside risks*
How will we enable these investments?
The key components of financing sustainable development
Finance will need to come from all sources
1. Embrace the promise of fintech.
2. Enable new technologies to enhance financial service provision.
3. Reinforce competition and commitment to open, free, and contestable markets.
4. Foster fintech to promote financial inclusion and develop financial markets.
5. Monitor developments closely to deepen understanding of evolving financial systems.
6. Adapt regulatory framework and supervisory practices for orderly development and stability of the financial system.
7. Safeguard the integrity of financial systems.
8. Modernize legal frameworks to provide an enabling legal landscape.
9. Ensure the stability of domestic monetary and financial systems.
10. Develop robust financial and data infrastructure to sustain fintech benefits.
11. Encourage international cooperation and information-sharing.
12. Enhance collective surveillance of the international monetary and financial system.
Data is the new oil
Data availability is a challenge, even for Canada

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

Source: “Counting who gets Left Behind” Brookings report, 2018
STI for SDGs
E-health can serve some of the neediest patients in the world’s hardest to reach places

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

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

Digital financial services provide new opportunities for SME savings, credit, and insurance thereby spurring expansion

Source: International Finance Corporation
1. No Poverty
2. No Hunger
3. Good Health
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Renewable Energy
8. Good Jobs and Economic Growth
9. Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace and Justice
17. Partnerships for the Goals

The Global Goals for Sustainable Development
Thank You

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