Growth, Employment, Poverty, Inequality, and Digital Transformation in the Arab Region: How Can the Digital Economy Benefit Everyone?

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Digitalization's definition & measurement of digital economy are evolving but its growth seems to be fast

- Definition used is evolving ; in advanced economies (e.g. U.S.) covers: $3.7 trillion in 2021 or about 10.3% of GDP
  1. infrastructure (hardware and software); 31%
  2. E-commerce (B-to-B; B-to-C):25%
  3. Priced priced digital services (cloud services; telecom; internet & data; other): 43%
  4. Government digital services (nondefense): < 1%
- U.S. GDP grew by 1.9% a year and Digital Economy by 5.6% a year in 2016-21

Multipronged technological revolution is fundamentally altering the development pathways that brought progress in reducing poverty and inequality

- The digital transformation is an outgrowth of general-purpose technology, with the power to affect an entire economy, boosting productivity
- But their labor-saving and highly skill-biased nature could cause dislocation of the workforce.
- Addressing these implications for inequality, employment, supply chains, migration, service delivery, and environmental challenges, requires policy (including regulatory) changes, reforms and investments.

Some Key Areas of Potential Economic Impact of the Digital Revolution

- ***The future of work***. Automation and AI can improve productivity and boost living standards. But they can also make certain skills redundant.
- ***Financial technology (fintech).*** The application of digital technologies to financial services offers multiple benefits. Fintech promises to boost access to finance, allowing unbanked individuals and SMEs to obtain loans and make payments conveniently.
- ***Digitalization of government services***. New technologies are revolutionizing the way governments operate. Although important security and privacy concerns need to be addressed, e-government holds the promise of increased efficiency, allowing citizens to obtain services conveniently over the Internet; digitalization may also enable easy public access to public sector data, boosting accountability and transparency.
- ***E-commerce. For consumers*** provides access to a wider range of products and services at lower prices, boosting consumption. For firms, e-commerce can provide new business opportunities and access to larger markets, supporting investment and creating jobs.
- ***Modernization of agriculture.*** New technologies --digital farming and precision agriculture; innovations in plant breeding techniques; and efficient use of water could dramatically increase agricultural productivity, raising rural incomes.

Some preliminary lessons from review of recent literature

- Reliable, high-quality, and affordable digital connectivity is fundamental for the digital transformation of economies - it facilitates interactions among all concerned parties

- Challenges: (1) how to close all the remaining gaps -- massive investments and policy changes are needed as the global economy faces tight financial conditions and slowdown; (2) how to ensure that **everyone** benefit from digital transformation

- To close the connectivity divide, citizens not only need to have access to affordable broadband; need to be trained; need to have a business climate conducive to growth of SMEs.

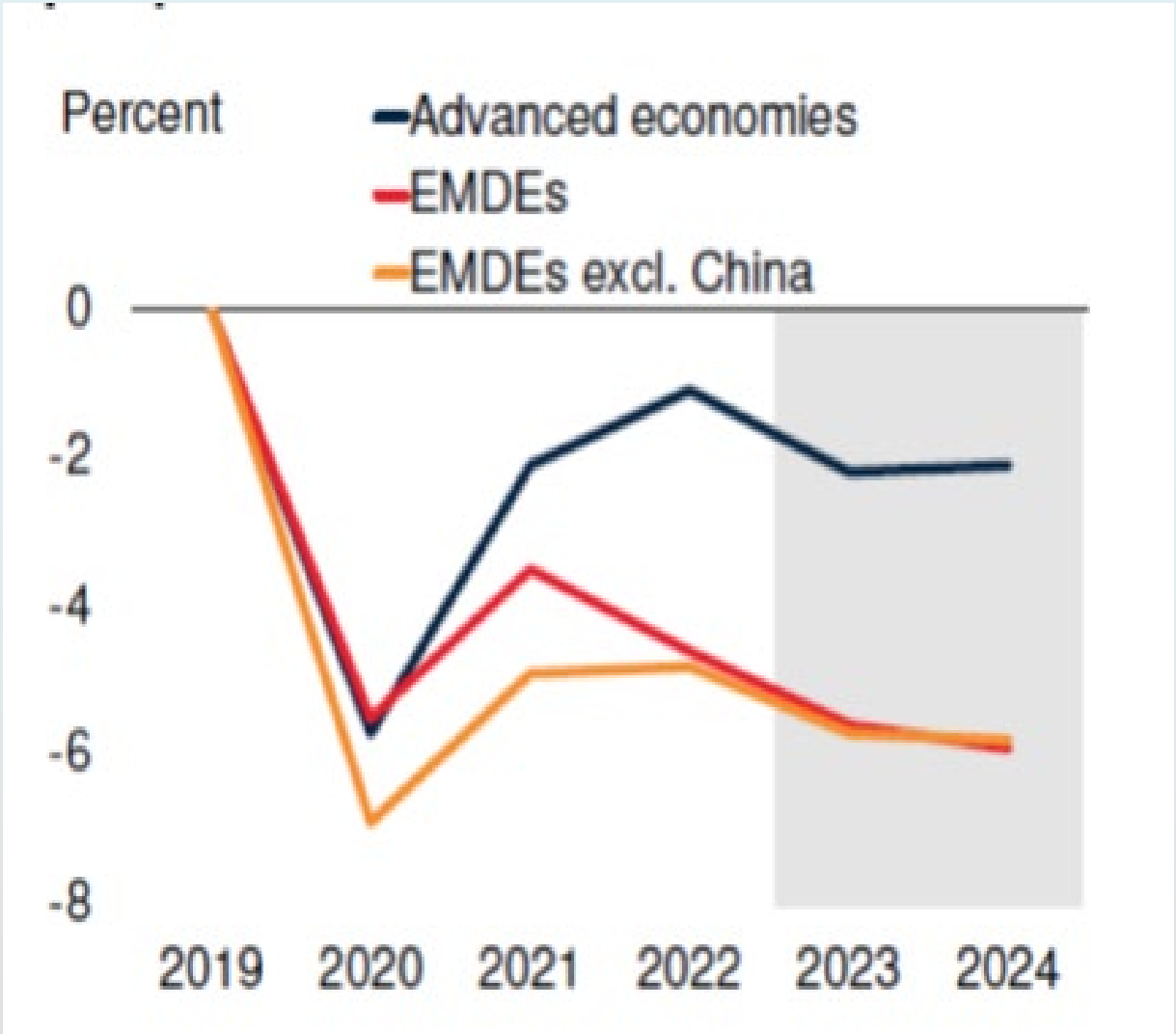
- Policies to contain the COVID-19 pandemic in advanced economies and upper-middle income developing countries have profoundly affected their economies and their relationship with digital technologies; ranging from health and education to government and teleworking. The impact of e-commerce has been massive.

- In advanced and emerging economies, governments, businesses and academia have been quick to comprehend the potential of AI to contribute to their respective responses to the pandemic crisis. Some worried about potential risks, requiring implementation of policies and investments that would **make the ongoing digitalization more inclusive and mitigate risks.**

The global economic context – massive losses of real output and welfare 2019-2024

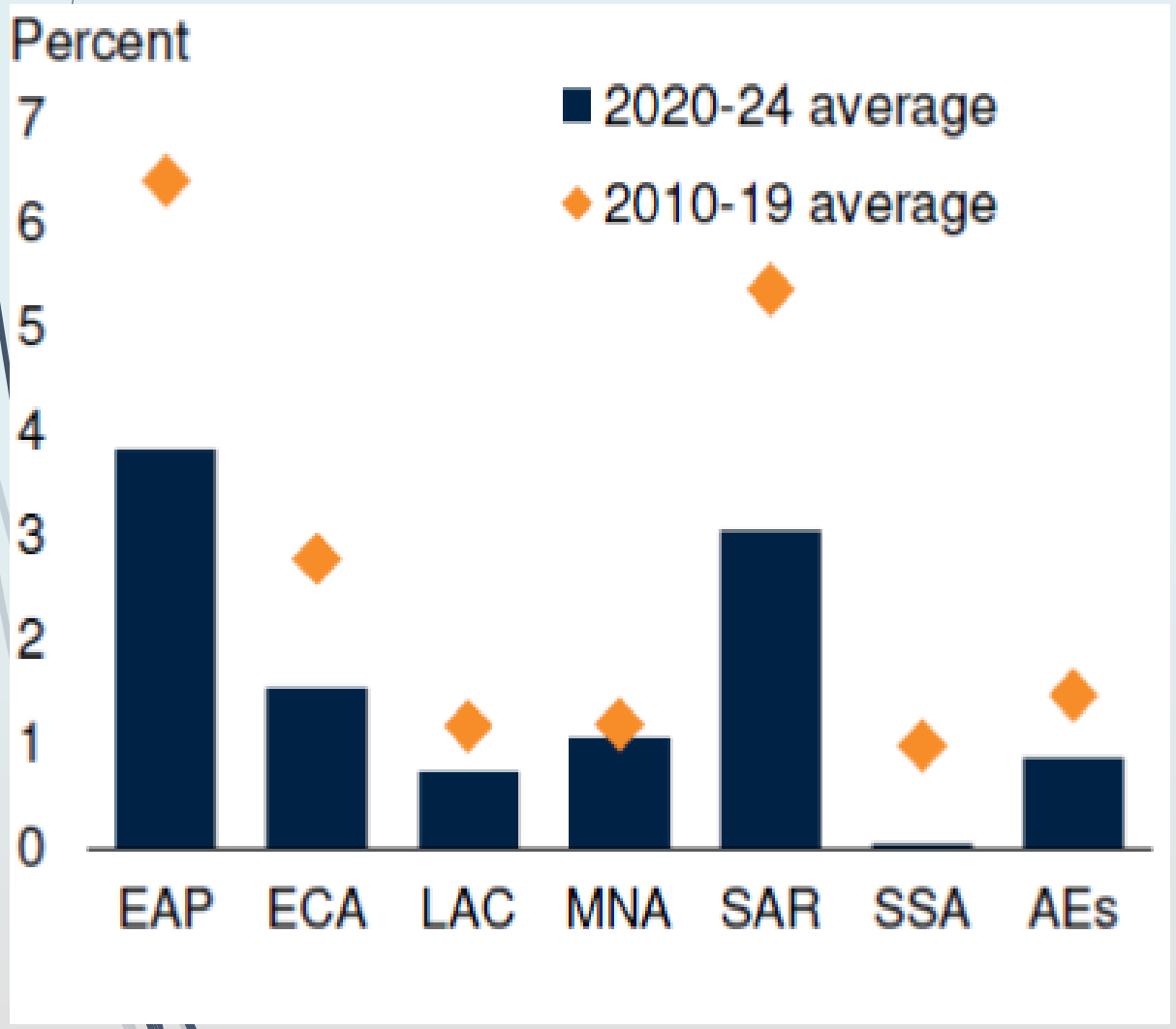
- The global economic **prospects remains fragile** as the overall economic environment and policy options have become increasingly challenging
- Monetary **policy has tightened considerably** in most advanced and emerging economies, and policy makers are facing difficult trade-offs between monetary, fiscal, and exchange rate policies as inflationary pressures have remained
- The pandemic (2020-23?) and food and fuel **shocks** (2022 -23?), unleased by Russian invasion of Ukraine, have already reversed progress on the SDGs, especially for the poorer countries and for the most vulnerable citizens everywhere

Deviation of real output from pre-pandemic trend (World Bank 2023) **EMDEs=emerging and developing econ.**

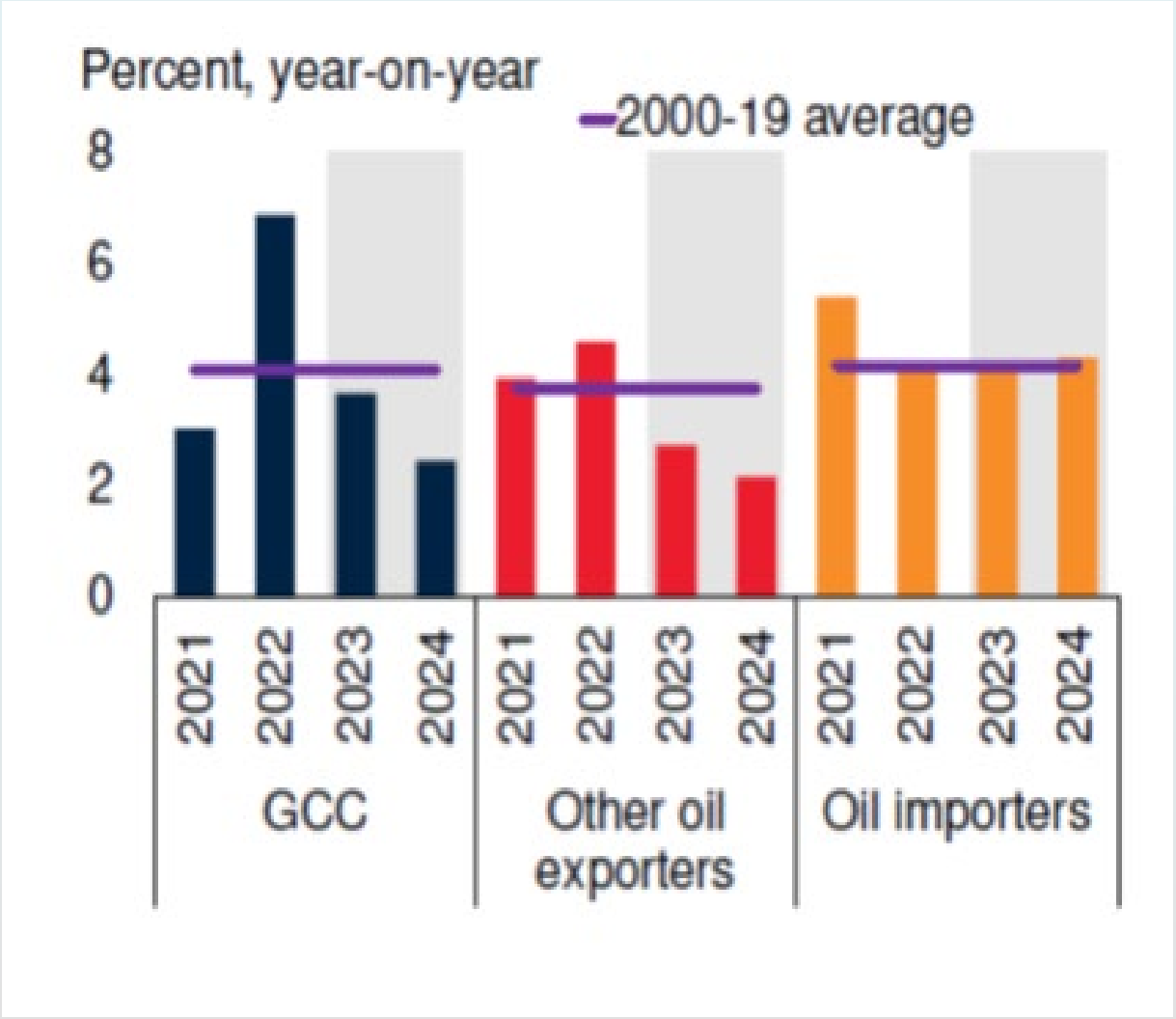


Growth in the MENA region is projected to slow down considerably in 2023 -- the boost to economic activity and oil revenues following the reopening begins to fade and advanced economies enter recession.

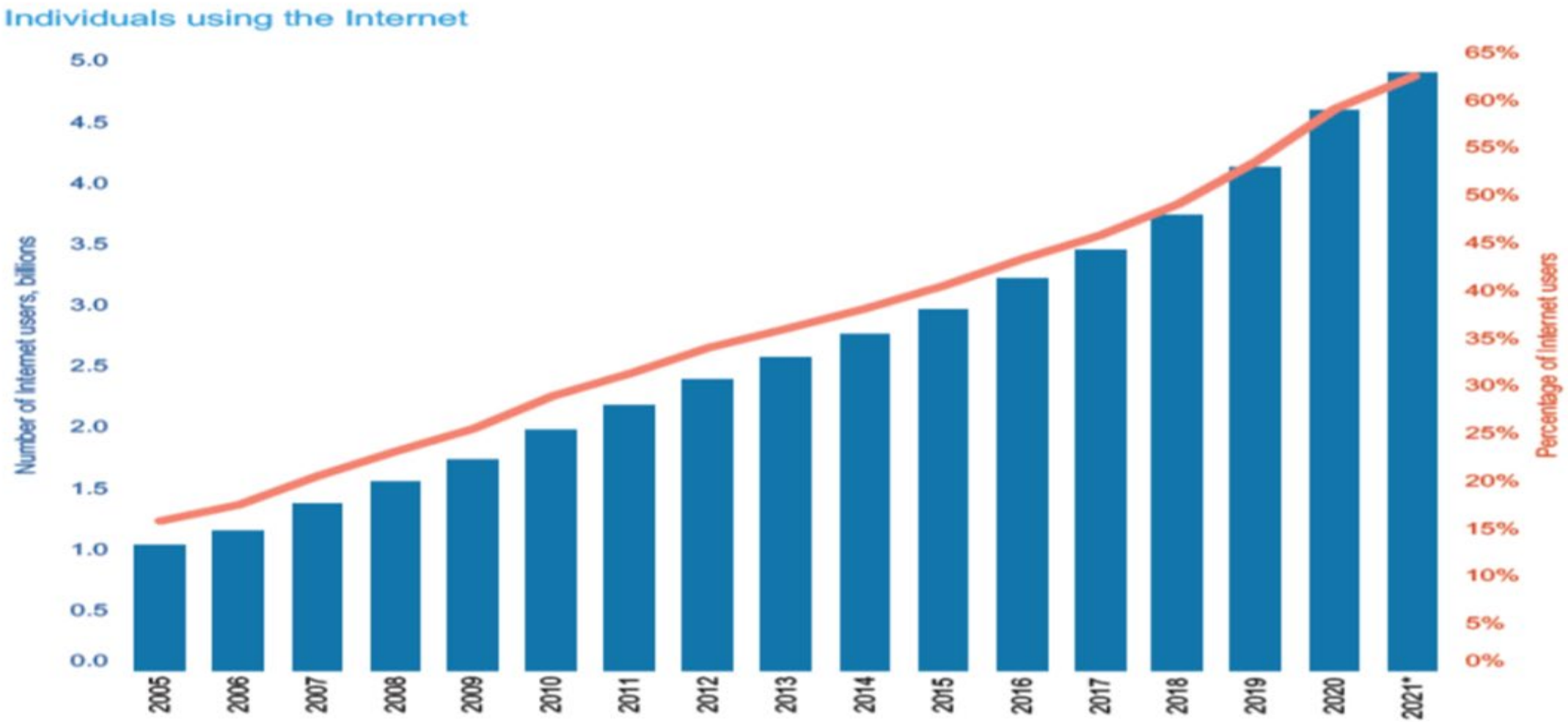
Average annual per capita GDP growth



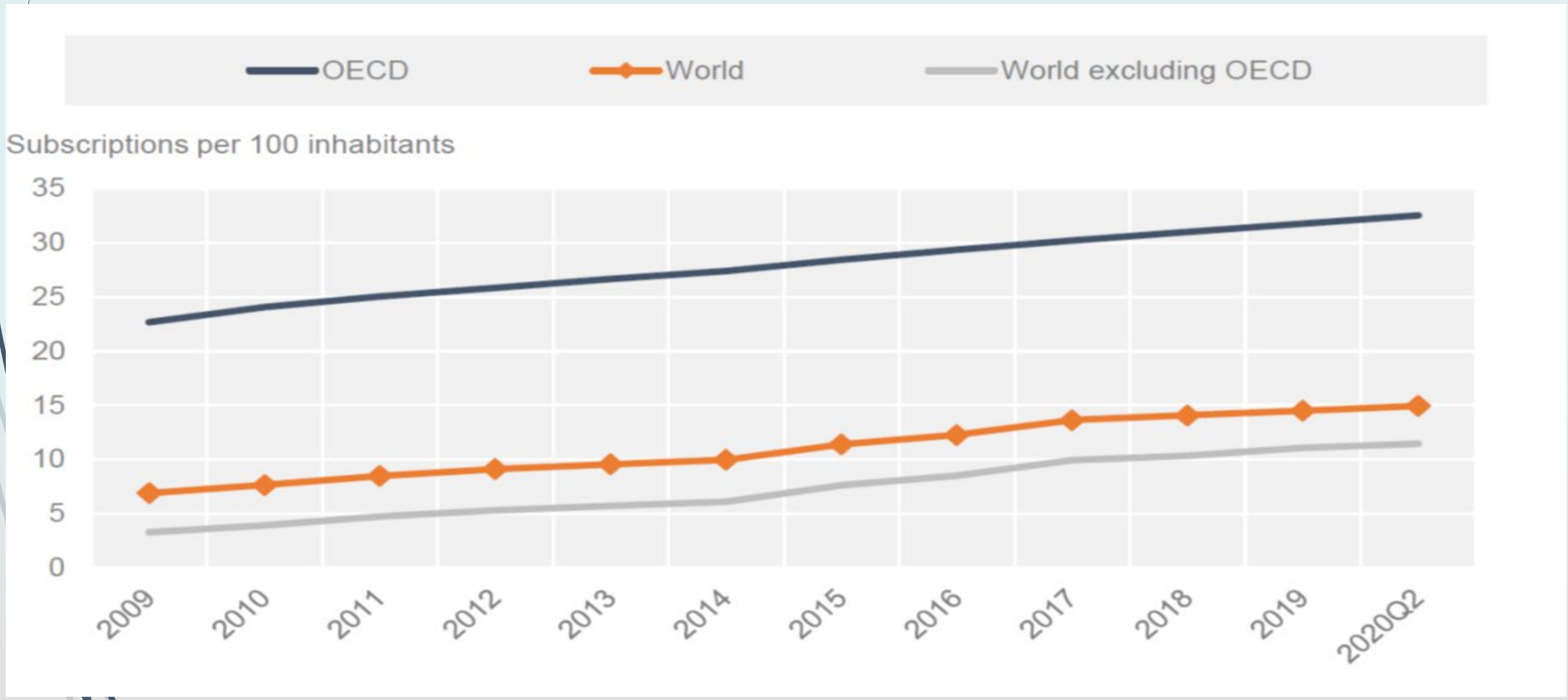
GDP growth in MENA region



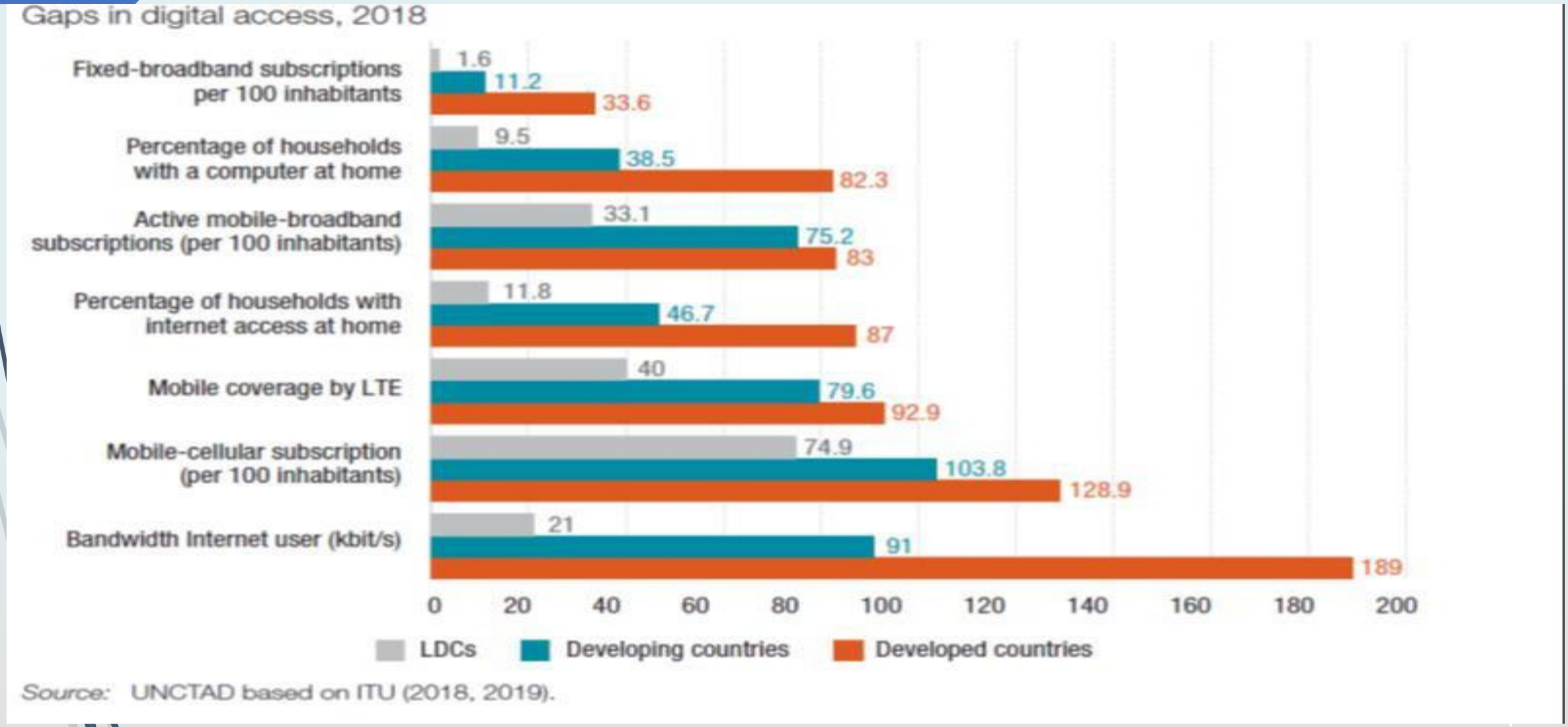
Number and share of world population using the Internet has been steadily rising 2005–21



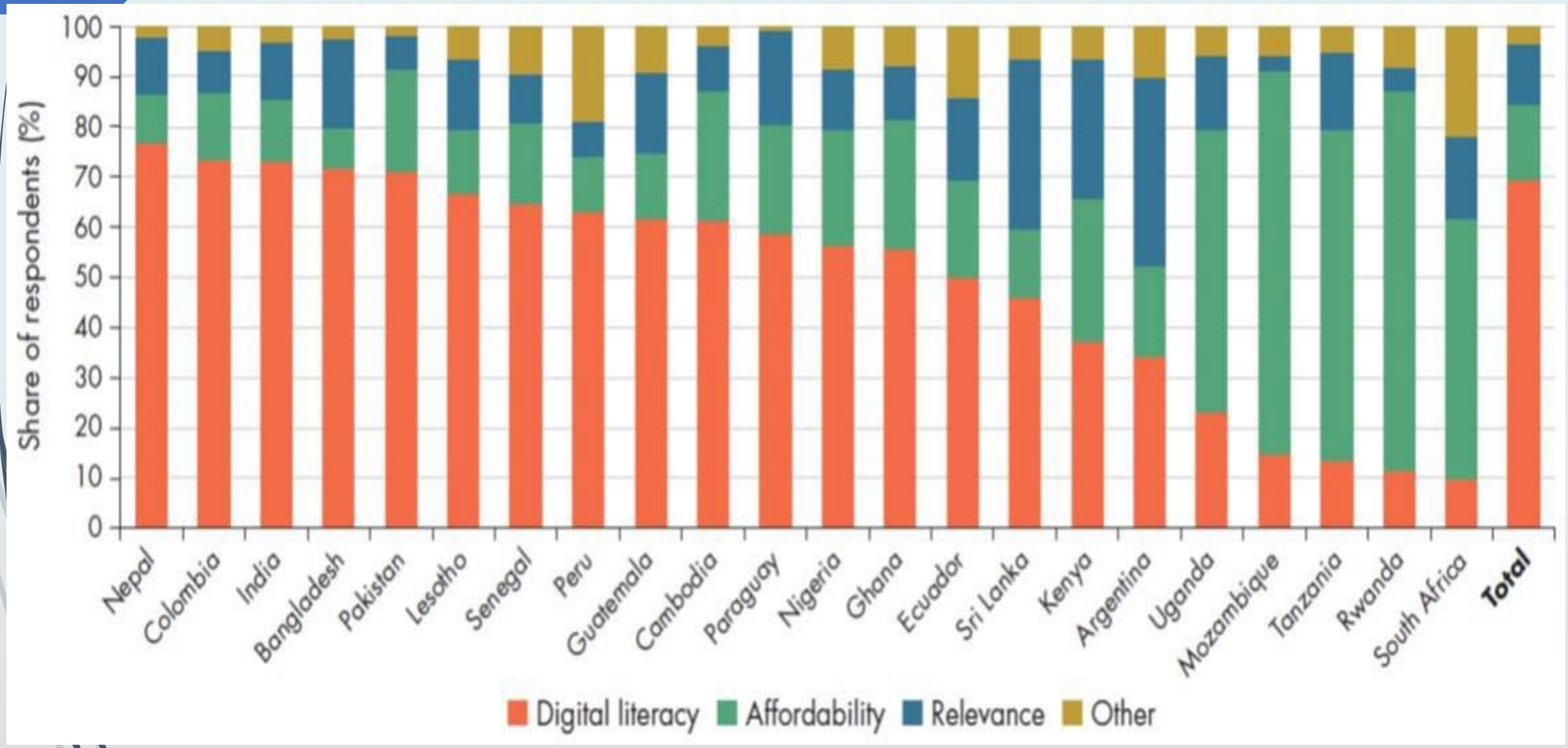
Fixed broadband evolution in advanced economies and developing countries - a digital divide that has so far narrowed slowly…



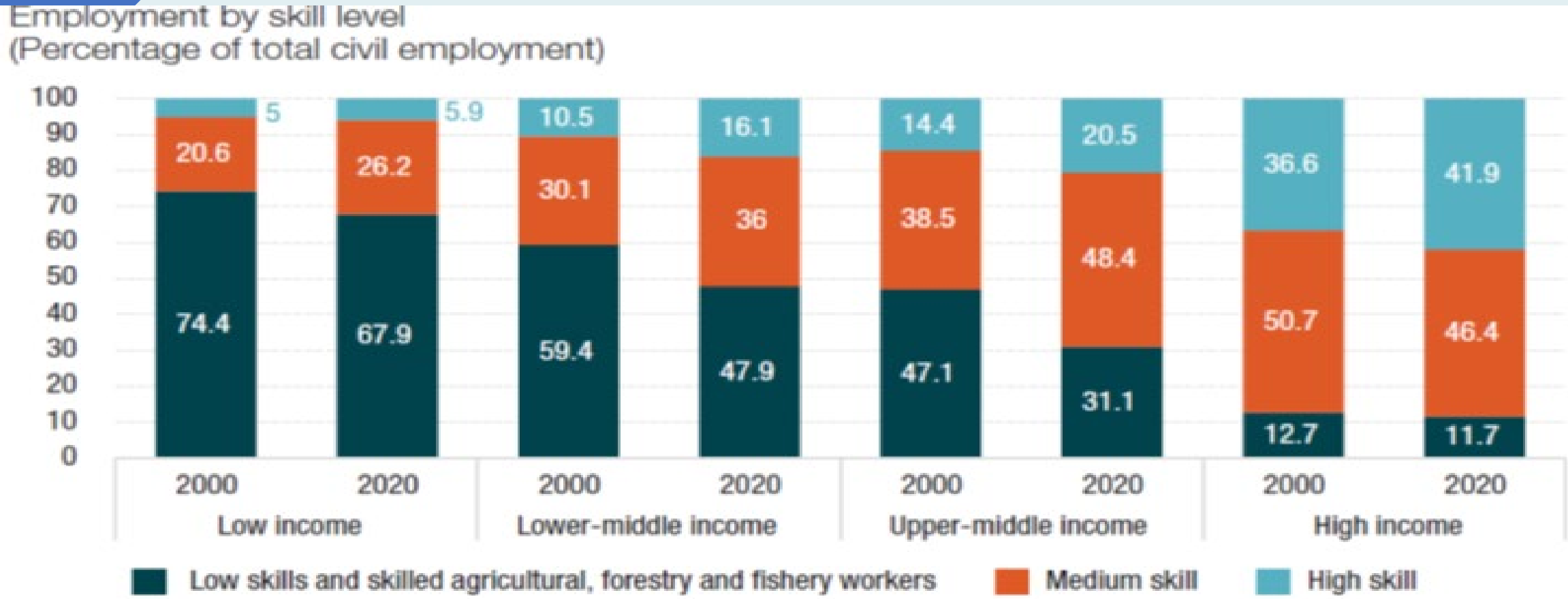
Gaps in digital access remain wide between high-and low-income countries as global economy becomes more knowledge-based, using digital technologies and data intensively (UNCTAD)



In developing countries, nearly 70 percent of those who do not use the internet are held back by deficiencies in digital literacy (WDR 2021)



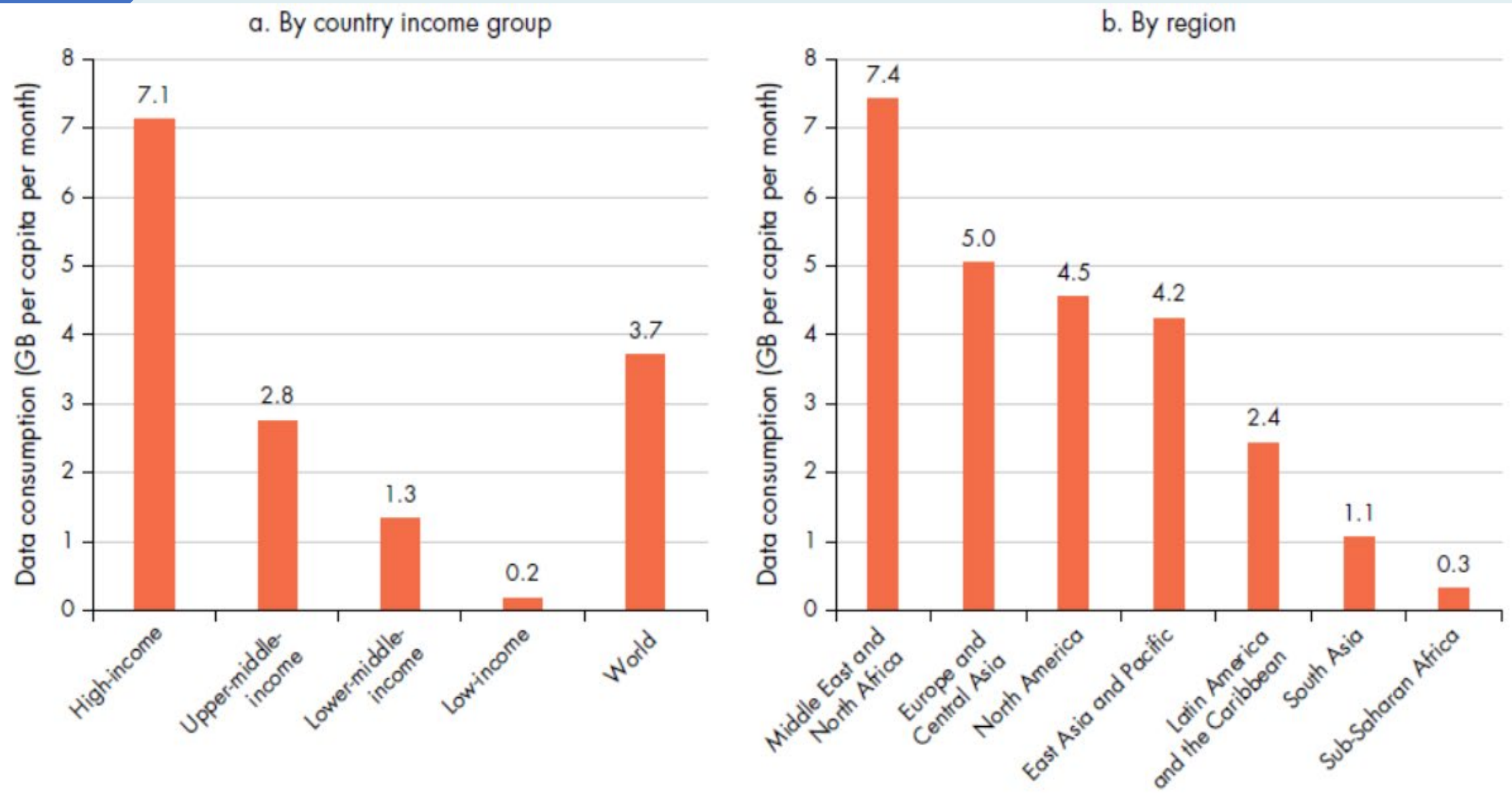
"High skill" jobs account for 42% of employment in advanced economies vs. only 5% of employment in low-income countries (UNCTAD)



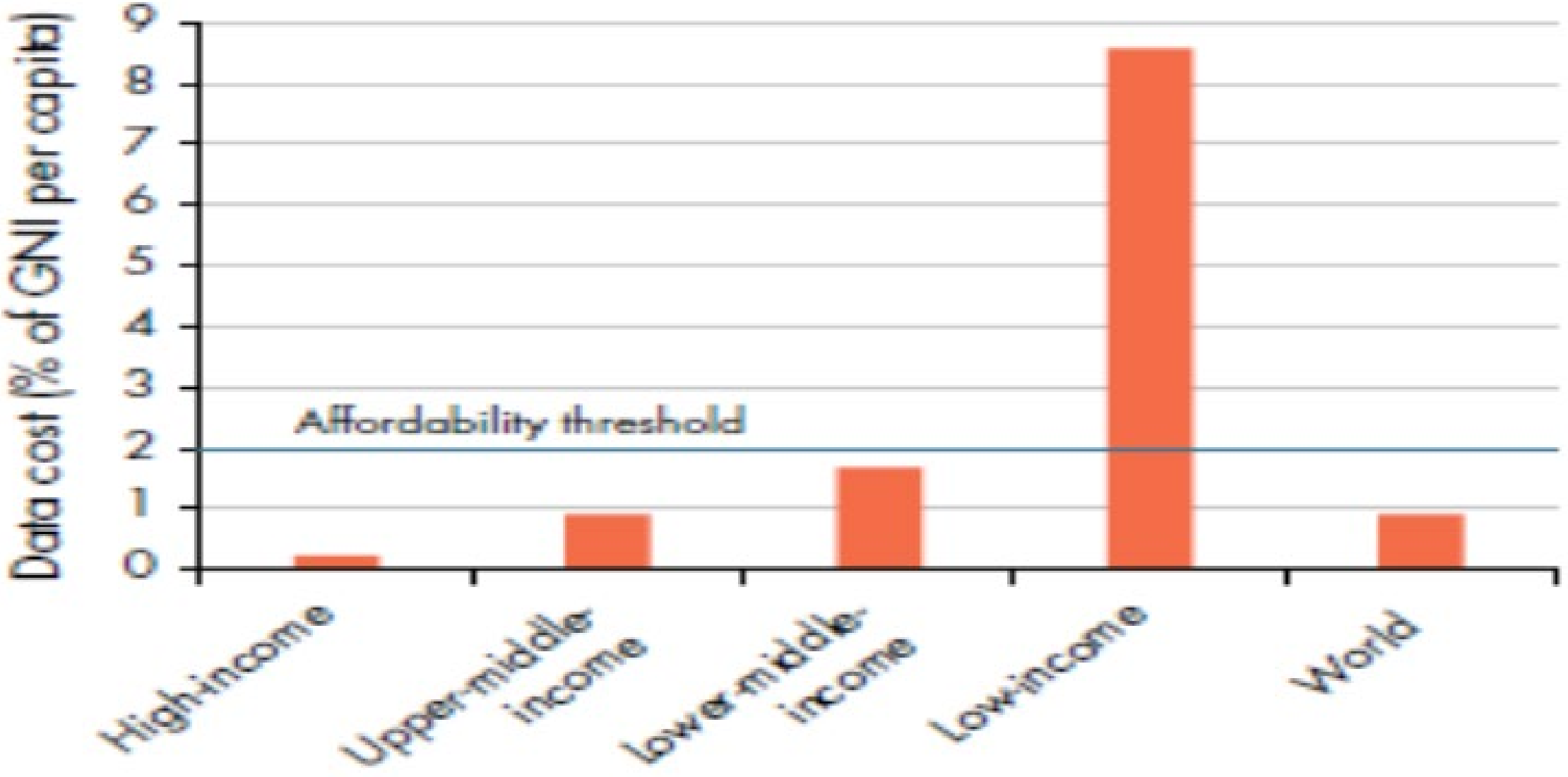
Source: UNCTAD based on data from ILOStat according to the ISCO-08.

Notes: Following ISCO-08 construction logic, a high skill level refers to major groups 1 to 3, a medium skill level to major groups 4, 5, 7 and 8, and a low skill level to major group 9 (skilled agricultural, forestry and fishery workers correspond to group 6, which is also considered medium skill but is combined with group 9 in the data made available by ILOStat).[54]

Average data consumption, by country income group and region,(2018 data)



Cost of 1 gigabyte of data as share of gross national income per capita, by country income group, (2018 data)



Benchmarking progress in digitalisation

- Based on (i) global comparisons with a sample of Advanced , Emerging and Low-Income countries, and (ii) Eight country studies;
- Measuring/assessing the following"
    1. Extent and progress
    2. Type of digitalization

1. Extent and Progress: Three groups of countries

- Based on analysis in the Report, using 2020 data and most recent data in 2022 for three groups of countries:
  - GCC
  - Low-Middle Income countries
  - Other countries

The Gulf Cooperation Council (GCC) member countries

- Country studies identify Oman, Saudi Arabia
- HIGH LEVELS of digitalization and STRONG PROGRESS in key dimensions:
  - Access to, penetration of, and use of digital technology in these countries is at or exceeds the levels in successful advanced economies and the best-performing upper-middle-income countries (China, Chile, and Malaysia)
  - They have made the most progress in digitalizing their economies

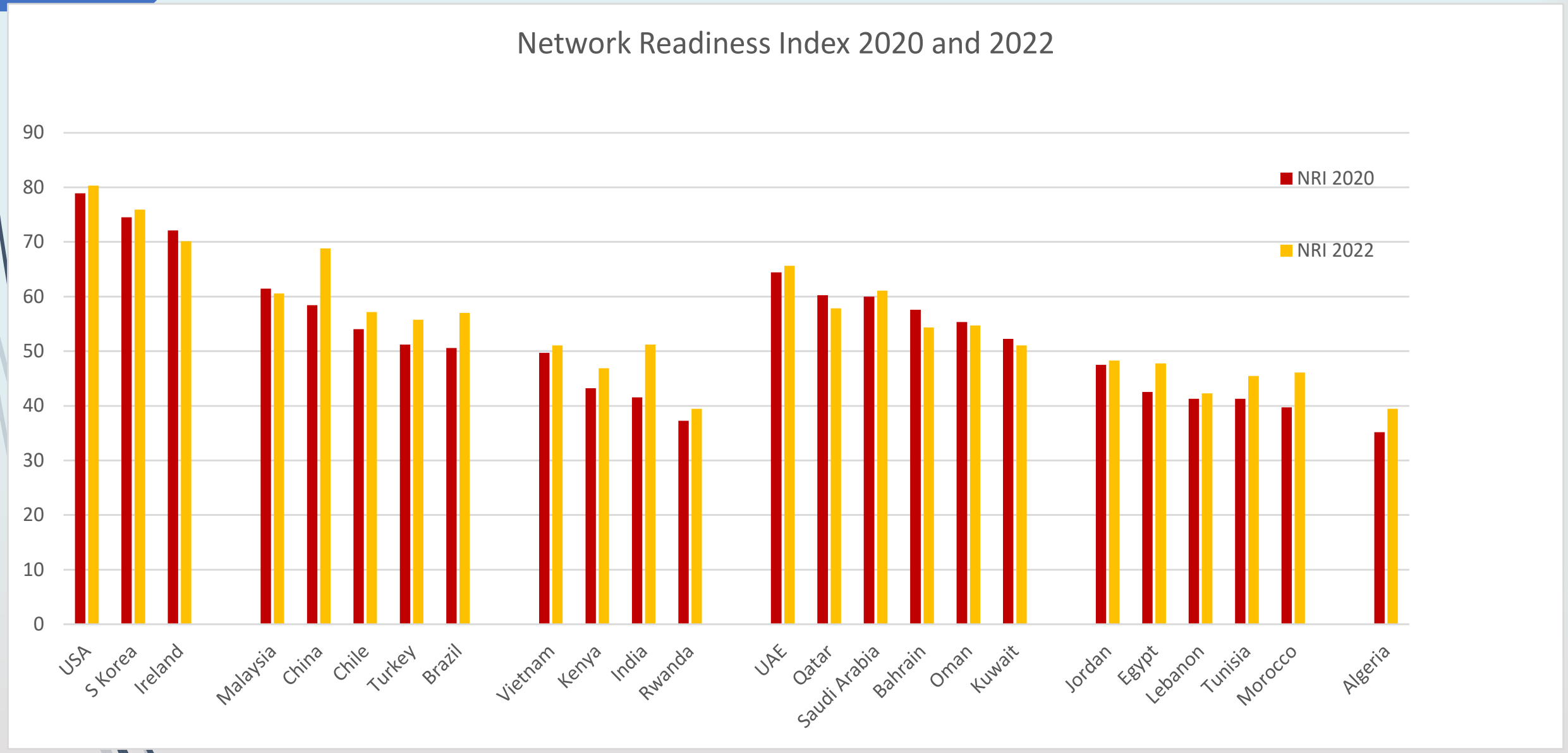
Low-Middle Income Countries

- Country studies: Egypt, Jordan, Morocco, Lebanon, and Tunisia
- MODERATE LEVELS of digitalization and SLOW PROGRESS in several key dimensions:
  - The level of digitalization is lower than in the GCC group.
  - These countries fare poorly compared with the most successful upper-middle-income countries, performing more like low-income countries.
  - Slow progress

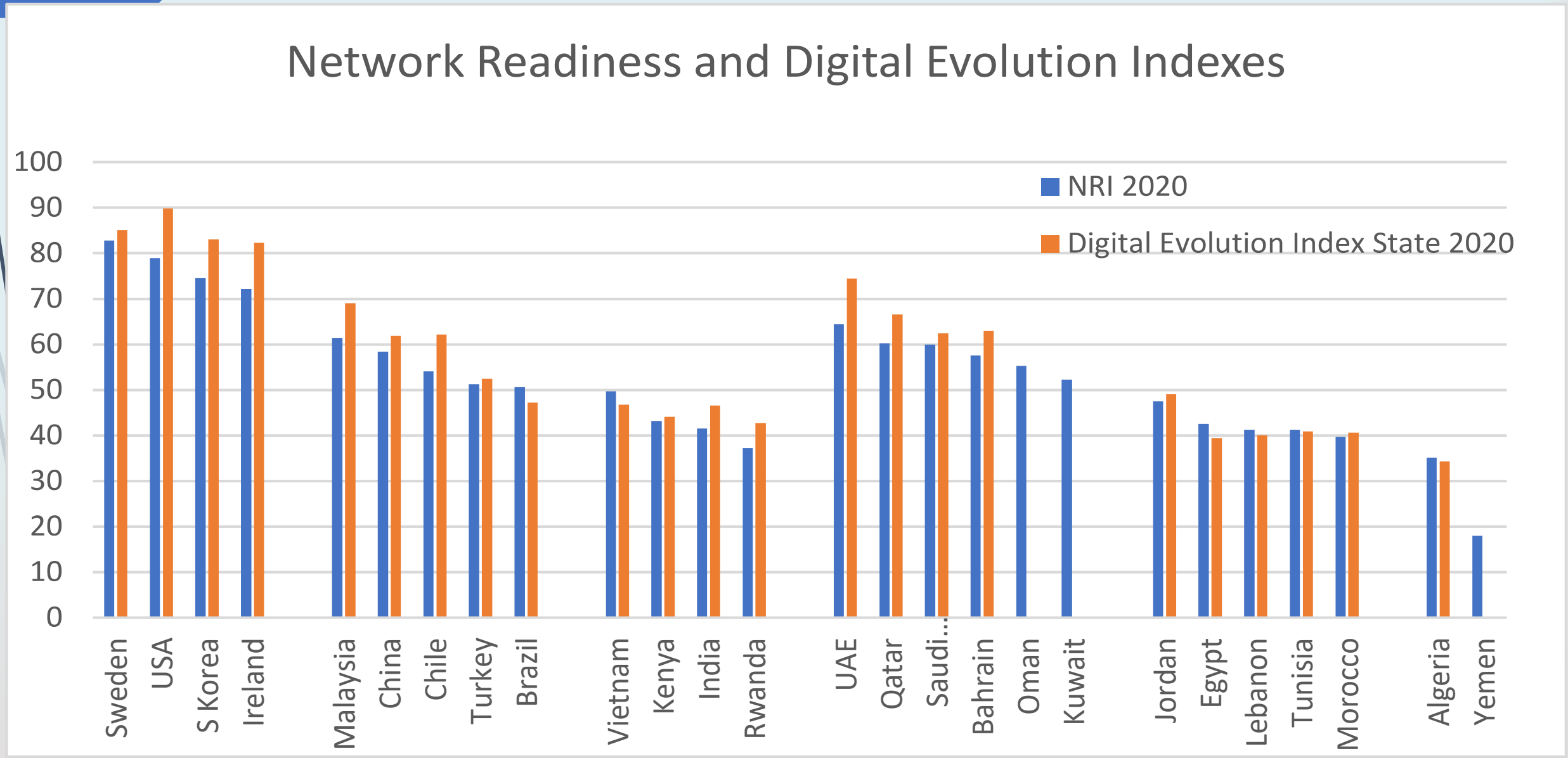
Other countries : Algeria

- Country study: Algeria
- Global comparison includes : Comoros, Djibouti, Iraq, Libya, Mauritania, Palestine, Syria, and Sudan Syria, Yemen, Iraq,
- LOWER LEVEL of digitalization and VARIABLE PROGRESS in a few key dimensions:
  - Lag far behind other economies in the Arab region.
  - Strong progress in Algeria,
  - Less progress in other countries
  - Digitalization is likely to be challenging in these settings unless investments in digital infrastructure and in human capital and digital skills are scaled up and access to financing increases.

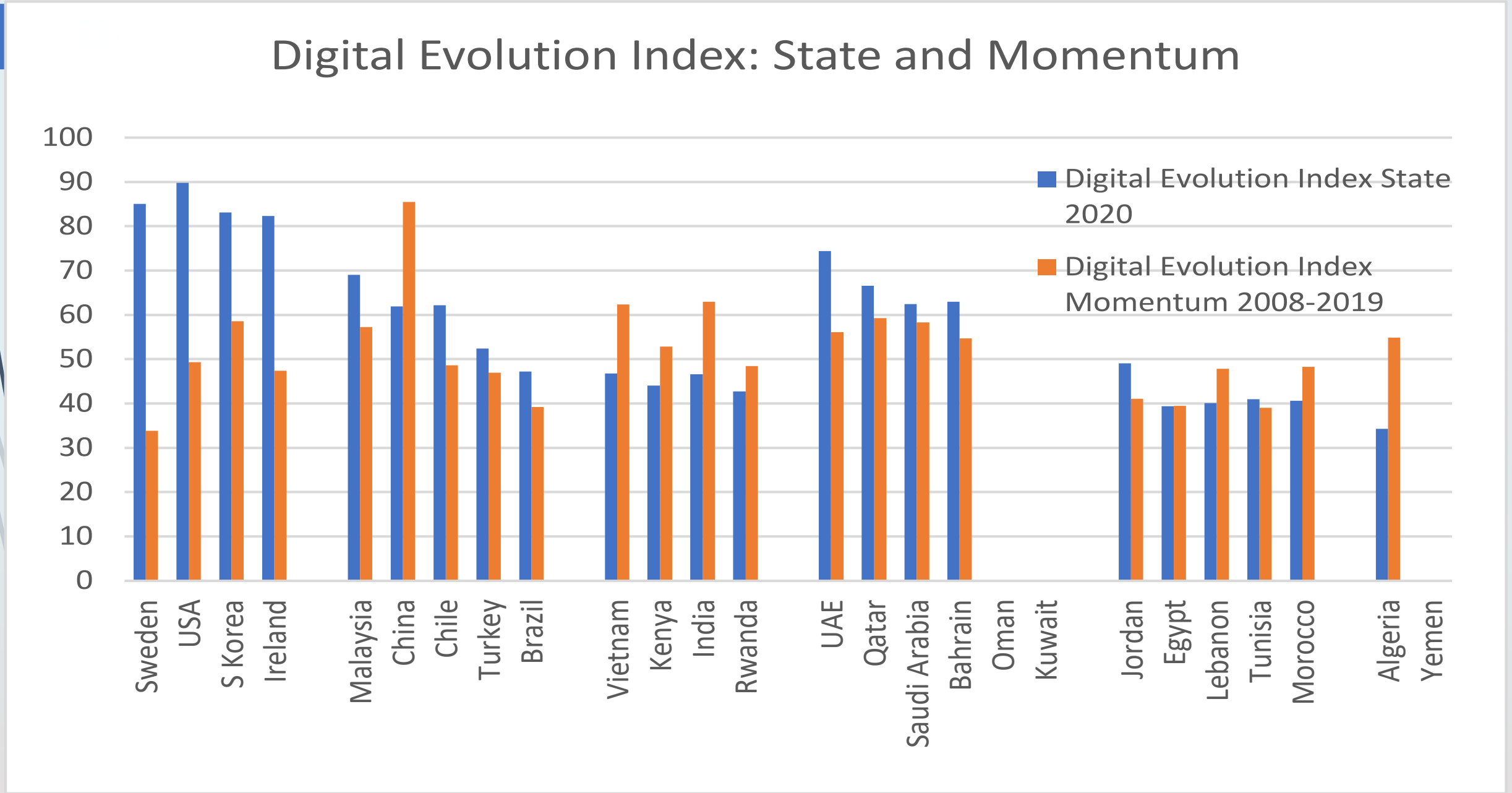
Extent of digitalization



Network Readiness and Digital Evolution Indexes 2020



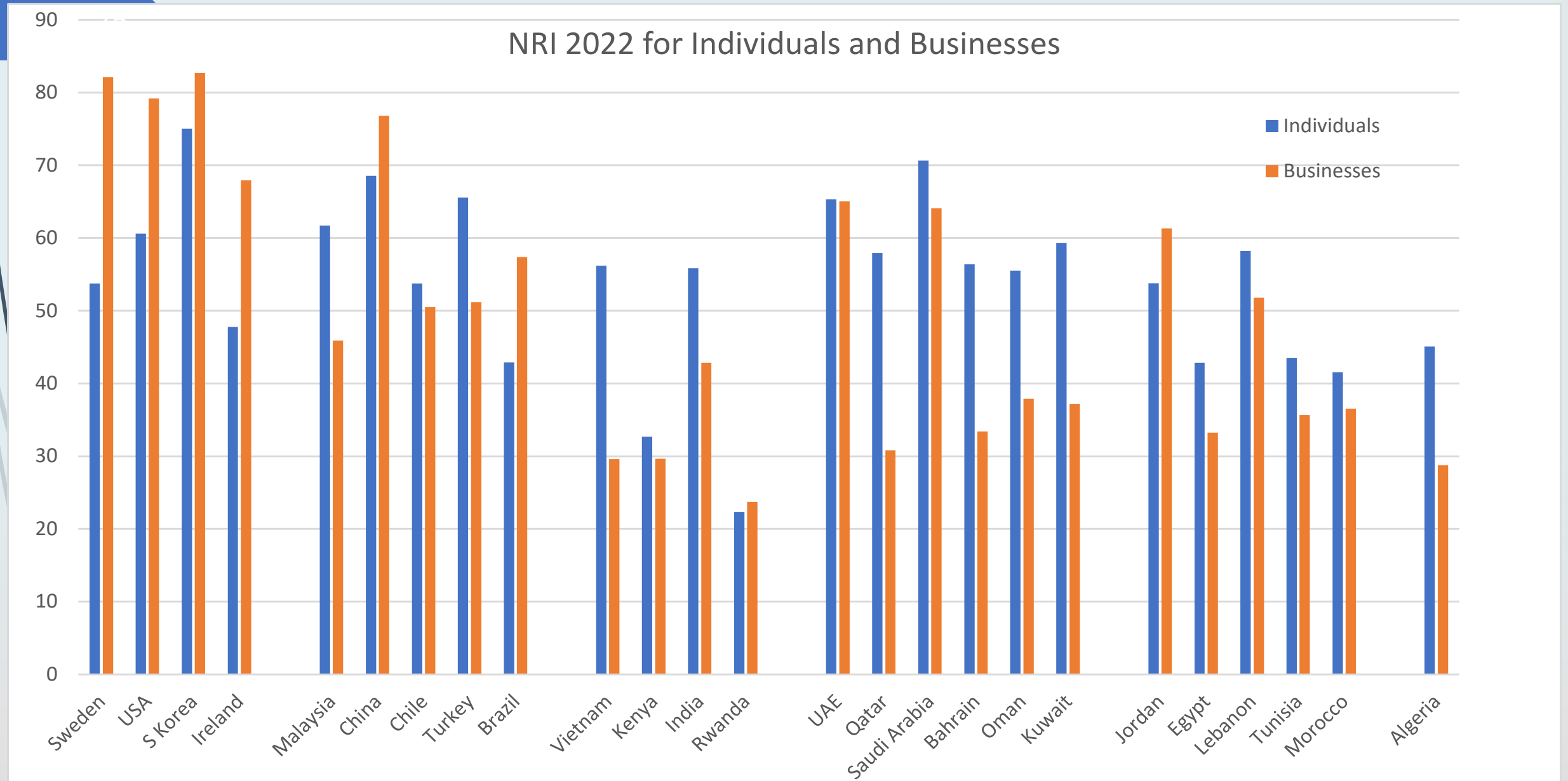
Progress in digitalization



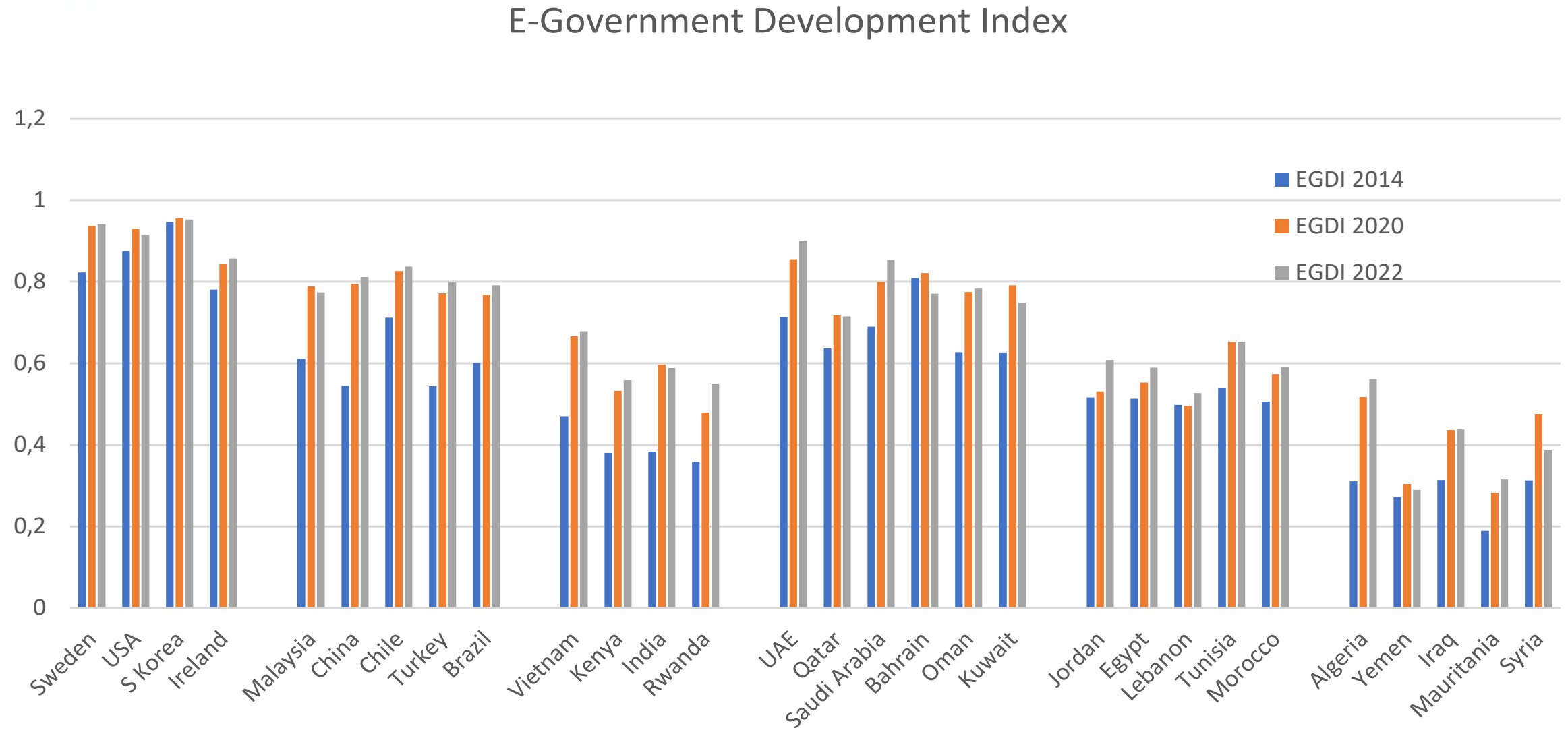
2. Types of digitalization

- The Arab Paradox
- STRONG: individuals and social media
- WEAK: business and production
- MODERATE: e-government

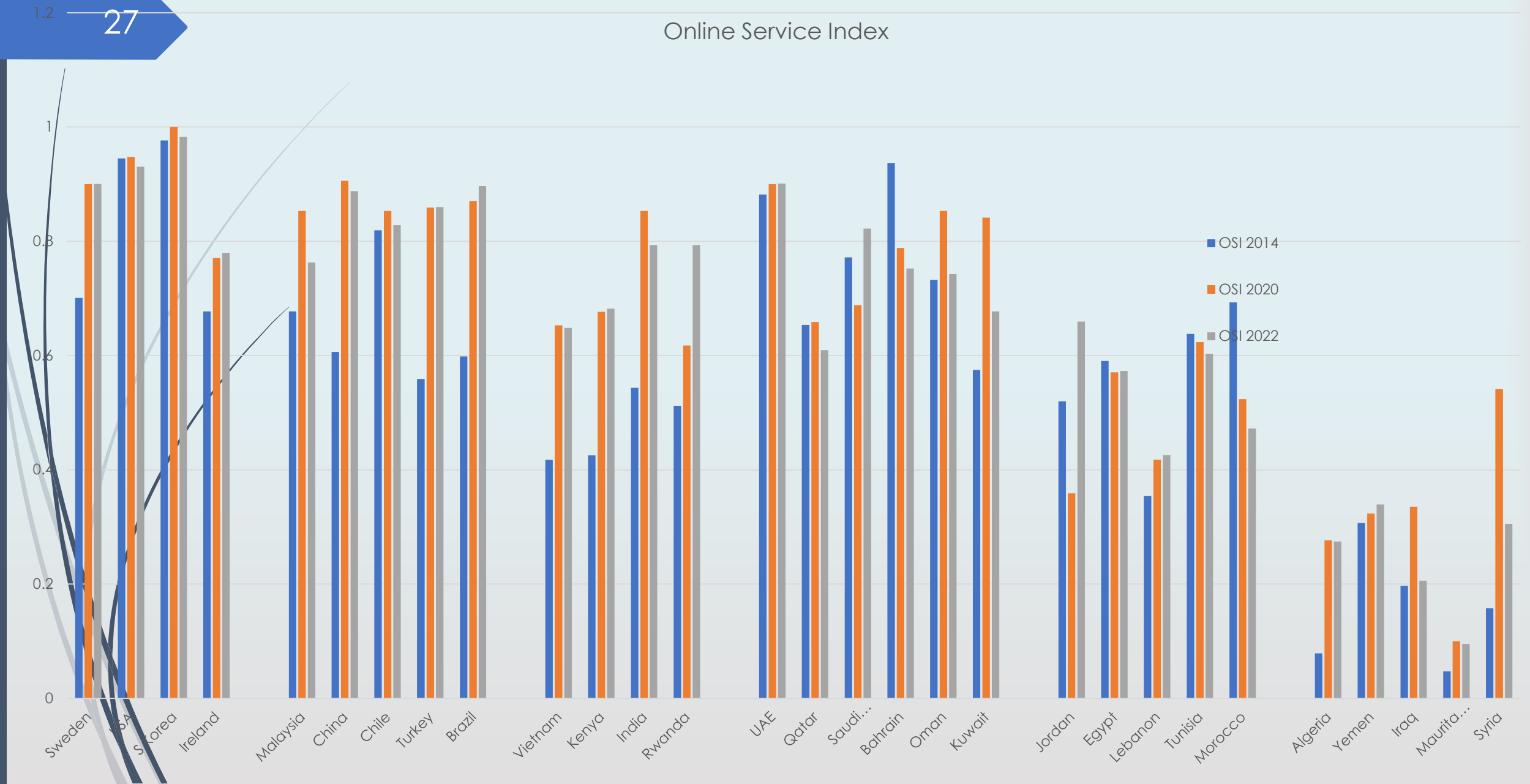
The Arab paradox



E-Government



On-Line Services



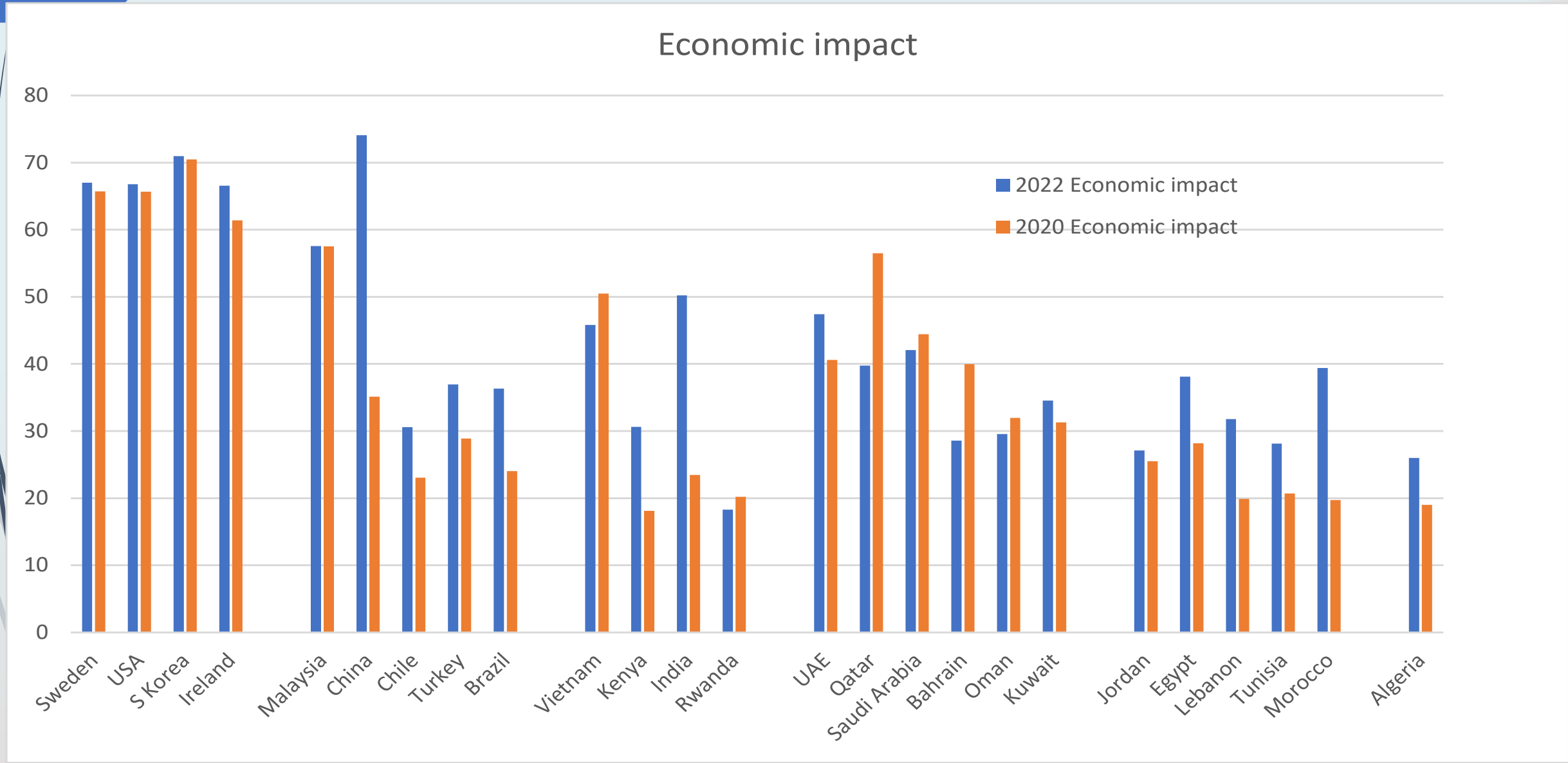
Economic and social Impact of digitalization

- Many areas considered, and explored in country studies:
  1. Productivity growth
  2. Start-ups and ICT employlment
  3. Employment/Labor markets
  4. Women in labor markets
  5. Diversification and export of services
  6. Inequality and poverty

Overall Impact of Digitalization

- Situation 2020 (Report)
  - Divergence between GCC and other countries
  - Relatively high impact in GCC
  - Low impact in low-middle income countries
- Change between 2020-2022 (recent data)
  - No progress in GCC
  - Significant increase in low-middle income countries

Economic impact of digitalization



1. Productivity Growth

- Knowledge is limited
- No evidence of significant impact in country case studies

- It was not possible to find any correlation between extent of adoption of digital technologies and labor productivity growth!
- Some studies find weak impact in siome sectors.
- Filed wide open for research!

2. Start-ups and ICT employment

- Many active government programs and policies to promote such activités
- Dynamic sectors in many countries
- Strong employment growth, **but size remains limited**

3. Employment/Labor markets

New technologies (digital platforms, robotics, AI, etc..) are supposed to have a major impact through automation on jobs and labor markets

- Most existing studies provide estimates on « potential » impact, they are « ambitions »: the figures and estimates produced are very large
- But little work on « actual » impact
- GCC: limited impact of digitalization has been observed.
  - Some job losses in low-skills repetive activities, mostly affecting immigrant workers.
  - Some growth of ICT-*intensive*, ICT-*dependent* nd ICT-*enabled* activities
- Low-middle income countries:
  - Limlited adoption of digital technologies and limited observed impact

4. Women in labor markets

- GCC , Lebanon and Jordan: There is emerging evidence that digitalization is having a positive impact on the access of women to the labor markets, especially in ICT sectors.
- Impact is still modest but accelerating
- Other Low-middle income countries: no evidence of any impact as of 2022

5. Diversification and export of services

- **Diversification remains a challenge in all countries**, while little progress has been achieved
- Many countries trying to use digitlization as a leverage for diversification
- The most notable impact is the relative expansion of the ICT sector especially telecoms in almost all countries
- Growth of ICT and digital services exports: mixed evidence with some dynamism in some sub-sectors and countries
- Use of digitalization to integrate better into global supply chains: limited impact

6. Inequality and Poverty

- No indepth research on impact of digitalization on inequality and poverty in Arab countries
- Two channels of impact:
  - skilled/unskilled wage differentials
  - growth of large digital firms with larger market shares and higher profit margins

Policy implications: Seven policy areas are critical for harnessing the potential of digitalization

1. **Revamp education and training programs** to meet the requirements of the digital age, and encourage the acquisition of skills that complement the new technologies; with an emphasis on women and disadvantaged groups.
2. **Strengthen trust and confidence in digital technologies** by improving cybersecurity and adopting and enforcing appropriate rules and regulations.
3. **Improve the investment climate:** taxation, procedures, access to finance, more competition
4. **Engage at the international level to address the cross-border dimensions** of digitalization and competitiveness.
    i. be more active in participating in international efforts to identify and adopt good regulatory practices and facilitate digital trade and e-commerce through cooperation with trading partners.
    ii. engage in international efforts to define rules and procedures that enable firms and consumers to engage in digital transactions across borders, both within and outside the World Trade Organization.

Policy implications: Seven policy areas are critical for harnessing the potential of digitalization (continued)

5. **Increase investment in digital infrastructure,** to make it more affordable for all segments of the population. These efforts should go hand in hand with efforts to address digital divides caused by skills deficiencies.
6. **Increase support**: (i) to spur the adoption of digital technology, including by easing access to intangibles, especially by small and low-productivity firms, (ii) to eliminate skills shortages, which would boost aggregate growth while reducing the wide dispersion across firms and workers in productivity and wage levels; and (iii) to patent systems and research and development to spur innovation and technological advances, the benefits of which should be broadly shared.
7. **Strengthen social protection systems** and align them with the rapidly changing economy, the nature of work that could result from digitalization of the economy and widening skill gaps.