

intermodal
AFRICA 2024 

Tuesday 27 to Thursday 29 February 2024
Swakopmund Hotel and Entertainment Centre, Namibia

**EVOLUTION OF AFRICAN PORTS ECONOMICS IN THE
AGE OF INTERMODAL TRANSPORTATION**

THE UNCTAD TRAINFORTRADE PROGRAMME (TFT)

MISSION: Strengthening Knowledge and Skills for Sustainable Economic Development



GOALS:

- ◆ Encourage development-oriented trade policy to reduce poverty and to promote transparency and good practices
- ◆ Promote digital solutions and innovative thinking to enhance capacities of international trade players
- ◆ Build sustainable networks of knowledge to enhance national ownership, South-South and triangular cooperation

AREAS:

TRAINFORTRADE PORT MANAGEMENT PROGRAMME (PMP)

- ◆ Supports port communities' quest for efficient and competitive port management services to increase trade flows and foster sustainable economic development

TRAINFORTRADE E-COMMERCE

- ◆ Legal Aspects
- ◆ Best Practices
- ◆ Digital Identity for Trade and Development
- ◆ General Course

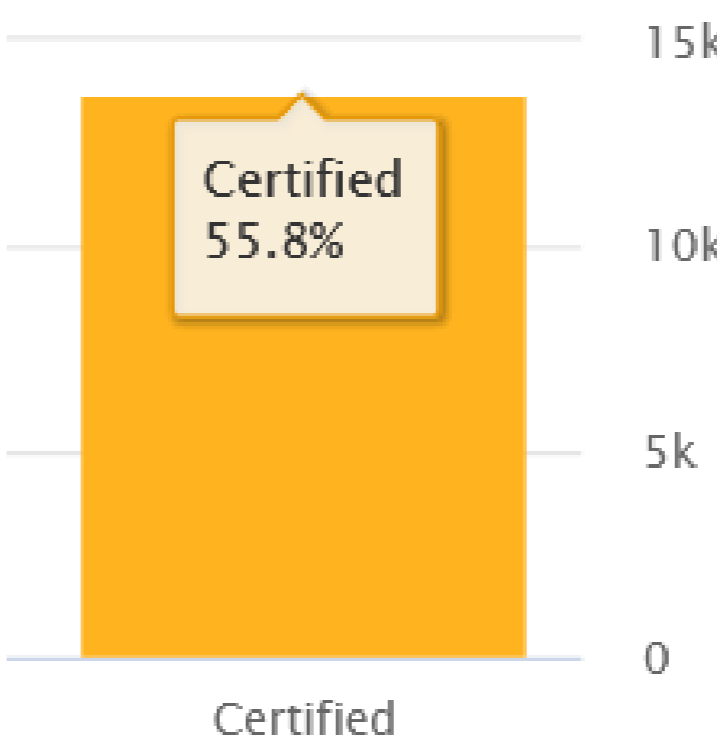
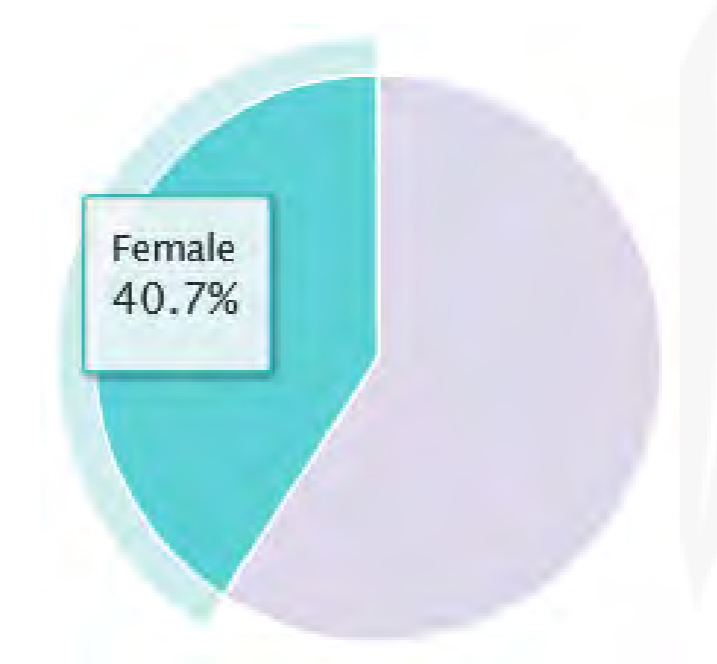
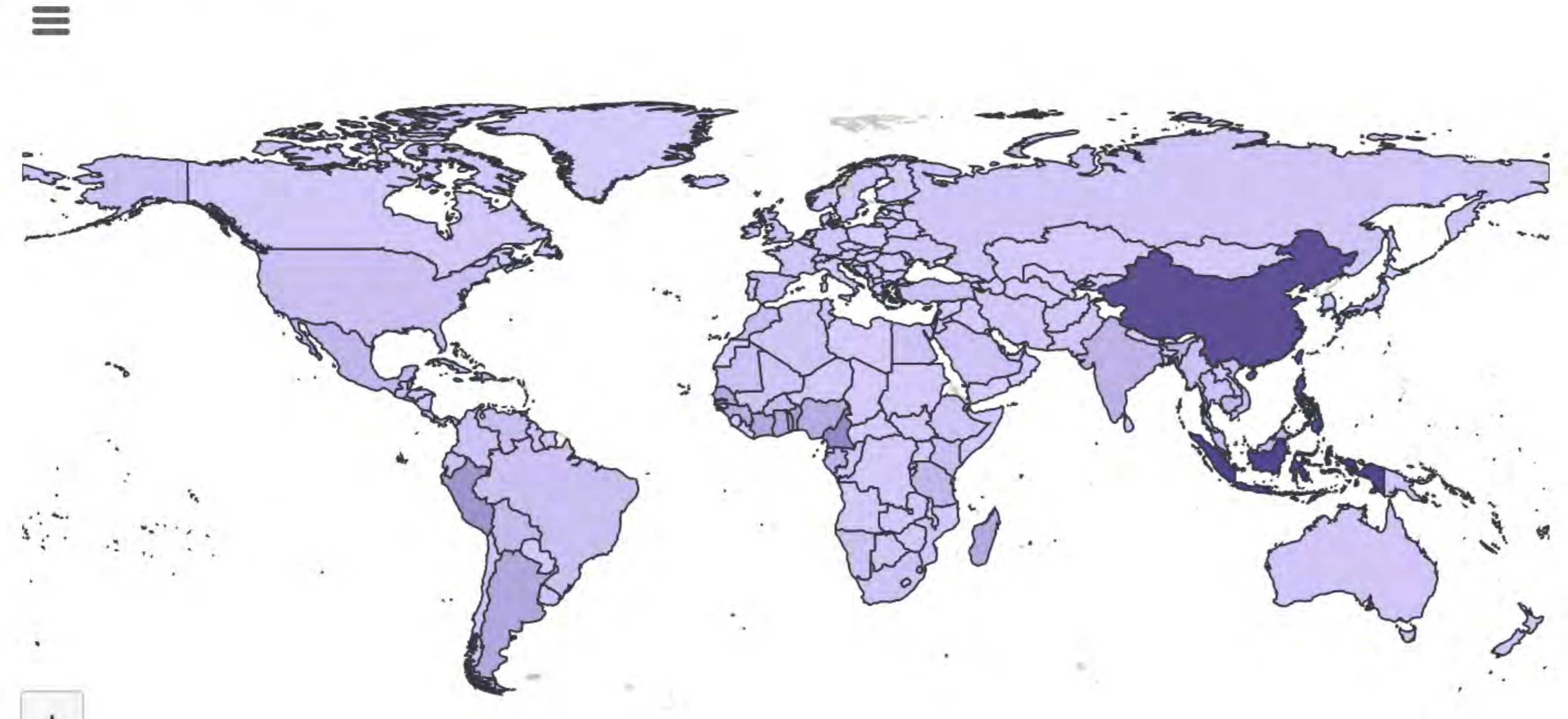
TRAINFORTRADE TRADE STATISTICS

- ◆ International Trade in Services
- ◆ International Merchandise Trade



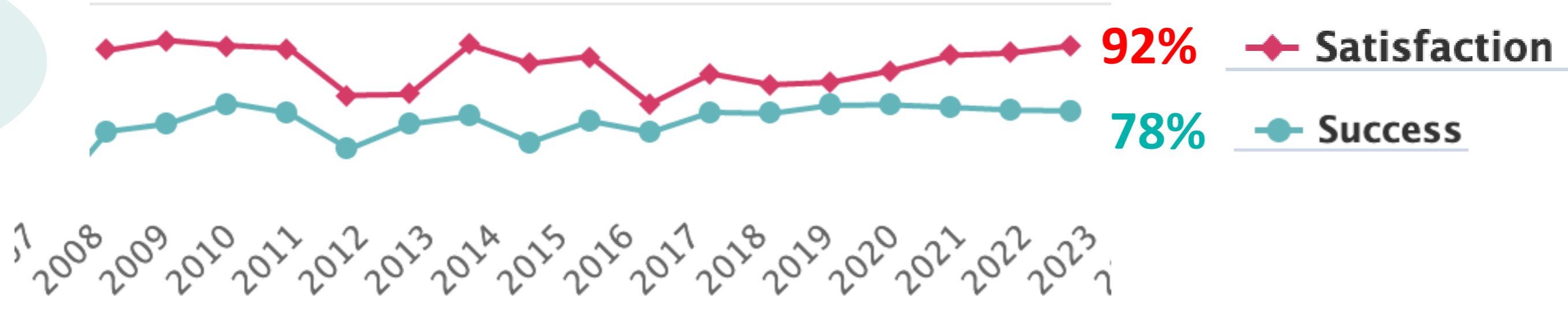
WORLDWIDE IMPACT OF TRAINFORTRADE CAPACITY BUILDING

Residency country	Nb. of countries	219
	Total (participations)	26382



Indonesia	1880
Philippines	1860
China	1687
Cameroon	1016
Peru	920
Togo	679
Benin	611
Ghana	584
Argentina	538
Côte d'Ivoire	501
Nigeria	489
Senegal	485
Madagascar	479
Dominican Republic	467
Haiti	430
Guinea	426
India	380
Mexico	355
Gabon	326
United Republic of Tanzania	300
Bolivia (Plurinational State of)	287
Cambodia	276
Burkina Faso	253
Malaysia	227

RESULTS-BASED MANAGEMENT



VIEW FROM UNCTAD'S MAIN ECONOMIC TRENDS

1

TECHNOLOGY & INNOVATION

2

DEBT & FINANCE

3

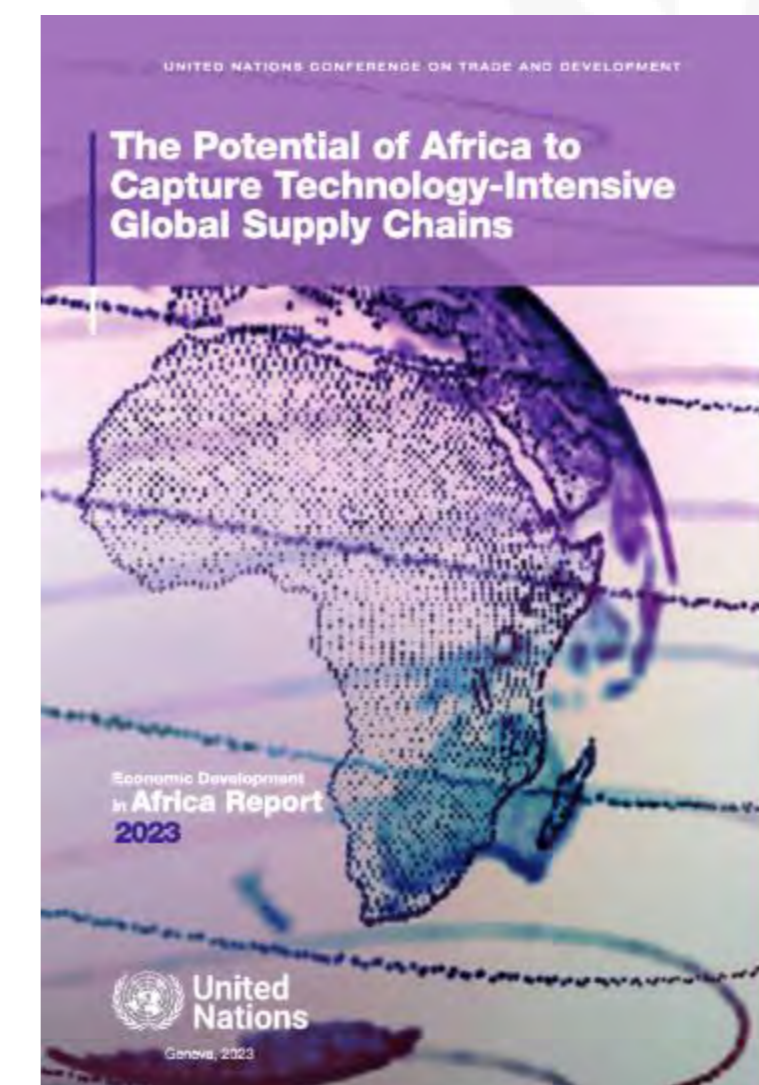
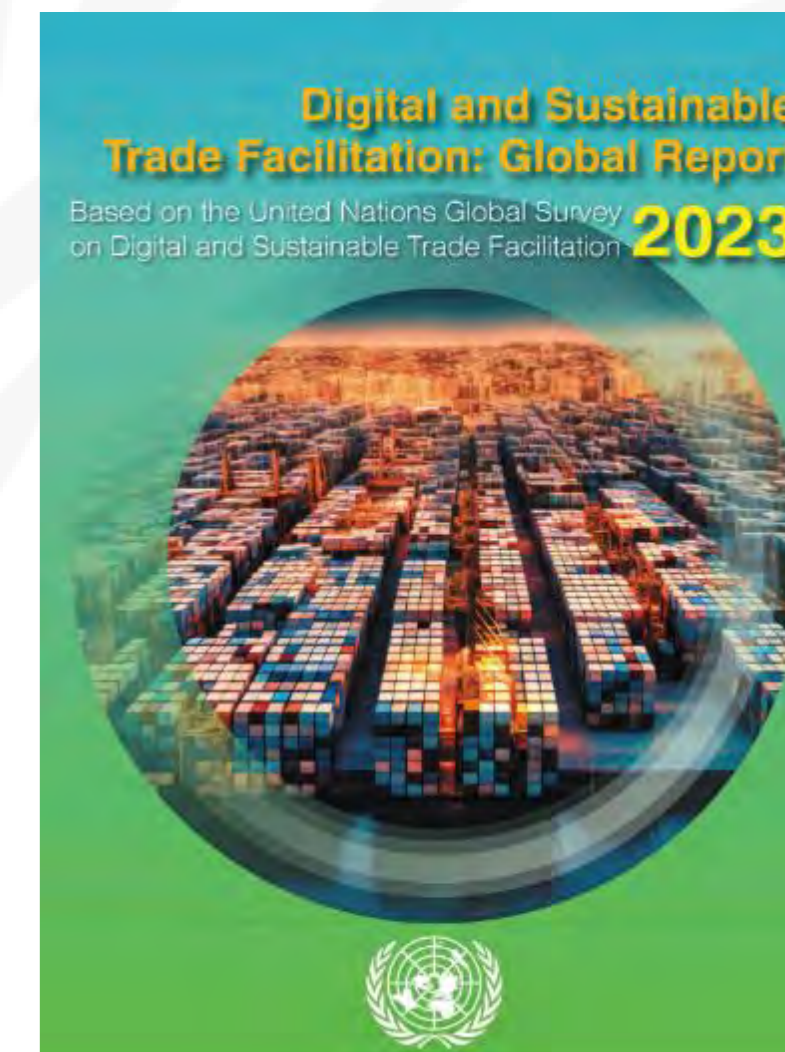
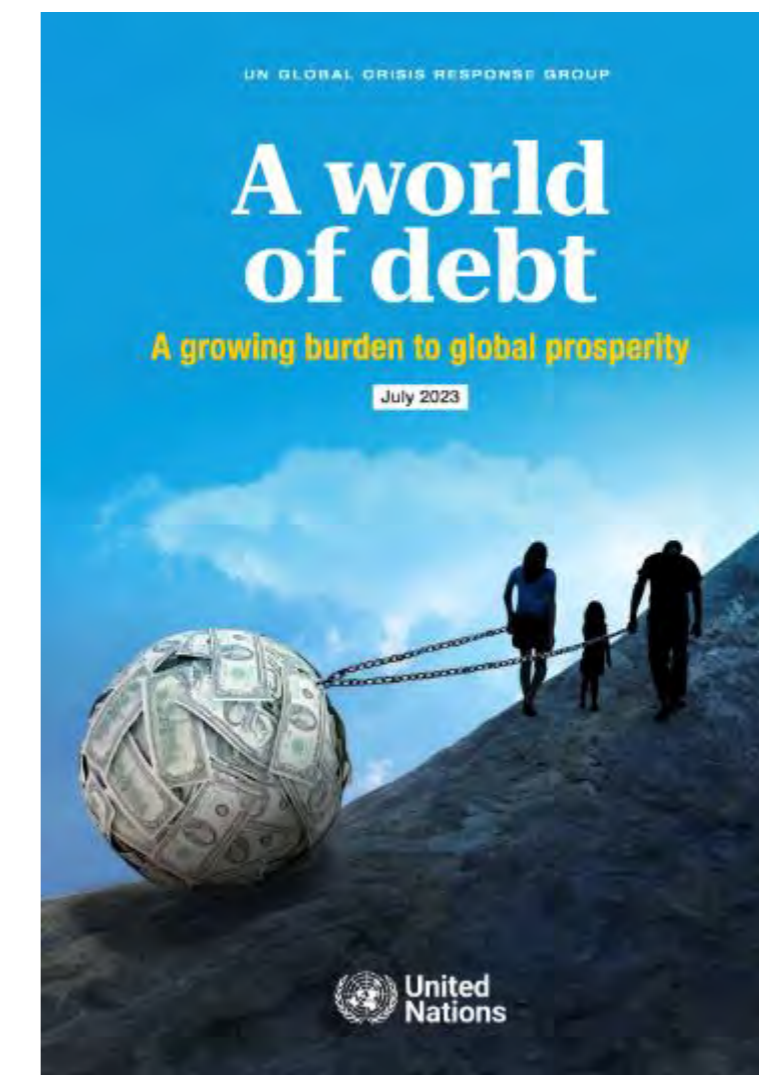
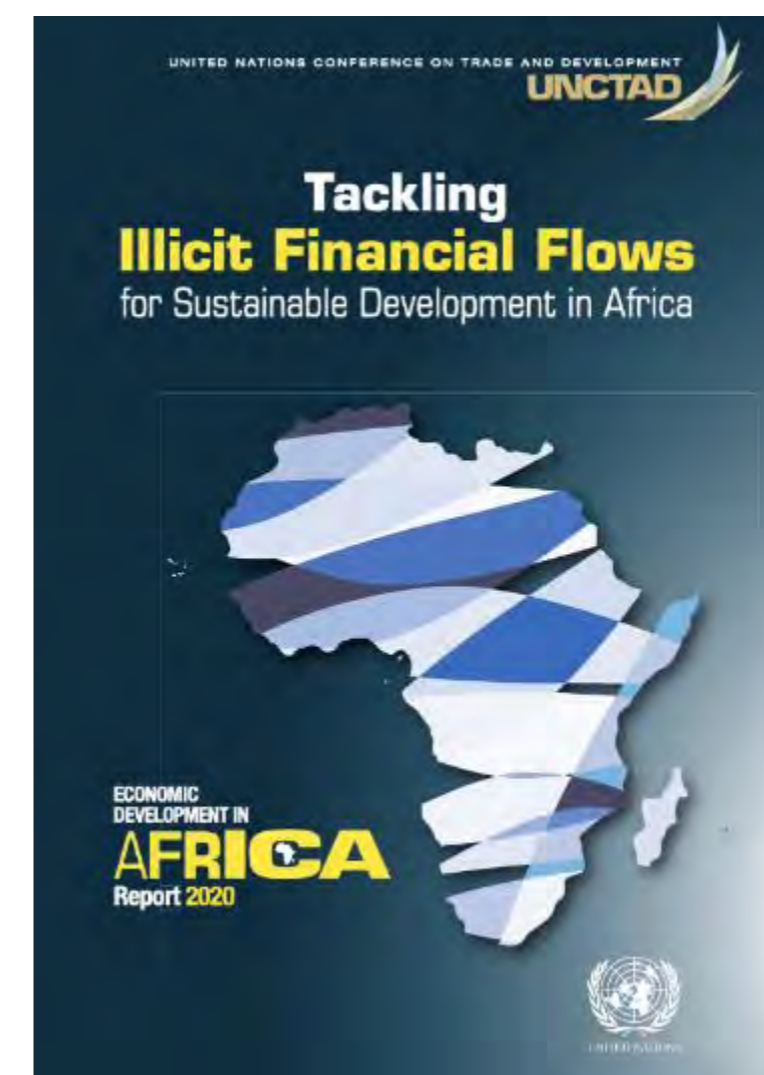
SUPPLY CHAIN RESILIENCE

4

INVESTMENT

5

TRADE FACILITATION



TECHNOLOGY AND INNOVATION REPORT 2023

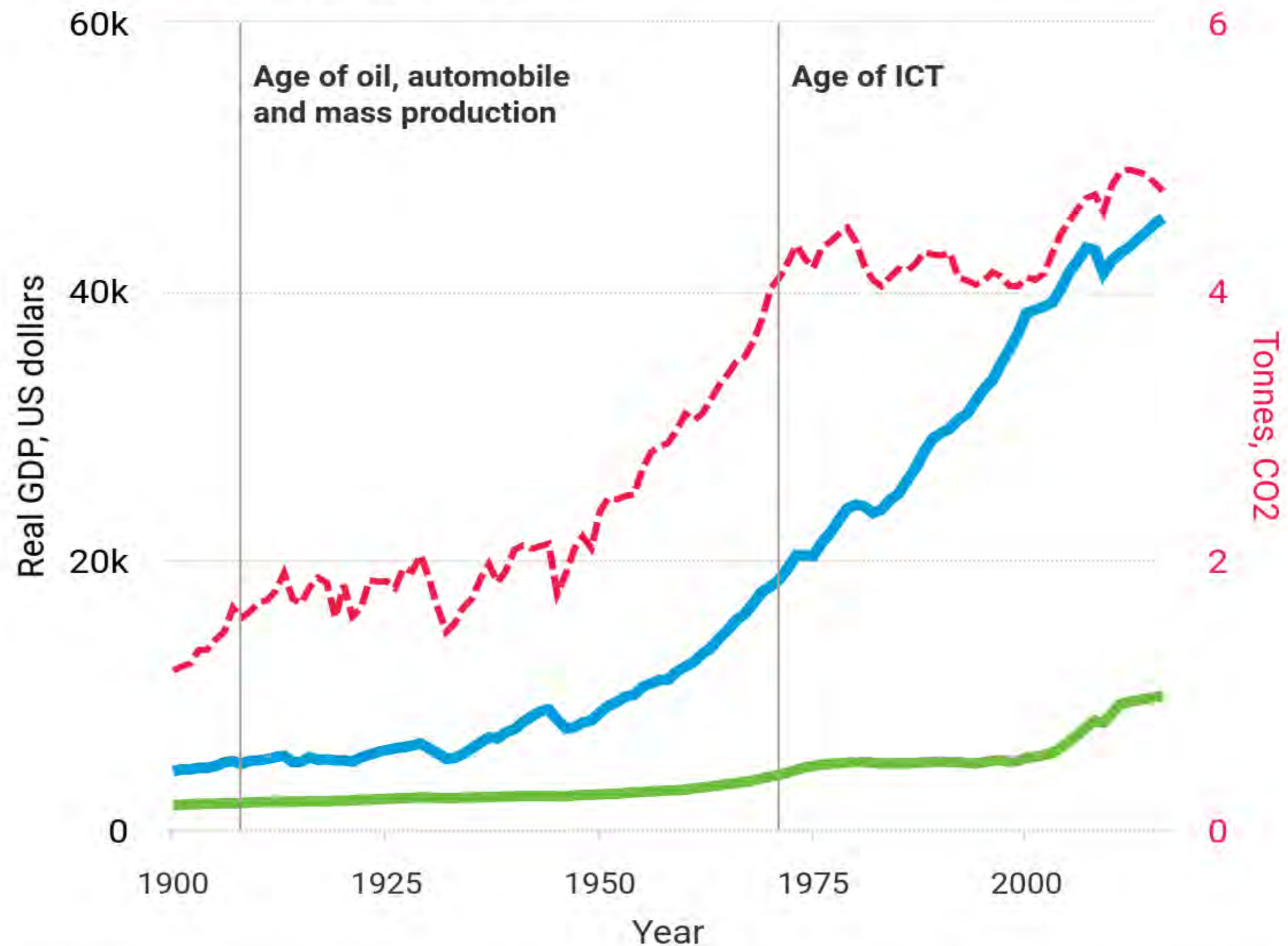
Opening green windows
Technological opportunities
for a low-carbon world



Now is the time to close the green tech gap

Real GDP per capita versus CO2 per capita

- GDP per capita, core countries
- GDP per capita, periphery countries
- - - Global average CO2 per capita











Source: UNCTAD, based on data from Our World in Data and the Maddison Project Database, version 2018, Bolt et al. (2018), Perez (2002), and Schwab (2013).

Note: "Core" corresponds to Western European countries and Australia, Canada, New Zealand, the United States and Japan. "Periphery" corresponds to the rest of the world










FRONTIER TECHNOLOGIES (17)

Industry 4.0 frontier technologies

-  Artificial intelligence
-  Internet of things
-  Big data
-  Blockchain
-  5G
-  3D printing
-  Robotics
-  Drone technology

Green frontier technologies

-  Solar PV
-  Concentrated solar power
-  Biofuels
-  Biogas and biomass
-  Wind energy
-  Green hydrogen
-  Electric vehicles

Other frontier technologies

-  Nanotechnology
-  Gene editing

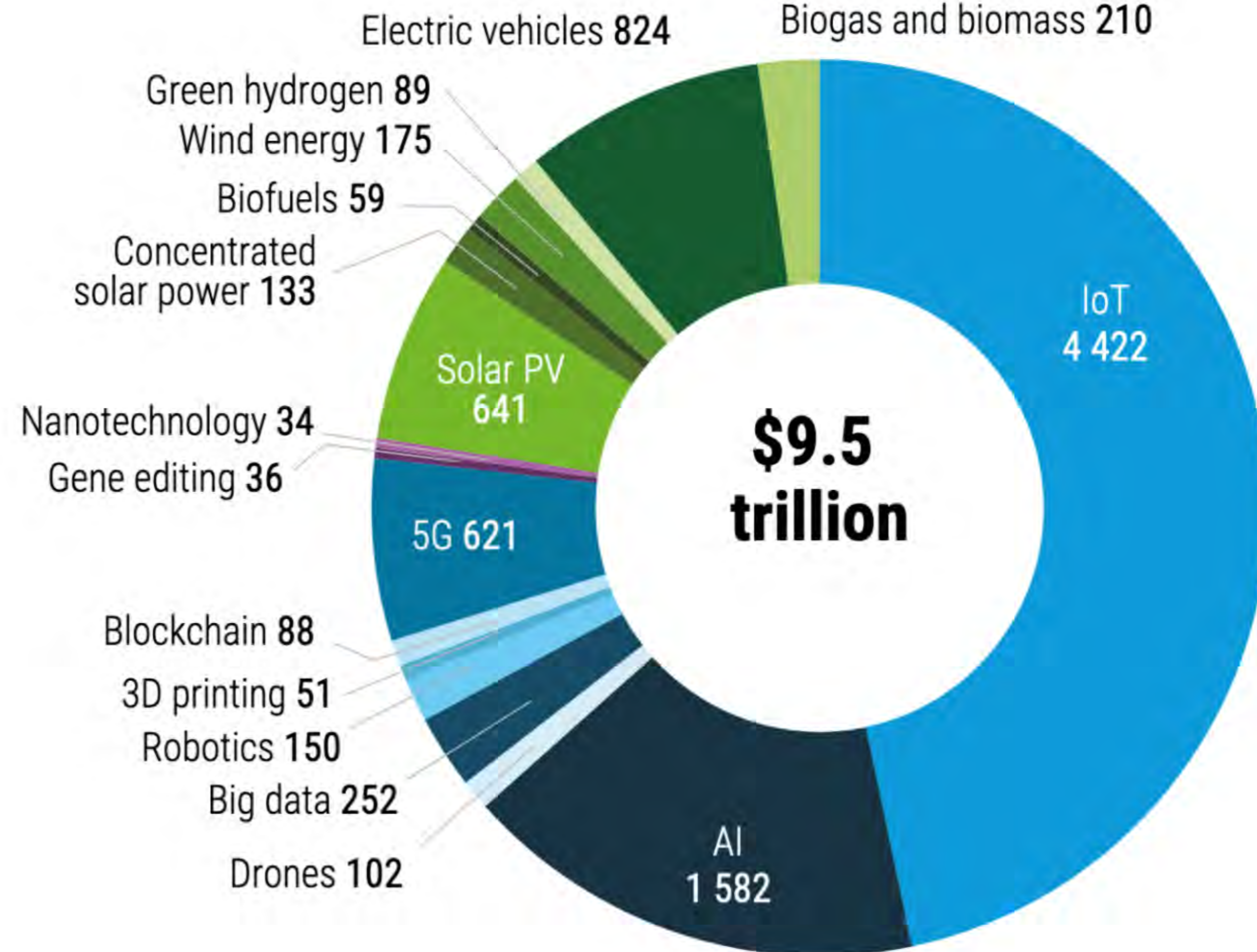
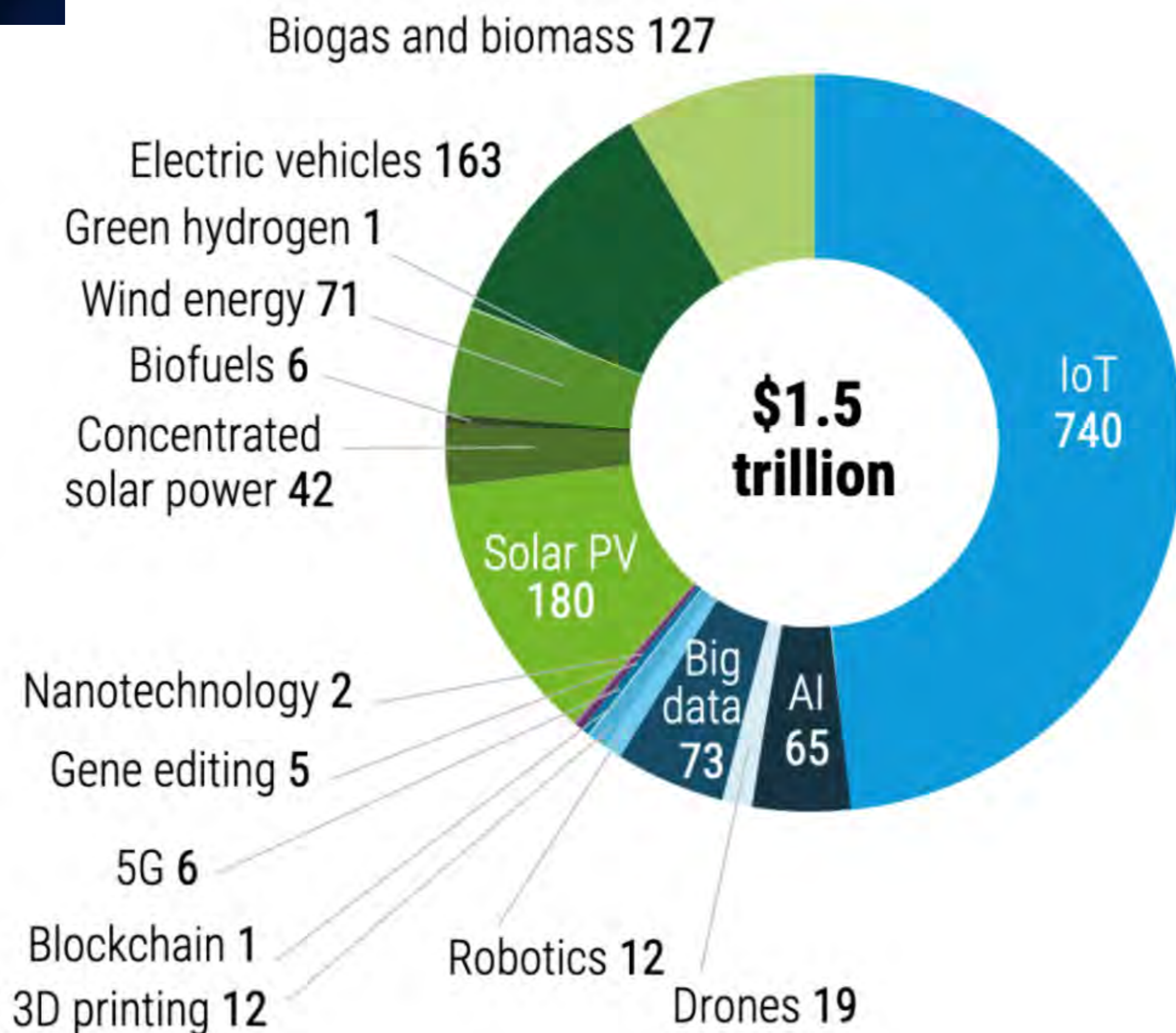


MARKET SIZE OF FRONTIER TECHNOLOGIES IN BILLION USD



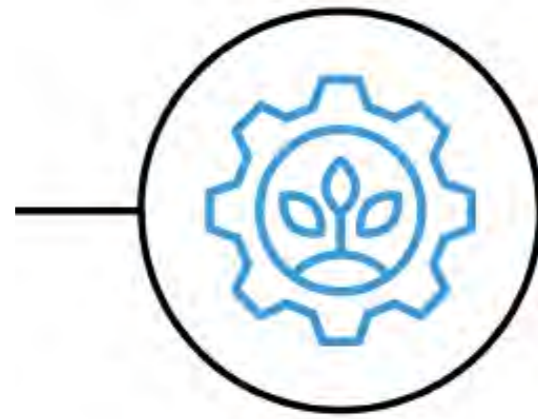
2020

2030

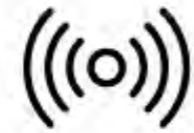




DIGITAL & GREEN TRANSFORMATIONS CAN BE TWINS WITH STRONG POLICY RESPONSES



The digital and green transformations can support each other



Capturing data using online-connected sensors and GPS can reduce carbon emissions



Smart manufacturing consumes less energy



Voluntary sustainability standards help upgrading value chains



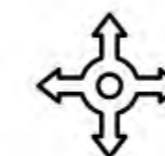
International cooperation supports this process by facilitating access to finance and external knowledge



The government, private sector, and the international community can act to open windows of opportunity



Aligning digital and environmental strategies

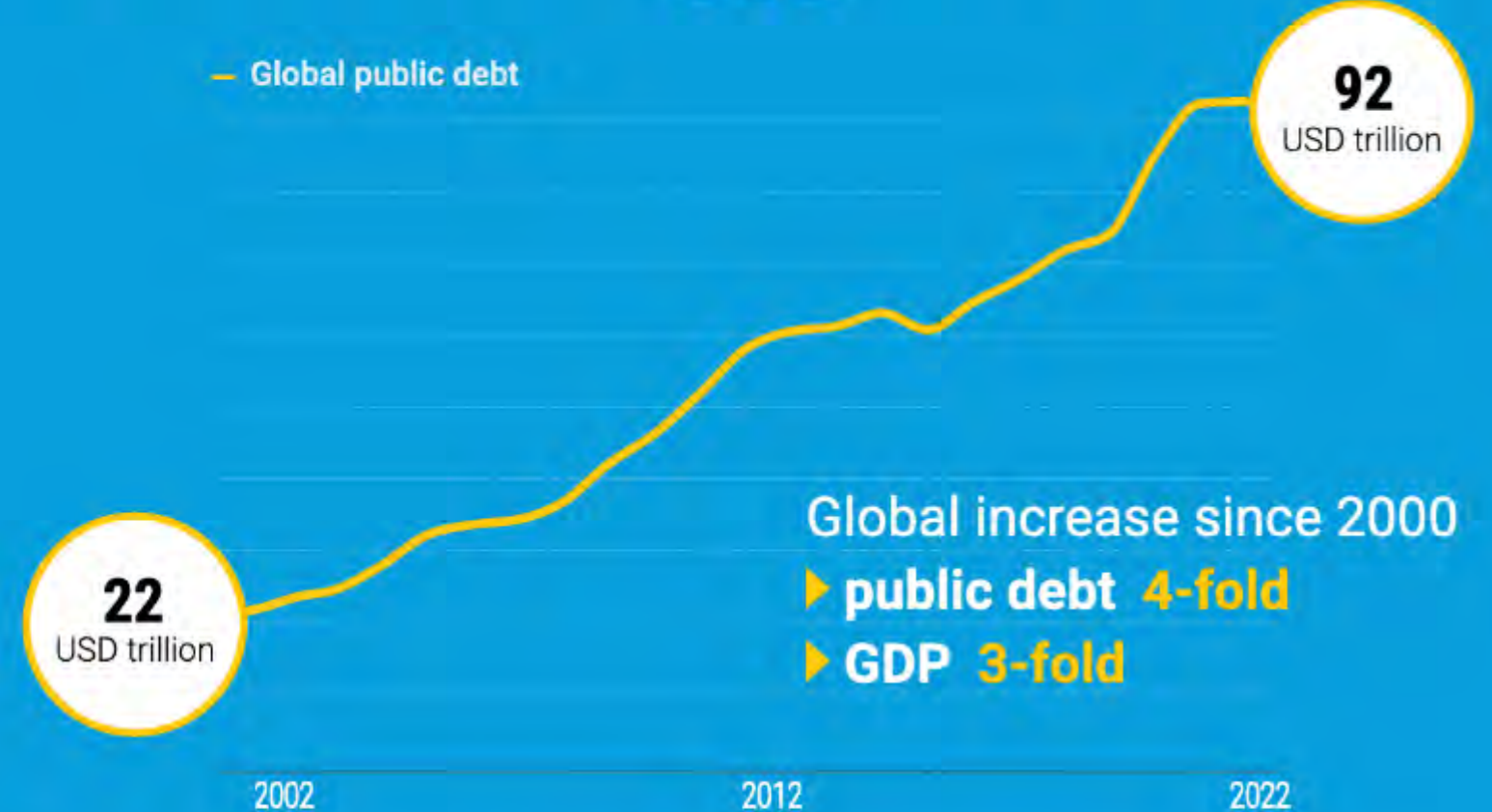


Developing the digital infrastructure and setting regulations

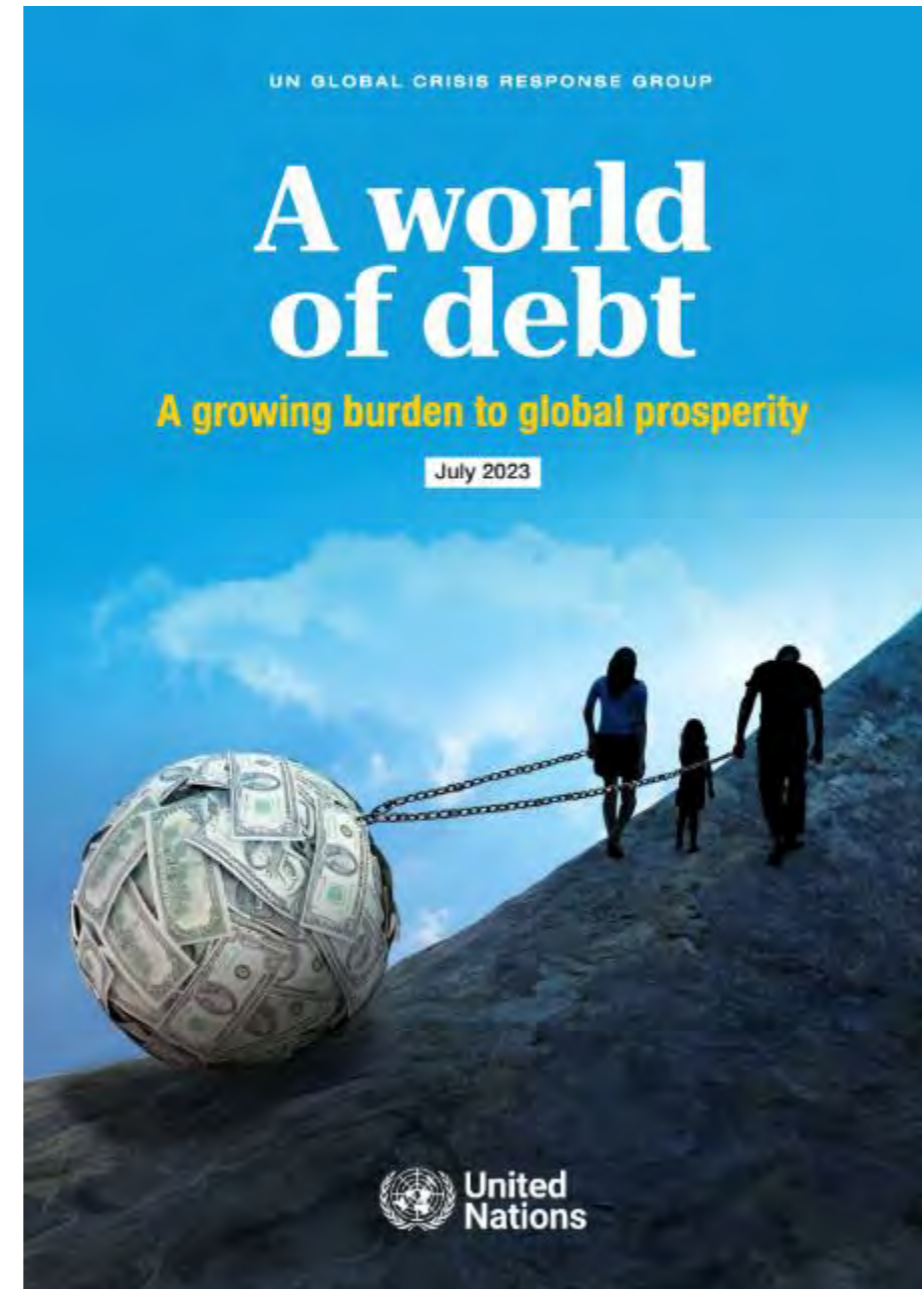


Global public debt has reached colossal levels

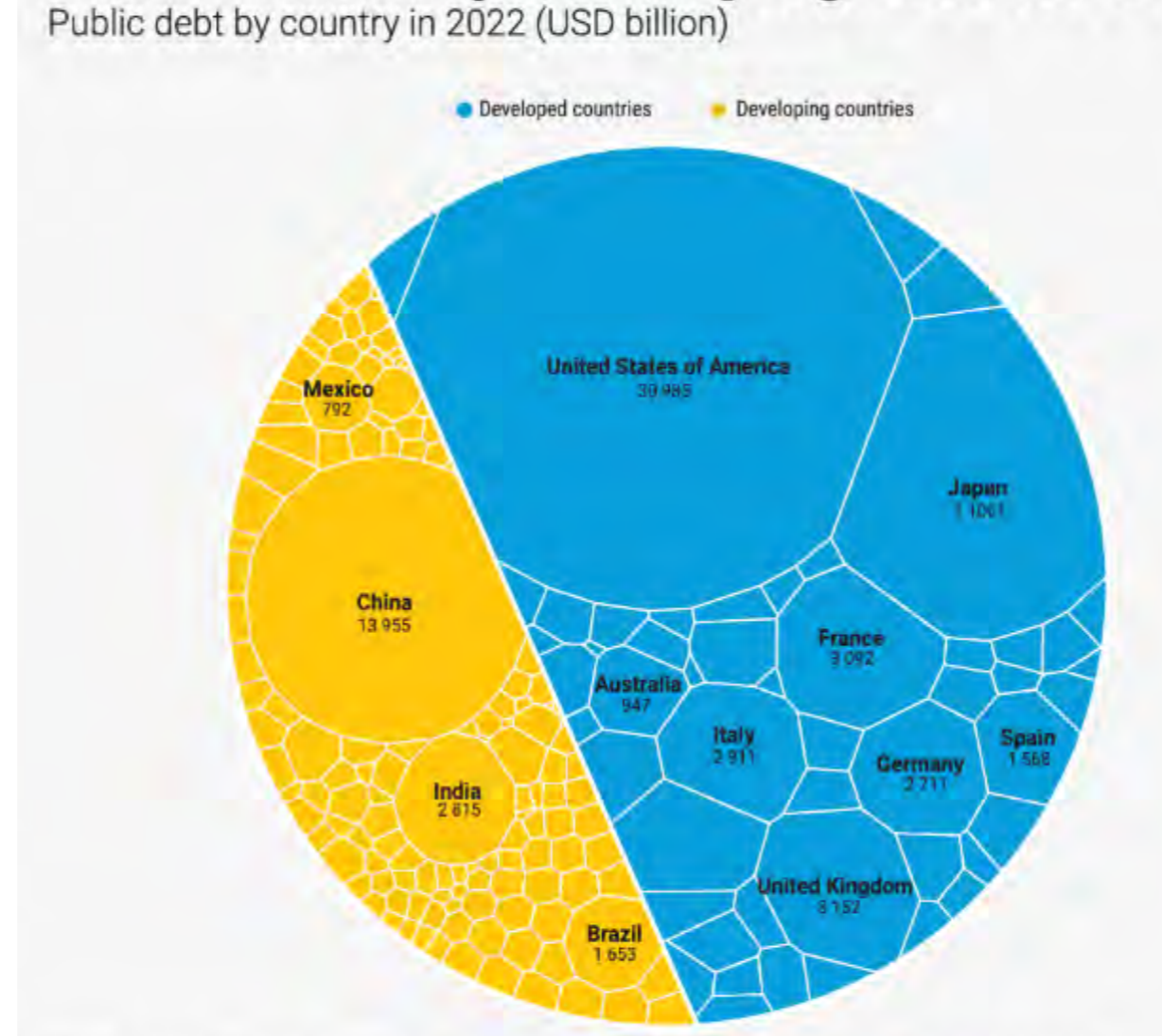
92 000 000 000 000 USD



Source: UN Global Crisis Response Group calculations, based on IMF World Economic Outlook (April 2023).
 Note: Figures represent nominal values in current USD. Public debt refers to general government domestic and external debt throughout the document. General government consists of central, state and local governments and the social security funds controlled by these units. Since the IMF World Economic Outlook does not include data for the United States of America in the year 2000, this value is based on the Federal Reserve.

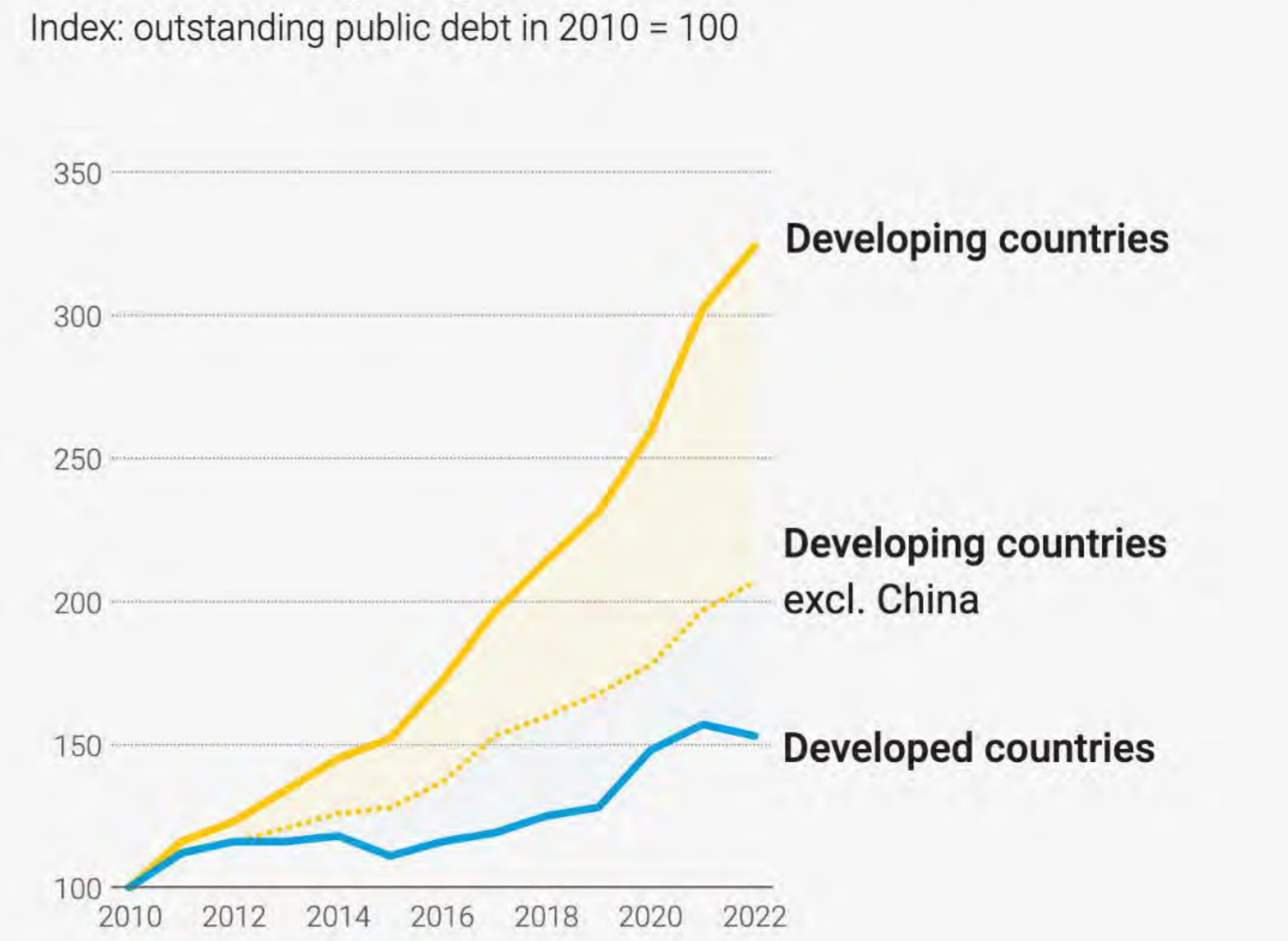


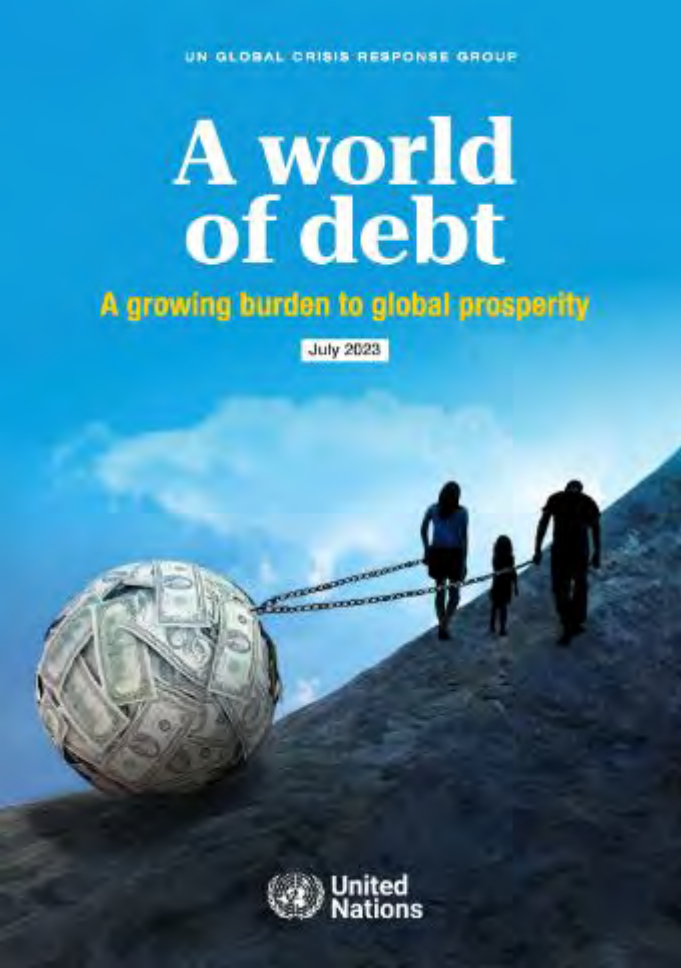
Almost 30% of global public debt is now owed by developing countries



Source: UN Global Crisis Response Group calculations, based on IMF World Economic Outlook (April 2023).

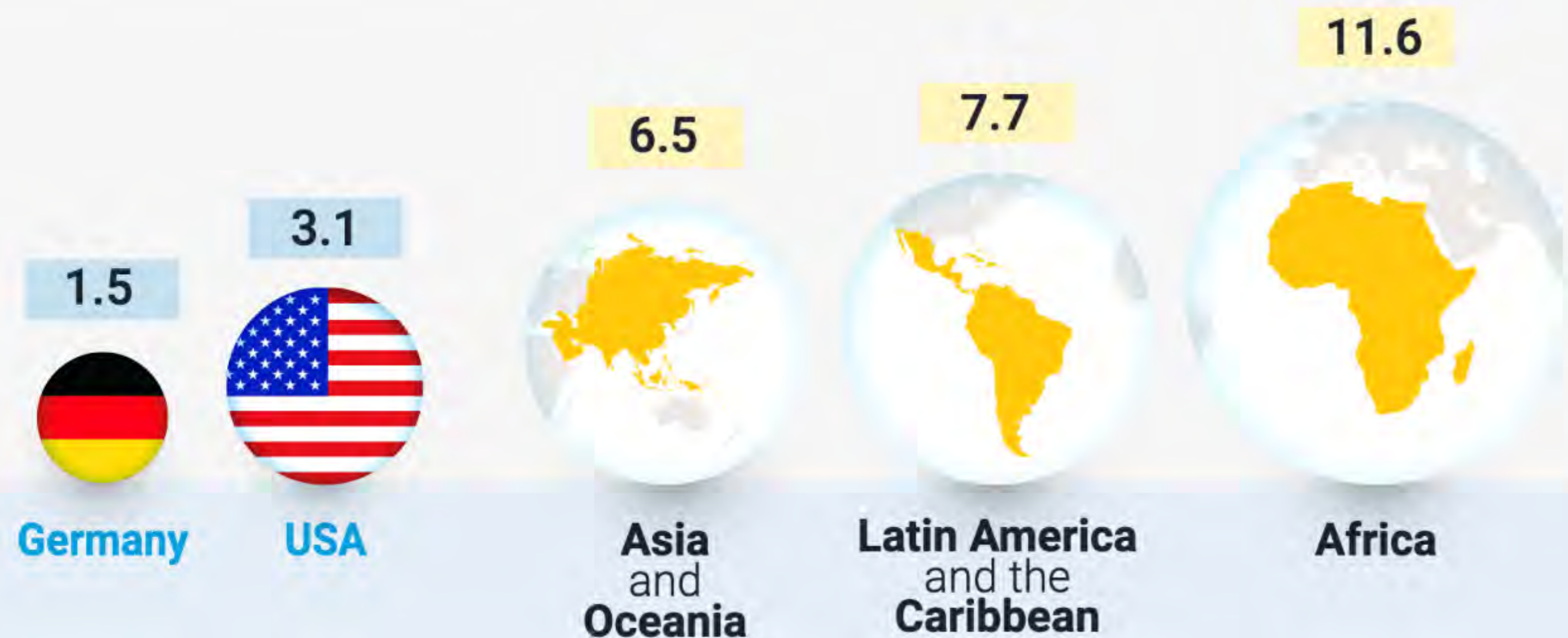
However, public debt is growing faster in the developing world





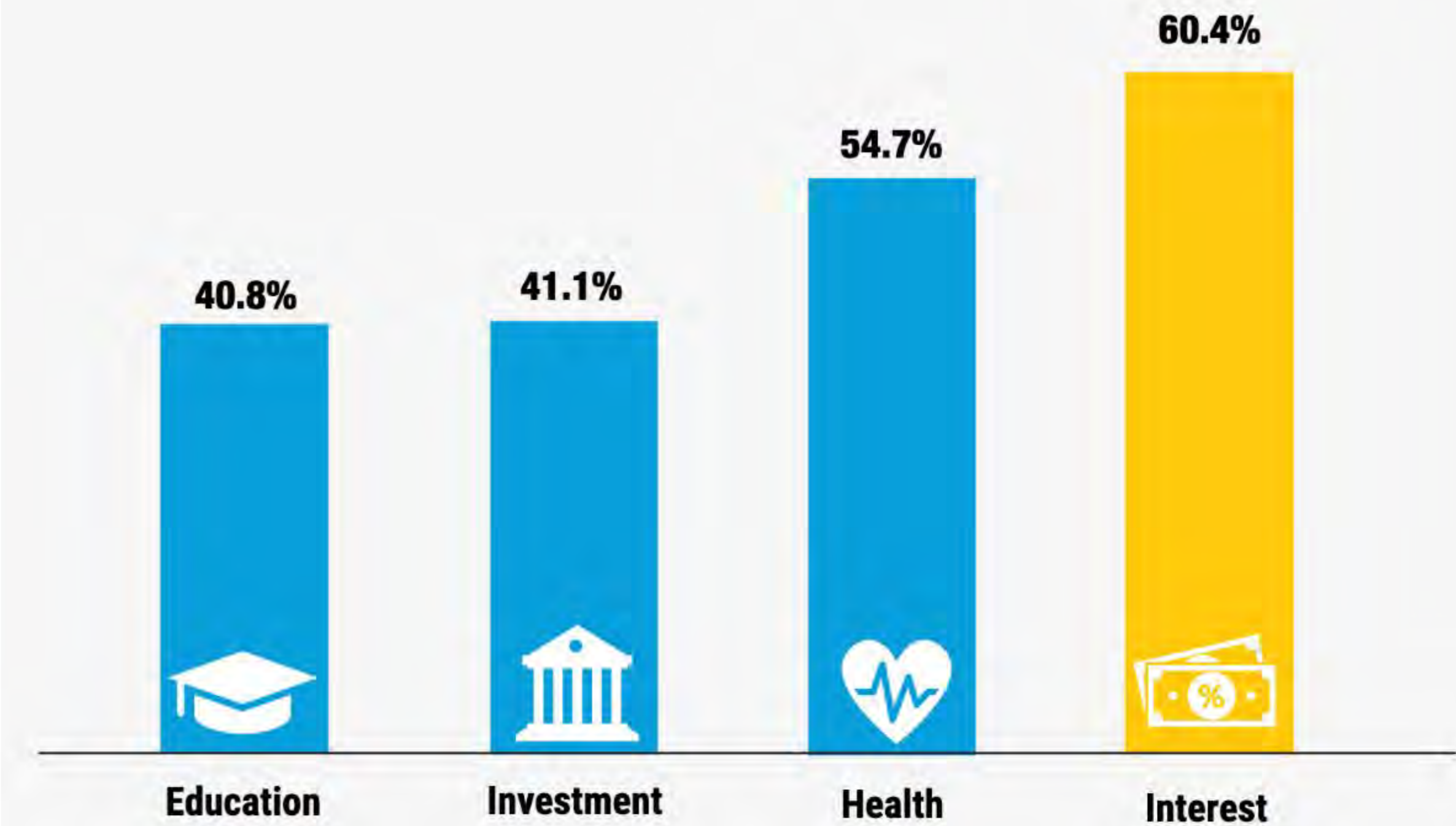
Developing countries carry much less debt than developed ones, but pay much more for it

Bond yields (2022-2023)



Interest payments are growing faster than other public expenditures

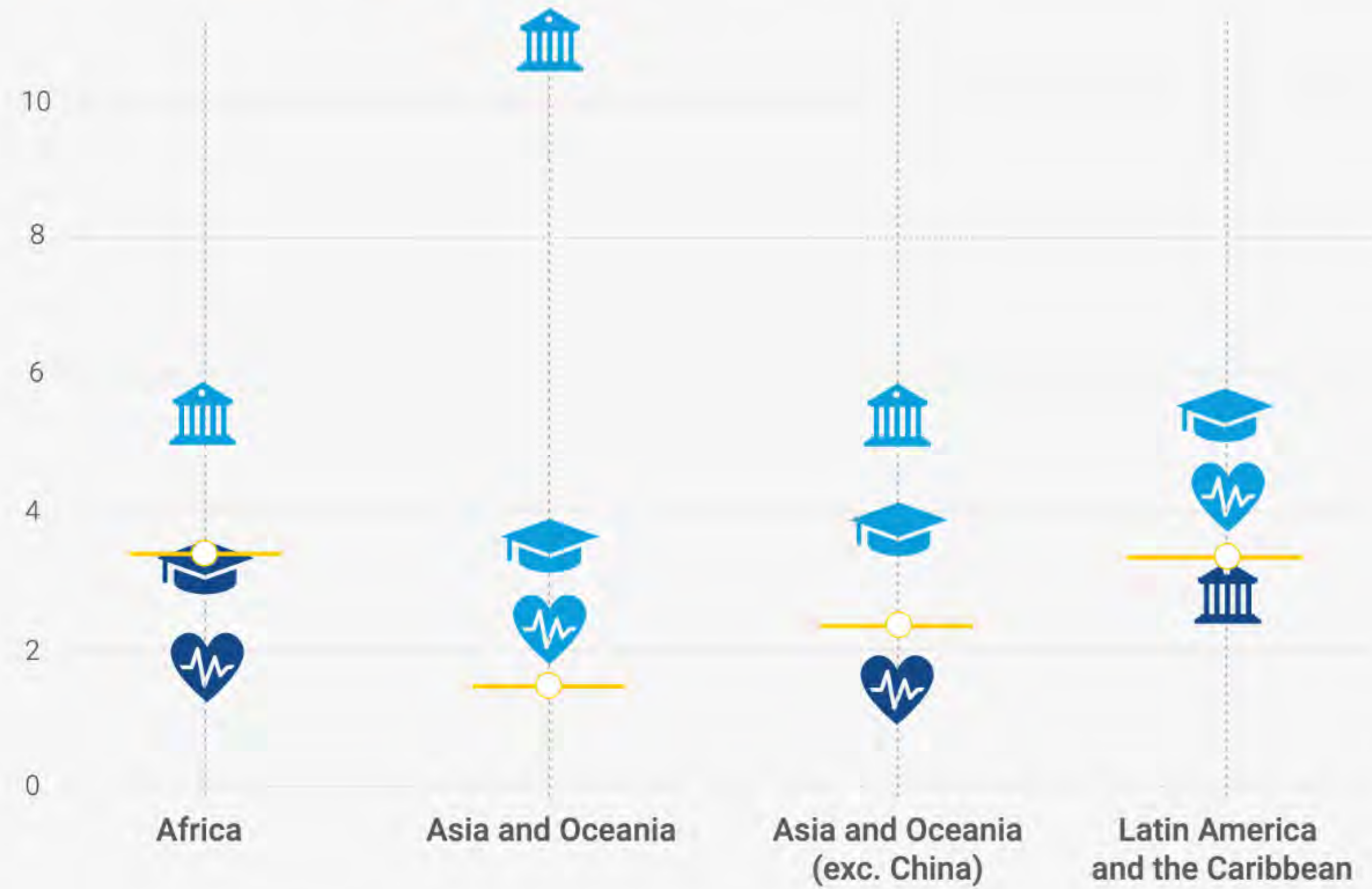
Nominal change (%) of public expenditure categories in developing countries between 2010-2012 and 2019-2021



Some regions spend more on servicing debt than serving their people

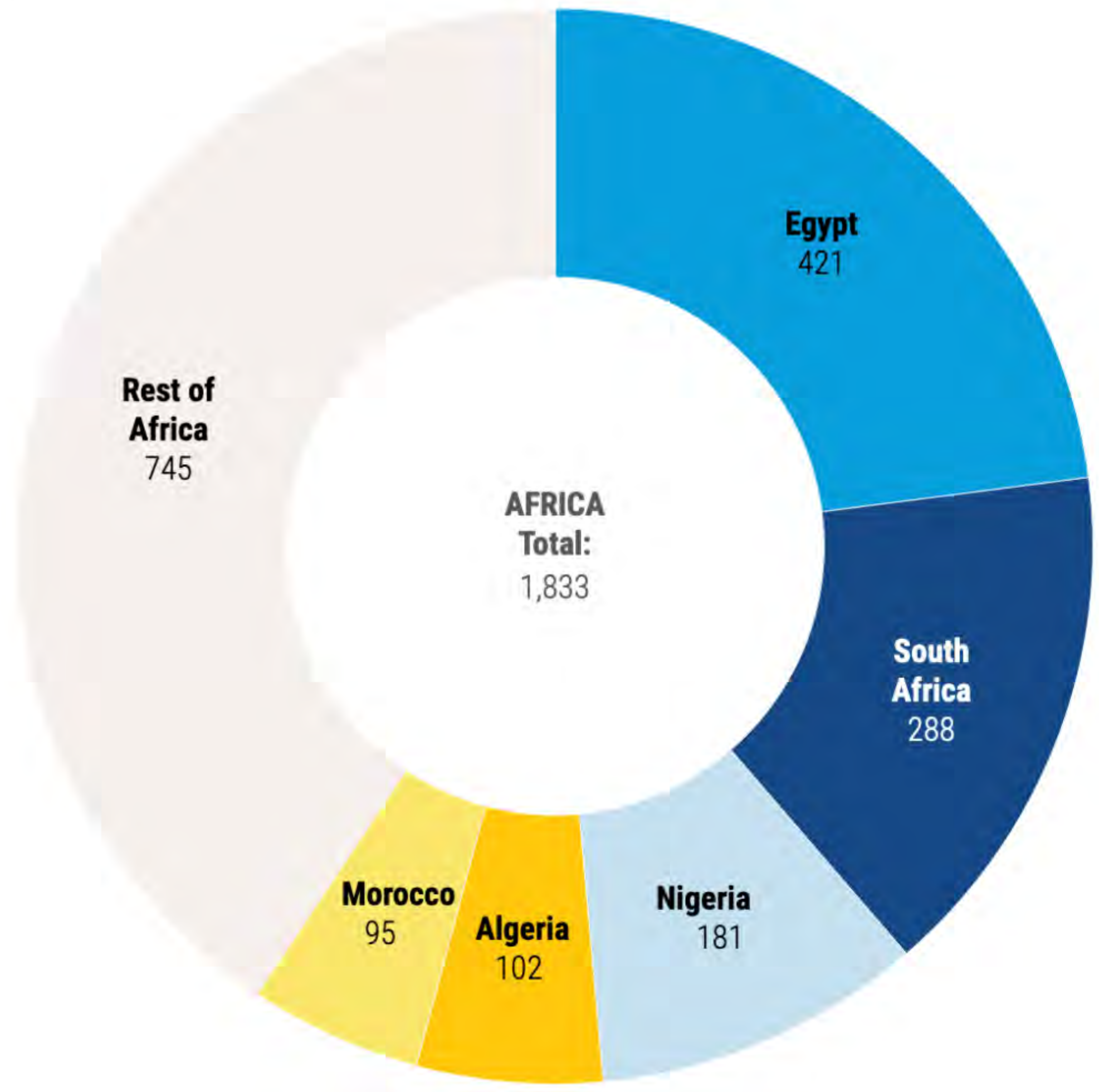
Public expenditure on net interest, education, health and investment as a share of GDP (%) (2019-2021)

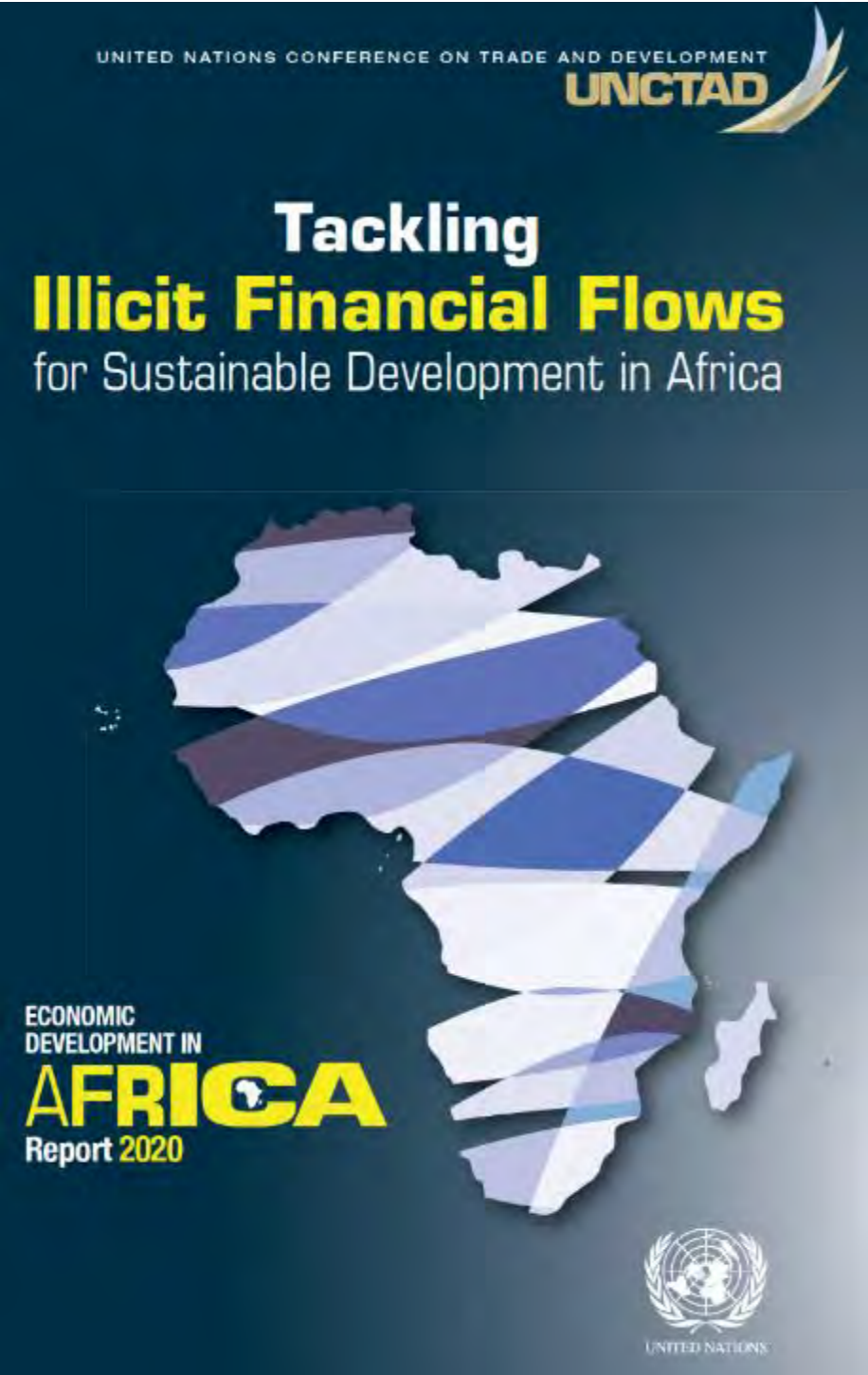
 Education
  Health
  Investment
  Interest



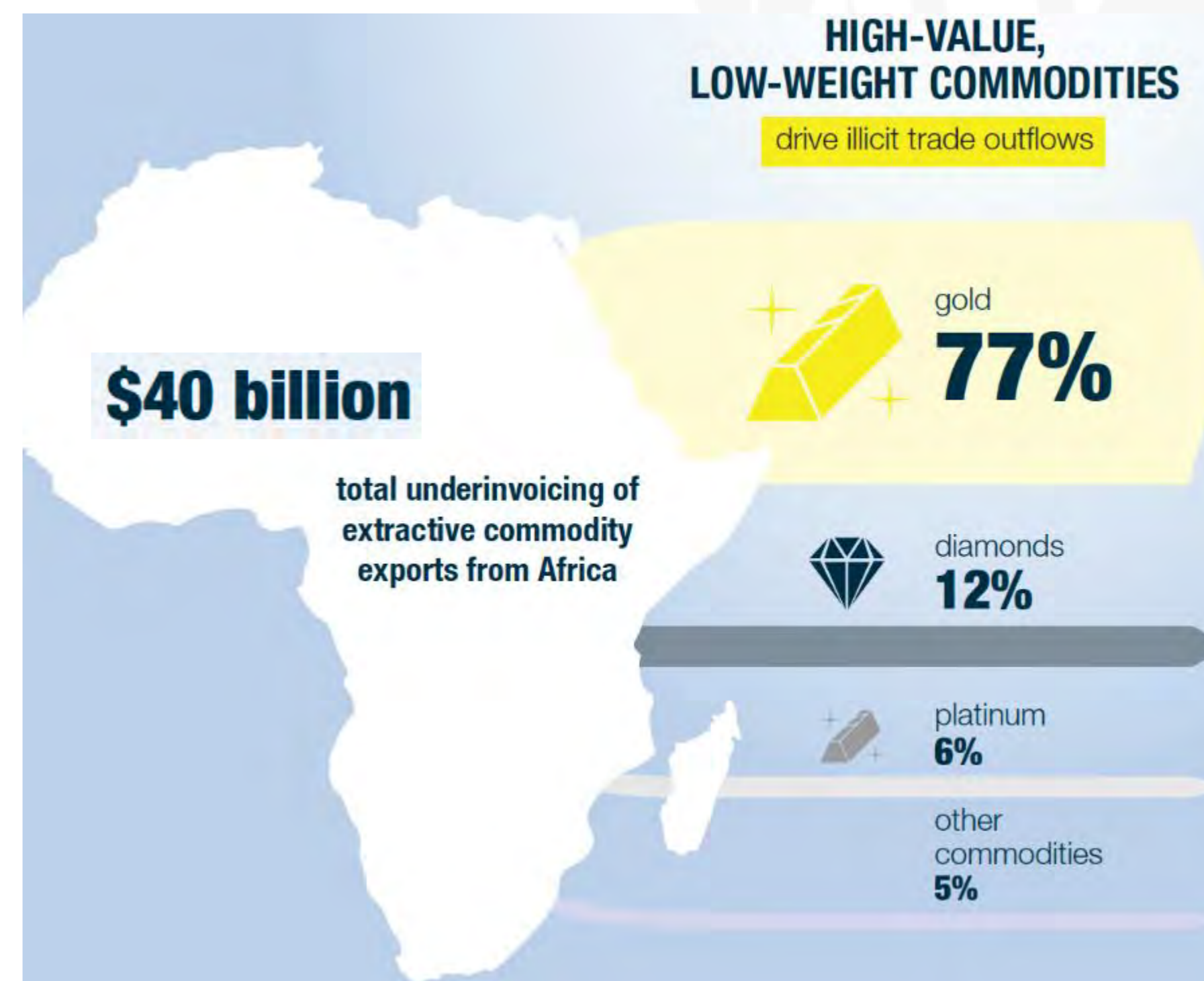
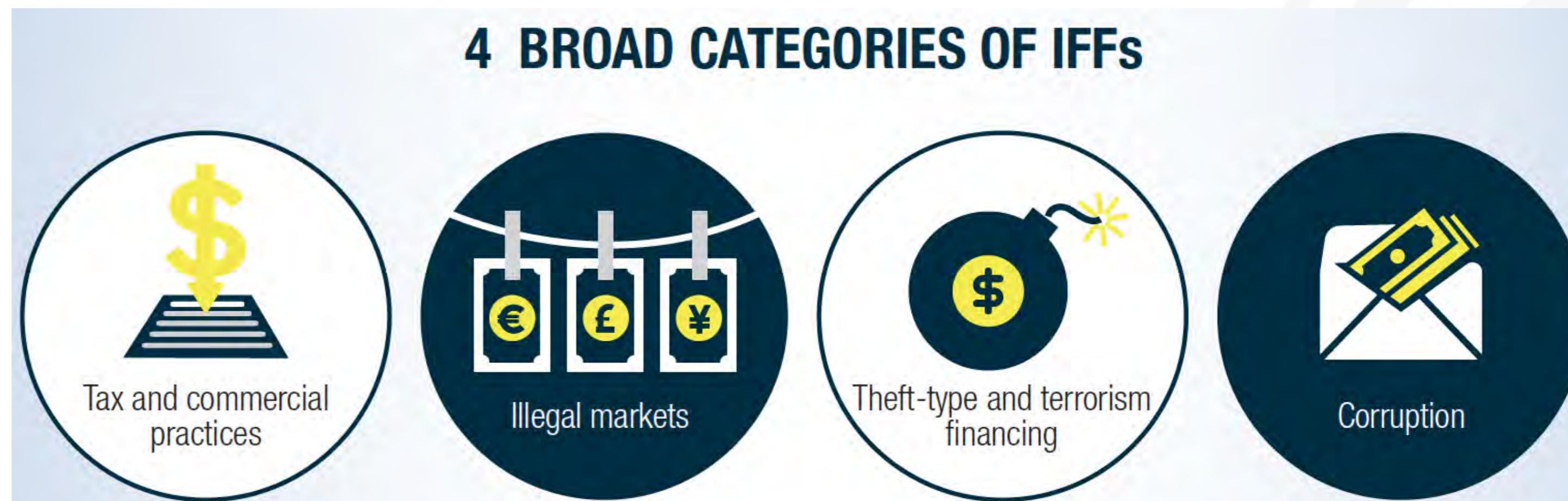
Public debt by country in 2022

in USD billion



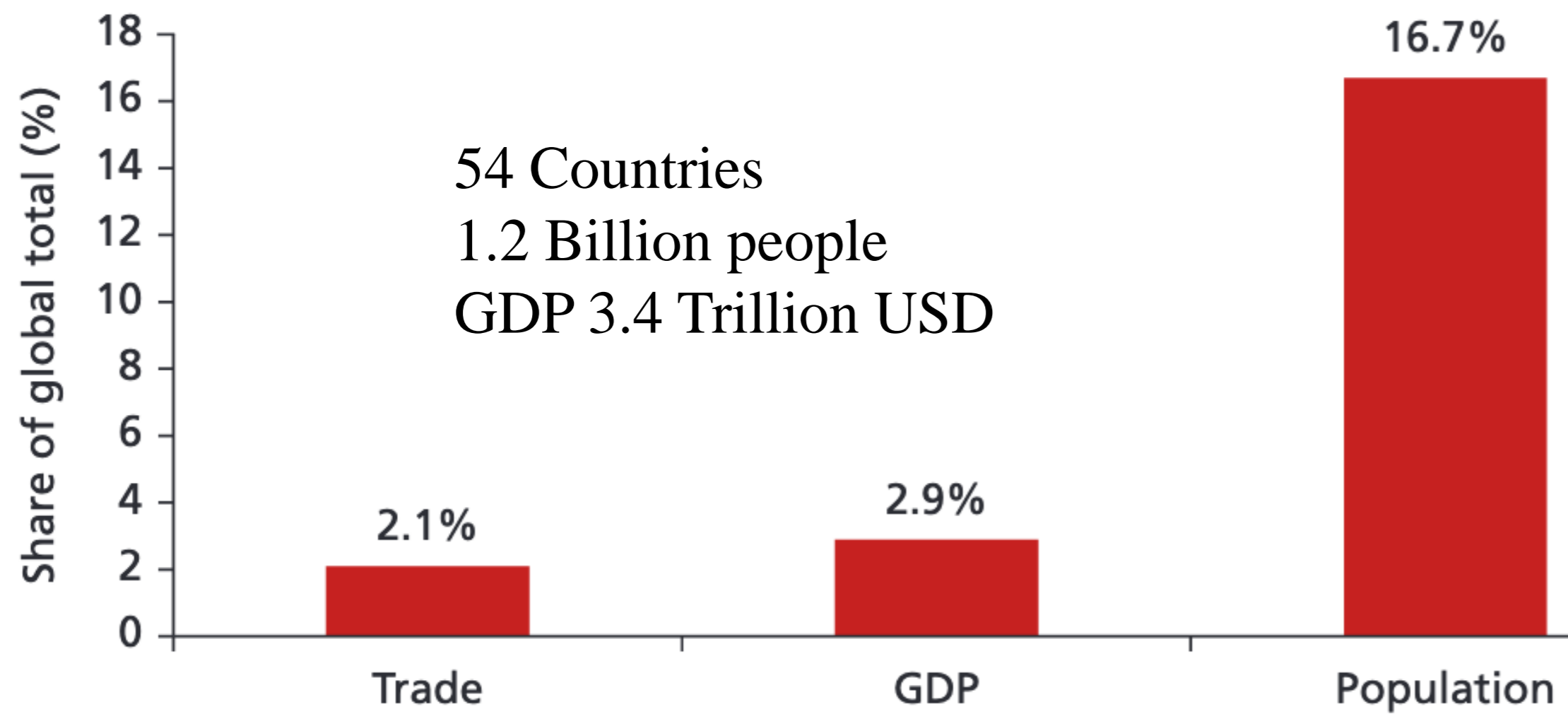


UNCTAD REPORT 2020: ILLICIT FINANCIAL FLOWS



AFRICAN CONTINENTAL FREE TRADE AREA (AfCFTA)

- Intra-Africa Trade 20% to 35% (2045)
- **Regional Value Chains:** Investments manufacturing, agriculture, others

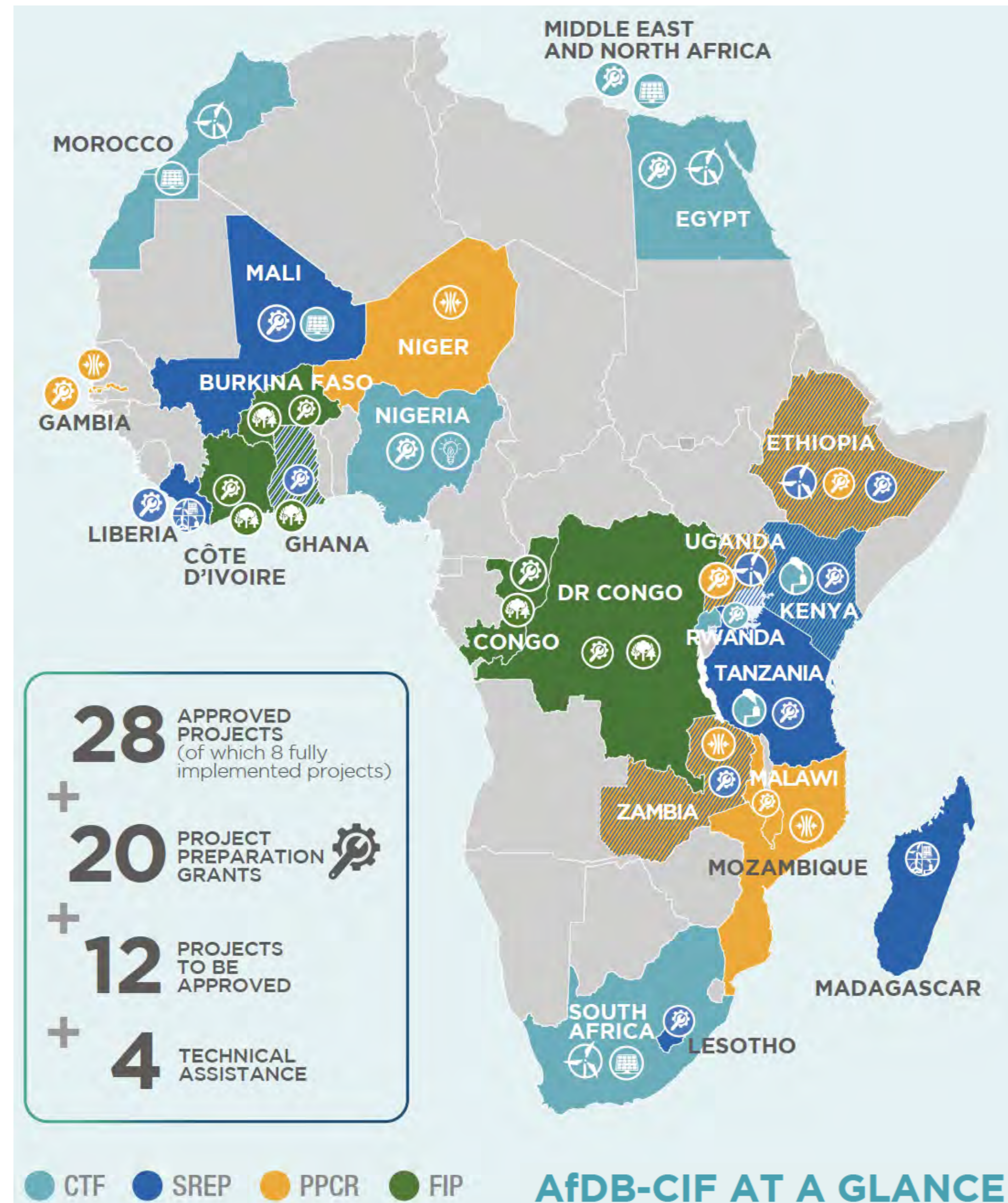


East African Community (EAC)	Common Market for East and South Africa (COMESA)	South African Development Community (SADC)	Economic Community of West African States (ECOWAS)	West African Economic and Monetary Union (WAEMU)	South African Customs Union (SACU)	Economic and Monetary Community of Central Africa (CEMAC)	African Continental Free Trade Area (AfCFTA)
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TOWARDS A CLIMATE-SMART AFRICA



NIGERIA
 LINE OF CREDIT FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY PROJECT
CTF \$1.25M, AfDB \$48.75M

SOUTH AFRICA
 SUSTAINABLE ENERGY ACCELERATION PROGRAM:
 XINA SOLAR ONE PROJECT
CTF \$41.5M AfDB \$100M

KENYA
 DPSP II: CONCESSIONAL FINANCE PROGRAM FOR GEOTHERMAL
 GENERATION: 35MW GEOTHERMAL IPP PROJECT
CTF \$20M, AfDB \$29.5M

CONGO
 COMMUNITY AGROFORESTRY AND WOOD ENERGY PROJECT
FIP \$8M, AfDB \$83.4M

MOZAMBIQUE
 BAIXO LIMPOPO IRRIGATION AND CLIMATE RESILIENCE PROJECT
PPCR \$15.75M, AfDB \$25.79M

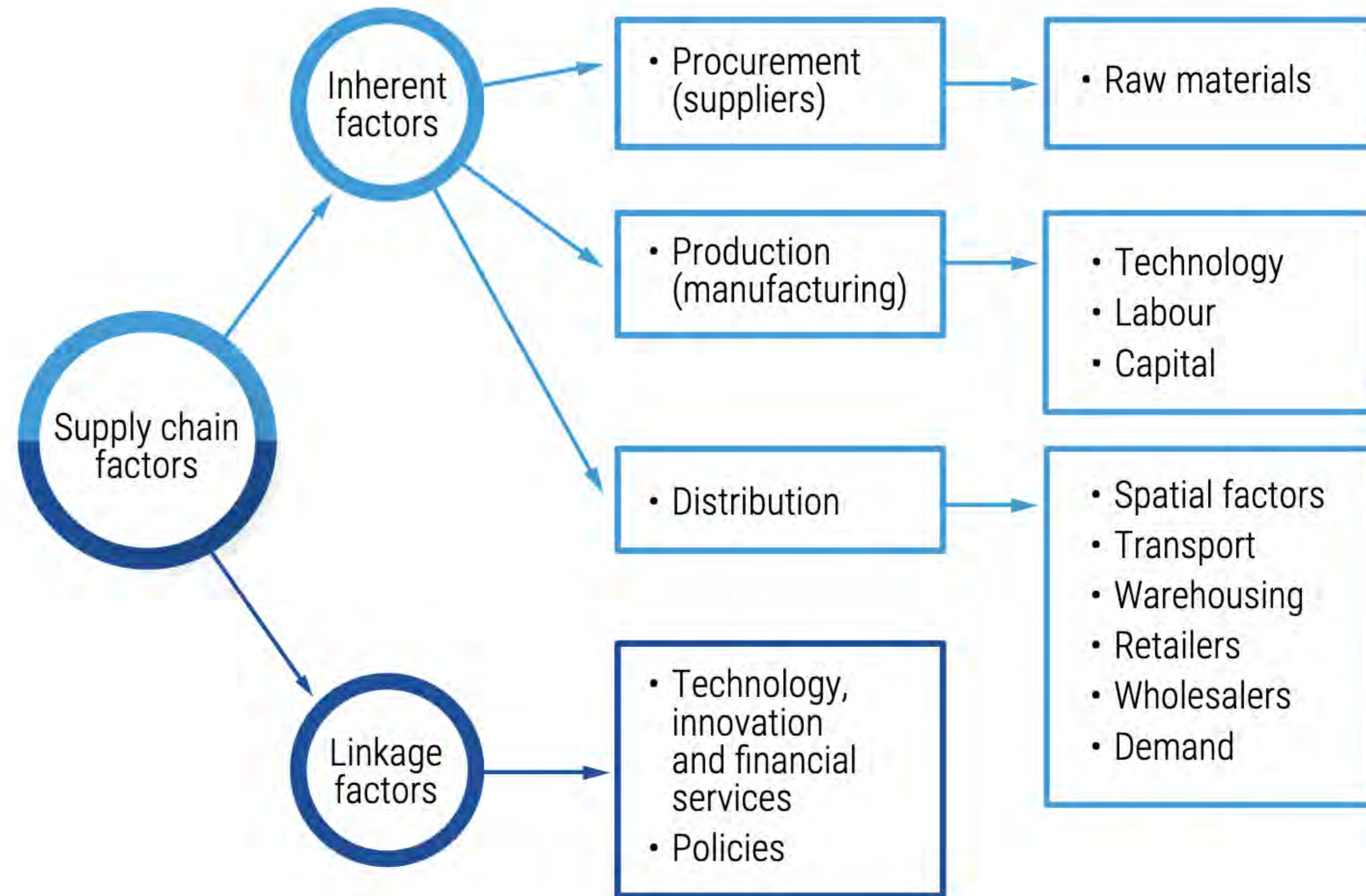
KENYA
 KOPERE SOLAR PV PROJECT
SREP \$11.6M , AfDB \$18.17M



Supply chains: Inherent and linkage factors

Multinationals reconsider resilience

- Countries in Africa can gain entry into supply chains
- Multinational to diversify in Africa with new supplier, producer and customer



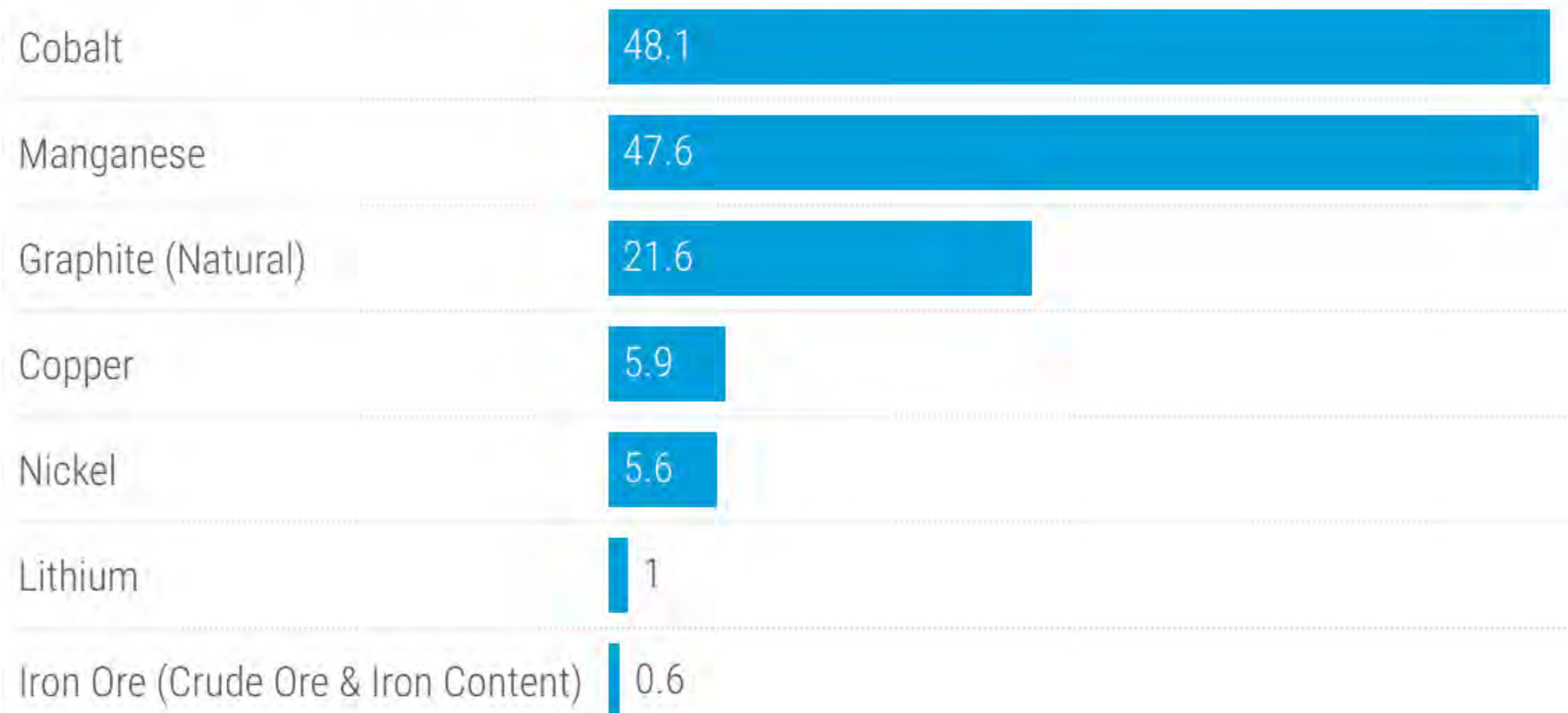
Source: UNCTAD, 2023.





Critical minerals: Africa has an abundance of metals needed for electric vehicles

Africa's share of global reserves, percentage



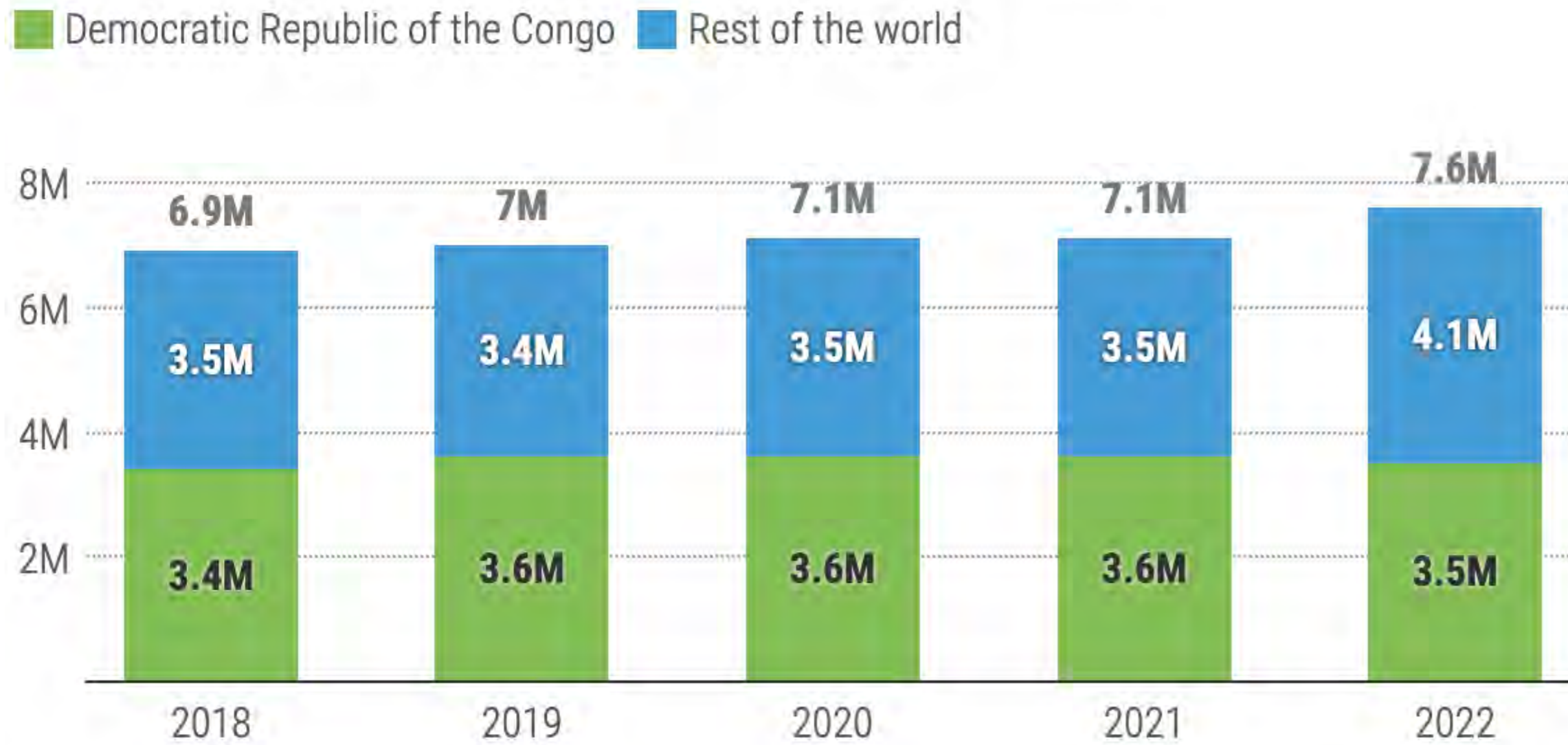
Source: UNCTAD calculations, based on data from the Knoema database, 2023





Smartphone batteries: The Democratic Republic of Congo has almost half the world's cobalt

Global cobalt reserves, 2018–2022, metric tons



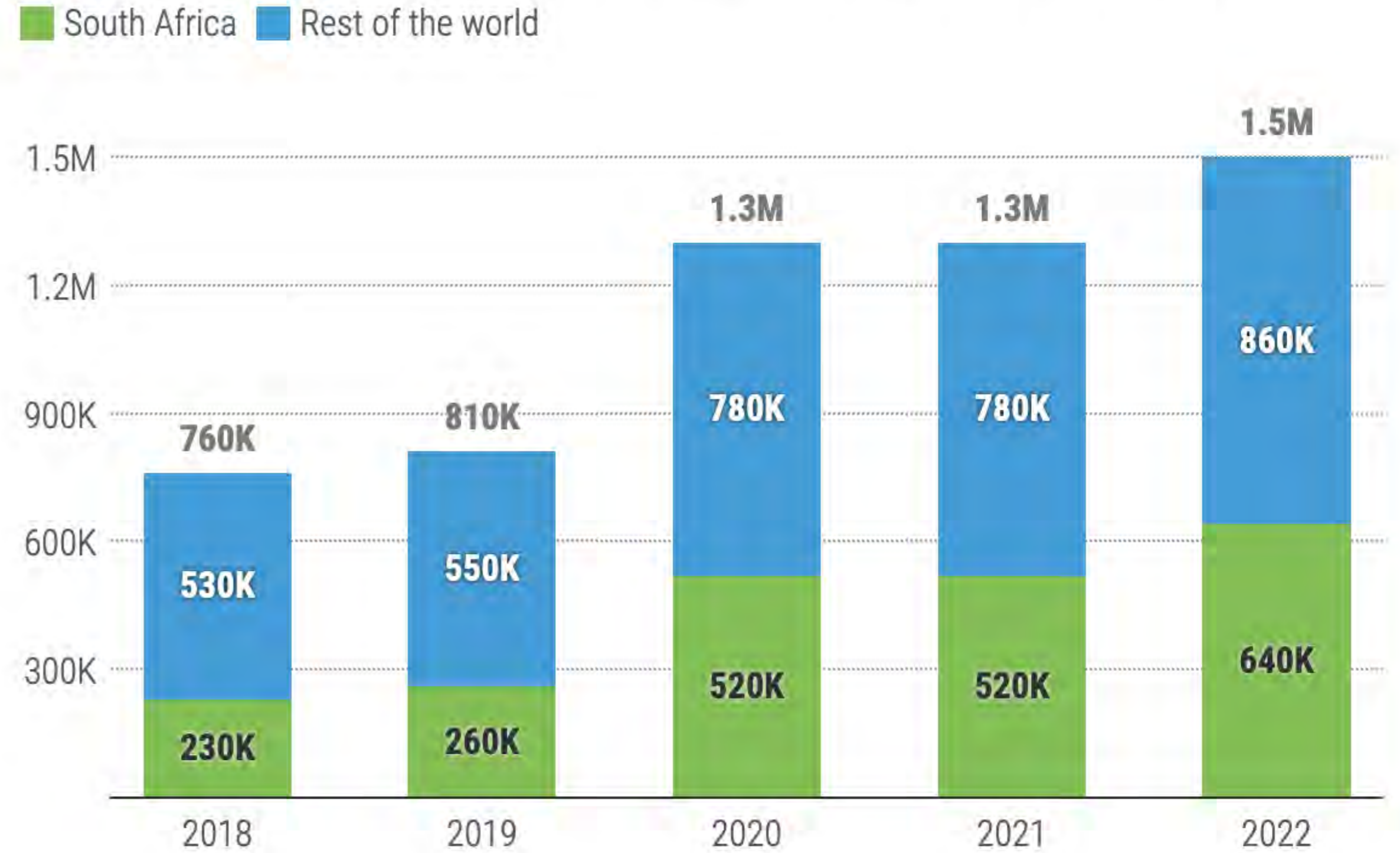
Note: Cobalt is an essential component for lithium-ion batteries used in many electronic devices.

Source: UNCTAD calculations, based on data from the Knoema database, 2023 • [Get the data](#) •



Powering electric cars: South Africa has the world's largest reserves of manganese

Global manganese reserves, 2018–2022, 1 000 metric tons



Note: Manganese is emerging as an increasingly vital metal for the electric vehicle industry, especially as a battery material.

Source: UNCTAD calculations, based on data from the Knoema database, 2023 • [Get the data](#) •



Digital and Sustainable Trade Facilitation: Global Report

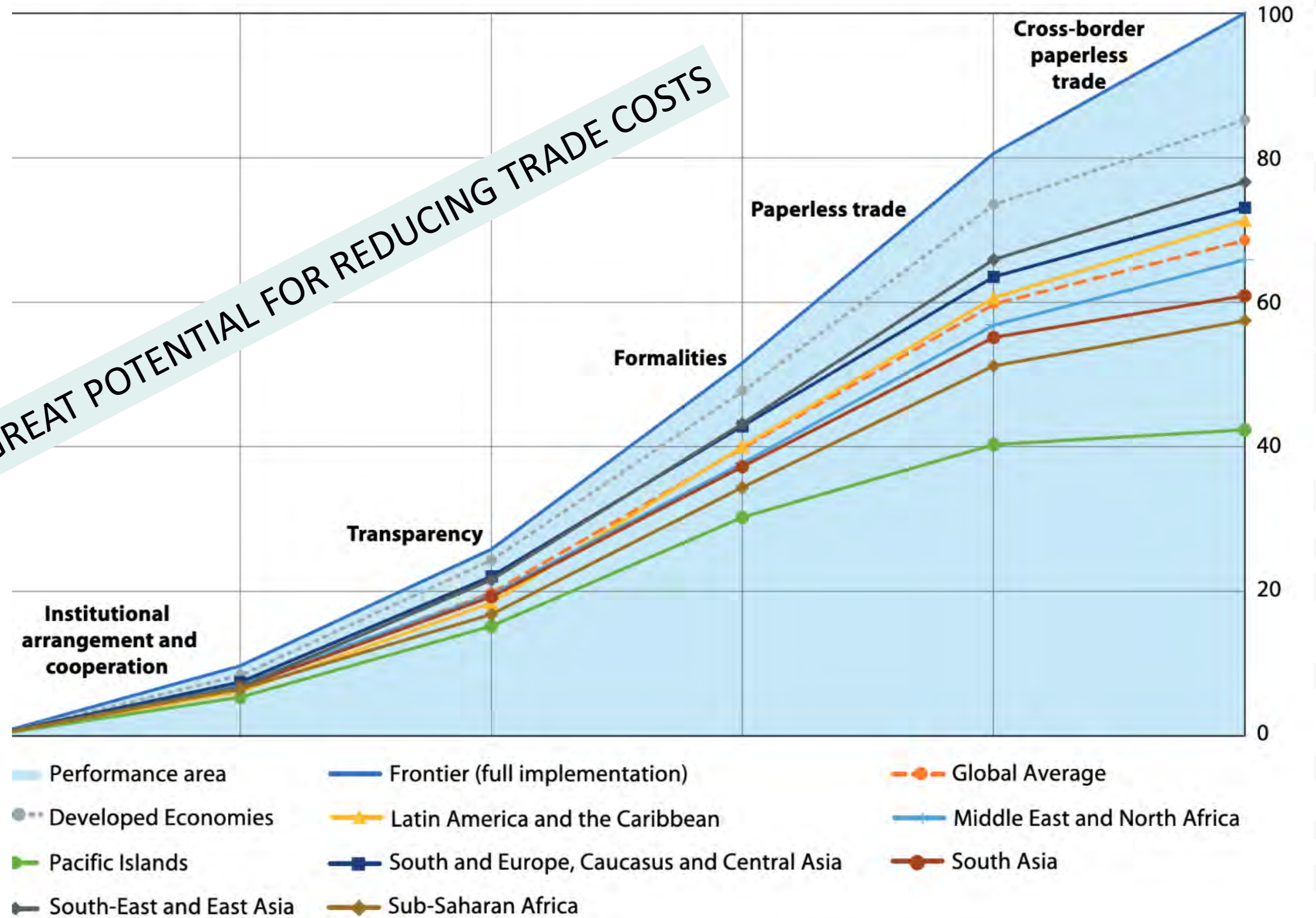
Based on the United Nations Global Survey on Digital and Sustainable Trade Facilitation **2023**



DIGITALIZATION OFFERS GREAT POTENTIAL FOR REDUCING TRADE COSTS



Moving up the trade facilitation ladder towards seamless international supply chains



Source: The UN Global Survey on Digital and Sustainable Trade Facilitation, available at untfsurvey.org, 2023.



Intra- and extra-regional comprehensive trade costs (excluding tariff costs)

Average tariff equivalent on the value of goods traded

Region	ASEAN-4	East Asia-3	South Asia-4	Latin America-4	North Africa-3	Sub-Saharan Africa-3	Western Asia-3	Europe-3	North America
ASEAN-4	74.9% (-0.6%)	78.6% (3.2%)	129.6% (-1.0%)	151.7% (-0.3%)	211.0% (-12.5%)	217.9% (7.4%)	181.2% (7.5%)	105.3% (-0.2%)	101.9% (-1.2%)
East Asia-3	78.6% (3.2%)	58.0% (10.0%)	129.3% (5.0%)	110.9% (1.5%)	173.7% (3.8%)	167.7% (4.9%)	162.2% (2.1%)	85.6% (1.0%)	78.1% (1.7%)
South Asia-4	129.6% (-1.0%)	129.3% (5.0%)	160.7% (36.5%)	187.1% (-3.4%)	163.7% (-17.8%)	212.6% (4.3%)	168.7% (3.2%)	117.4% (3.4%)	120.3% (2.2%)
Latin America-4	151.7% (-0.3%)	110.9% (1.5%)	187.1% (-3.4%)	102.8% (6.3%)	214.4% (-19.6%)	304.1% (7.0%)	226.0% (-1.7%)	113.6% (1.4%)	92.4% (-1.3%)
North Africa-3	211.0% (-12.5%)	173.7% (3.8%)	163.7% (-17.8%)	214.4% (-19.6%)	157.1% (-19.5%)	308.5% (20.4%)	139.2% (7.5%)	143.0% (6.1%)	229.8% (35.3%)
Sub-Saharan Africa-3	217.9% (7.4%)	167.7% (4.9%)	212.6% (4.3%)	304.1% (7.0%)	308.5% (20.4%)	232.8% (28.1%)	227.8% (11.9%)	153.8% (21.4%)	177.0% (8.3%)
Western Asia-3	181.2% (7.5%)	162.2% (2.1%)	168.7% (3.2%)	226.0% (-1.7%)	139.2% (7.5%)	227.8% (11.9%)	95.1% (15.5%)	152.0% (4.1%)	152.9% (-1.1%)
Europe-3	105.3% (-0.2%)	85.6% (1.0%)	117.4% (3.4%)	113.6% (1.4%)	143.0% (6.1%)	153.8% (21.4%)	152.0% (4.1%)	41.8% (-2.7%)	76.3% (0.3%)
North America	101.9% (-1.2%)	78.1% (1.7%)	120.3% (2.2%)	92.4% (-1.3%)	229.8% (35.3%)	177.0% (8.3%)	152.9% (-1.1%)	76.3% (0.3%)	30.2% (2.1%)

ASEAN-4: Indonesia, Malaysia, the Philippines and Thailand

East Asia-3: China, Japan and the Republic of Korea

South Asia-4: Bangladesh, India, Pakistan and Sri Lanka

Latin America-4: Brazil, Chile, Mexico and Uruguay

North Africa-3: Morocco, Egypt and Sudan

Sub-Saharan Africa-3: Nigeria, Kenya and Ghana

Western Asia-3: Jordan, Lebanon and Saudi Arabia

North America: Canada and the United States of America

Europe-3: Germany, France and United Kingdom

Source: ESCAP-World Bank Trade Cost Database, updated July 2023. Available at <https://www.unescap.org/resources/escap-world-bank-trade-cost-database>

Note: Trade costs may be interpreted as tariff equivalents. Percentage changes in trade costs between 2010-2015 and 2016-2021 are in parentheses.

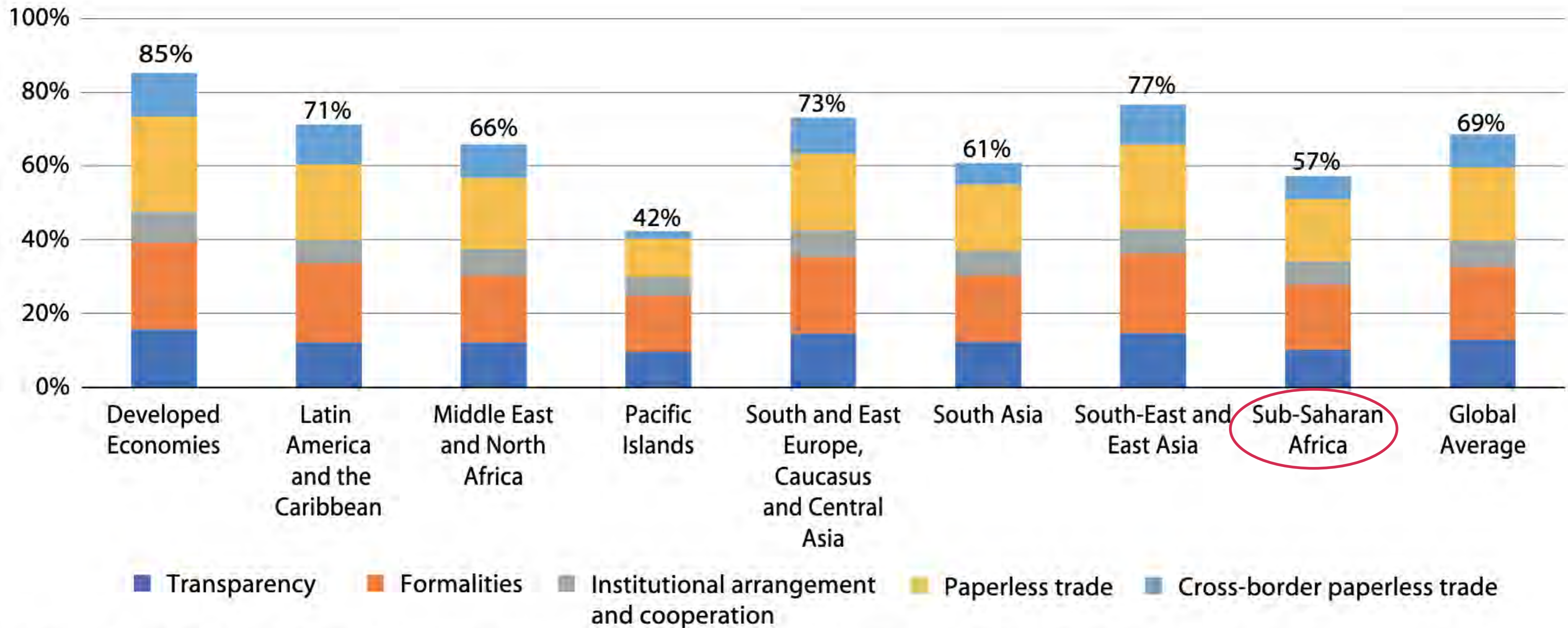


Trade Protectionism

- Subsidies
 - Tariffs
 - Quotas
 - Licensing requirements
 - Other obstacles (International sanctions and penalties, digital taxation)
- ❖ Trading nations have been erecting fresh barriers at a **higher rate** than they were adopting measures to liberalise trade!
- ❖ Protectionism is likely to make supply chain resiliency harder to attain, not to mention **more costly**



Average implementation rates of trade facilitation measures around the world



Source: The UN Global Survey on Digital and Sustainable Trade Facilitation, 2023. Available at untfsurvey.org

Average implementation rates of trade facilitation measures in Sub-Saharan Africa

- Transparency
- Formalities
- Institutional arrangement and cooperation
- Paperless trade
- Cross-border paperless trade

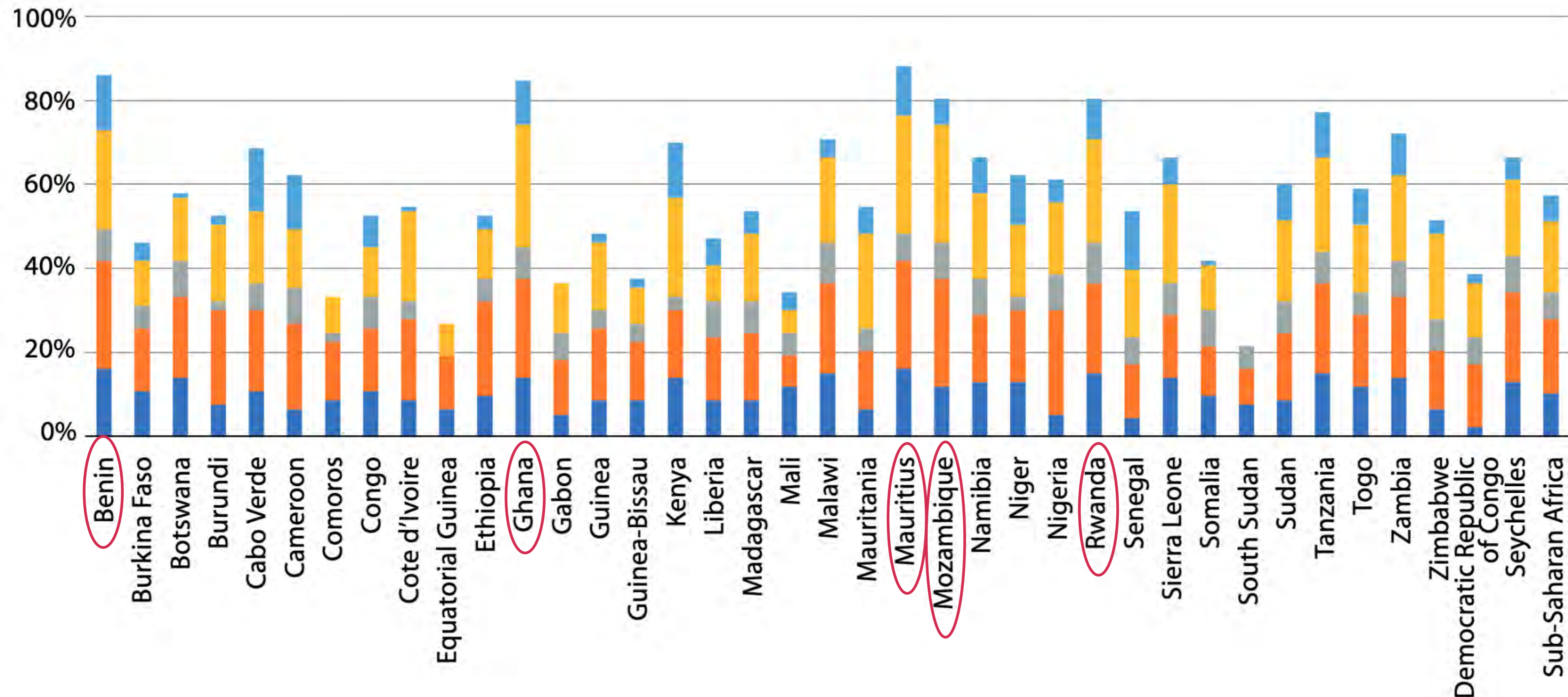


Exhibit 2: Our Projections Imply that China, the US, India, Indonesia, and Germany Will be the World's Five Largest Economies in 2050

World's largest economies (measured in US\$)

Ranking	1980	2000	2022	2050	2075
1	United States	United States	United States	China	China
2	Japan	Japan	China	United States	India
3	Germany	Germany	Japan	India	United States
4	France	United Kingdom	Germany	Indonesia	Indonesia
5	United Kingdom	France	India	Germany	Nigeria
6	Italy	China	United Kingdom	Japan	Pakistan
7	China	Italy	France	United Kingdom	Egypt
8	Canada	Canada	Canada	Brazil	Brazil
9	Argentina	Mexico	Russia	France	Germany
10	Spain	Brazil	Italy	Russia	United Kingdom
11	Mexico	Spain	Brazil	Mexico	Mexico
12	Netherlands	Korea	Korea	Egypt	Japan
13	India	India	Australia	Saudi Arabia	Russia
14	Saudi Arabia	Netherlands	Mexico	Canada	Philippines
15	Australia	Australia	Spain	Nigeria	France

Source: Goldman Sachs Global Investment Research



WHAT OPTIONS FOR AFRICA ?



This is Africa's moment to bolster its position in global supply chains, strengthen its emerging industries and create millions of jobs.

UNCTAD SECRETARY-GENERAL
REBECA GRYNSPAN

- ✓ Deeper integration in GSCs for diversification
- ✓ Focus on technology intensive industries
- ✓ Invest in renewable energies (solar panels, eVehicles), technology and infrastructure
- ✓ Raise real wages (Africa 220 USD vs 668 USD in the Americas) and social protection
- ✓ Leverage AfCFTA





UNITED NATIONS
UNCTAD



Global Supply Chain Forum

Barbados

21–24 May 2024



<https://unctad.org/conference/global-supply-chain-forum-2024>



UNITED NATIONS
UNCTAD



LEAVING NO ONE BEHIND

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Strengthening knowledge

and skills through innovative approaches for sustainable economic development



<http://tft.unctad.org>