# BUSINESS INSIGHTS ON EMERGING MARKETS 2023


EMERGING MARKETS
TRADE
PUBLIC PRIVATE PARTNERSHIPS
INVESTMENT DEVELOPMENT
ESG
GREEN ENERGIES
GLOBAL VALUE CHAINS
LATIN AMERICA AND THE CARIBBEAN
INFLATION
SUSTAINABILITY
EMERGING ASIA
AFRICA
ENERGY
GENDER EQUALITY
FDI
DIGITAL TRANSFORMATION
INTERNATIONALISATION

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# Business Insights on Emerging Markets 2023

# Acknowledgements

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# Editorial

As the world approaches the midpoint of 2023, the global economic outlook remains uncertain. Escalating trade tensions, inflationary pressures, tight monetary policies and rising risk perceptions are hindering growth and recovery prospects across emerging markets. Furthermore, the effects of the COVID-19 pandemic continue to be felt, while Russia's large-scale aggression against Ukraine costs thousands of lives and generates global energy and food market tensions, hitting the most vulnerable groups of populations.

The OECD Development Centre is committed to support its members during these challenging times. In 2022, the Centre celebrated its 60th anniversary with representatives from both the public and private sectors, reaffirming its role as a space for policy dialogue, where stakeholders can come together, share their experiences and expand their mutual understanding. The Centre is strongly focused on supporting countries in achieving stronger, more shared and greener development.

To address today's most pressing issues, policy makers need innovative ideas and different perspectives. The Centre's business platform, the Emerging Markets Network (EMnet), has been instrumental in engaging multinational enterprises in our policy discussions. EMnet members effectively leveraged their extensive networks, bridging connections between state and non-state actors from all regions. This engagement has not only facilitated meaningful interaction with the members of the Centre's Governing Board, but also has contributed to shaping upcoming priorities for the OECD Development Centre. An exemplary demonstration of this engagement was witnessed during the 8th High-Level Meeting of the Governing Board of the Development Centre, held on 24th October 2022, where EMnet actively contributed to the success of the discussions with senior government officials and other eminent personalities, to find innovative solutions to current global development challenges.

The Centre is grateful to its EMnet members for their engagement and valuable insights, which have helped inform this new edition of the *Business Insights on Emerging Markets*. We aim to help multinational enterprises identify options and navigate an increasingly risky and uncertain environment in emerging markets. I warmly invite you to read the report and use it to inspire further discussions and analysis on the private sector and its role in promoting stronger, more shared and greener development for all.

**Ragnheiður Elín Árnadóttir**

**Director, OECD Development Centre**

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# Abbreviations and acronyms

| | |
|---|---|
| **AAAM** | African Association of Automotive Manufacturers |
| **AfCFTA** | African Continental Free Trade Area |
| **AeTrade Group** | African Electronic Trade Group |
| **AI** | artificial intelligence |
| **ATC** | American Tower Corporation |
| **ASEAN** | Association of Southeast Asian Nations |
| **BRI** | Belt and Road initiative |
| **CEO** | chief executive officer |
| **CMA** | compact modular architecture |
| **CO2** | carbon dioxide |
| **COP** | Colombian pesos |
| **COP** | Conference of the Parties |
| **COVID-19** | Coronavirus disease 2019 |
| **CPTPP** | Comprehensive and Progressive Agreement for Trans-Pacific Partnership |
| **DFI** | development finance institution |
| **DSO** | distribution system operators |
| **EMI** | Emerging Markets Institute |
| **EMNCs** | emerging market multinational corporations |
| **EMnet** | Emerging Markets Network |
| **ESG** | environmental, social and governance |
| **EV** | electric vehicles |
| **FDI** | foreign direct investment |
| **fintech** | financial technology |
| **G7** | Group of Seven |
| **G20** | Group of Twenty |
| **GDP** | gross domestic product |
| **GHG** | greenhouse gas |
| **GSI** | Geographical Spread Index |
| **GSMA** | Global System for Mobile Communications Association |
| **HRDD** | human rights due diligence |
| **HSH** | Haier Smart Home |
| **ICE** | internal combustion engine |
| **ICT** | information and communications technology |
| **IDB** | Inter-American Development Bank |
| **IEA** | International Energy Agency |
| **IFC** | International Finance Corporation |
| **ILO** | International Labour Organisation |
| **IMF** | International Monetary Fund |
| **IoT** | Internet of Things |

| | |
|---|---|
| **IPP** | independent power producer |
| **IT** | information technology |
| **KPI** | key performance indicator |
| **LAC** | Latin America and the Caribbean |
| **LDC** | least developed countries |
| **LEVC** | London Electric Vehicle Company |
| **MDB** | multilateral development banks |
| **MoIC** | Egypt's Ministry of International Cooperation |
| **NCW** | National Council for Women in Egypt |
| **OECD** | Organisation for Economic Co-operation and Development |
| **OFDI** | Outward Forward Direct Investment |
| **OGP** | Open Government Partnership |
| **PPP** | public-private partnerships |
| **PV** | photovoltaics |
| **Q1,2,3,4** | First, second, third, fourth quarter |
| **R&D** | Research and Development |
| **SAQ** | Self-assessment questionnaire |
| **SBTi** | Science Based Targets initiative |
| **SDG** | Sustainable Development Goal |
| **SME** | small and medium-sized enterprise |
| **SUVs** | Sport utility vehicles |
| **TNI** | Transnationality Index |
| **UN** | United Nations |
| **UNCTAD** | United Nations Conference on Trade and Development |
| **UNDP** | United Nations Development Programme |
| **UNESCO** | United Nations Educational, Scientific and Cultural Organization |
| **USD** | United States dollars |
| **WEF** | World Economic Forum |
| **WTO** | World Trade Organization |

# Executive summary

## Recent trends in emerging markets

The global economy is expected to remain slow because of various factors, including Russia's full-scale invasion of Ukraine, persistent supply chain bottlenecks, inflationary pressures, tighter monetary policies and an increasing risk perception. Global GDP growth is projected to decline from 5.9% in 2021 to 3.2% in 2022, and further to 2.6% in 2023. While emerging markets have shown signs of resilience, commodity prices spiked in 2022 in several sectors, notably oil and gas, coal, a range of metals, wheat and corn, some edible oils and fertilisers, however headline inflation is projected to ease in 2023, especially in the G20 economies. Widespread monetary tightening across major economies and increasing risk aversion have led to rising exchange rate volatility and tighter financial conditions in global markets. Finally, several emerging and developing economies face an increased food security risk from high food, energy and fertilizer prices and persisting supply shortages, including India, Chile and Colombia.

In the same way, the global energy sector is experiencing a crisis that affects nearly all countries and energy sources, fuelling inflationary pressures and creating a looming risk of recession. Government responses promise an acceleration of the clean energy transition, but shortfalls in clean energy investment still exist and are particularly evident in emerging and developing economies, where demand for energy services is growing rapidly. If we consider countries other than China, evidence shows that annual clean energy investment in emerging and developing economies has remained flat since the Paris Agreement in 2015.

Global FDI flows rebounded to USD 972 billion in the first half of 2022, but the increase occurred mostly in Q1, with a 22% drop in Q2. Announced greenfield FDI in emerging markets is growing at modest levels, with the Asia-Pacific region remaining the most important destination in 2022, with 63% of all announced projects in emerging markets.

## Private sector insights on emerging markets

EMnet participants highlight their views and priorities, to tackle the multiple crises that have emerged in recent years and navigate an increasingly risky and uncertain environment.

### *Scale up sustainable finance*

The financing gap for the Sustainable Development Goals (SDGs) was significantly impacted by the COVID-19 pandemic. Initially estimated at USD 2.5 trillion per year until 2030, it increased to USD 3.7 trillion in 2020. EMnet participants highlight the potential for ESG criteria and sustainable finance to support progress towards the achievement of the SDGs in emerging markets by 2030. However, they also point to long-standing challenges such as different approaches and methodologies, data inconsistencies and lack of comparability of ESG metrics. Firms point out that traditional SDG scoring methodologies use a handful of structural key performance indicators (KPIs) that incentivise portfolio

managers to reward those already doing well, while causing the weaker performers that need investment the most, to miss out.

In emerging markets, the financial sector is increasingly adopting sustainable and green financing. The private sector is a leading issuer of sustainable debt, with a significant rise in sustainability-linked bonds. Gender-bonds are also rapidly growing, with two-thirds of the issuance taking place since 2020. Increased interest from investors in sustainable and social investment can be leveraged to support initiatives in support of the most vulnerable groups of the population, particularly women. EMnet participants stress the importance of designing transparent and well-defined guidelines and systems that promote and guide investment practices focused on sustainability within emerging markets, building on existing initiatives, and the key supportive role of international and regional institutions.

### *Promote sustainable value chains*

The integration of sustainability considerations into value chain strategies has the potential to de-risk investment and support inclusion across emerging markets. However, EMnet participants point to significant challenges, due to the fragmented regulatory landscape and lack of harmonisation. Addressing the needs of local SMEs is also crucial, to ensure their development and successful integration in global markets.

EMnet participants emphasize the importance of regional production networks in boosting economic growth, investment and productive transformation, particularly in Africa. EMnet participants stress the potential of regional industrial ecosystems, where intra-regional industrialisation could boost production and revenue. Addressing non-tariff barriers has also the potential to unlock business opportunities. EMnet participants point to the need for harmonisation, digitalisation and simplification of regulations, and a quick implementation across jurisdictions.

### *Accelerate the green energy transition*

The recent global crises and economic shocks, along with Russia's full-scale invasion of Ukraine, have disrupted supply and demand patterns in the global energy system, while energy and climate goals remain unachieved. Pressure is mounting on economies to accelerate the green transition and ensure energy security amidst shortages of essential commodities. Studies show that investment in the green transition across emerging and developing economies must grow sevenfold, from USD 150 billion in 2020 to over USD 1 trillion, annually by the end of the decade, to achieve the goal of limiting global warming to a 1.5 °C pathway. The current energy crisis is an opportunity for emerging markets to accelerate the green transition and boost production of clean and renewable energy technologies. In order to achieve this objective and promote more private investment, EMnet participants stress the importance of long-term, stable policy and regulatory frameworks, the need to co-develop official road maps with clear targets towards the green transition, and more consultation and synergies between the public and private sector.

Investments in clean energies remains essential to the net-zero transition in emerging markets, particularly in a context where the pledge by advanced countries to mobilise USD 100 billion annually for climate mitigation and adaptation in emerging economies by 2020 was not reached, with a financing gap of USD 16.7 billion. EMnet participants emphasize the need for collaborative efforts among policy makers, development finance institutions, and the private sector to attract investment for the green energy transition in emerging markets, such as innovative financial instruments and frameworks which can provide long-term remuneration and security for investors. The bond market is an attractive option to promote investment in infrastructure at scale.

Likewise, innovation and technology play a critical role in reducing global emissions and achieving mitigation and adaptation targets. Studies show that technology could play a key role helping reduce global emissions by around 20% by 2030. EMnet participants highlight the importance of start-ups and public-

private partnerships to promote innovation and digital technologies in the energy sector. This is mutually dependent on capacity building, which is essential to deploy innovative green technologies in emerging markets.

### *Enhance the digital economy*

The COVID-19 pandemic has accelerated the adoption of digital technologies in emerging markets, providing new opportunities to improve the efficiency of logistics, simplify customs procedures and enhance access to finance. However, the risk of exacerbating existing inequalities must be considered, particularly since 2.7 billion people are still not connected to the Internet. Globally, the internet usage rate among men stands at 69%, slightly higher than the 63% rate among women in 2022. Consequently, there is a significant gender gap of 259 million more men than women using internet. These statistics highlight a slower growth in the number of Internet users, particularly in specific contexts (rural areas) and for specific groups (women). Analysis show that bridging the gap in connectivity infrastructure would require an additional USD 428 billion of investment.

EMnet participants stress that traditional models to attract investments in connectivity are ultimately not sufficient to achieve universal coverage. Working on capacity-building and affordability of connectivity are part of the solutions to reach underserved populations, with public-private cooperation playing a crucial role. Digital solutions can also support open government strategies and help unlock investments in ICT infrastructure, through the creation of enabling conditions such as the digitalisation of key regulatory systems and increased trust, transparency and efficiency for bankable projects. EMnet participants highlight how the private sector can play a role in supporting the introduction of digital technologies for a wide range of public services, such as in the health sector.

Following the acceleration of their deployment during the COVID-19 crisis, digital technologies are expected have a significant impact on trade. EMnet participants advise to accelerate the development of digital trade to unlock the full potential of digital transformation, such as for example limiting the fragmentation of digital regulations, harnessing the potential of regional trade agreements and addressing growing concerns such as cybersecurity, data protection and the gender digital gap.

### *Promote inclusion and adopt a gender-lens*

The multiple lockdowns resulting from the COVID-19 pandemic had a negative impact on gender equality in emerging markets, particularly regarding unpaid work and labour market participation. EMnet participants recognise the role the private sector can have in support of gender equality, through Diversity, Equality and Inclusion measures such as equal employment practices, or including a gender lens across the value chain. Companies are at different stages when it comes to efforts to promote and implement diversity and inclusion policies, particularly regarding gender balance at the senior and Board level, improving accountability and disclosure, notably on pay transparency.

Both the green and digital transformations offer a unique opportunity to address social and inclusion needs in emerging markets, particularly on the participation of women and vulnerable groups in the labour market. EMnet participants point to the role the private sector can play in workforce development, particularly for reskilling and upskilling, and in making digital tools available to a wider group of people.

## From regional to global, Chinese companies continue their international expansion

The increasing presence of multinationals from emerging markets has become a defining feature of the global economy in the early 21st century. This shift is reflected in the rising share of emerging countries in global Outward Foreign Direct Investment (OFDI), which increased from less than 2% in 2000 to 22% on

average for the 2015-2020 period. China alone saw its share rise to 15% by the late 2010s. Additionally, the total value of international greenfield investment projects has increased significantly, with China accounting for almost 9% of the world total and 44% of emerging markets' total. The United States was the largest source of greenfield FDI projects every year during 2011-22, except for 2016 when China surpassed them.

This chapter provides a comparative analysis of Chinese and US companies operating in various countries, specifically in the automobile, home appliances, and construction equipment industries. This analysis highlights the continued dominance of American companies in the global business landscape, while also emphasising the growing global presence of Chinese companies, which has increased by 50% since the first analysis conducted by the authors of this chapter in 2017. Chinese companies now have a presence on all continents and have successfully expanded into major industries that were previously dominated by European, American, or Japanese firms. Case studies of Geely, Haier, and Sany demonstrate the rapid and extensive internationalisation of Chinese enterprises over the past decade, with this trend expected to continue in the future.

# 1 Recent trends in emerging markets

This chapter provides an overview of the macroeconomic situation and economic challenges across emerging markets in 2020-23, a period marked by the COVID-19 crisis and the consequences of Russia's war against Ukraine. It provides a close analysis of key indicators, including global growth, trade and investment flows.

## Key messages

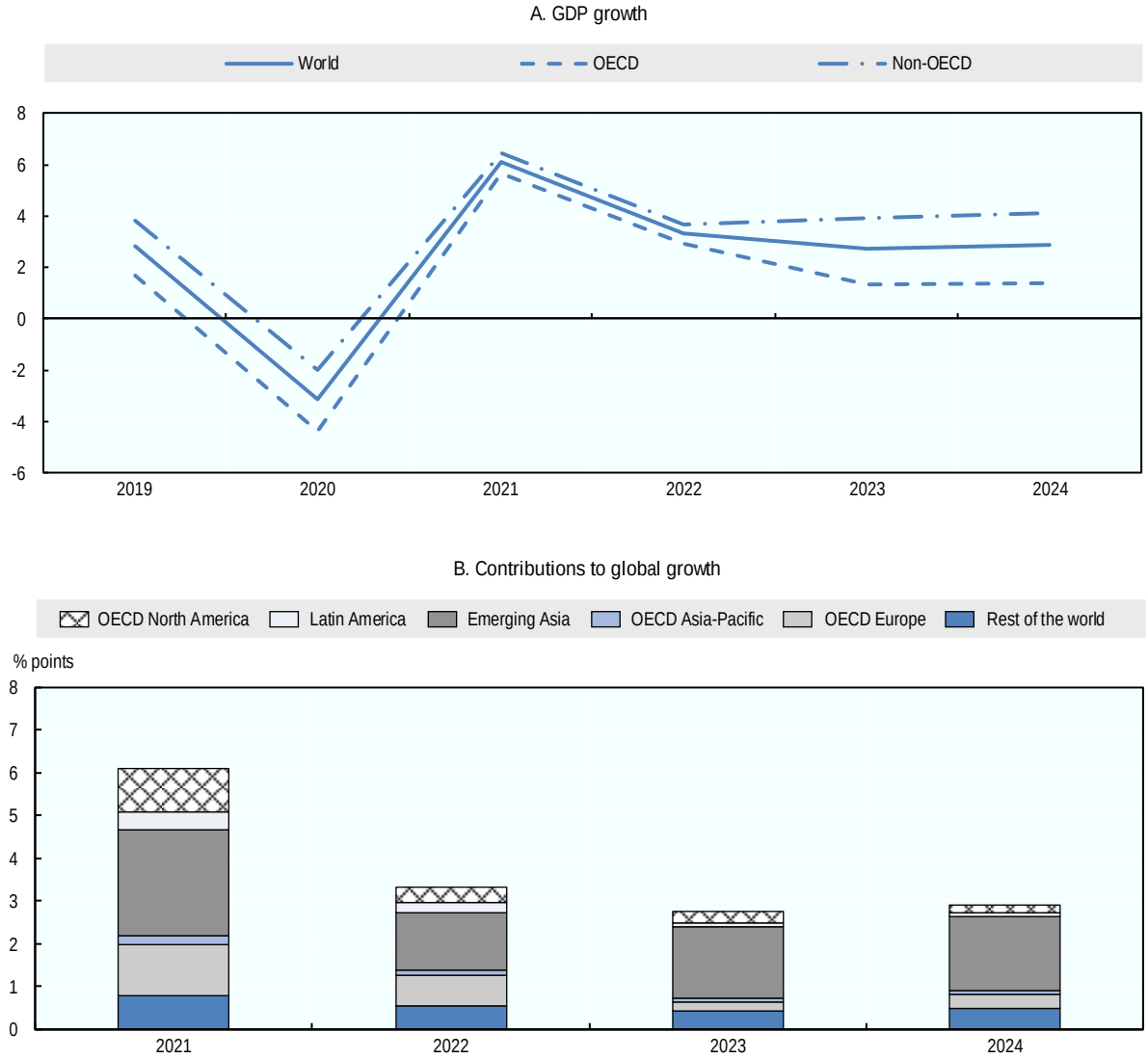
- Global economic growth is projected to remain slow due to persistent supply chain bottlenecks, inflationary pressures, tighter monetary policies, and an increasing risk perception.
- The intensification of inflationary pressures in 2022 pushed up prices in several key commodities, notably oil, gas and coal, a range of metals, wheat and corn, some edible oils, as well as fertilisers. These pressures are expected to ease in 2023.
- Widespread monetary tightening across major economies and increasing risk aversion have led to rising exchange rate volatility and tighter global financial conditions, while total debt levels in many emerging markets remain above pre-COVID-19 pandemic levels.
- Global trade was relatively robust in 2022, despite major disruptions caused by Russia's war against Ukraine, high geopolitical tensions, rising commodity prices and dollar appreciation; however, subdued demand for manufactured goods and commodities will weigh on global trade growth in 2023.
- The global energy sector is still experiencing an unprecedented crisis, at a time when investment in the clean energy transition needs to be accelerated.
- The multiplicity of crises had an impact on foreign direct investment (FDI) flows, which increased in the first half of 2022 but declined in the second half of the year.
- In particular, greenfield FDI flows were channelled into the renewable energy sector and the services sector.
- While Africa was the least affected by successive COVID-19 outbreaks, the growth momentum has been weakened by major economic and financial uncertainty and risks.
- Emerging Asian[1] markets have experienced a marked slowdown, but the regional impact of current crises on gross domestic product (GDP) is projected to be smaller than the Organisation for Economic Co-operation and Development (OECD) average.
- After a strong rebound from the considerable impact of the COVID-19 pandemic, the Latin America and the Caribbean (LAC) region is struggling to ensure a sustainable recovery.

## Economic growth is still facing challenges

Three years after the outbreak of the COVID-19 pandemic in 2020, and following Russia's war against Ukraine in 2022, global economic growth is expected to remain slow, as persistent supply chain bottlenecks, inflationary pressures, tighter monetary policies, and an increasing risk perception have stymied the post-pandemic recovery. Overall, global GDP growth declined to 3.3% in 2022, around half the rate seen in the previous year 2021 during the rebound from the pandemic and is projected to slow further to 2.7% in 2023, well below the rate foreseen prior to the war. It is expected that initial steps to ease policy interest rates in several countries will fuel a rebound in global GDP growth at 2.9% in 2024 (Figure 1.1, Panel A).

[1] In this report, Emerging Asia encompasses China, India and the ten ASEAN member states: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic (hereafter: Lao PDR), Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam. ASEAN-5 includes Indonesia, Malaysia, the Philippines, Singapore and Thailand.

## Figure 1.1. Global GDP and Contributions to global growth by regions




Notes: In Panel B, Emerging Asia comprises China, India, Indonesia, and the Dynamic Asian Economies (Chinese Taipei; Hong Kong China; Indonesia; Malaysia; the Philippines; Singapore and Thailand).
Latin America comprises Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru.
Contributions calculated moving Purchasing Power Parity (PPP) shares of global GDP.
(OECD, 2023[1]), *OECD Economic Outlook*, Volume 2023 Issue 1: Preliminary version, Nº113, OECD Publishing, Paris, https://doi.org/10.1787/ce188438-en.

Simultaneously, global economic prospects are becoming increasingly imbalanced, with the major Asian emerging market economies accounting for close to three-quarters of global GDP growth in 2023, reflecting their projected steady expansion and sharp slowdowns in the United States and Europe (Figure 1.1, Panel B).

Table 1.1. Latest projections of real GDP growth (in %)

| Region | 2021 | 2022 | 2023 |
|---|---|---|---|
| World | 6.1 | 3.3 | 2.7 |
| OECD | 5.7 | 3.0 | 1.4 |
| Emerging Market and Developing Economies | 6.7 | 3.9 | 4.0 |
| Emerging and Developing Asia | 7.4 | 4.3 | 5.3 |
| Latin America and the Caribbean | 7.0 | 3.9 | 1.8 |
| Middle East and Central Asia | 4.5 | 5.3 | 3.2 |
| Sub-Saharan Africa | 4.7 | 3.8 | 3.8 |

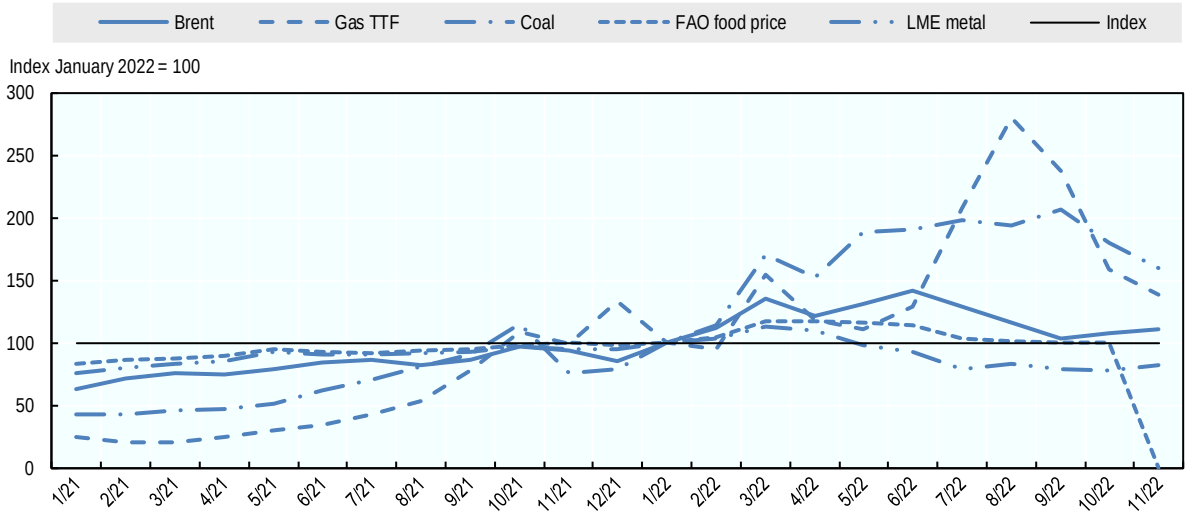
Sources:
(OECD, 2023[2]), *OECD Economic Outlook*, Volume 2022, Issue 2, OECD Publishing, Paris, https://doi.org/10.1787/f6da2159-en (accessed 10 January 2023).
(OECD, 2023[3]), *OECD Economic Outlook*, Interim Report March 2023: A Fragile Recovery, OECD Publishing, Paris, https://doi.org/10.1787/d14d49eb-en.
(OECD, 2023[1]), *OECD Economic Outlook*, Volume 2023 Issue 1: Preliminary version, Nº113, OECD Publishing, Paris, https://doi.org/10.1787/ce188438-en.
(IMF, 2022[4]), *IMF World Economic Outlook Database*, October 2022, www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022 (accessed 10 January 2023).
(IMF, 2023[5]), *IMF World Economic Outlook Update*, January 2023, www.imf.org/en/Publications/WEO/Issues/2023/01/31/world-economic-outlook-update-january-2023 (accessed 12 February 2023). (except for OECD country, no data country by country available).

People's Republic of China (hereafter: China) remains the main determinator of economic growth in Asia, even though COVID-19 outbreaks, strict lockdowns, and the deepening property market crisis have disrupted economic activity throughout 2022 (OECD, 2023[2]). In India, growth remains strong and largely in line with the pre-pandemic trend. The major Latin American economies have performed better than expected in 2022, with food and energy exporters benefiting from improved terms of trade (IMF, 2022[4]). However, they are likely to lose this momentum in 2023 and 2024, given factors such as tighter global and domestic financial conditions, less room for expansionary fiscal policies, and a normalisation of commodity prices (Table 1.1). In sub-Saharan Africa, 2022 growth projections were slightly weaker than initially predicted, reflecting lower trading partner growth, tighter financial and monetary conditions, and a negative shift in the commodity terms of trade. Overall, economic growth in emerging markets and developing countries will remain higher than world's average, but will decline significantly from the levels achieved in 2022, in line with global trends (IMF, 2022[4]).

### *Inflation has become more widespread but will ease*

Both supply and demand factors have pushed up inflation globally. In the median advanced and emerging market economy, headline consumer price inflation reached 9.6% and 10.8%, respectively, in Q3 2022 (OECD, 2023[2]). This intensification of inflationary pressures can be attributed to Russia's war against Ukraine, which resulted in an immediate spike in several key commodity prices. In the second half of 2022, and in part due to weaker demand from China, commodity prices diverged. While the prices of metals have fallen below pre-January 2022 levels, coal and gas prices remain high (Figure 1.2).

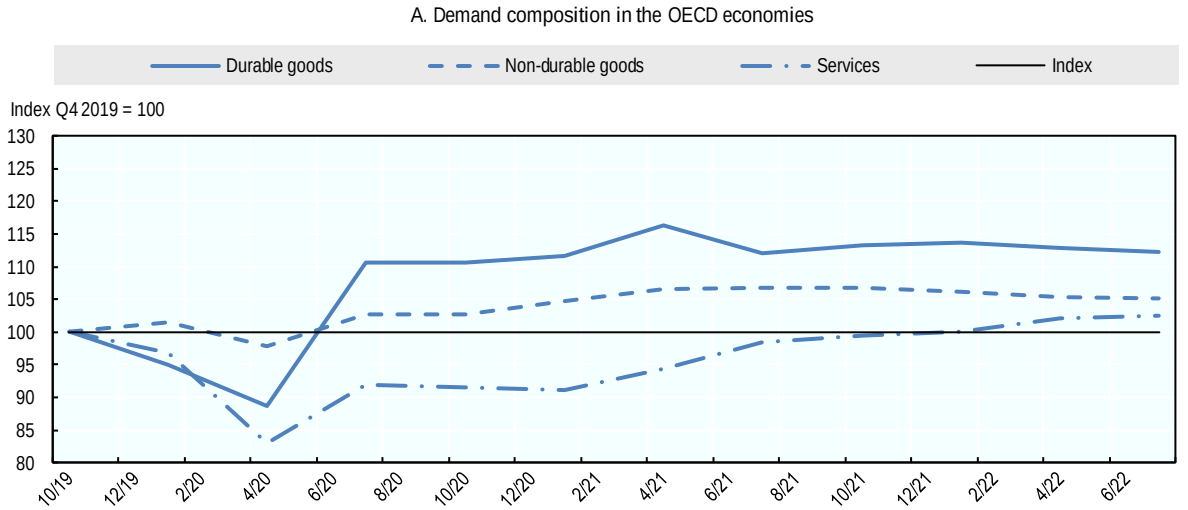
## Figure 1.2. Selected commodity prices

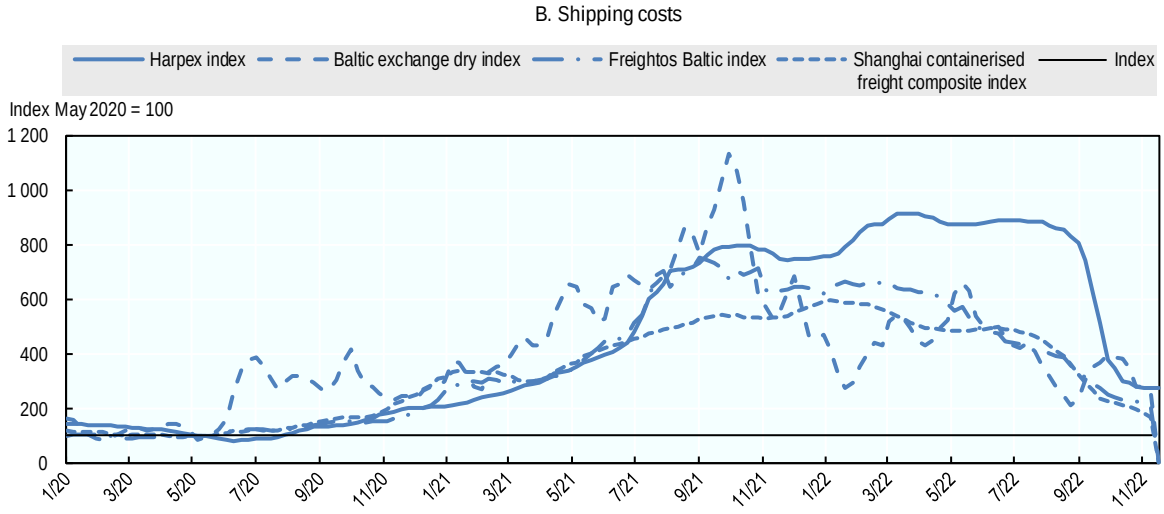



Notes:
Gas TTF corresponds to the Dutch Transfer Title Facility.
Coal corresponds to the Hamburgische Welt-Wirtschafts-Institut (HWWI) coal price.
FAO food price corresponds to the Food and Agriculture Organisation.
LME metal corresponds to the London Metal Exchange.
2022 November figures are based on the average available data up to 16 November.
Source: (OECD, 2023[2]), *OECD Economic Outlook*, Volume 2022 Issue 2, OECD Publishing, Paris, https://doi.org/10.1787/f6da2159-en (accessed 10 January 2023), based on Refinitiv and OECD calculations.

Headline inflation is projected to ease in 2023 in the G20 economies, as some of the factors contributing to consumer price increases have moderated or have begun to reverse during 2022. Goods price inflation has eased, as demand composition is starting to shift towards services again (Figure 1.3, Panel A). As goods demand in advanced economies eases and the adverse effects of the COVID-19 pandemic on supply chains are diminishing, freight costs have declined sharply since Q4 of 2022, and are now back at 2021 levels (Figure 1.3, Panel B).

## Figure 1.3. Demand composition in the OECD economies and shipping costs





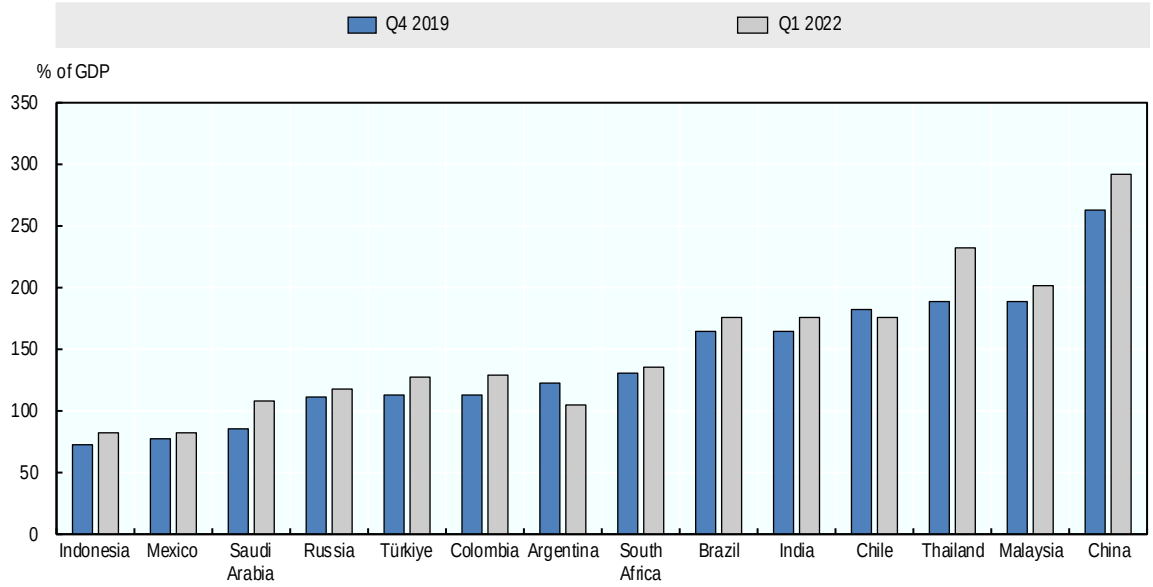

Note: The OECD index of demand composition in the OECD economies is based on a weighted sum of individual country growth rates using GDP weights in PPP terms. Consumption of durable goods, non-durable goods, and services is available for 35, 27 and 27 OECD countries, respectively, except for Q3 2022, where estimates are based on the subset of countries with available data.
Source: (OECD, 2023[2]), *OECD Economic Outlook, Volume 2022 Issue 2*, OECD Publishing, Paris, https://doi.org/10.1787/f6da2159-en (accessed 10 January 2023).; based on OECD Economic Outlook 112 database; Bureau of Economic Analysis; OECD, *Quarterly National Accounts*; Refinitiv, and OECD calculations.

Simultaneously, inflationary pressures have become more broad-based, with higher costs increasingly being absorbed into the prices of goods and services, and retail prices increasing more rapidly than wholesale prices in some industries, notably in the European energy sector (OECD, 2023[2]).

## Financial market volatility and risk perception has increased, particularly in emerging markets

Widespread monetary tightening across major economies and increasing risk aversion have led to rising exchange rate volatility and tighter global financial conditions. Moves towards higher interest rates by many central banks, notably the United States Federal Reserve, have pushed the US dollar to its highest level since the early 2000s, implying a higher cost of borrowing for many emerging market economies, whose sovereign debt is often denominated in US dollars. This comes at a difficult time for emerging markets, which were already struggling with increased sovereign debt levels, as a result of fiscal policy responses to the COVID-19 pandemic and the slowdown in global trade. Several emerging and developing economies also face food security risks from high food, energy and fertiliser prices, and supply shortages, including India, Chile and Colombia (OECD, 2023[2]).

Figure 1.4. Total debt in emerging market economies



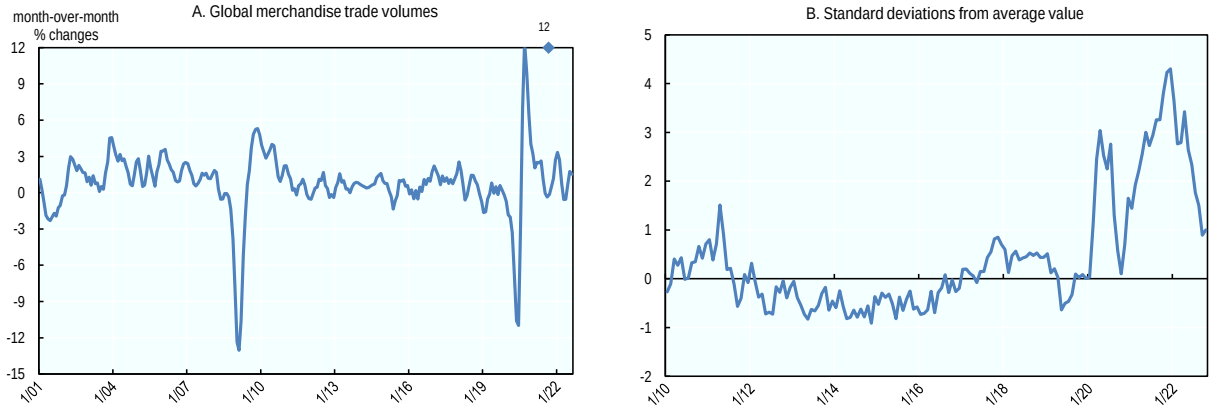

Note: Total debt refers to the sum of private, non-financial sector debt (based on market values) and general government debt (based on nominal values).
Source: (OECD, 2023[2]), *OECD Economic Outlook*, Volume 2022 Issue 2, OECD Publishing, Paris, https://doi.org/10.1787/f6da2159-en (accessed 10 January 2023) based on Bank for International Settlements, and OECD calculations.

Total debt levels in many emerging markets remain above pre-COVID-19 pandemic levels (Figure 1.4), fuelled by domestic currency depreciation against the US dollar and higher global interest rates, resulting in an increase in the debt servicing burden of these countries. According to the October 2022 International Monetary Fund's Global Bank Stress Test, up to 29% of emerging market bank assets could breach minimum capital requirements in a severe economic downturn scenario (IMF, 2022[6]).

## International trade growth recovered in 2022, but indicators point to further challenges ahead

Stronger demand and some easing in supply chain bottlenecks and port congestion (Figure 1.5, Panel B), coupled with the lifting of most COVID-19 restrictions, enabled global trade to recover in 2022. Disruption to trade flows arising from Russia's war against Ukraine has led to a sharp decline in trade between advanced economies and Russia, with the latter increasing economic ties with some Asian countries instead. Since August 2022, the Black Sea Grain Initiative has enabled the continuation of grain exports from Ukraine through the port of Odessa, thus contributing to an easing of global food prices (OECD, 2023[2]).

## Figure 1.5. Global goods trade and global supply chain pressure index




Source: (OECD, 2023[2]), *OECD Economic Outlook*, Volume 2022 Issue 2, OECD Publishing, Paris, https://doi.org/10.1787/f6da2159-en (accessed 10 January 2023). Recent trade indicators are mixed but suggest a slowdown in international trade in 2023. New export orders in the manufacturing sector have fallen significantly, while the growth of global merchandise trade is declining (Figure 1.5, Panel A).

In 2023, with global supply bottlenecks having now largely eased, and China having reopened, subdued demand for manufactured goods and commodities, which make up almost 80% of total trade volumes, will weigh on global trade growth (OECD, 2023[1]).

### *The current global energy crisis may fast track the clean energy transition*

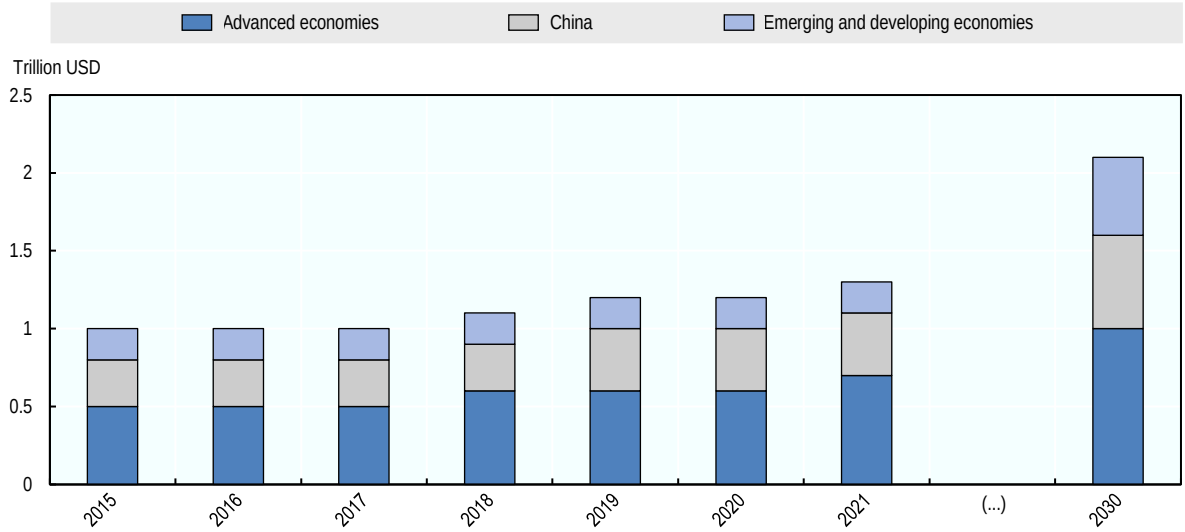
The global energy sector is experiencing a shock of unprecedented breadth and complexity that is affecting almost all countries and energy sources. The crisis has fuelled inflationary pressures and created a looming risk of recession. Governments have so far committed well over USD 500 billion (United States dollars), mainly in advanced economies, to shield consumers from the immediate impacts of energy shortfalls and high prices (IEA, 2022[7]).

Government responses to the energy crisis promise an acceleration of the clean energy transition. New policies such as the US Inflation Reduction Act, as well as ambitious clean energy targets in China and India, could propel annual clean energy investment to more than USD 2 trillion by 2030, an increase of more than 50% from 2022. If implemented on time and in full, these additional national commitments would keep global warming to around 1.7 °C (IEA, 2022[7]).

The full achievement of all climate pledges would move the world towards safer ground. Policy momentum and technology gains made since 2015 have shaved around 1 °C off the long-term temperature rise, but a large gap remains between today's ambitions and a 1.5 °C stabilisation. Annual clean energy investment would have to reach more than USD 4 trillion by 2030 in order to achieve the goals of the Paris Agreement, equivalent to twice as much as today's commitments. While governments are expected to take the lead and provide strategic direction, the investment required is far beyond the capacity of public finance (IEA, 2022[7]).

As the world moves on from the current energy crisis, new vulnerabilities may result from high and volatile critical mineral prices or from the highly concentrated nature of clean energy supply chains. Demand for critical minerals for clean energy technologies is set to rise sharply by 2030, more than doubling from today's level. Copper will see the largest increase in terms of absolute volumes, rising from 6 to 11 million tonnes annually, but other critical minerals will experience much faster rates of demand growth, notably silicon and silver for solar photovoltaic (PV) modules, rare earth elements for wind turbine motors and lithium for batteries. High reliance on individual countries such as China for critical mineral supplies and for many clean technology supply chains poses a risk for clean transitions (IEA, 2022[7]).

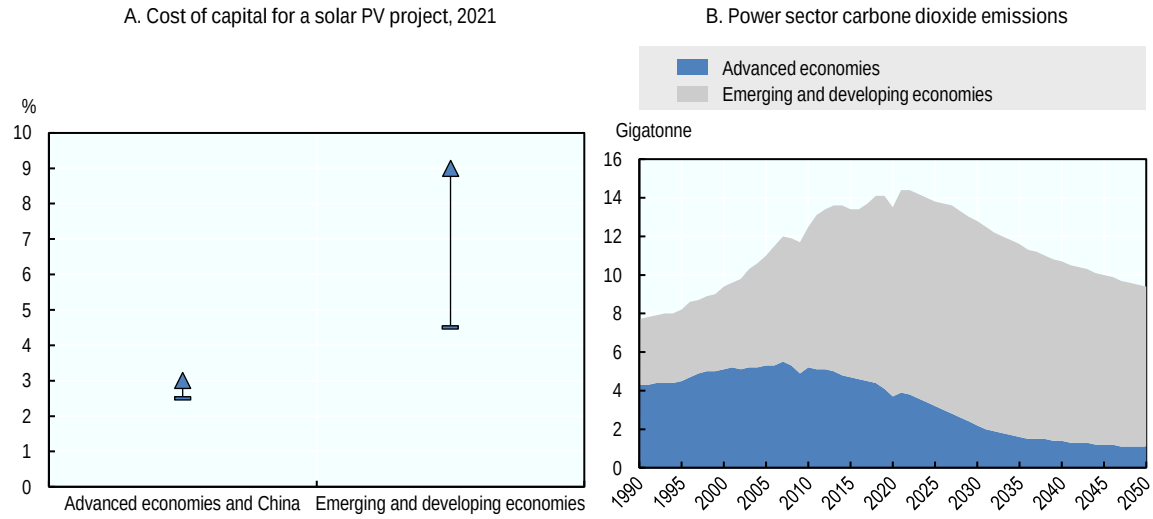
## Figure 1.6. Clean energy investment in the Stated Policies Scenario




Source: (IEA, 2022[7]), *World Energy Outlook 2022*, OECD Publishing, Paris, https://doi.org/10.1787/3a469970-en (accessed 10 January 2023).

Shortfalls in clean energy investment are largest in developing and emerging economies, a worrying sign given their rapid projected growth in demand for energy services (Figure 1.7, Panel B). If China is excluded from calculations, annual clean energy investment in developing and emerging economies has remained flat since the Paris Agreement in 2015 (Figure 1.6). The cost of capital for a solar PV plant in 2021 in key emerging economies was between two and three times higher than in advanced economies and China (Figure 1.7, Panel A). Rising borrowing costs could exacerbate the financing challenges facing such projects, despite their favourable underlying costs.

## Figure 1.7. Cost of capital for a solar PV project, 2021 and power sector carbon dioxide emissions




Source: (IEA, 2022[7]), *World Energy Outlook 2022*, OECD Publishing, Paris, https://doi.org/10.1787/3a469970-en (accessed 10 January 2023).

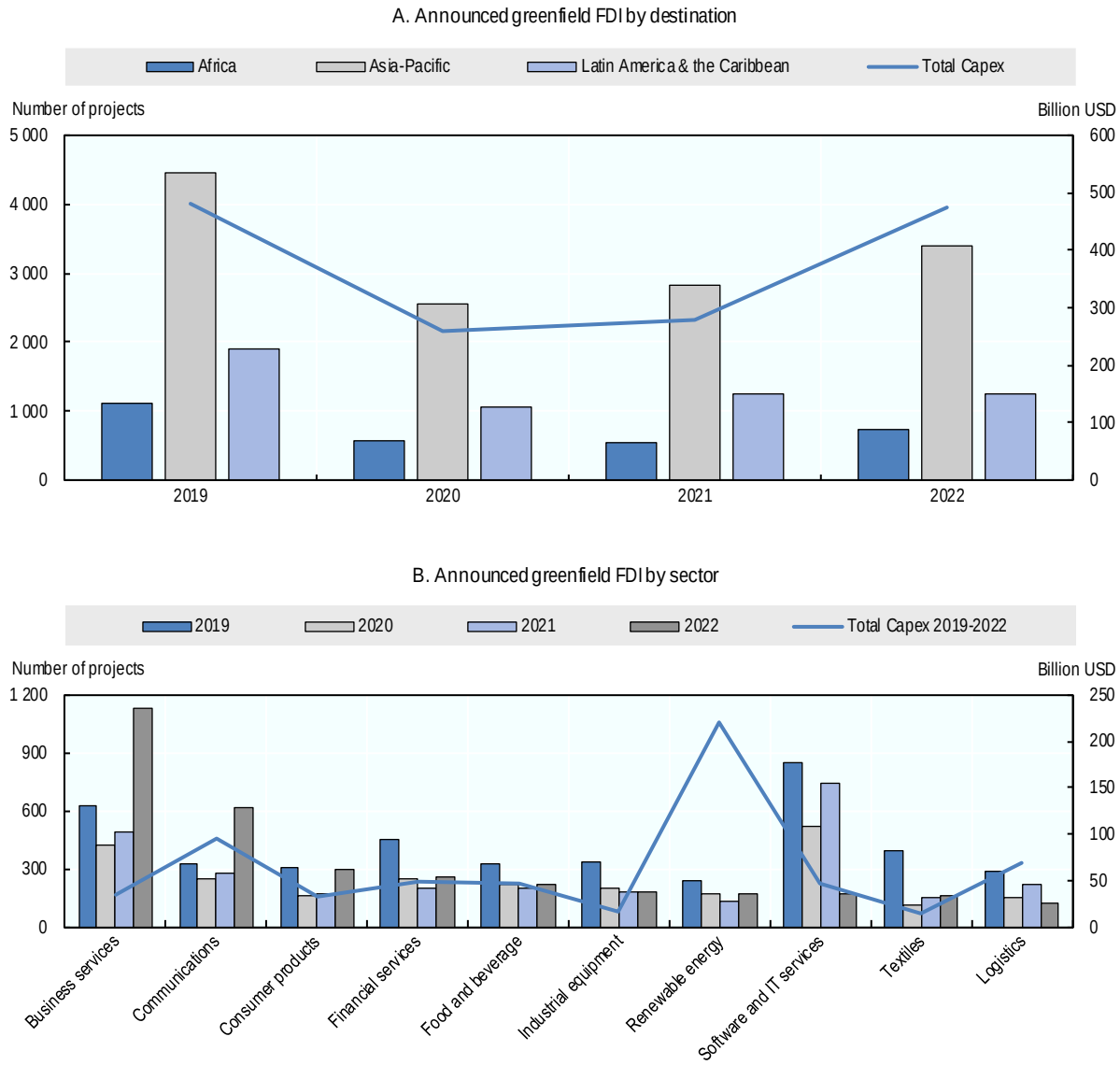
Higher energy prices are also increasing food insecurity in many developing economies, with the heaviest burden falling on poorer households where a larger share of income is spent on energy and food. Some

75 million people who recently gained access to electricity are likely to lose the ability to pay for it, meaning that for the first time since the International Energy Agency (IEA) started tracking it, the total number of people worldwide without electricity access has started to rise.

### *The current multi-crisis environment has affected global FDI flows*

Global FDI flows rebounded to USD 972 billion in the first half of 2022. Much of this increase occurred in Q1 2022. However, when these figures are compared with figures for Q4 2021, global FDI flows fell by 22% in Q2 2022. The United States was the largest FDI recipient worldwide, with inflows amounting to a total of USD 149 billion in the first half of 2022. China followed closely, in second place, receiving USD 148 billion during the same period, while Brazil, ranked in third place at USD 56 billion, underscores the importance of emerging markets for FDI (OECD, 2022[8]).

## Figure 1.8. Announced greenfield FDI in emerging markets




Source: (fDi Markets, 2022[9]), *fDi Markets database*, www.fdimarkets.com (accessed 10 January 2023); based on authors' own calculations.

Announced greenfield FDI in emerging markets is growing at modest levels, with announced capital expenditure significantly outstripping the number of projects. The Asia-Pacific region remains the most important emerging market destination for greenfield FDI, accounting for 63% of all announced projects in emerging markets in 2022 (Figure 1.8, Panel A). Much of the increase in capital expenditure can be attributed to large projects in the renewable energy sector, which accounted for 35% of the total capital expenditure of greenfield FDI in emerging markets since 2018. The rise in the number of investment projects in turn reflects increasing FDI in the services sector, notably software and information technology (IT) services and business services, but also in the communications sector (Figure 1.8, Panel B).

## Growth momentum in Africa has been weakened by major economic and financial uncertainty and risks

The effects of the COVID-19 pandemic have been particularly significant in Africa. The OECD estimates that the continent will need more than five years to regain its pre-COVID-19 pandemic global GDP share of around 5% (AUC/OECD, 2022[10]). The increase in energy and food prices caused by Russia's war against Ukraine, together with tighter financial and monetary conditions and negative terms of trade, have exacerbated the economic and political vulnerabilities of several African countries, and have led to higher dependence on foreign imports. Against the backdrop of a deteriorating global growth outlook, Africa is facing three major challenges:

- an increase in energy and food prices, weakening Africa's economic recovery and growth (AUC/OECD, 2022[10]);
- a lack of resources and institutional and financial capacities (OECD, 2022[11]);
- difficulty in restructuring sovereign debt and in accessing finance necessary for sustainable development and climate mitigation strategies, due to the increasing cost of borrowing (Tyson, 2022[12]).

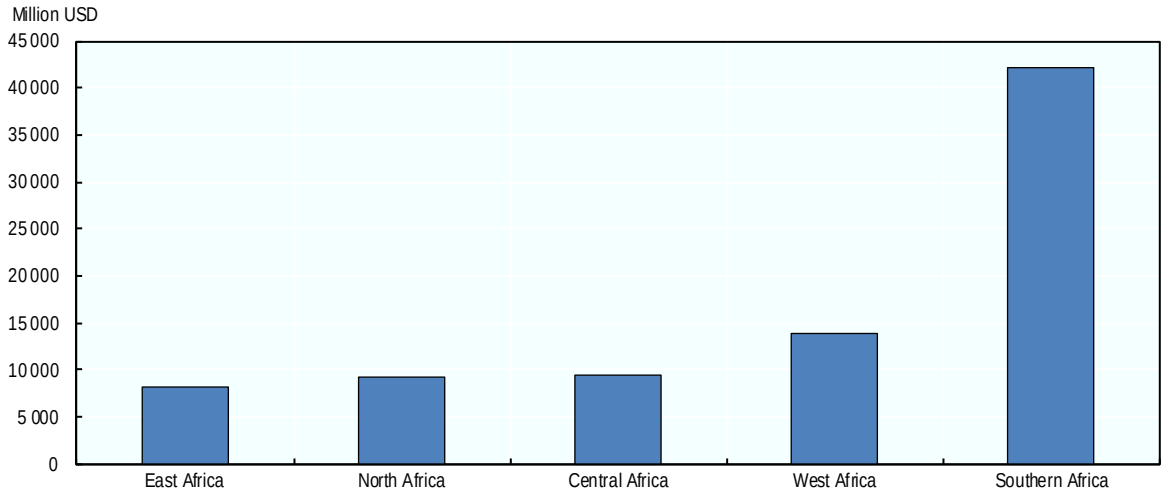
Since the start of the COVID-19 pandemic, Africa has been struggling to increase its GDP and restore it to pre-2020 levels. GDP growth in sub-Saharan Africa, which reached 3.8% in 2022, is projected to remain at 3.8% in 2023 and rise to 4.1% in 2024 (IMF, 2023[5]).

### *Foreign direct investment in Africa is increasing after experiencing a sharp slowdown, but it remains unevenly distributed at regional level*

Similarly, international production and trade were greatly affected by the recent COVID-19 crisis, which slowed down investment and had a negative impact on commodity-dependent economies. FDI inflows to Africa in 2020 fell to USD 38 952 million; the comparable figure for 2019 was USD 45 678 million. Sectors related to the Sustainable Development Goals (SDGs) were particularly hard hit by the crisis, while the information and communications technology (ICT) sector and digital-intensive sectors proved to be significantly more resilient (AUC/OECD, 2022[10]).

In 2021, FDI in Africa reached USD 82 990 million, marking a substantial increase since 2020. However, the distribution of FDI is uneven, with Southern Africa receiving by far the largest share (Figure 1.9). While the increase is remarkable, most of it was due to intra-firm financial transactions, which accounted for 45% of total FDI in Southern Africa in 2021 (UNCTAD, 2022[13]).

Figure 1.9. Net inflows of foreign direct investment to Africa in 2021



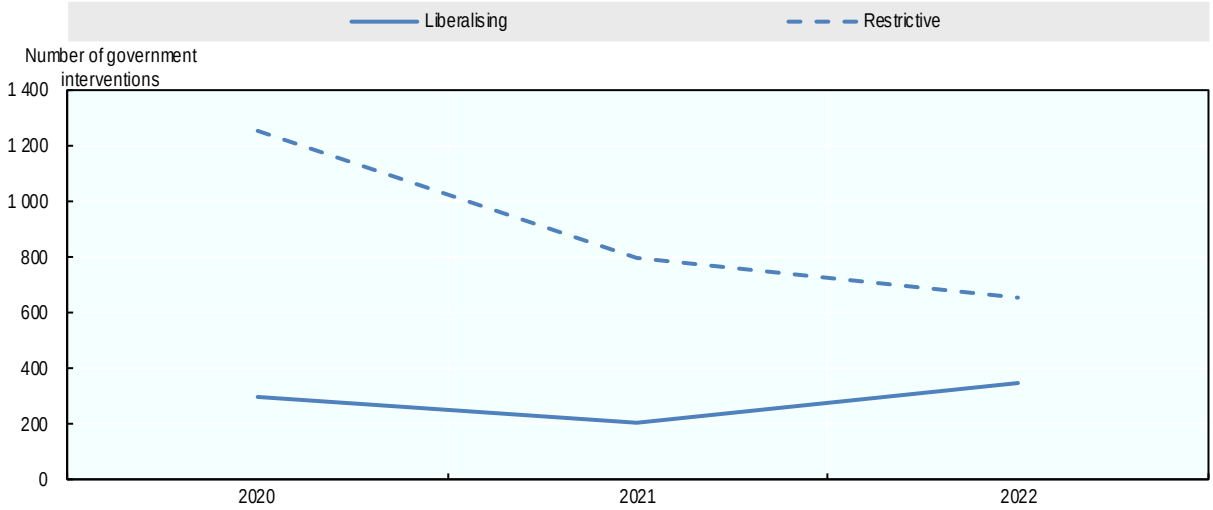

Source: (UNCTAD, 2022[13]), Global foreign direct investment flows over the last 30 years, https://unctad.org/data-visualization/global-foreign-direct-investment-flows-over-last-30-years (accessed 13 February 2023).

While FDI net inflows to Africa have increased significantly, integration into the global economy and global value chains remains relatively low. The largest holders of foreign assets remain historic partners (the United Kingdom, followed by France and the rest of Europe). The difficulty in further integrating global markets is mostly due to low productivity levels and the generally limited manufacturing capacity of African firms (AUC/OECD, 2022[10]).

### *Despite the limited scope for fiscal stimulus, Africa has the potential to become better integrated into international markets*

The global impact of Russia's war against Ukraine on COVID-19 recovery plans has hampered the ability of African markets to fiscally support their growth. African governments have a limited fiscal space available for stimulus packages. Despite challenging monetary policy and financial conditions, the pace of reforms influencing economic recovery and FDI on the African continent significantly increased in 2022, when a total of 345 global liberalising interventions were recorded; the comparable figures for 2021 and 2020 were 201 and 294, respectively. Conversely, the number of restrictive government interventions has slowly decreased since 2020 (when 1 255 restrictions were recorded) and 2021 (when 796 restrictions were recorded) before falling further in 2022 (when 652 restrictions were recorded) (Figure 1.10).

Figure 1.10. Government interventions affecting trade flows in Africa from January 2020 to December 2022




Notes: Liberalising interventions are government interventions that benefit foreign trade interests.
Restrictive interventions are government interventions that have been implemented and almost certainly discriminate against trade interests.
Interventions concern the following trade flows: goods trade, investment, and services trade.
Source: (Global Trade Alert, 2022[14]), Total number of implemented interventions since 2022, www.globaltradealert.org/global_dynamics (accessed 6 February 2023).

The COVID-19 pandemic crisis, followed by the war in Ukraine, have greatly hindered governments' ability to promote economic growth, economic diversification, and better integration into global markets. The increasing number of liberalising interventions and the growth in FDI show the potential for greater integration into global value chains and production networks.

## Emerging Asian markets have experienced a major slowdown, but the regional impact of current crises on GDP is projected to be less than the OECD average

Emerging Asia experienced a sharp slowdown when the region fell victim to successive severe waves of COVID-19 infections since 2019. After remaining relatively under control in 2021, inflation in Emerging Asia increased in 2022, exceeding central bank targets in most economies. Today, the region faces three major challenges:

- due to tighter global financial conditions, central banks are struggling to control inflation, slow rising yields, prevent exchange rate depreciation, and maintain the banking sector's profitability;
- Russia's war against Ukraine is negatively affecting European financial markets and commodity prices, which in turn is slowing external demand for Asia's exports;
- China's economy has experienced a sharp and unprecedented slowdown, affecting the whole region (IMF, 2022[15]).

While the rest of the world is facing a sharp economic slowdown, Emerging Asia is currently experiencing the highest real GDP growth, and this is expected to increase by 5.3% and 5.2%, in 2023 and 2024, respectively, after falling to 4.3% in 2022. In ASEAN-5 countries (Indonesia, Malaysia, Philippines, Singapore, Thailand), growth is projected to slow to 4.3% in 2023 and rise to 4.7% in 2024. In India, it is expected to fall from 6.8% in 2022 to 6.1% in 2023, before rising to 6.8% in 2024, due to resilient domestic

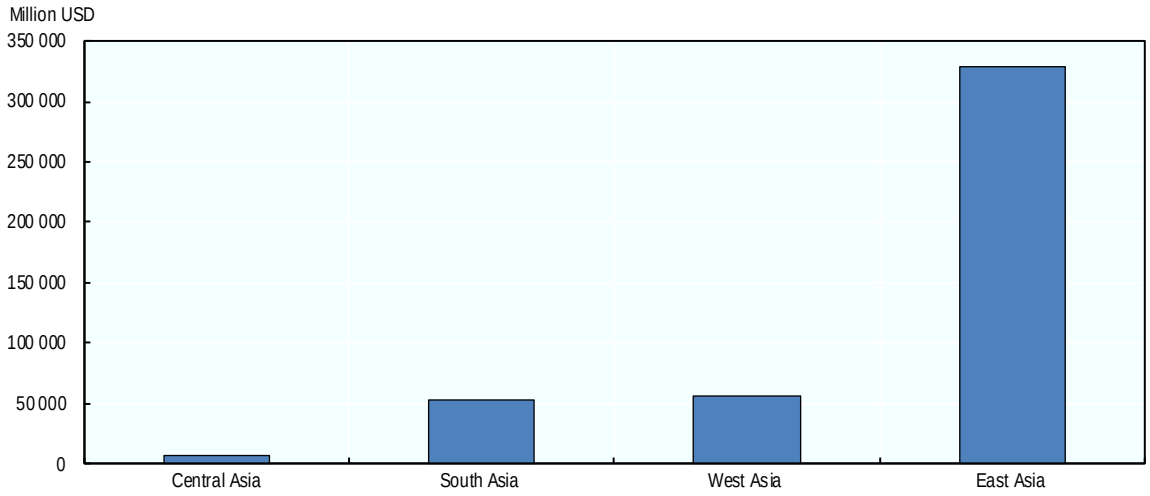
demand despite external global challenges. In China, increased mobility is helping to promote growth, which is projected to reach 5.2% in 2023 (IMF, 2023[5]). Monetary policy has been appropriately very accommodative in most economies in the region in response to their fragile recoveries. Several countries have continued to provide fiscal stimulus, but the extent of this stimulus has been more moderate than at the start of the pandemic (OECD, 2022[16]).

### *FDI is polarised across Asian economies, with East Asia accounting for more than twice the amount of FDI than in the rest of the region*

In Asia, average inward FDI was negatively affected during the COVID-19 pandemic. While investment in digital services sectors such as telecommunications and information industries, financial services, and other business services proved to be more resilient to successive lockdowns, the manufacturing and non-digital services sectors were severely hit by the COVID-19 pandemic crisis and the related economic crisis (ADB, 2022[17]).

At the regional level, in 2021, net inflows of FDI to Asia reached more than USD 618 983 million. East Asia received more than USD 328 918 million FDI inflows, equivalent to twice the total of the FDI net inflows received by the remaining Asian sub-regions (Figure 1.11).

Figure 1.11. Net inflows of foreign direct investment to Asia in 2021




Source: (UNCTAD, 2022[13]), Global foreign direct investment flows over the last 30 years, https://unctad.org/data-visualization/global-foreign-direct-investment-flows-over-last-30-years (accessed 13 February 2023).

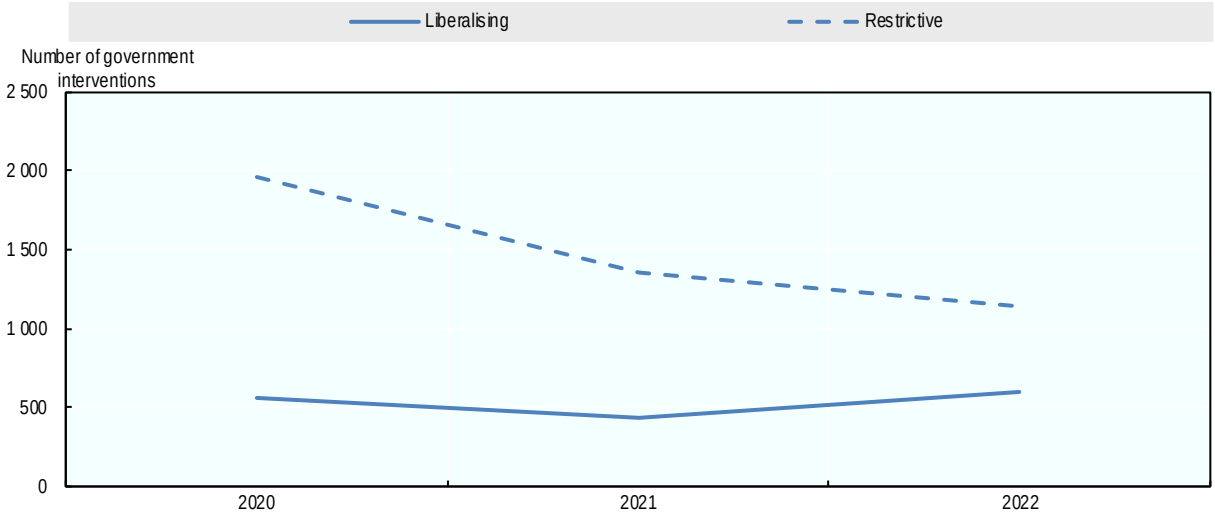
Asian markets have become more financially integrated with the rest of the world. They are integrated into regional and global value chains, and they benefit from inward capital flows to fund inward and outward investment, broader diversification, and international risk sharing (IMF, 2022[15]).

### *COVID-19 impacts on trade in Asia are exacerbated by the number of restrictive government interventions*

Global variables such as resource endowments, labour market mobility, consumer preferences, and government interventions influence FDI and trade liberalisation in the region. From January 2020 to December 2022, Emerging Asia benefitted from a total of 1 589 liberalising worldwide government interventions (559 in 2020, falling to 428 in 2021 and rising to 602 in 2022). During the period 2020-21, the

region grappled with 4 476 restrictive government interventions; 1 966 of these occurred in 2020, and 1 146 occurred in 2022 (Figure 1.12).

Figure 1.12. Government interventions affecting trade flows in Emerging Asia from January 2020 to December 2022




Notes: Liberalising interventions are government interventions that benefit foreign commercial interests.
Restrictive interventions are government interventions that have been implemented and almost certainly discriminate against commercial interests.
Interventions concern the following trade flows: goods trade, investment, and services trade.
Source: (Global Trade Alert, 2022[14]), Total number of implemented interventions since 2022, www.globaltradealert.org/global_dynamics (accessed 6 February 2023).

With trade policy and global shocks uncertainty spiking in recent years, countries are now imposing more trade restrictions, especially in the high-tech, energy and mining sectors. National and international security concerns, including the ongoing war in Ukraine, are intensifying trade tensions, thereby resulting in new restrictions being placed on inward FDI and exacerbating risks that trade and financial flows will increasingly be influenced by geopolitical rather than economic considerations (IMF, 2022[15]).

### *After a strong rebound from the considerable impact of the COVID-19 pandemic on LAC, the region is now struggling to ensure a sustainable recovery*

The global impacts of the COVID-19 pandemic and Russia's war against Ukraine highlighted LAC's vulnerability to global shocks. This is mainly due to the region's structural challenges: fragile social protection systems, low productivity, limited trust in government and risks associated with the climate change (OECD et al., 2022[18]). The development traps to which the region is still exposed present a number of challenges to the achievement of economic growth. These include:

- increased inflationary pressures and uncertainty, as well as disruptions in trade with key economic partners;
- reduced macroeconomic policy space – both monetary and fiscal – which makes it more difficult for LAC economies to sustain international and environmental shocks, as they strive to support economic recovery and protect the most vulnerable;
- increased vulnerability to climate change and environmental disasters (OECD et al., 2022[18]).

The strong rebound from the pandemic in 2021 was aided by favourable economic conditions and the COVID-19 containment and mitigation measures implemented across the region. However, the LAC region experienced a significant slowdown in 2022, mainly due to a deteriorating global growth outlook, high inflation rates and high debt levels. Additionally, economic growth is expected to be insufficient to counterbalance the increased poverty and inequality caused by the pandemic. Economic growth for the period 2023-2025 is at risk due to potential new waves of COVID-19 infections, value chain disruptions stemming from an uncertain geopolitical and regional context (OECD et al., 2022[18]).

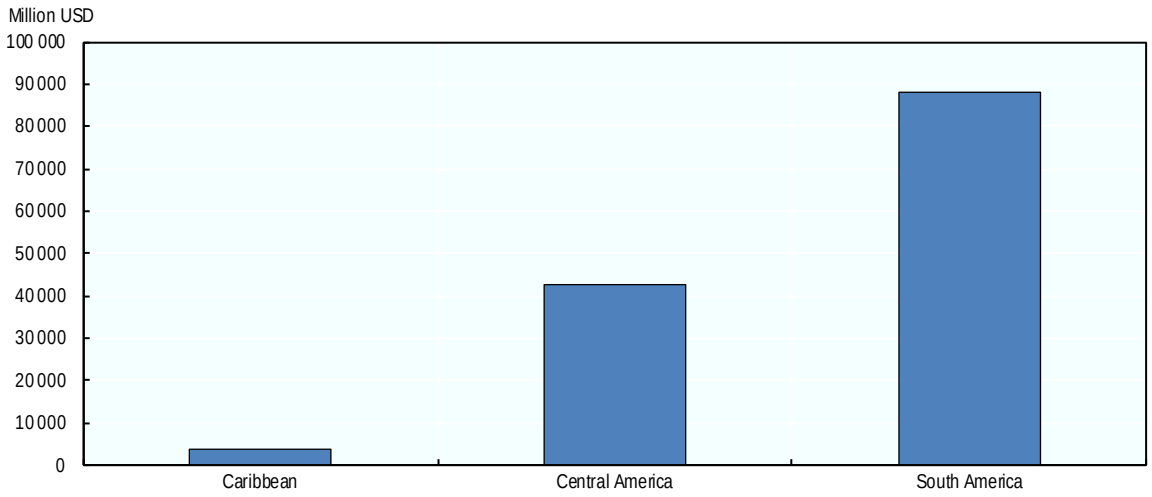
### *LAC is witnessing a considerable increase in FDI net inflows in the energy sector*

In LAC, FDI bounced back from the pandemic-induced decrease, growing by 56% and reaching USD 134 billion in 2021. In 2020, FDI in LAC fell 45%, which represents the sharpest decline recorded in developing economies that year. This recent rebound is mainly aided by a record number of 317 greenfield ICT projects across the region (UNCTAD, 2022[13]).

In 2021, the LAC region witnessed an increase in cross-border mergers and acquisitions. While the number rose by 49% (reaching 244 deals), the total value of net sales was almost unchanged from the previous year (USD 8 billion). The services sector recorded the highest increase in net sales, primarily in the financial and energy supply industries. In addition, announced greenfield investments increased by 16%, with most commitments allocated to automotive, information and communication and extractive industries. In 2022, the value of announced international project finance deals doubled, exceeding pre-pandemic levels, boosted by large projects in transportation infrastructure, particularly in Brazil, and in mining and renewable energy activities across the whole region (UNCTAD, 2022[13]).

At the regional level, South America received the largest total of FDI net inflows, reaching USD 88 149 million in 2021. Central America received the equivalent of nearly 50% of this amount, reaching USD 42 495 million, while the Caribbean only received USD 3 814 million (Figure 1.13).

Figure 1.13. Net inflows of foreign direct investment to Latin America and the Caribbean in 2021



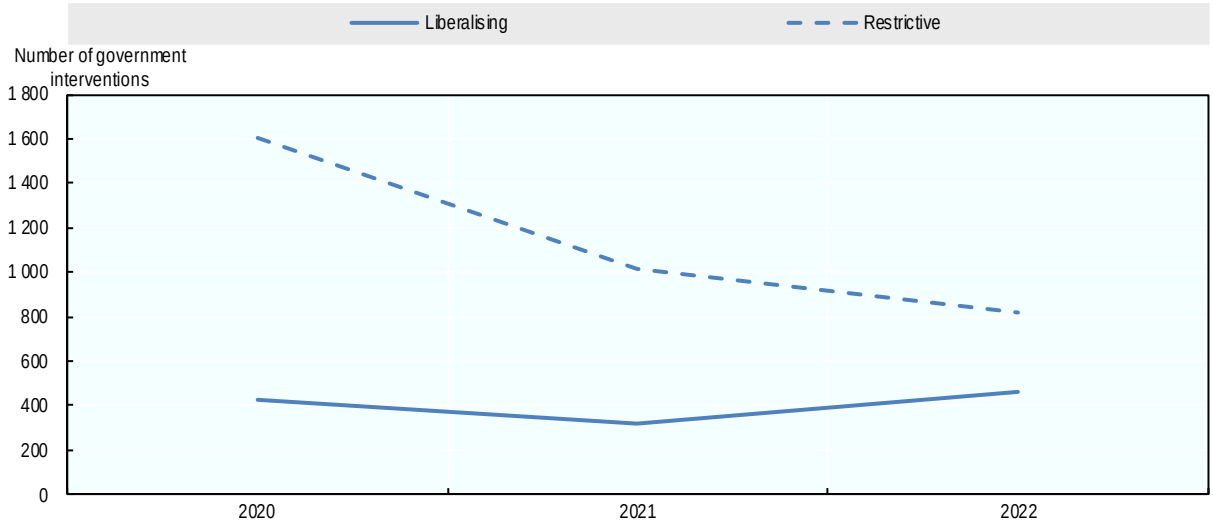

Source: (UNCTAD, 2022[13]), Global foreign direct investment flows over the last 30 years, https://unctad.org/data-visualization/global-foreign-direct-investment-flows-over-last-30-years (accessed 13 February 2023).

Although FDI flows rose in all three sub-regions in LAC (excluding financial centres), several economies suffered trade declines due to the continuing economic effects of the COVID-19 pandemic and, in some cases, government restrictions on trade.

### *LAC is becoming well integrated into global trade, with a decreasing number of restrictive government interventions*

While managing the pandemic and its recovery has been LAC governments' main short-term goal, they have also been making considerable efforts to integrate their economies into global and regional value chains, and into the global trading system in general. Between 2020 and 2022, LAC countries faced a total of 1 204 liberalising and 3 443 restrictive government interventions on commercial interests. While liberalising interventions only increased by 40 during these two years, reaching 463 in 2022, the number of restrictive interventions decreased by almost 50%, falling from 1 602 in 2020 to 822 in 2022 (Figure 1.14).

Figure 1.14. Government interventions affecting trade flows in LAC from January 2020 to January 2023




Notes: Liberalising interventions are government interventions that benefit foreign commercial interests.
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Source: (Global Trade Alert, 2022[14]), Total number of implemented interventions since 2022, www.globaltradealert.org/global_dynamics (accessed 6 February 2023).

Advancing the sustainable transition advocated by LAC countries and achieving the associated targets for an economic recovery post-COVID-19 pandemic involve challenges that cannot be addressed exclusively at the national level. Regional and international co-operation for trade liberalisation is necessary in order to ensure a successful implementation of adaptation policies in the region (OECD et al., 2022[18]).

# 2 Private sector insights on emerging markets

This chapter provides insights from the private sector on navigating risks in emerging markets and contributing to inclusive and resilient development in times of crisis. The analysis builds on the discussions hosted by the OECD Development Centre's Emerging Markets Network (EMnet) during its in-person and virtual meetings in 2022, featuring the participation of high-level policy makers, senior business executives and OECD experts. Further insights originate from desk research and bilateral conversations with EMnet members and other multinational companies operating in emerging markets.

## Key messages

- EMnet participants emphasise the potential for environmental, social and governance (ESG) criteria and sustainable finance, calling for the adoption of common standards and better consideration of the emerging market context in investment decisions.
- The private sector leverages sustainable finance for the green transition, utilising sustainability, social and gender bonds to support vulnerable groups, especially women.
- Integrating sustainability considerations in global value chain strategies can de-risk supply chains, anticipate future risks, and promote inclusion in emerging markets. However, the lack of harmonisation of regulatory frameworks slows down the incorporation of sustainability criteria in supply chains.
- EMnet participants highlight the importance of enhancing and developing regional production networks to boost economic growth, investment, and productive transformation, particularly in Africa, through the development of regional industrial ecosystems, where intra-regional industrialisation could boost production and revenue post-COVID-19 pandemic.
- Addressing non-tariff barriers has the potential to unlock business opportunities. EMnet participants stress the need for harmonisation, digitalisation, and reduction of regulations, and a quick implementation across jurisdictions.
- Participants note the pressure created by the energy crisis on their activities, pushing the private sector to accelerate its efforts towards the green energy transition.
- To seize the opportunities brought by digital innovation in the energy sector, participants underline that policy makers should encourage open collaboration and mobilise resources between suppliers, industries, governments, and the civil society, to assess the cross-dimensional impact of projects and boost innovation – e.g., through working groups across different ministries–.
- Participants highlight the importance of public-private collaboration for creating an enabling policy environment that allows the twin digital and green transitions to evolve hand in hand.
- The acceleration of the digital transformation has opened new business opportunities in emerging markets, particularly for both micro-enterprises and SMEs. However, EMnet participants also note that digital transformation could exacerbate existing inequalities if sufficient investment in digital infrastructure is not made.
- Connectivity and broadband policies must be complemented with measures to bridge digital divides, particularly in specific contexts (rural areas) and for specific groups (women).
- Digital technologies can support open government strategies, establishing a more conducive policy and regulatory environment for private sector development.
- Lowering barriers to digital and energy transition trades, harmonising regulations, and harnessing the potential of regional trade agreements can unlock the full potential of the digital and energy transformation across emerging markets, creating a favourable investment environment.
- The green and digital transformations address growing social and inclusion needs in emerging markets: EMnet participants agree that training the workforce for reskilling and upskilling is an area where the private sector can play a key role.
- EMnet participants highlight the importance of focusing on underbanked and unbanked populations by increasing access to services and providing digital tools to a wider pool of clients, including women.
- Multinational enterprises can support more gender equality through good employment practices spill overs in local labour markets, and designing products that meet women's needs. EMnet participants highlight the need for collaborative action to women's participation in the economy, inclusion in the digital transformation, equal pay, and the fight against gender-based violence.

The multiplicity of crises in recent years, including the COVID-19 pandemic, the war in Ukraine and the acceleration of climate change-related events, has forced businesses around the world to navigate uncertainty and build new models capable of responding quickly to new shocks. The ongoing transformation of businesses due to the digital and green transitions presents tremendous opportunities for emerging markets; however, significant financial resources and supporting infrastructure are required. This chapter provides perspectives and case studies from multinational companies active in emerging markets on efforts taken to contribute to inclusive and resilient growth in times of crisis.

## Scale up sustainable finance

The COVID-19 pandemic significantly affected the financing gap for the Sustainable Development Goals (SDGs). Initially estimated in 2019 to be USD 2.5 trillion (United States dollars) per year until 2030, it increased to USD 3.7 trillion in 2020 (OECD/UNDP, 2021[19]). Since the beginning of the 2010s, the sustainable finance market has grown, supported by international and regional institutions such as the World Bank and the Inter-American Development Bank (IDB) (Frisari, 2022[20]), which are pioneers in green bonds. ESG products have rapidly developed since 2021 due to pandemic-related financing needs and the surge in climate-related borrowing, including across emerging markets, led by Latin America. According to the International Monetary Fund, ESG-linked debt issuance more than tripled to reach USD 190 billion in 2021 (IMF, 2022[15]). Sustainability-related equity fund flows also rose in 2021 to USD 25 billion. Research has shown that a shift of 1.1% of the USD 4.2 trillion in total financial assets held by banks, institutional investors or asset managers would be capable of bridging the financing gap for sustainable development (OECD, 2020[21]).

### *Accelerate the development of sustainable finance and the adoption of common ESG standards in order to better assess business impacts on the environment and communities*

EMnet participants emphasise the potential for ESG criteria and sustainable finance to support progress towards the SDGs in emerging markets by 2030. However, firms point to long-standing challenges that must now be urgently addressed in order to unleash their full potential, such as different approaches and methodologies, data inconsistencies, and lack of comparability of ESG metrics. Participants note that as sustainability criteria are becoming mainstream in finance, regulators are also paying more attention to the risks of greenwashing and being more demanding of the indicators and metrics used to assess elements such as corruption or respect for human rights. This new urgency highlights the need for common and rigorous methodologies to measure and evaluate commitments taken by firms.

Firms point out that traditional SDG scoring methodologies use a handful of structural key performance indicators (KPIs) that incentivise portfolio managers to reward those already doing well, while causing the weaker performers that need investment the most, to miss out. In this scenario, external verifiers will be crucial to independently assess companies' adherence to sustainability-linked finance and provide second-party opinions to investors. Additionally, a study by the World Bank highlights an ingrained income bias, finding that 90% of a country's sovereign ESG score is explained by the country's level of development, and that a country's national income permeates all sustainability-linked measures used by the market (World Bank, 2020[22]). Some financial institutions, inspired by criteria applied by multilateral development banks (MDBs) and development finance institutions (DFIs) working on impact investing, are seeking to address this bias and have developed methodologies to prevent it in order to help bring more sustainable finance to emerging markets. The J.P. Morgan DFI methodology, for example, aims to identify sources of capital for financing opportunities with measurable development impact (JPMorgan, 2022[23]). EMnet participants agree that the growth in "impact investing" will need a stringent design to determine the underlying use of proceeds and verify expected outcomes.

EMnet participants emphasise the need for MDBs and DFIs to further lead the financing of large infrastructure plans. Indeed, in order to enhance the reach of sustainable investment to markets where it is currently underdeveloped, there is a need to share the risk burden. Private investors can therefore collaborate with other stakeholders, such as regional DFIs, to partially de-risk investments in frontier economies with very shallow capital markets.

### *Accelerate the development of sustainability, social and gender bonds*

According to the World Bank, thematic bonds in emerging markets have continued to grow in 2022 to finance development. USD 182 billion in green, social, and sustainability or sustainability-linked bonds were issued in emerging markets in 2021, more than triple the amount issued in 2020 (World Bank, 2022[24]). The total amount of bonds associated with a thematic label reached USD 3.5 trillion in September 2022, 64% of which were green bonds, which were expected to reach USD 150 billion annually by 2023. New issuances reached a record USD 1.1 trillion in 2021, up from USD 8 billion in 2012 and USD 602 billion in 2020 (World Bank, 2022[24]). In the first nine months of 2022, emerging markets issued USD 131 billion in thematic bonds, more than double the amount issued during all of 2020. According to the World Bank, in emerging markets, financial institutions have dominated thematic bond issuances (41% of the total amount issued up to September 2022), followed by corporations (37%).

The private sector is leveraging sustainable finance as part of the green transition. Across emerging markets, the financial sector is increasingly adopting sustainable and green financing. For example, Bancolombia prioritises projects that use clean technologies and efficient energy sources and that optimise resources. The firm also committed to spending COP 500 billion (Colombian pesos; approximately USD 110 million) before 2030 on projects aiming to build sustainable communities and promoting financial inclusion in the region. Beyond the financial sector, the private sector is a leading issuer of sustainable debt, with a significant rise in sustainability-linked bonds, mainly among corporations in Brazil and Mexico (OECD, 2022[25]) . Sustainable finance has more than doubled in LAC since 2019 and is mostly used by the private sector, with green bonds playing an increasingly large role (e.g. the *Iberdrola Framework for Green Financing*). Examples of utilities and energy companies issuing wider sustainable bonds to support the energy transition include Enel, with its corporate Sustainability-Linked Finance Framework; Eni, with its sustainability-linked bond; and Millicom, with its Sustainability Bond Framework.

Currently, less than 12% of the USD 300 billion issued in sustainability-linked debt carries a gender label (IDB Invest, 2022[26]) and only USD 17 billion in assets are gender labelled, out of USD 40 trillion in global sustainable investment (IISD, 2021[27]). As highlighted by the IDB, gender bonds are a new, rapidly growing phenomenon, as two-thirds of the issuance took place since 2020 (IDB Invest, 2022[26]). In Africa, 13 gender bonds had been issued as of 2020 (FSD Africa, 2020[28]). LAC is the most dynamic region in terms of gender bond issuance, with 11 bonds issued between 2019 and 2021 (IDB Invest, 2022[26]). The need to engage private finance and the overall private sector is great, as the International Finance Corporation (IFC) estimated in 2019 that only 7% of investment capital in emerging markets was targeted towards female-led businesses (IFC, 2019[29]), while more than 70% of women-owned small and medium-sized enterprises (SMEs) have inadequate or no access to financial services (IFC, n.d.[30]).

Sustainability, social and gender bonds have the potential to attract investment in projects and fund private sector efforts to support those who are most vulnerable to economic crises, including women. Increased interest from investors in sustainable and social investment opportunities can be leveraged to support these initiatives. In addition, progress on gender equality can be encouraged by non-financial corporate issuers through KPIs related to gender in sustainability-linked bonds, as outlined in *B3 - Brazil, Bolsa, Balcão Sustainability-Linked Financing Framework* or in the *Bancóldex Social Bond Framework*.

EMnet participants stress the importance of designing transparent and well-defined guidelines and systems that promote and guide investment practices focused on sustainability within emerging markets, building on existing initiatives, and the key supportive role of international and regional institutions. The

development of standards to measure the impact of social bonds at large, including gender bonds, will help private companies embrace their potential (e.g. *Green Bond Handbook: A Step-By-Step Guide to Issuing a Green Bond*, developed by the IFC). Such developments have started with the recent launch of the United Nations (UN) Women's practitioner guide on sustainable debt for gender equality. The 2X Challenge was launched at the Group of Seven (G7) Summit 2018 to inspire DFIs (and the broader private sector) to invest in the world's women, and includes quality metrics; the Equileap Gender Equality Scorecard, the Gender-Responsive Due Diligence platform, Women Win, and Partnering for Social Impact can also support the development of standards. Participants also agree on the potential for linking different sustainability and inclusion targets. For example, studies have shown how education initiatives for girls can be one of the best ways to substantially reduce emissions. Indeed, data from the United Nations Educational, Scientific and Cultural Organization (UNESCO) show that educating girls could result in a massive reduction in emissions – by as much as 51.48 gigatons – by 2050. Project Drawdown estimated that giving women access to family-planning resources in order to help them avoid early pregnancies and school dropout can save an additional 59.6 gigatons of carbon emissions by 2050. Finding such connections between green and gender issues or wider social issues could unleash more capital.

## Promote sustainable value chains

### *Integrate sustainability considerations into supply chains*

Sustainability can support resilience when implemented across several areas of a business. For example, supply chain turbulence has affected the return to growth in the aftermath of the COVID-19 pandemic. Integration of sustainability considerations into value chain strategies has the potential to de-risk supply chains and support inclusion across emerging markets. Furthermore, the COVID-19 crisis has revealed shortcomings in social safety nets and social protection systems which have deeply affected workers in emerging markets. The private sector has started to respond to this situation: *COVID-19: Action in the Global Garment Industry*, developed by a coalition of more than 125 industry stakeholders supported by the International Labour Organization (ILO), aims to mitigate the negative impacts of the pandemic through sustainable systems of social protection. Future evolutions, such as the transition to a carbon-neutral economy, will have a profound effect on consumption patterns, posing a challenge for companies to de-risk their supply chains by transitioning away from fossil fuels without affecting the sector's workers. Supply chain finance can play a key role in building sustainable supply chains, with a growing demand following the disruptions caused by the COVID-19 crisis. Indeed, the transition to greener supply chain models requires significant financing and working capital. Companies have been working with suppliers to improve their ESG scores in order to benefit from lower fees. Building innovative financing techniques, allowing both companies and suppliers to plan and manage their capital needs, is critical to promoting positive change in the supply chain and the capital markets. Finally, SMART self-assessment questionnaires (SAQs) represent a great tool both for improving sustainability in more complex environments (i.e. where on-the-ground inspections are not possible), and also for helping to ease the burden of smaller suppliers within larger supply chains of multinationals. Companies can also support a better deployment of resources and focus on areas and industries that are at greater risk from an ESG perspective.

Yet, EMnet participants note that there are significant challenges to implementing sustainability across global supply chains due to the fragmented regulatory landscape and the lack of harmonisation. The need for consistency has been exacerbated by geopolitical tensions, which can result in the breakdown of trust within multilateral systems and lead to further and sustained disruptions in value chains. Participants signal that changing regulations during the COVID-19 crisis have at times caused delays due to a lack of clarity in communications between authorities and businesses. In Africa, 24 countries do not have sufficient quality standards infrastructure (such as accreditation, metrology systems, and national standards bodies) to meet the demands for conformity assessment and quality control (AUC, 2021[31]). Clearly delineating

the responsibilities in rule-making and verification functions among government agencies can reduce conflicts of interest and hurdles for necessary compliance. Participants agreed on the need for an all-of-industry approach to the implementation of harmonized investment policies and regulations. Sectoral initiatives (such as the G7 Sustainable Supply Chains Initiative) can support dialogue between policy makers and businesses in order to accelerate the transformation.

Furthermore, it is imperative to specifically address the needs of local SMEs and the challenges they face in accessing global markets due to an absence of coherent policies, lack of finance, and bureaucracy. Private sector supply chain initiatives can be critical to the successful integration of SMEs in global supply chains. DHL's GoTrade initiative provides supervised learning following a set curriculum as well as formal mentoring for SMEs, in partnership with the Global Business School Network, representing the top business schools around the globe. This learning helps provide the skills that micro-enterprises and SMEs require to develop sustainable businesses that are capable of trading across borders and attracting external investment if needed. This is particularly important when it comes to emerging markets, where SMEs are responsible for the creation of 70% of formal jobs (World Bank, n.d.[32]).

### *Boost regional production networks*

EMnet participants highlight the importance of regional production networks in boosting economic growth, investment, and productive transformation, particularly in regions such as Africa. It is estimated that closing Africa's infrastructure gap, which is crucial to the development of local value chains, would require USD 130-170 billion annually (African Development Bank., 2018[33]) . Furthermore, it would require effective mobilisation of domestic resources and additional investment, with private funds currently accounting for only 7-8% of infrastructure financing in Africa. EMnet participants stress the potential of regional industrial ecosystems, where intra-regional industrialisation could boost production and revenue. Co-operation and co-ordination of production networks between countries plays a fundamental role in these regional industrial ecosystems, as does a single-market vision for industrial policies. Participants flag how industry associations, such as the African Association of Automotive Manufacturers (AAAM) for the automotive sector in Africa, could help the development of regional industrial hubs. In the Caribbean, ANSA Merchant Bank and ANSA Bank, in conjunction with the Capitals Coalition and the non-governmental organisation The Cropper Foundation, have launched a Natural Capital Hub to bring together regional stakeholders and investment, and to initiate measures to promote biodiversity and sustainable business practices.

The development of regional hubs and infrastructure has the potential to attract further investment in Africa, building on the availability of production factors, market access, strategic location and increased competitiveness. For instance, Ethiopia's clustering strategy attracted lead firms to integrate global textile production networks. In Morocco and South Africa, emerging eco-industrial parks such as the Ouarzazate Solar Power Station and Cookhouse Wind Farm have helped attract green investments, integrate firms into sustainable value chains, and achieve social, environmental and economic targets. In Egypt, the Robbiki Eco-Leather Park develops the local leather industry while lowering local tanneries' environmental impact (AUC/OECD, 2022[10]). Upskilling the workforce would support the adoption of international standards within companies, facilitating foreign investment. DHL's GoTrade initiative builds on the UN's SDGs to increase the number and share of SMEs in developing countries that are trading across borders, thanks to capacity building and partnerships with international organisations. This is particularly important when it comes to the African continent, where most formal jobs are generated by SMEs. Finally, cross-sectoral and cross-regional networks such as the African Continental Free Trade Area (AfCFTA) can develop considerably self-sufficiency within the continent and increase the competitiveness of African firms (Box 2.1).

### Box 2.1. Realising the potential of the African Continental Free Trade Area

Accelerating efforts to integrate value chains into the global environment is critical to realising the potential of the African Continental Free Trade Area (AfCFTA), with estimates suggesting that Africa's gross domestic product (GDP) could increase to more than USD 15 trillion by 2060, from a base of USD 1.7 trillion in 2010 (African Development Bank, 2011[34]). Intra-regional trade networks could also support greater self-sufficiency in key sectors for Africa, such as healthcare. However, participants shared concerns about the costs of logistics and the high transport costs across Africa, which negatively affect trade and production in the continent. By some estimates, logistics costs in Africa are up to four times higher than the world average (Plane, 2021[35]). These high costs are due to poor transport infrastructure, non-tariff barriers and weak trade-related services, such as logistics, trade finance and payments. Participants highlight the need to harmonise tariffs and trade regulations in order to boost intra-African trade.

In addition, unlocking investment is also a priority for the development of value chains across the continent. Harmonising domestic legislation according to the AfCFTA Protocol on Investment could boost intra-African investments, as it protects foreign investors and reduces risk and uncertainty for all investors. Examples of investment in sustainable infrastructure – such as the Meridiam Infrastructure Africa Fund, or Delphos International's investment projects, including a 520 megawatt geothermal IPP Independent Power Producer (IPP) in Ethiopia and a National Gas-to-Power Initiative in South Africa – involve national governments and multilateral banks and showcase the role of public-private partnerships in promoting investment in the continent.

Finally, policy support is necessary for African firms to increase competitiveness, create links with local economies and overcome barriers to investment. EMnet participants share mixed views on the current state of implementation of the AfCFTA agreement, while emphasising its transformative potential for the continent. Although the results of the implementation of the agreement have not been reflected in on-the-ground realities, including trade volumes, participants remained optimistic that the trade agreement could be fully implemented in the post-pandemic period, boosting investment in the continent and developing regional value chains. Participants advocate a better understanding of the rules of cumulating in order to facilitate industrial production in countries rich in natural resources and highlighted the transformative potential of the AfCFTA to change these dynamics.

Source: (The Economist, 2022[36]), Why it costs so much to move goods around Africa, The Economist, www.economist.com/middle-east-and-africa/2022/03/26/why-it-costs-so-much-to-move-goods-around-africa.

## Accelerate the green transition

Recent crises and economic shocks, exacerbated by the war in Ukraine, have had far-reaching impacts on the global energy system, disrupting supply and demand patterns around the world at a time when shared energy and climate goals are far from being achieved. A renewed focus on energy security as well as shortages in the supply of essential commodities are putting pressure on economies to accelerate the green transition. Simultaneously, companies and investors now face a complex situation, with urgent short-term energy security needs that are not necessarily aligned with longer-term green economy goals (IEA, 2022[37]). Lasting solutions to the current crisis lie in speeding up the clean energy transition via greater investment in efficiency, clean electricity and a range of clean fuels at a time when – according to the International Energy Agency's (IEA's) *Net Zero by 2050* road map – these technologies remain far short of the levels of investment required to meet the rising demand for energy services (IEA, 2021[38]). Studies show that investment in this transition across emerging and developing economies will need to grow seven-

fold, from USD 150 billion in 2020 to more than USD 1 trillion per year by the end of the decade, to keep the world on track with the goal of limiting global warming to 1.5°C (IEA, 2021[39]). While IEA analysis suggested that world energy investment would increase by more than 8% in 2022 to reach a total of USD 2.4 trillion, well above pre-COVID-19 levels, almost half of the additional USD 200 billion in capital investment in 2022 was allocated to higher inflationary costs rather than funding additional energy supply capacity (IEA, 2022[37]). Cost pressures are most visible in fossil fuel supply, but they affect clean energy technologies too: the cost of solar panels and wind turbines has increased by between 10% and 20% since 2020, after years of declining (IEA, 2022[37]).

EMnet companies stress the importance of addressing climate change and its impact on emerging markets, as estimates for the cost of emerging market countries' adaptation to climate change range from USD 140 billion to USD 300 billion per year by 2030 (UNEP, 2021[40]). Companies like Maplecroft highlight the importance of studying climate change impacts not only from an economic transition perspective, but also from a cascading impacts perspective. These cascading impacts range from political instability to civil unrest, including competition over resources, rural emigration, protectionism and trade wars, volatile prices, forced labour, and decreasing energy availability, among many others. Adaptation finance has been underlined by participants as a fundamental instrument to assess the impact of large infrastructure projects on communities and public goods, and as a good way to promote further public-private collaboration for sustainable economic development.

The current crises are forcing emerging markets to work on new national energy strategies, but challenges are hindering progress. Globally, despite pledges made towards the net-zero transition, most of the commitments made by countries and industries following the 25th Conference of the Parties (COP25) were not backed by sufficient financial resources or clear execution plans. Recent OECD and IEA data show that overall government support for fossil fuels in 51 countries worldwide almost doubled from USD 362.4 billion in 2020 to USD 697.2 billion in 2021, as energy prices rose with the rebound of the global economy following the COVID-19 crisis (IEA, 2022[41]); likewise, worldwide coal consumption rebounded by about 6% in 2021 compared with 2020 (IEA, 2022[42]). In addition, the net-zero transition is interlinked with human rights due diligence (HRDD) legislation, particularly in the northern hemisphere. Several developed economies are pushing their green transition further; however, at regional and global supply chain levels, countries that play a significant role in solar and wind power, as well as in mining, often perform poorly in forced labour indicators.

According to EMnet participants, the current energy crisis is giving many emerging markets the opportunity to move from being exporters of commodities or components to becoming technology producers for renewables and alternative clean energies. In order to achieve such a transition, regulations and policies (such as faster permitting and regulatory stability) should be adopted to avoid the pitfalls of resource nationalism in raw materials, particularly when global supply chains are vulnerable to geopolitical risks (Verisk Maplecroft, 2021[43]). Successful examples of public-private partnerships are illustrative of how the private sector can help governments in their transition plans: in Bogotá, the electrification of public transport required innovative models based on public-private partnerships, in which the company Enel X brought 900 e-buses and 4 electro-terminals to the local transport system, contributing to the city's decarbonisation plan. However, factors hindering this transition include: (i) high commodity prices pushing costs higher; (ii) high interest rates raising the cost of energy and making it difficult to raise necessary capital; and (iii) high currency exchange rates preventing domestic organisations from purchasing and paying in USD.

EMnet participants agree that the green transition is an opportunity to revisit the productive model for LAC – which has long depended on commodities for export, from Paraguay's soybeans to Colombia's coffee beans – noting that growth from this extractive model has been unequal. The private sector can play, and is playing, a leading role in this transition. Enel, for instance, supported the creation of road maps in eight LAC countries in 2022, exploring emission reduction scenarios and making recommendations to meet Paris Agreement goals. According to participants, clean energy will improve the competitiveness of companies in the region, as it is both environmentally sustainable and more affordable. Furthermore,

companies are increasingly adopting a circular economy approach which complements and reinforces climate change mitigation actions. The circular economy approach has been gaining momentum in LAC since 2019, with more than 80 public policy initiatives implemented since then to support this model. The application of circular economy principles has the potential to generate 4.8 million net jobs by 2030 (OECD et al, 2021[44]). The private sector (particularly SMEs) is considered a potential driving force for the circular economy transition, but the added complexity of a circular supply chain, along with a lack of critical scale for investment, are significant challenges. Furthermore, multinational companies can help create the conditions necessary in order for SMEs to incorporate circularity in their businesses. DHL, for example, is committed to reducing carbon emissions in LAC by working on renewable energy projects, while the DHL GoGreen initiative provides advice to local businesses on how to green their activities. Enel has been working with small companies to support them in developing an entrepreneurial culture. Iberdrola has developed an intense involvement in the SME Climate Hub initiative (backed by a partnership with the We Mean Business Coalition) and is promoting the Race to Zero campaign within the SME community in Spanish-speaking countries. In 2022, Millicom had its science-based targets validated by the Science Based Targets initiative (SBTi); Millicom has committed to reducing absolute scope 1 and 2 greenhouse gas emissions by 50% by fiscal year 2030 and absolute scope 3 greenhouse gas emissions[2] by 20% by fiscal year 2035, both using fiscal year 2020 as the base year.

Furthermore, EMnet participants stress the key role agriculture and food systems can potentially play in achieving a green transition, emissions reduction, and, more broadly, global prosperity, particularly in emerging markets, but note that their innovation has received relatively little investment and attention as a core component of clean technology innovation.

### *Leverage existing and new financial instruments and harmonise regulatory frameworks in order to promote investments in large infrastructure projects*

Investments in clean energies remain essential to the net-zero transition in emerging markets. Accelerating the clean energy transition in the medium term will require substantial public and private investment, as foreign direct investment (FDI) currently accounts for 30% of global new investments in renewable energy (OECD, 2022[16]). The extent to which FDI contributes to financing clean energy will depend on the market and regulatory environment, as well as specific low-carbon investment policies. However, this investment in the green transition is not reaching emerging markets at the scale and speed required, as it remains concentrated in advanced economies and the People's Republic of China (hereafter: China) (IEA, 2022[37]). More than 80% of electric vehicle sales are in China and Europe, and more than 90% of global spending on car charging infrastructure is in China, Europe, and the United States. In this context, the pledge by advanced countries to mobilise USD 100 billion annually for climate mitigation and adaptation in emerging economies by 2020 was not reached, with a financing gap of USD 16.7 billion (OECD et al., 2022[18]). Sustainable debt issuances reached more than USD 1.7 trillion in 2021, with green bonds being used to finance renewables and low-carbon buildings and transport. Although these instruments are increasingly used across emerging markets to access capital, the absolute values remain low compared with advanced economies (BloombergNEF, 2022[45]).

National policies can help emerging markets attract investments for the green energy transition. However, there is still a need for instruments and frameworks that can provide long-term remuneration and security for investors. In order to enable access to better information on financing costs for energy projects, the IEA and several partners launched the Cost of Capital Observatory, which will be regularly updated with new data and analysis, to identify and address risks that would impede vital investment flows to emerging

[2] The Greenhouse gas (GHG) protocol classifies greenhouse gas emissions 'Scopes'. Scope 1 covers direct emissions owned and controlled by the reporting entity, Scope 2 covers indirect emissions from heating and cooling consumed by the reporting entity, and Scope 3 covers all other indirect emissions occurring in the value chain (Trust, n.d.[112]).

economies. For EMnet participants, solutions to attract the necessary investments must include stable long-term policies with visibility exceeding ten years, and official road maps with clear targets (in terms of capacity, percentage of renewables, etc.). Participants see potential in market-based mechanisms, such as carbon pricing, for the allocation of resources to the most scalable, cost-effective and environmentally efficient technologies. Public consultation with key industry players can further promote investment and enable large-scale renewables projects. Plans such as Invirtamos en Chile (Invest in Chile) are a good starting point to enhance public-private collaboration; with its working groups in sectors such as construction, energy, transport and mining, Invest in Chile aims to create a set of measures that can reduce the number of stalled construction projects and create more favourable conditions for new projects.

EMnet participants advise policy makers to focus on the planning stage of infrastructure development in order to increase the pool of "bankable projects". They stress the importance of evaluation and permitting, estimating that these phases can require anywhere from 24 months up to 10 years in some extreme cases. Finally, the planning step of green infrastructure projects should include a special focus on human rights in order to address the operational, litigation and reputational costs of renewables projects and thus promote community support for the projects. Public-private partnership can be leveraged to mobilise green investments. For example, in July 2022, the World Bank's IFC granted its first super green loan to Iberdrola's Brazilian subsidiary Neoenergia, combining traditional "green" use of proceeds with sustainability-linked financing features. The price of the bond is linked to the percentage of women electricians and the reduction of the carbon emissions index by 2026. If the targets are met, this will result in a reduction of the debt spread.

EMnet companies estimate that in order to attract investors, the actors involved – such as policy makers, DFIs and the private sector – need to create a virtuous circle by:

(i) reducing funding needs as much as possible by dedicating more efforts to the planning part of infrastructure plans to avoid unplanned costs and choose the right technologies (as an example, anticipating future risks such as the threat to the use of hydropower due to more frequent drought episodes putting pressure on all energy systems and pushing electricity prices up);

(ii) addressing the energy transition in a holistic and progressive manner that takes into account the development needs of countries (these efforts imply setting realistic goals and deadlines for decarbonisation targets that allow countries to manage their transition step by step, by ensuring realistic budgets and avoiding supply chain disruptions);

(iii) bringing flexibility and nuance in funding decisions, avoiding a binary vision of what is considered green but tracking progress to decarbonise systems;

(iv) looking beyond data and regulations and ensuring that projects are viable going forward and in case of further extreme climate or related events, which is hard to monetise, underlining the important role played by insurance in long-term planning.

Scaling up new and existing financial instruments can also help to fund projects in emerging markets. Firms point to the attractiveness of the bond market to promote investment in infrastructure at scale. Due to their flexibility and their transparent KPIs, bonds – particularly sustainability-linked bonds – are considered a credible tool for investors. One such example is how Bancolombia, in a joint venture with IDB Invest, pioneered the issuance of a sustainability-linked bond worth USD 140 million in October 2022, the first of its kind in the LAC region. This operation is linked to specific five-year goals in financial inclusion (reaching 1.5 million low-income unbanked people) and decarbonisation of the loan portfolio (36% reduction in carbon dioxide emissions). Blended finance tools have also proven effective in overcoming country- or project-specific risks or market constraints when raising capital. Participants also call for favouring more innovative, smaller-scale projects, which need smaller investments and have a more localised impact on beneficiaries, in addition to working with more non-traditional partners, such as fintech companies, impact investors, the donor community, and philanthropists. Firms see potential in carbon

offsets, which are already adopted by many companies to neutralise their residual emissions and which are generated through investments in emissions reduction or removal projects. However, participants also note the danger of greenwashing, and the benefits of working with experienced institutions engaged in the transition from fossil fuels to clean energy in order to ensure that offsets are embedded with sound and robust corporate decarbonisation strategies, based on science and emissions reduction pathways.

There is a role for the private sector in encouraging governments and civil society to discuss new taxation models. A transformation of the tax structure in LAC countries has the potential to boost investment in the region. Fiscal incentives were identified as a necessity for the transition. Participants pointed to the European Union's use of recovery funds to promote a green and digital transformation. They also highlighted that reforms could free up financial resources for investment, citing the example of Panama, which halved the cost of spectrum for broadband providers and in turn greatly increased coverage in the country, as a positive driver of investment. Green taxes are still underdeveloped across emerging markets, with measures to develop green or carbon-intensive taxonomies under way in Brazil, Chile, Colombia and Mexico. Finally, EMnet participants highlight the advantages of establishing clear taxonomies for assessing the impact of investment, but they also stress the importance of developing them in collaboration with national governments.

### *Encourage the adoption of new and digital technologies to accelerate the green transition*

EMnet participants reaffirm that the green and digital transformations go hand in hand, noting that technology could play a key role in helping reduce global emissions by around 20% by 2030 (World Economic Forum, 2022[46]). Reaching this target will require investments in technologies and research around new energy solutions, which will allow industries to cut their emissions of greenhouse gases and other polluting or radioactive substances. A survey conducted in 2021 on corporate research and development spending intentions for 2022 showed that after two years of stagnation, plans for growth were focused on the decarbonisation challenge, including in heavy industry from the steel, iron, and cement sectors (IEA, 2022[37]). Companies have also been exploring new technologies such as magnetic confinement fusion. Participants underline the opportunities for innovation brought by start-ups and the importance of multinationals to support this ecosystem. This is the case of Telefónica and its Wayra programme, which invests in and scales up start-ups around the world. Iberdrola set up the Global Smart Grids Innovation Hub, working with academia, suppliers and technology centres to accelerate decarbonisation through digital electricity grids, with the aim of doubling the number of smart grid innovation projects. This is also the case for Gridspertise, Enel's subsidiary dedicated to supporting distribution system operators (DSOs) in the delivery of a new era of sustainable and reliable smart grids for all. Finally, the fintech sector is integrating climate-related features, supported by networks such as the Green Digital Finance Alliance, launched by Ant Group and the United Nations Environment Programme, which leverage digital technologies and innovations to enhance financing for sustainable development. An initiative in the pilot phase backed by the Green Digital Finance Alliance is currently looking at the aggregation of small amounts of cash from millions of digital wallets in Bangladesh to create a mega-fund to finance low-carbon infrastructures. Beyond start-ups, the United Kingdom (UK)-IEA Product Efficiency Call to Action has the ambition to set countries on a trajectory to double the efficiency of key products sold globally by 2030 – including motors, air conditioners, refrigerators and lighting – which together currently account for over 40% of global electricity consumption. The Super-Efficient Equipment and Appliance Deployment (SEAD) initiative, supported by several emerging economies, will work on regional requirements to increase efficiency.

### Box 2.2. Digital transformation and the agriculture sector

The digitalisation of specific sectors of the economy is also an opportunity to further the energy transition; for example, in the agriculture sector. Digitalising 15-25% of global agriculture in this way could increase global production by 300 million metric tonnes by 2030 and reduce water consumption by up to 150 billion cubic metres every year (World Economic Forum, 2022[47]). Participants point to the important opportunities brought by data science and application technologies to answer the pressing challenge of feeding everyone while preserving our resources. For example, by using digital farming tools, farmers can work smarter, combining their expertise and knowledge of the land with digitally enabled tools that collect and make sense of data, providing them with actionable insights that allow for better decision-making. It provides opportunities for agri-food systems to monitor and manage global soil, climatic and genetic resources; connects farmers to new markets, particularly overseas, enabling them to directly ship their products via e-commerce and thus avoid additional outsourcing and logistics costs; and addresses information asymmetries among the stakeholders along the agri-food value chains. It serves as a foundation for more efficient, equitable and environmentally sustainable economic development.

EMnet participants stress that the ability to use digital technologies in agriculture depends on the availability of reliable communications and connectivity networks, the development of data collection and analysis services, and the related regulatory environment, including data ownership and privacy. In this sense, implementing policies that facilitate telecommunications network deployment and reduce investment costs in rural areas is key. As a whole, this data infrastructure enables a series of feedback loops that can allow stakeholders at all levels of the agri-food value chain (including governments) to gain knowledge for decision-making, increase the efficiency of existing production, and better manage value chains and policy processes. By promoting data sharing, reducing burdens on the free flow of data relevant to enable digital and precision agriculture, establishing policies on data ownership, and encouraging interoperability in their national agriculture strategies, policy makers can encourage the use of innovative technologies by farmers. EMnet participants also point to the possibility of using publicly funded datasets specific to agriculture in order to further enable the development of sustainability tools and technology (geospatial technology, tools to measure field boundaries and soil quality, etc.) by innovators.

Beyond data, EMnet participants underline that legislative and regulatory frameworks could promote the uptake of digital farming tools – for instance, through tailored recommendations and guidance on a wide range of tools, such as precision application technologies, drones and digital recordkeeping – and ensure that they are used in a sustainable manner. Moreover, participants highlight the importance of decentralised and transformative opportunities for regenerative agriculture to improve livelihoods for millions of farmers in emerging markets, while enabling them to shift towards sustainable, emissions-reducing, biodiversity-enhancing farming.

For “hard to abate” industrial sectors, the First Movers Coalition was launched as a global initiative of more than 50 companies harnessing the purchasing power of those companies to decarbonise the 7 sectors that currently account for 30% of global emissions: aluminium, aviation, chemicals, concrete, shipping, steel, and trucking. The members of the coalition commit to purchasing zero-carbon technologies to support speedy deployment. Digitalising cities to make them greener and more liveable can bring both needed investments and expertise into the design and planning phases, such as the Urban Futurability project under way in Vila Olimpia, São Paulo, where various companies are working together to develop the first digital and sustainable neighbourhood in the city.

EMnet members also agree with the analysis of the *Latin American Economic Outlook 2022*, which highlights how public-private collaboration is key for the creation of an enabling policy environment and an institutional framework that facilitates the twin digital and green transitions (OECD et al., 2022[18]).

### *Harness the potential of public-private partnerships to bring innovation in the energy sector*

Public-private partnerships can create an enabling environment to promote innovation in the energy sector in emerging economies. The private sector can be a key partner in promoting efforts to encourage renewable energy and accelerate the energy transition, particularly in fossil fuel exporting countries.

In this context, a sound regulatory and legal framework is necessary to encourage collaborations and mobilise resources. The IEA presents different approaches to tracking clean energy innovation and guiding policy makers on how to co-ordinate more effectively with the private sector (IEA, 2022[48]). EMnet participants note that efforts should be concentrated on both mitigation and adaptation targets. To do so, they call for rethinking digital innovation as a cross-sectoral instrument promoting partnerships to reduce technology costs, while simultaneously reshaping processes and governance. Open collaboration between suppliers, industries, governments, and the civil society – for example, through working groups across different ministries and industries within a country or region – could help to assess the impact of projects on several dimensions and foster more innovation.

Capacity building to enhance skills is important in deploying innovative green technologies in emerging markets. There is potential to create employment, as the IEA estimates in its Net-Zero Emissions by 2050 Scenario that 14 million new jobs will be created in energy supply by 2030, while 5 million positions would be lost in fossil fuel production (IEA, 2021[38]). Eni, in partnership with the International Renewable Energy Agency (IRENA), is promoting capacity building for African civil servants on how to support the integration of local economies into global value chains for sustainable biofuel. The partnership provides theoretical lessons, analysis of case studies, and on-site visits to understand the industrial environment and acquire the knowledge related to bio-based production processes and the agribusiness system. Furthermore, capacity building requires a long-term collaboration strategy involving academia, education systems and the private sector. For example, the Tata Steel Foundation developed the Green School programme, which contributes to spreading awareness around climate change and resource management in schools in remote areas where the firm operates.

SMEs also need special support from the business community to adopt technologies and accelerate the green transition. Bayer Crop Science is targeting specific small entrepreneurs through its their commitment to smallholder farmers and the Better Life Farming initiative to improve knowledge and yields and to increase production and resilience to climate change. This includes access to technology and data for precision farming and using fewer chemicals. However, the success of such initiatives requires good access to Internet, smartphones, and basic technologies, which in turn depends on speedy and wide deployment. Syngenta is also part of the World Economic Forum's 100 Million Farmers programme, which is a multi-stakeholder platform catalysing action towards the net-zero transition and nature-positive food systems by 2030. It sets out a shared global ambition while supporting local solutions that incentivise farmers and empower consumers to place climate, nature and resilience at the core of the food economy.

Digital technologies can accelerate the transition towards a greener economy; however, emerging markets need to overcome several policy barriers in order to enable a "twin transition" to a sustainable and digital economy. The first barrier identified by EMnet participants remains the lack of enabling conditions across emerging markets. Companies point out that clear, long-term frameworks which include intermediary goals for the reduction of emissions would help them in designing their own green transition plans. A lack of transparency around issues such as data ownership and privacy, for instance, slows down the adoption of digital technologies by small players. Firms also mention the need to work on the public's awareness and understanding of key energy technologies. Initiatives such as Millicom's Digital Inclusion projects work with

local populations to install needed infrastructure, while educating the population on the changes and benefits connectivity can bring. In 2022, more than 170 000 women were trained through Millicom's digital inclusion programme Conectadas, and more than 100 000 teachers were trained and certified through the Maestr@s Conectad@s programme. Millicom's child online protection programme, Conéctate Segur@, trained more than 120 000 children and adolescents on the safe and creative use of the Internet.

## Enhance the digital economy

The COVID-19 pandemic has forced businesses, governments, and societies across emerging markets to accelerate the adoption of digital technologies. They have been confronted with a series of challenges:

(i) technology guidance on regulatory and digital transformation policies for COVID-19 recovery;

(ii) digital solutions to inform pandemic response, and digital financing to support vulnerable populations or the provision of remote services, including e-justice and distance learning;

(iii) development of basic digital infrastructure; and

(iv) efforts to enhance digital skills.

The United Nations Development Programme (UNDP) alone received requests from more than 100 countries for support and assistance in developing digital solutions (OECD, 2021[49]). From a business perspective, across 13 African countries, more than one-fifth of firms either started using or expanded their use of digital technology in response to the COVID-19 shock (AUC/OECD, 2022[10]). The uptake of e-commerce drastically increased; for example, retail e-commerce in LAC grew by almost 40% in 2021 (Oxford Business Group, 2022[50]). Technologies such as artificial intelligence (AI) that were advancing rapidly across sectors, from healthcare to agriculture to financial markets, showed their potential to transform business models, government systems and policy making (OECD, 2021[51]), with greater adoption across the private and public sectors. Digital transformation reduced the cost of trade and shipping and reduced customs processing times, facilitating participation in global value chains (WTO, 2021[52]).

Digital transformation can also support better integration of SMEs, as several digital innovations are offering new opportunities for smaller and informal producers to improve the efficiency of logistics, simplify customs procedures and improve access to finance (AUC/OECD, 2022[10]). Developing digital solutions such as e-platforms could allow SMEs in emerging markets to better engage with larger firms and integrate within global supply chains. According to EMnet participants, e-platforms could also bring flexibility to larger companies in times of tension in supply chains and during supply shortages by providing them with a better overview of alternative partners available within a region. The African Electronic Trade Group (AeTrade Group), in partnership with the UNDP, developed a platform to enhance SMEs' access to digital marketing and the African market under the AfCFTA. The Sokokuu e-commerce platform will be deployed across the continent to specifically boost exports, visibility, and sales for women- and youth-owned enterprises. In parallel, AeTrade Group will work on digital capacity building of SMEs and access to business information on markets across the continent and globally, in collaboration with public and private entities.

### *Enhance the development of infrastructure and broadband adoption to reduce the digital divide*

Digital acceleration has been underpinned by progress in global connectivity. In Africa, 72% of the population uses mobile phones regularly and the continent operates a total of 300 million mobile money accounts, the world's highest number (AUC/OECD, 2021[53]). In Asia, estimates show that in just a year, from 2019 to 2020, the number of e-commerce users increased by 37 million in the Association of Southeast Asian Nations (ASEAN), by 71 million in China, and by 50 million in India (OECD, 2021[54]). The

region is at the forefront of digital innovation, accounting for 50% of all global Internet users, 60% of all online retail sales, and over 40% of all start-ups that have reached a valuation of $1 billion. By 2025, Asia will account for almost half of all new mobile subscribers added worldwide and over half of all cashless transactions (Mastercard, 2022[55]). In LAC, smartphone usage continues to grow rapidly; it accounted for 72% of total regional mobile connections in 2020, and is expected to reach 80% by 2025 (GSMA, 2021[56]). However, with 60% of global GDP estimated to rely on digital communications technologies in 2022 (ITU, n.d.[57]), major challenges still need to be addressed, including the lack of finance for infrastructure, gaps in skills and broadband adoption, and limited broadband coverage in low-density and rural areas (OECD, 2022[11]). A study commissioned by Millicom estimates that a 10% increase in the penetration of unique mobile broadband users in LAC would result in a 1.7% growth in GDP per capita (Telecom Advisory Services, 2022[58]).

Emerging markets must be mindful of both the development potential of digital transformation, and the risk that it could exacerbate existing inequalities. In 2022, around one-third of the world's population (approximately 2.7 billion people) was still not connected to the Internet according to the International Telecommunication Union, pointing to slower growth than expected in the number of Internet users. Furthermore, the internet usage rate among men stands at 69%, slightly higher than the 63% rate among women in 2022. Consequently, there is a significant gender gap of 259 million more men than women using internet (ITU, 2022[59]). In Africa, 70% of young people live in rural areas, yet only 26% of African rural dwellers have access to the Internet (AUC/OECD, 2021[53]). The comparable figures for the rural populations in Asia and LAC are 35% and 40%, respectively. EMnet companies stress how bridging the digital divide between rural and urban areas can improve rural prosperity. With the size of the rural workforce in emerging economies, rural prosperity – including access to digital finance, crop insurances and the creation of SMEs – would represent a key lever for an interlinked green, digital and inclusive transition.

Looking at mobile Internet connections, the Global System for Mobile Communications Association (GSMA) estimates that at the end of 2021 there were 3.2 billion people (representing around 40% of the world's population) who lived within reach of a mobile broadband network but remained offline (GSMA, 2022[60]). With mobile Internet coverage continuing to slowly expand, and now reaching 95% of the global population, these data point to a persisting "usage gap" of people in the least developed countries (LDCs) who are theoretically able to access the Internet but are not using it (ITU and UN-OHRLLS, 2021[61]). Multiple factors influence this deficit in adoption, including a lack of literacy and digital skills, device affordability, and safety and security concerns. As one example of these challenges, in Mexico millions of people who are covered by telecommunications networks (and able to pay for the services) are not Internet users because of the digital skills gap. This demonstrates that one invisible aspect of the digital divide is the digital skills gap; in a Global Skills Index study, Mexico ranked 58th out of 60 countries evaluated for digital technology skills, and 60th out of 60 countries evaluated for digital business skills (*Global Skills Index 2020*). To address this, AT&T has partnered with Fundación Construyendo y Creciendo to develop and deploy mobile classrooms in various states and cities across Mexico in order to provide digital literacy and digital learning education to local community members.

Progress in reducing the gender gap in mobile Internet adoption has stalled (GSMA, 2022[62]). In 2021, the gender gap in mobile Internet usage stood at 16%, which was not a significant change from 2020, when it reached 15%. Bridging the gap in connectivity infrastructure would require an additional USD 428 billion (ITU, 2020[63]). GSMA indicates that 2021 is the first time since 2017 that a negative trend in the number of women coming online has been observed, as only 59 million women came online in 2021 compared with 110 million in 2020, although this trend varies depending on region.

In order to unlock further investments in digital connectivity, participants restate the need for both the public and private sectors to work together to overcome existing challenges. On the public side, EMnet firms point out a lack of clarity regarding who is orchestrating the digital transformation across multiple government institutions. The multiplicity of actors (including various ministries, regulators, and electricity authorities)

makes it difficult for the private sector to assume the risk and the majority of the investment in digital infrastructure and technologies in emerging markets. Participants agree that the OECD and other multilateral organisations can play a role in promoting guidelines and good practices for public authorities in order to facilitate governments' interaction with the private sector and define public policies which foster investments and the development of new business models to address these challenges. Discussions are ongoing regarding the creation of a specific fund among development banks, which would create new financial instruments, such as digital bonds, to support private investment in connectivity.

Policies to address barriers to connectivity and broadband adoption must be complemented by measures to reduce digital gaps. According to EMnet participants, traditional models to attract investments in connectivity are ultimately not sufficient to achieve universal coverage. There is a need for modern regulatory frameworks that encourage innovation and co-operation between different agents and enable different conditions for rural areas. Furthermore, EMnet firms agree on the importance of applying a gender lens to their initiatives by working around social norms that can affect women and their ability to, for example, own "hard" and digital assets or open a bank account. The Social Institutions and Gender Index highlights the structural barriers to bank account ownership, for example in Africa, where only 26% of women have a formal bank account compared with 38% of men. Moreover, in order to address the gap in digital literacy, capacity-building programmes must be anchored in the context of the regions, considering digital maturity across countries, sectors of the economy which could benefit from digital expansion, and target populations that could enter the labour markets thanks to higher digital literacy. AT&T and Mexico City's Federal Educational Authority launched a digital citizenship programme that is part of the school curriculum for students in Mexico City. Similarly, Telefónica has created numerous projects to develop digital skills, such as the free Conecta Empleo service that teaches users important digital skills while also helping pair participants with employers seeking said skills across seven developing LAC countries. Intel, through its various AI programmes (AI for Youth, AI for Citizens, AI for Future Workforce, AI for Current Workforce and Digital Readiness for Leaders), aims to demystify the use of digital technologies in various contexts and industries. The goal is not only to help governments reduce gaps in digital access, but also explore how the public sector itself can more effectively use digital tools to deliver its services. Intel aims to train 30 million people around the world by 2030.

Finally, all stakeholders should work on the affordability of connectivity and Internet-enabled devices. Participants emphasised the existing efforts to reduce the cost of digital devices, as there is now a wide range of commercial offers dedicated to low-income populations; working on aspects such as reviewing the tax burden on telecommunications services for low-income populations and considering direct subsidies for these groups, among others, can help to increase access to services. Specifically, EMnet members noted how the income of rural citizens remains too low for them to afford access to digital services and fully benefit from greater access to the Internet. Through its Internet para Todos initiative in Peru, Telefónica (in partnership with Meta, CAF and IDB Invest) has tested a new business model focused on rural areas both from a technical point of view and from a commercial and business perspective. Members highlighted the importance of anchoring these projects in sustainable financial models, which cannot rely solely on subsidies, given that they cannot guarantee enough incentives to evolve to new generations of technologies and keep pace with innovation.

### *Develop digital solutions to support open government strategies*

Open government strategies and initiatives are based on the principles of transparency, integrity, accountability and stakeholder participation. There is potential for digital government to help support this process while facilitating collaboration between the public and private sector. In 2014, the OECD published its *Recommendation on Digital Government Strategies*, which aims to support the development and implementation of digital government strategies that bring governments closer to citizens and businesses. Digital government strategies, and open government data in particular, can promote innovation and efficiencies in the public sector and beyond (OECD, 2020[64]). The UN has called for a "road map for digital

cooperation" to promote people-centred services and trust in public institutions. Similarly, the Open Government Partnership (OGP) is a multilateral initiative launched in 2011 with the aims of supporting public policies that encourage participation and transparency, fighting corruption, and promoting the use of technologies across government bodies.

Public-private partnerships are part of the strategy to achieve digital government reforms, overcoming barriers such as budget restrictions, ageing populations, the preference of many millennials for private sector employment, and the lack of resources to properly upskill and train the workforce in the public sector, particularly in areas such as healthcare and social services. Thus, the public sector has a role to play in promoting a more interconnected public-private innovation ecosystem and shaping the market for engaging the private sector in public innovation (United Nations, 2022[65]). This collaboration, which can also include the civil society, has been successful in bridging digital divides when implemented during the design and production phases of e-services. However, partnerships are not often conducted: of the 193 countries surveyed by the UN E-Government Survey, 42 co-created education e-services (the highest number among the six sectors assessed), and only 22 countries have engaged in the collaborative development of justice-related e-services (the lowest number) (United Nations, 2022[65]).

Digital governments can underpin progress on an enabling environment and rule of law that could in turn support more private investment and increased competitiveness. These strategies can unlock some of the investments needed to bridge the information and communication technology infrastructure gap across emerging markets through the creation of enabling conditions, such as the digitalisation of key regulatory systems, and increased trust, transparency and efficiency for bankable projects. As highlighted by the OECD in its *Recommendation on Digital Government Strategies*, governments should develop clear business cases to sustain the funding and success of digital technologies, as well as review legal and regulatory frameworks to allow digital opportunities to be seized. Indeed, digital governments can help increase effectiveness and efficiency across licensing, permitting and tax systems, improve customs administration, harmonise rules and regulations, and reduce bureaucratic bottlenecks. The private sector can play a role in supporting the introduction of digital technologies for a wide range of public services, such as in the public health and animal health sectors, for example, where companies can support disease prevention as well as the identification, early diagnosis, and monitoring of illness. EMnet participants stress that, currently, specific regulatory frameworks in some emerging markets and the lack of harmonised requirements and procedures do not fully enable the private sector to work with governments on national health strategies and limit the possibilities for "access for all" when it comes to medication for the public and animals.

Public-private co-operation can also help address the formalisation of employment in many emerging economies. Multinational companies can act as a bridge between small merchants, SMEs and governments, thanks to compliance systems facilitating the move of businesses from the informal to the formal sector. Likewise, governments working on digital invoicing systems will facilitate relations between local firms and micro, small and medium-sized enterprises, including removing barriers to trade. The WTO Trade Facilitation Agreement prescribes the use of digital processes for easing the cross-border movement of goods as well as payments for taxes and goods. Participants highlight trust as a key aspect of this digital environment, which can be brought through greater consultations and collaboration in policy design and implementation, avoiding digital protectionism, and lowering barriers to digital trade.

### *Lower barriers to digital trade*

Following the acceleration of their deployment during the COVID-19 crisis, digital technologies are expected to have a significant impact on trade (WTO, 2021[52]). It is estimated that they will add 2.0 percentage points per annum to global trade and 2.5 percentage points per annum to developing countries' trade between early 2023 and 2030. A 10% increase in digital connectivity between countries has been shown to increase trade in goods by nearly 2% on average, trade in parcels by 4%, and trade in

services by over 3% (OECD/WTO, 2022[66]). Overall, addressing non-tariff barriers has the potential to unlock business opportunities. Participants stress the need for harmonisation, digitalisation and reduction of regulations, as well as quick implementation across jurisdictions.

EMnet participants note five points to prioritise in order to enable and sustain digital trade and e-commerce adoption:

(i) working on connectivity by expanding access to cheaper solutions for emerging markets (for example, Nokia is working on lighter equipment that can be brought to underserved areas);

(ii) addressing the fragmentation of digital regulations around the world, and particularly the rise of digital protectionism, such as the data export or data localisation regulations creating barriers to trade observed in China, the European Union and Southeast Asia;

(iii) harnessing the potential of regional trade agreements (such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in Asia Pacific or the AfCFTA in Africa) to harmonise rules and provide global standards for digital trade;

(iv) working on the interoperability of platforms and digital payment systems for companies to authenticate and validate SMEs quickly through innovation; and

(v) addressing cybersecurity and data protection as a growing topic of concern. Indeed, attacks on small enterprises increased by 424% in 2020 alone (Mastercard, n.d.[67]), and the COVID-19 pandemic has escalated this problem even further, with Mastercard setting up a Trust Centre to provide solutions and toolkits to protect SMEs.

## Promote inclusion and adopt a gender lens

### *Adopt a gender lens throughout industries to advance gender equality*

COVID-19 had a detrimental impact on gender equality across emerging markets, with women traditionally responsible for much of the unpaid work at home, generating an important gender gap in labour markets (OECD/WTO, 2022[66]). Women's over-representation in hard-hit sectors meant that their jobs were 1.8 times more likely to be affected by the crisis than men's jobs. As a result, while representing only 39% of global employees, it is estimated that women accounted for 54% of overall job losses (McKinsey, 2020[68]). Prior to the crisis, the World Bank estimated that the foregone global wealth due to gender inequality in earnings was around USD 160.2 trillion (Wodon, Q. and B. Brière, 2018[69]), while OECD research highlights that half of the growth in GDP per capita in OECD countries between 1960 and 2010 can be attributed to educational attainment, especially among women (OECD, 2020[70]). In 2015, McKinsey found that eliminating the global gap between men and women in terms of labour force participation, hours worked, and a reasonable sector mix of employment could add up to USD 28 trillion in annual global GDP by 2025 compared with a business-as-usual scenario (McKinsey Global Institute, 2015[71]), and USD 4.5 trillion by 2025 in Asia alone. Following the COVID-19 pandemic, an additional study by McKinsey estimates that including specific steps to advance gender equality in recovery plans could add up to USD 13 trillion to global GDP by 2030 (McKinsey Global Institute, 2020[72]).

EMnet participants recognise the role the private sector can have in support of gender equality, through Diversity, Equality and Inclusion measures such as equal employment practices, or including a gender lens across the value chain. As the United Nations Conference on Trade and Development (UNCTAD) recently highlighted, multinational enterprises can affect gender equality in host countries through employment practices and spill overs in local labour markets (UNCTAD, 2021[73]). About 70% of the world's 5 000 largest multinational enterprises now report on progress in this area. The COVID-19 crisis and its consequences led many companies to reinforce diversity and inclusion measures and clearly target gender balance, improving accountability and disclosure not only to the board, but also to consumers and

suppliers. Even prior to the COVID-19 crisis, an increased number of companies had started to put in place pledges to increase gender parity within the business world and reduce the pay gap through coalitions such as the Equal Pay International Coalition led by the ILO, UN Women and the OECD. Others have announced company-specific targets (e.g. Millicom has announced a goal of gender parity by 2030). The COVID-19 crisis also accelerated private sector initiatives on social issues, which risked being exacerbated by the pandemic. The One In Three Women coalition is one example of a network of companies (which global firms such as L'Oréal have joined) that are engaged in taking action against gender-based violence. EMnet companies acknowledge that challenging social norms is also a men's issue, as traditional masculinities are also detrimental to building an inclusive workplace (OECD, n.d.[74]).

EMnet participants note that emerging markets face specific gender challenges, ranging from educational segregation (which still prevails in some markets) to the risk of talent leaving some regions to pursue career opportunities in more developed countries. The private sector has a role to play in tackling these challenges. American Tower Corporation (ATC) has launched more than 300 digital communities in 8 countries since 2012 and has committed to building 2 000 communities over the next 5 years. These sites with broadband connectivity and uninterrupted power aim to increase digital inclusion and access to digital services, providing job skills training as well as health and financial services to underserved communities, in particular to women who do not have access to information and communication technology training. ATC has partnered with NIIT Foundation in India to provide digital education and has seen a steady increase in female enrolment; as of early 2023, 43% of attendees of this training are women.

One of the key barriers to progress towards gender equality is access to capital. Firms such as Organon are embarking on projects to enhance women's participation in the economy by partnering with the Flat6Labs venture capital firm to launch the Femtech Accelerator Program in the Middle East and North Africa (MENA) region, which is a tailored programme for women-led businesses addressing women's health issues and providing them with access to capital as well as mentoring and support programmes. Support from government and multi-stakeholder collaboration remains key to promoting change. For example, Egypt's Ministry of International Cooperation (MoIC) and the National Council for Women in Egypt (NCW), together with the World Economic Forum (WEF), launched the Closing the Gender Gap Accelerator in July 2020. The accelerator aims to address current gender gaps, particularly in the labour force and leadership positions, and to reshape gender parity for an inclusive future by promoting systems change and highlighting the need for collaborative action. One related barrier is a lack of mentorship and training for women entrepreneurs. To address this, AT&T and Visa collaborated with The Asia Foundation to launch the Accelerate programme in 2022, with the goal of supporting women-led micro-enterprises and small enterprises in Indonesia and Malaysia through training in areas such as digital skills, financial planning, and cybersecurity awareness.

### *Promote an inclusive digital transformation and green transition*

Both the green and digital transformations present an opportunity to respond to growing social and inclusion needs in emerging markets. The IEA argues that the energy transition should take into account the situation of thousands of workers in emerging markets who are often in part-time or informal jobs (IEA, 2022[75]). New energy projects are a major promoter of employment, with around 65% of energy workers employed to build and deploy new solar plants. The digitalisation of the economy holds additional opportunities for the inclusion of women and vulnerable populations in the labour market (OECD et al, 2021[44]). Ensuring an inclusive digital transformation that includes women's access to digital technologies and incorporates measures to provide women with the skills to use these technologies, and that breaks down socio-economic barriers and thereby improves economic opportunities, is also necessary to promote women's autonomy in the post-pandemic context (ECLAC, 2021[76]).

There is a key role for the education system in reskilling and a need for incentives to lead the way. EMnet participants agree that workforce development is an area in which the private sector can play a key role.

Initiatives like Telefónica's Mujeres en Red, which promotes the training and employability of women in technical operations and maintenance positions, are dedicated to evolving workers' skills to better fit in the future economy. To date, this project operates in Argentina, Colombia and Peru, and has helped educate more than 7 000 women, with some 900 now employed by Telefónica itself. Similarly, Enel's innovation hubs, active in Brazil, Chile and Colombia, allow the company to discover and connect with local talent in order to respond to emerging challenges with an open and collaborative mindset. In Brazil, Iberdrola launched the Escola de Eletricistas programme, a women-only electrician school aimed at empowering women in the energy sector and harnessing their talent. In 2021, a total of 258 women were certified, 69% of whom have already joined Iberdrola's workforce. The programme has been recognised by UN WeEmpower as a good practice.

EMnet firms agree that a special focus should be brought to the underbanked and unbanked populations by increasing access to services and making digital tools available to a wider pool of clients. They also underline that the vulnerability of global banking systems weighs heavily on emerging markets, as the digital solutions that are currently available are often designed for developed countries. The fintech sector can help governments in their digital inclusion efforts, particularly in times of crisis. EMnet members note that the recent development of a multiplicity of platforms for banking has increased the pool of choices for consumers and citizens. However, while efforts were made on receiving income digitally, there is still a lack of use of digital banking platforms in the payment side. In certain regions, communities still rely heavily on cash despite efforts to digitise transactions, thus limiting access to financial services, which calls for increased partnerships with fintech companies and their innovative and new solutions (World Bank, n.d.[77]). For example, in Colombia, MOVii (an e-wallet platform that Bancolombia helped create) helped distribute government assistance, Ingreso Solidario, during the COVID-19 pandemic both online, using digital banking, and in person, by helping people to open their account by visiting their homes. Another example in Chile is Los Héroes, a prepaid card for retirees which provides services to beneficiaries of Chile's Social Security Institute and pensioners with private retirement funds, and provides social services, thus promoting the financial inclusion of the elderly. However, a sound regulatory environment needs to be in place in order to realise the potential of digital technologies for financial inclusion. These initiatives were made possible because there was already an environment of trust between the government and fintech companies. It could not have happened, for example, in contexts lacking non-lending deposit-taking institutions, which are necessary in order for fintech companies to operate and to reach those populations that are not yet served by traditional financial institutions. Similarly, governments need to have in place an appropriate regulatory framework around e-signatures and digital identity. This is the backbone of a digital payments ecosystem because, in order to open an account, an identification and validation process must be undertaken. There is room for more financial inclusion in countries where opening an account still needs an in-person signature at a brick-and-mortar site. Digitalisation opens opportunities that governments can embrace in order to financially include underserved populations. Finally, in order to increase small businesses' access to open banking and smart lending solutions, EMnet participants point to the importance of payment aggregators, using technology that needs less connectivity and data usage.

Bigger players can also be inspired by the use of innovative technologies. For example, ANSA Merchant Bank is the first bank in the Caribbean region to operate 100% on the cloud, which allowed the bank to quickly pivot its strategy online and respond to businesses' demands when the COVID-19 pandemic hit. It was particularly important in this region, where social safety nets are less robust and where customers needed stronger support in order to move online. It was made possible thanks to the good mobile penetration in the population, thus confirming the importance of working on connectivity and the adoption of digital tools.

Finally, digital financial services can help to advance the low-carbon transition while supporting the development of rural and low-income households. The Alliance for Financial Inclusion notes that financial inclusion can help vulnerable groups obtain the instruments they need to better manage risk (Alliance for Financial Inclusion, 2022[78]). As an example, building on the success of mobile money in Africa, the

Kenyan company M-KOPA is providing solar home systems that consumers can purchase through micropayments via the M-PESA mobile money service. Fintech instruments are also useful to help populations with particular needs (such as after natural disasters) via the use of government-to-person payments through mobile money platforms. However, the underlying infrastructure and platforms adapted for these affordable, rapid and flexible instruments often remains at a nascent stage in emerging markets. In particular, the Alliance for Financial Inclusion notes that solutions like digital carbon credit trading or blockchain applications for green bonds are built on financial markets common only in advanced economies. Furthermore, these solutions are not suited for SMEs due to their small scale, or for rural areas in emerging markets, where economic, social, digital and gender divides are still prevalent. EMnet members suggest that a gender-lensed low-carbon transition can be reinforced if adapted to the territorial level, where policies should be based on key local levers in order to achieve rural prosperity.

# 3 From regional to global, Chinese companies continue their international expansion

This chapter explores the internationalisation of Emerging Market Multinationals (EMNCs), looking at the company's geographical footprint. It analyses the international expansion of Chinese firms, comparing it with other countries, and builds on examples from the automobile, home appliances and construction equipment industries.

## Key messages

- The rise of emerging market multinationals, particularly led by China, is a defining feature of the early 21st century, reflected in the increasing share of emerging countries in global Outward Foreign Direct Investment (OFDI) and the significant growth of announced greenfield investment projects by emerging market firms.
- Indexes like the transnationality index (TNI) capture the intensity of a firm's internationalisation but do not account for its geographical dimension, highlighting the importance of considering the geographical footprint of a firm's activities in a post COVID-19 world, with the rise of digital companies, the facilitation of offshoring, and the expansion of global value chains.
- Chinese multinationals have achieved a global reach, surpassing previous perceptions that they were regionally focused and emerging market firms, with investments spanning across all continents.
- Three Chinese companies, Geely, Haier and Sany, have become successfully global in industries that were previously dominated by European, American, or Japanese firms, with their internationalisation process being extensive and fast, particularly between 2013 and 2023.
- Geely, a Chinese automobile firm, has experienced significant international expansion by acquiring or buying into prestigious brands such as Volvo, Lotus, and Aston Martin, positioning itself as a major player in the global mobility industry and seizing the potential of the transition to electric vehicles.
- Haier Group Corporation, a global home appliance and electronics consumer group, achieved success through innovation, overseas acquisitions, and the implementation of the Rendanheyi organisational model[3], becoming the world's top home appliance brand and a pioneer on the Internet of Things (IoT) ecosystems.
- Sany Group, one of the world's largest manufacturers of heavy equipment, has achieved global leadership through organic investments, international expansion, strategic acquisitions, and technological innovation, particularly in the development of intelligent factories.

[3] See definition on page 12.

## The Rise of Chinese multinationals

The rise of emerging market multinationals, led by China, is one of the defining features of the early 21st century, the symptom of a major shift in the global economy. Such a change is reflected in the increasing share of emerging countries in global Outward Foreign Direct Investment (OFDI), from less than 2% in 2000 for the top 20 emerging economies plus China (the E20+1 group) to 22% on average for the 2015-20 period (Casanova, L. and A. Miroux, 2022[79]). China alone, hardly visible in 2000, saw it share rise to 15% by the late 2010s. Other indicators are also telling. This is the case of data on announced greenfield investment projects by emerging market firms: over 2003-09 announced greenfield projects by Emerging Market Multinational Corporations (EMNCs) accounted for less than 20% of the world total. Between 2011 and end of 2022, the total value of international greenfield investment projects went up to USD 8.8 trillion. China alone reached USD 770 billion and was the second largest source of announced greenfield FDI projects, accounting for almost 9% of the world total and 44% of emerging markets' total.[4] The United States, with USD 1.6 trillion over 2011-2022, i.e. 18.3% of the world, was the largest one every year during this period, except in 2016 (Casanova, L. and A. Miroux, 2017[80]).

## Assessing firms' internationalisation level

The international presence, or global footprint, of firms can be measured in a variety of ways. Several indexes have been developed to this end. One of the best-known indicators is the transnationality index (TNI) published by the United Nations Conference on Trade and Development (UNCTAD) since 1995. A composite index based on assets, sales, and employment, the TNI is calculated as the arithmetic average of three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment. Such indexes may reflect the "intensity" of the internationalisation of a firm but not the geographical dimension. According to latest UNCTAD TNI ranking in 2022, the companies with the highest TNI were all European: The British Xstrata led the pack, followed by the Swiss and Sweden ABB Group, the Finnish Nokia, the British WPP and Vodafone, the German Linde, the Belgium Anheuser-Busch InBev, the British Anglo American and the Luxembourg of Indian origin ArcelorMittal. A high TNI may reflect a high proportion of foreign assets, but these assets may be in just a couple of countries; while a firm with a smaller share of foreign assets but spread on many countries would have a low TNI. In which case is the company more global?

Hence, beyond the intensity of the level of internationalisation, there are other interesting internationalisation dimensions such as the geographical footprint of a firm's activities, (Ietto-Gillies, 1998[81]), (Ietto-Gillies, G, 2010[82]), (Ietto-Gillies, G, 2021[83]), (UNCTAD, 2007[84]), and (Trentini, 2021[85]). This is probably more important nowadays for the following reasons: first, the growing importance of digital companies in the economy; second, the development of organisational innovations that facilitate offshoring, and third, the remarkable expansion of Global Value Chains (Ietto-Gillies, G, 2021[83]) and (Trentini, 2021[85]). Such changes mean that operating abroad does not necessarily require sizable foreign assets.

Also, the size of the home market needs to be kept in mind when examining firm internationalisation because of its impact on indexes such as the TNI. It can affect our perception of the internationalisation level of firms in the case of multinationals from large emerging markets such as China, India, or Brazil.

Various indexes have been proposed to address some of these issues. It has been suggested for instance that a geographical scope index should be added to the three key dimensions (assets, sales and

[4] Data on China includes Hong Kong (China) and Macau (China), and excludes greenfield FDI projects between China, Hong Kong (China) and Macau (China).

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employment) to reflect the extent to which the activities of a firms are spread geographically or not (Ietto-Gillies, 1998[81]), (Ietto-Gillies, G, 2010[82]), (Ietto-Gillies, G, 2021[83]), (UNCTAD, 2007[84]), and (Trentini, 2021[85]).To address the home country bias, UNCTAD also developed in 2009 the Geographical Spread Index (GSI) - calculated as the square root of the share of foreign affiliates in the total number of affiliates times the number of host economies - and applied it to date only to financial firms (Trentini, 2021[85]).

In the following we will concentrate on the geographical footprint of EMNCs and examine the global spread of large Chinese firms based on the number of countries where they operate with subsidiaries or affiliates. Using such a unidimensional indicator has limitations since it does not reveal much about the importance of the investment made in each location. However, given the challenges faced to obtain data on a firm's foreign direct investment by region or country[5], it helps us to better gauge how global emerging market multinationals truly are.

## The international presence of Chinese firms: A geographical dimension

An examination of the top 330 Chinese billionaire firms that are among the 500 largest emerging market firms by revenues (the top 500 EMNCs) helps us to better gauge the extent of Chinese firms' global presence. We divided this group in cohorts of 10, based on their international presence[6]: the 10 most internationalised among these 330 biggest Chinese firms are present in 55 countries on average, and the following four groups of 10 most internationalised firms in 44, 37 and 29 countries respectively (Casanova, L. and A. Miroux, 2022[79]). While smaller than the number of countries where their American counterparts are present[7], these figures are nevertheless quite high and, compared to a similar exercise undertaken by the Emerging Markets Institute in 2017, reveal how fast the international presence of Chinese firms has grown (Casanova, L. and A. Miroux, 2022[79]).

The global reach of the largest Chinese multinationals is particularly noticeable as shown by the presence of the 330 largest Chinese multinationals in all continents. Geographical proximity is still an important factor: six of the top 20 popular destinations for these 330 Chinese largest firms are in Asia (Singapore, India, Japan, Malaysia, Indonesia and Thailand, in that order (Table 3.1). Yet, their presence goes much beyond, to countries that are close neither geographically nor culturally. The US is their first popular destination: two thirds of these firms, 231, have subsidiaries or affiliates in that country. They are also present in significant numbers in the European Union: Germany (60% of them), the United Kingdom (45%), Netherlands (40%), Italy and France (30% each) – as well as in Canada and in Latin America, especially Brazil (about a third) (Table 3.1). Besides, Chinese firms are also very much present in Africa, with subsidiaries or affiliates in most of the countries on the continent. They are even present in larger number than their US counterparts in countries such as the Democratic Republic of Congo (18 versus 4) or Congo Republic (16 versus 5) for example (Casanova, L. and A. Miroux, 2022[79]). All this illustrates the access to natural resources and intangible assets (such as technology) as a motive for the global expansion of the large Chinese multinationals - in Africa for the former, and in the United States and Europe the latter.

The global reach of Chinese firms today contrasts with the perception prevailing till the early 2010s that Chinese multinationals were in fact regional and present in a relatively limited number of countries (Collinson, A. and A. Rugman, 2007[86]) and (Adedigba, O., R. Lin and N. Ud Din, 2020[87]).

The outward expansion of large Chinese multinationals outpaces that of other emerging market firms, which is not so surprising if one considers the unique position of China among emerging markets – and

[5] For instance, the breakdown of affiliates per country - or the amount of assets held - is not available for many enterprises whether from advanced or emerging economies.

[6] Measured by the number of countries in which a firm has subsidiaries or affiliates, in 2022. Based on data from *Orbis database*, https://orbis.bvdinfo.com/ (accessed between in October 2022). See (Casanova, L. and A. Miroux, 2022[79]).

[7] The gap between Chinese and US firms is about 30 for the first ten groups of most internationalised companies (Casanova, L. and A. Miroux, 2022[79]).

globally. China, the second economy in the world by GDP, is the country with the largest number of billionaire companies and in the top 500 EMNCs. Next in line would be India, the emerging market that ranks second – but far below - both in the lists of billionaire firms and top 500 EMNCs. The geographical spread of the Indian firms that are part of the top 500 EMNCs (35 in 2022) is not negligible but smaller. Based on the number of countries where these firms have subsidiaries and affiliates, the ten most internationalised among them are present on average in 55 countries just as in the case of the ten most internationalised Chinese firms of the top 500 EMNCs group. This number, however, falls to 32 and then 16 for the following two groups of most internationalised Indian firms present in the top 500 (Casanova, L. and A. Miroux, 2022[79]). Finally, the largest multinational firms from Brazil (third country in terms of billionaire firms and in the top 500 EMNCs) have a very limited international presence.

Table 3.1. Top 20 popular destinations for the 330 largest Chinese multinationals*

| Popular destinations for large Chinese companies | | | | | |
|---|---|---|---|---|---|
| 1 | United States | 231 | 11 | Japan | 103 |
| 2 | Singapore | 224 | 12 | Italy | 101 |
| 3 | Germany | 188 | 13 | France | 95 |
| 4 | Cayman Islands | 170 | 14 | Malaysia | 91 |
| 5 | United Kingdom | 149 | 15 | Luxembourg | 86 |
| 6 | Netherlands | 130 | 16 | Spain | 83 |
| 7 | Australia | 125 | 17 | Indonesia | 78 |
| 8 | India | 122 | 18 | Bermuda | 77 |
| 9 | Canada | 109 | 19 | Russian Federation | 74 |
| 10 | Brazil | 104 | 20 | Thailand | 73 |

Note: * Based on the number of firms among the top 330 Chinese MNCs that have affiliates or subsidiaries in the country (columns A and B).
Source: (Orbis, 2022[88]), *Orbis database*, https://orbis.bvdinfo.com/ (accessed in October 2022); based on authors' own calculations.

In the following we will explore in detail the case of a few Chinese firms that are emblematic of the increasing geographical spread of Chinese multinationals; Geely, that is probably the most global Chinese automobile manufacturer; Haier, the number one home appliance manufacturer; and Sany, the third manufacturer of heavy equipment (concrete machinery, excavators, cranes, wheel loaders and other heavy machines) in the world.

## Global firms from China: The cases of Geely, Haier and Sany

In this section we examine in more detail Geely, Haier and Sany that are among the most global Chinese firms (Casanova, L. and A. Miroux, 2022[79]).These three examples illustrate the internationalisation process of Chinese firms.

### *Geely, moving ahead globally with landmark acquisitions*

With the rise of electrical vehicles, the automobile industry is at a critical juncture. Decades of experience and technological development had provided to traditional automobile manufacturers from advanced economies an almost insurmountable competitive advantage in the internal combustion engine (ICE) segment. Chinese automobile firms on the other hand suffered from a reputation of low quality and lack of safety. The conversion of the industry to electric vehicles (EV) – a segment where traditional automakers do not have a first mover advantage as in ICE – has changed the game, creating an ideal moment for Chinese EV firms to rise and expand.

The support of the Chinese government for electric vehicles and a growing and sizable demand are the key success factors and, as a result, Chinese firms dominate the Chinese EV market. In 2021, for instance, about 3.5 million electric vehicles were sold in China, more than the rest of the world combined (EVwind, n.d.[89]).Leaving behind the tarnished image they had in the ICE segment; Chinese automobile firms are also showing strong global ambitions. This is particularly the case of Geely.

### *Geely Group's global expansion*

Created in 1986, Zhejiang Geely Holding Group (ZHG or Geely) was a refrigerator manufacturer. It entered the automobile industry in 1997 with the creation of Geely Automobiles. A privately held company,[8] the group includes four divisions: passenger vehicles, commercial vehicles, technology, and mobility services. Its operations span the automotive value chain, from research and development to design, production, sales and services. In 2022, Geely was the second largest automobile manufacturer in China by volume after SAIC Motor (Table 3.2). The Group operates two core subsidiaries – Geely Automobile Holdings Ltd and Volvo Car AB acquired from Ford in 2010, which are listed on the Hong Kong Stock Exchange (HKSE) and Nasdaq Stockholm respectively.

The firm's international expansion started in the mid-2000s, but really took off during the 2010s. Geely moved fast, particularly targeting the European market as a steppingstone to become a global brand. Geely entered Europe through brands seen as traditionally European – including some iconic ones like Volvo - thanks to a strategy based on the acquisitions of, and partnerships with, major European firms. The list is quite impressive, as the following examples show:

In 2010, Geely bought Volvo Cars from Ford Motors. Founded in Sweden in 1927, Volvo is one of the most well-respected brands in the auto industry with sales to more than 100 countries and a reputation for very safe cars. The move allowed Geely to get a foothold in Europe, while providing much needed financial resources to Volvo and facilitating its development in the Chinese market. Volvo Cars' acquisition was a major step towards Geely's internationalisation. It came as a surprise for international investors. Volvo's business remained largely separated from the rest of the group – with Volvo Cars and Geely Auto maintaining separate corporate structures. The latest attempt to fully merge both firms was called off in February 2021. The acquisition not only boosted Geely's research and manufacturing capabilities, bringing in the cutting-edge compact modular architecture (CMA), but also helped to raise its profile – as will be the case with its later acquisitions in Europe. The acquisition also expanded Geely's global footprint as Volvo cars main production hubs are located, in the United States, Sweden and Belgium.

In 2021, in addition to its 9 000 employees in China, 2 000 are based in the United States, and about 30 000 in Europe mainly in Sweden and Belgium. Its top retail markets are, besides China, the United States, the United Kingdom, Sweden and Germany. Together with Volvo, Geely also owns the Swedish Polestar, the maker of premium electric vehicles, through a 50-50 joint venture. The cars are built in China and sold worldwide. Another Joint Venture Geely-Volvo, Lynk & Co, produces connected vehicles and offers new types of services and purchasing models, making Geely one of the pioneers in the concept of mobility-as-a-service.

In 2014, Geely bought the British firm, London Taxis International, the maker of the famous London black cabs that was bankrupt at that time. Rebranded London Electric Vehicle Company (LEVC), the company continues manufacturing the classic London cabs in the United Kingdom. Geely has made significant investments in LEVC with a view to taking it beyond taxi manufacturing and turn it into a high-volume maker of hybrid and all-electric commercial and passenger cars, with a strong global brand.

In 2017, Geely became the major shareholder of Lotus, the British maker of high-performance cars that needed financial resources for development. The transaction was part of a deal where Geely was acquiring almost half of Proton Cars, the Malaysian automaker, and a leading brand in Southeast Asia. The Lotus

[8] The Geely group is owned by its founder, Li Shufu, and his son.

acquisition has provided Geely with another strong brand, famous for its sports and racing cars. As part of Geely's vision to globalise and push quickly into electric cars, production facilities for the Lotus high performance cars would remain in Norfolk, its hometown in the United Kingdom while electric Sport Utility Vehicles (SUVs), sedans and coupes would be developed under the Lotus Technology banner in China.

In 2018, following a similar strategy as for Volvo, Geely bought a stake in the Mercedes Benz Group, becoming - with just under 10% of the company's shares – one of its major stakeholders. While helping Geely to improve its brand image and get more expertise, in electric cars among others, the purchase opened new paths in China for Daimler. In 2019, the two companies formed a 50-50 joint venture to revive the money-losing Smart brand by developing the next generation of Smart electric cars, with design remaining under Mercedes-Benz in Germany while future production would be in China. One year later, both firms announced another partnership to develop hybrid power trains in China.

In September 2022, Geely announced it had bought a 7.6% stake in the British luxury carmaker Aston Martin Lagonda. The latter was working on its electrifications strategy while facing rising debt, which partly explains the transaction[9]. For Geely, the association with such an iconic brand name could further enhance its appeal to consumers in the high end of the market while providing opportunities for collaboration, including the technologies developed by Polestar and Lotus – both under Geely's umbrella.

In November 2022, Geely signed a 50-50 joint venture agreement with Renault to create a new global leader to develop and produce next generation hybrid power trains and low-emissions power trains. The new company will comprise five Research and Development (R&D) centres and 17 plants around the world (Renault, 2022[90]).

From a relatively unknown Chinese firm a decade ago, Geely has grown into a truly global firm owning several prestigious global brands, and with the ambition to become a major player in the mobility business worldwide.

Table 3.2. Geely, financials compared with domestic and foreign competitors, as of December 2021

| | Zhejiang Geely Holding Group | SAIC Motor | BYD | BAIC Motor | Honda Motor | Toyota Motor |
|---|---|---|---|---|---|---|
| HQ Country | China | China | China | China | Japan | Japan |
| Ticker | - | SHSE:600104 | SEHK:1211 | SEHK:1958 | TSE:7267 | TSE:7203 |
| Revenues | 52 587.6 | 103 387.69 | 47 640.93 | 27 929.56 | 98,548.56 | 241,483.59 |
| Gross profit | 11 017.5 | 13 670.8 | 7 365.4 | 6 263.9 | 24 014.2 | 44 801.3 |
| Net income | 874.6 | 2 424.3 | 1 427.8 | 634.2 | 5 195.9 | 17 853.1 |
| Net income Margin % | 1.61% | 2.23% | 2.93% | 2.27% | 4.32% | 6.84% |
| Total employees | - | 15 059 | 288 186 | 18 694 | 204 035 | 372 817 |

Sources:
(BAIC Motor, 2023[91]), BAIC Motor Annual Reports and Corporate Website, http://www.baicmotor.com/ (accessed February 2023);
(BYD, 2023[92]),*BYD Annual Reports and Corporate Website*, www.byd.com (accessed February 2023);
(Geely, 2023[93]), *Geely Annual Reports and Corporate Website*, https://global.geely.com/en/ (accessed February 2023):
(Honda Motor, 2023[94]) (Honda Motor, 2023[94]),*Honda Motor Annual Reports and Corporate Website*, https://global.honda (accessed February 2023);
(SAIC Motor, 2023[95]), *SAIC Motor Annual Reports and Corporate Website*, www.saicmotor.com (accessed February 2023);
(S&P Capital IQ, 2023[96]), S&P, *Capital IQ Database*, www.capitaliq.com (accessed February 2023);

[9] Geely was not the only one to enter Aston Martin capital at the time: Saudi Arabia's Public Investment Fund also acquired a 17.6% stake.

(Toyota, N/A[97]), *Toyota Motor Annual Reports and Corporate Website*, https://global.toyota (accessed February 2023).

### *Haier Group Corporation, the world number one home appliances company*

Haier Group Corporation (the Haier Group) was established in 1984 in Shandong Province in China, originally as a state-owned enterprise and refrigerator manufacturer. It has become a global home appliances and electronic consumer group over the past four decades, partly through overseas acquisitions, and focusing on innovation and high-tech. The Haier group owns 34% of its largest subsidiary Haier Smart Home (HSH). The latter accounts for 84% of the group revenue and 59% of its assets. HSH is listed on the stock exchanges of Shanghai, Hong Kong (China) and Frankfurt.

Since 2009 and according to Euromonitor International, Haier is the world's number one home appliance brand (Table 3.3). Its global sales of refrigerators, washing machines, wine cellars and freezers continue to rank number one in the world.

#### *Haier going global*

Haier overseas investments began in the second half of the 1990s, initially targeting developing countries in Asia via the creation of joint ventures with local partners in Indonesia (1996), the Philippines (1997) and Malaysia (1999). Then Haier turned to advanced economies, establishing operations in North America and Western Europe.

In 1999, Haier entered the US market and opened its first production facility the following year. The company focused on underserved markets, concentrating on niches like compact refrigerators for college students and wine coolers. Those segments were unattractive to local competitors which at that time focused on manufacturing ever bigger appliances. With its lines of products focusing on those consumer demands, the firm successfully set up its footing in the US home appliance market.

During the 2000s, Haier continued acquiring refrigerators, washing machines and other consumer electronics manufacturers in Vietnam and other parts of Asia. It also set up manufacturing facilities in Pakistan, Jordan, and in several countries in Africa, such as Tunisia, Nigeria, Egypt, Algeria, and South Africa. In 2007, the first factory in India was opened and later expanded to become its first industrial park in the country. In 2001 Haier bought *Meneghetti Equipment, a refrigerator manufacturer* in Italy.

During the following decade Haier continued its global expansion. In 2012, it acquired the Southeast Asian appliance manufacturing unit of the Japanese firm Sanyo as well as the appliance business from New Zealand-based Fisher and Paykel.

Building upon its success in niche products in the United States, Haier moved to larger segments of the market to become a major appliance manufacturer in the United States. A key step in that respect was Haier's acquisition in 2016 of General Electric Appliance, the appliance division of General Electric. Due to differences between management cultures, the acquisition was not without hiccups initially but eventually things smoothed out as Haier retained most of General Electric's talent and corporate structure and kept its corporate culture.

Regarding Europe, Haier expanded its foothold in the region, building local management teams and design R&D centres in France, Germany, and Italy. Their goal was to develop industrial facilities closer to European consumers. A milestone in Haier's expansion in Europe was its acquisition in 2018 of the Italy based Candy group, better known for its Hoover and Kelvinator brands.

#### *Drivers of Global expansion*

Haier followed a three-pronged localisation strategy encompassing design, production, and marketing. In Haier management's view, success depends on the firm's ability to tailor its product lines to fit consumer

demands and market conditions. For this to happen, proximity to local consumers and suppliers is essential. The development of production facilities, design divisions and information centres close to the market was hence seen as key to boost overseas expansion. Locating in markets with challenging customers would also force the firm to improve its manufacturing, product offerings and customer services; it would also help customers to consider Haier more as a local brand rather than as a Chinese one.

### *Building the Haier brand*

Haier is one of the world's leading brands in white goods. Its home appliances business, namely Haier Smart Home, owns several major global brands – Haier, Casarte, Leader, General Electric Appliance, Fisher & Paykel, Aqua, and Candy. Its innovative products and service offerings – developed thanks both to corporate acquisitions and in-house R&D and innovation - has been a significant driver of Haier's remarkable development over the years. As of late, it has been moving into smart home appliances and is now a leading provider of connected devices such as smart refrigerators, washing machines and TVs. A pioneer of the Internet of Things (IoT) ecosystems, Haier has been recognised by BrandZ as the most valuable IoT ecosystem brand in the world since 2019.

In addition, convinced that in the age of Internet new organisational structures were required - away from the traditional hierarchical pyramid - Haier pioneered the Rendanheyi[10] organisational model, based on two fundamental principles "zero distance to customers" and "everyone is an entrepreneur" (McKinsey Global Institute, 2021[98]); (Minar, 2021[99]). The eventual goal was to bust bureaucracy and unleash the entrepreneurial spirit of employees. As Zhang Ruimin, Haier's Chief Executive Officer (CEO), said: "*Haier replaced the company organisation which was quite bureaucratic with an entrepreneurship model based on self-employment, self-motivation, and self-organisation*" (Van der Lecq, 2018[100]). In the Rendanheyi model, the enterprise is divided into a network of microenterprises encompassing both those that are in direct contact with customers and those that are in the back office, i.e. those involved in product design, manufacturing, marketing, and delivery. Microenterprises are clustered into ecosystem micro communities along the ecosystem value chain. Those enterprises are collaborative and self-managed. When there is success, all members share the results. But in case of losses, they all share the costs, and the unit can be dissolved if losses exceed a certain threshold. Evolving over time, the model which was launched in 2005 has transformed Haier into a networked and platform-based organisation (Haier Research Institute, 2019[101]). As of 2021, there were 300 ecosystem micro communities and 4 000 microenterprises.

Table 3.3. **Comparing Haier's financials with domestic and foreign competitors as of December 2021 (million USD)**

| | Haier Smart Home | Gree | Midea | Whirlpool | Electrolux |
|---|---|---|---|---|---|
| HQ Country | China | China | China | The United States | Sweden |
| Ticker | SHSE:600690 | SZSE:000651 | SZSE:000333 | NYSE:WHR | OM:ELUX B |
| Revenues | 34 990.78 | 22 323.13 | 45 939.57 | 19 724.0 | 12 925.51 |
| Gross Profit | 10 850.8 | 7 167.5 | 11 755.1 | 3 073.0 | 1 696.5 |
| Net Income | 2 140.3 | 3 724.0 | 4 283.6 | (1 519.0) | (126.5) |
| Net Income Margin % | 6.09% | 13.04% | 8.45% | (7.70%) | (0.98%) |
| Total Employees | 104 874 | 81 884 | 165 799 | 61 000 | 51 000 |

[10] "Ren" refers to each employee, "Dan" refers to the needs of each user, and "Heyi" refers to the connection between each employee and the needs of each user.

Sources:
(Electrolux, 2023[102]), *Electrolux Annual Reports and Corporate Website*, www.electroluxgroup.com (accessed February 2023);
(Gree, 2023[103]), *Gree Annual Reports and Corporate Website*, https://global.gree.com (accessed February 2023);
(Haier Smart Home, 2023[104]), *Haier Smart Home Annual Reports and Corporate Website*, www.haier.com/global/smart_home/ (accessed February 2023);
(Midea, 2023[105]), *Midea Annual Reports and Corporate Website,* www.midea.com (accessed February 2023);
(Whirlpool, 2023[106]), *Whirlpool Annual Reports and Corporate Website*, www.whirlpoolcorp.com (accessed February 2023).

### *Sany, a giant in heavy equipment*

Sany was founded in 1989 as a privately held company manufacturing welding materials. Five years later, it became Sany Group and today is the largest manufacturer of heavy equipment (such as excavators, cranes, wheel loaders, concrete machinery, and other heavy machines) in China, and in the top three in the world – together with the American Caterpillar and the Japanese Komatsu (Table 3.4). Two core companies of the Group are Sany Heavy Industries, listed on the Shanghai Stock Exchange, and Sany Heavy Equipment that specialises in mining machinery and is listed on the Hong Kong Stock Exchange (Table 3.4). The Group has about 90 000 employees.

Sanys' growth has been mostly organic through greenfield investments. The first overseas investment of SANY group was in 2002 in India, with Sany India set up to cover the South and Southeast Asian regions, the Middle East and North Africa. Sany India built up its production facility in Pune, and a regional R&D centre focused on developing products adapted to the needs of its regional markets. Sany was the first Chinese company in construction machinery to set up manufacturing facilities overseas.

The Group continued its localisation efforts over the years. Its globalisation accelerated in early 2010s. As other Chinese firms in the construction and heavy equipment industries, Sany benefited from the momentum created by the Belt and Road Initiative (BRI) launched in 2013. The BRI was the opportunity to expand construction projects all over the world and they needed heavy machinery which Sany produced.

In 2006, Sany America Inc. was created. It set up production facilities and R&D operations in Georgia (the United States). The company also operates as a distributor and provider of support services for its North American customers. SANY America is among the fastest-growing manufacturers of heavy equipment in North America. In Europe, the Group established Sany Europe in 2011.[11] It developed a global R&D centre and opened an industrial park in Bedburg (Germany).

In its globalisation strategy, the Group had less recourse to mergers and acquisitions than major Chinese multinationals such as Haier and Geely (see above). In 2012, however, it acquired 90% in the German firm Putzmeister, the number one company in the concrete machinery sector in the world. The acquisition was a milestone for Sany, strengthening its position as a global leader in heavy equipment and positioning it at the top in the concrete machinery segment. Putzmeister brought its manufacturing and R&D capabilities, including its know-how in intelligent manufacturing, as well as its internationalisation experience. Its sales and distribution network covering Europe, America and Asia-Pacific regions enlarged Sany's own network. The deal also helped Sany to get a better understanding of a leading company in developed countries, and of the characteristics of the market in those economies. On the other hand, Putzemsteier business development capabilities were reinforced by Sany's financial support and resources. The deal also helped to improve access to each other's markets.

With several R&D centres located around the world (in Germany, the United States, Japan, and India, for instance), an extended network of distributors and service support providers, and several plants overseas, Sany has become a global giant in heavy machinery and equipment. Based on its reinforced capabilities in R&D, the Group is moving ahead on technological development and innovation, increasingly

[11] Sany first set up Sany Germany, a sales and services organisation, in 2006 that became Sany Europe in 2011 (Sany, 2022[113]).

transforming its manufacturing facilities into intelligent factories that integrate frontier technologies such as IoT and advanced robotics. For instance, two of its factories in China have been certified as the so-called "lighthouse factories" and are part of the World Economic Forum's Global Lighthouse Network. This term refers to those factories that have taken the World Economic Forum's Fourth Industrial Revolution technology at scale. The Group has been working to build more intelligent factories in Europe and southeast Asia in the future. The Group's first lighthouse factory located overseas began operating in Indonesia in 2022.

Table 3.4. Sany financials compared to Caterpillar and Komatsu as of 2022 (unless specified otherwise)

| | Sany Group Company[1] | Caterpillar Inc.[2] | Komatsu Ltd.[3] |
|---|---|---|---|
| HQ Country | China | The United States | Japan |
| Ticker | - | NYSE:CAT | TSE:6301 |
| Revenues | 20 397.6 | 59 427 | 21 438.9 |
| Gross Profit | 4 727.7 | 15 565 | 5 964.1 |
| Net Income | 479.4 | 6 705 | 1 720.8 |
| Net Income Margin % | 2.4% | 11.3% | 8% |
| Total Employees | 20 000 | 109 100 | 62 774 |

Notes:
[1] As of reported in December 2021
[2] As of reported in December 2022
[3] As of reported in March 2022
Sources:
(Caterpillar Inc, 2023[107]), *Caterpillar Inc. Company Reports*, www.caterpillar.com (accessed March 2023);
(Komatsu Ltd, 2023[108]), *Komatsu Ltd Company Reports*, www.komatsu.jp (accessed March 2023);
(Sany, 2023[109]), *Sany Company Reports*, www.sanyglobal.com (accessed March 2023);
(S&P Capital IQ, 2023[96]), S&P, *Capital IQ Database*, www.capitaliq.com (accessed March 2023).

## From regional to global, Chinese companies continue their global expansion

American companies continue to dominate the global business landscape. However, the global presence of Chinese companies should not be underestimated. It has increased by 50% since EMI's first analysis in 2017 (Casanova, L. and A. Miroux, 2017[80]).Today, Chinese companies' footprint extends to all continents.

As we have seen through the examples of Geely, Haier and Sany, Chinese enterprises have become truly global in major industries that had been in the hands of European, American or Japanese firms in the past. The internationalisation process has been massive and fast, mainly in the last ten years. This globalisation is expected to continue.

## References


ADB (2022), *Aid for Trade in Asia and the Pacific: Leveraging Trade and Digital Agreements for Sustainable Development*, African Development Bank. [17]

Adedigba, O., R. Lin and N. Ud Din (2020), *The degree of internationalization of Chinese Multinationals along the belt and road initiative countries*, http://doi.org/10.1371/journal.pone.0236636. [87]

African Development Bank (2011), *Africa in 50 Years' Time: The Road Towards Inclusive Growth, African Development Bank Group, Abidjan*. [34]

African Development Bank. (2018), *African Economic Outlook 2018, African Development Bank Group Abidjan*, https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2018AEO/African_Economic_Outlook_2018_-_EN_Chapter3.pdf. [33]

Alliance for Financial Inclusion (2022), *Leveraging Digital Financial Services to Advance Inclusive Green Finance Policies, Alliance for Financial Inclusion*, https://www.afi-global.org/publications/leveraging-digital-financial-services-to-advance-inclusive-green-finance-policies/. [78]

AUC (2021), *Africa Quality Policy, African Union Commission Department of Economic Development, Trade, Industry and Mining*, http://www.paqi.org/wp-content/uploads/2021/11/AU_Africa_Quality_Policy2021_EN-WEB.pdf. [31]

AUC/OECD (2022), *Africa's Development Dynamics 2022: Regional Value Chains for a Sustainable Recovery*, OECD Publishing, https://doi.org/10.1787/3290877b-en. [10]

AUC/OECD (2021), *Africa's Development Dynamics 2021: Digital Transformation for Quality Jobs, OECD Publishing, Paris*, OECD Publishing, Paris/African Union Commission, Addis Ababa, https://doi.org/10.1787/0a5c9314-en. [53]

BAIC Motor (2023), *BAIC Motor Annual Reports and Corporate Website*, http://www.baicmotor.com/. [91]

BloombergNEF (2022), *Sustainable Debt Issuance Breezed Past $1.6 Trillion in 2021*, https://about.bnef.com/blog/sustainable-debt-issuance-breezed-past-1-6-trillion-in-2021/. [45]

BYD (2023), *BYD Annual Reports and Corporate Website*, https://www.byd.com/. [92]

Casanova, L. and A. Miroux (2022), *Emerging Markets Multinationales Report 2022: Reinventing Global Value Chains*, https://doi.org/10.7298/9j27-ng36. [79]

Casanova, L. and A. Miroux (2017), *Emerging Market Multinationals Report 2017: Emerging Multinationals in a Changing World*, https://doi.org/10.7298/3dnm-0a74. [80]

Caterpillar Inc (2023), *Caterpillar Inc. Company Reports*, http://www.caterpillar.com. [107]

Collinson, A. and A. Rugman (2007), *The regional character of Asian multinational enterprises*, https://doi.org/10.1007/s10490-006-9035-y. [86]

ECLAC (2021), *Digital technologies for a new future, (LC/TS.2021/43)*, [76]

https://www.cepal.org/en/publications/46817-digital-technologies-new-future.

Electrolux (2023), *Electrolux Annual Reports and Corporate Website*, http://www.electroluxgroup.com. [102]

EVwind (n.d.), *Global Sales of Electric Vehicles By Countries*, https://www.evwind.es/2022/08/10/global-sales-of-electric-vehicles-by-country/87324. [89]

fDi Markets (2022), *fDi Market database*, http://fDi Markets (2022), fDi Market database, https://www.fdimarkets.com/ (accessed on 10 January 2023). [9]

Frisari, G. (2022), *Sovereign Sustainable Bonds as Core Financing Instruments for Sustainable Development*, https://blogs.iadb.org/sostenibilidad/en/sovereign-sustainable-bonds-as-core-financing-instruments-for-sustainable-development/. [20]

FSD Africa (2020), *Viability of gender bonds in sub-Saharan Africa, FSD Africa*, https://fsdafrica.org/publication/viability-of-gender-bonds-in-sub-saharan-africa/. [28]

Geely (2023), *Geely Annual Report and Corporate Website*, https://global.geely.com/en/. [93]

Global Trade Alert (2022), *Total number of implemented interventions since 2020*, http://www.globaltradealert.org/global_dynamics (accessed on 6 February 2023). [14]

Gree (2023), *Gree Annual Reports and Corporate Website*, https://global.gree.com/. [103]

GSMA (2022), *2022 Mobile Industry Impact Report: Sustainable Development Goals*. [60]

GSMA (2022), *The Mobile Gender Gap Report 2022, GSM Association*, https://www.gsma.com/mobilefordevelopment/blog/the-mobile-gender-gap-report-2022/. [62]

GSMA (2021), *The Mobile Economy: Latin America 2020*, GSM Association. [56]

Haier Research Institute (2019), *Gaining Global Competitiveness through Rendanheyi Case Studies from the Haier Group*, INSEAD. [101]

Haier Smart Home (2023), *Haier Smart Home Annual Reports and Corporate Website*, http://www.haier.com/global/smart_home/. [104]

Honda Motor (2023), *Honda Motor Annual Reports and Corporate Website*, https://global.honda/. [94]

IDB Invest (2022), *Colombia Leads the Gender Bond Market in Latin America & the Caribbean*, https://idbinvest.org/en/blog/gender/colombia-leads-gender-bond-market-latin-america-caribbean. [26]

IEA (2022), *Global coal demand is set to return to its all-time high in 2022*, https://www.iea.org/news/global-coal-demand-is-set-to-return-to-its-all-time-high-in-2022. [42]

IEA (2022), *Support for fossil fuels almost doubled in 2021, slowing progress toward international climate goals, according to new analysis from OECD and IEA*, https://www.iea.org/news/support-for-fossil-fuels-almost-doubled-in-2021-slowing-progress-toward. [41]

IEA (2022), *Tracking Clean Energy Innovation in the Business Sector: An Overview*, IEA, https://www.iea.org/reports/tracking-clean-energy-innovation-in-the-business-sector-an-overview. [48]

IEA (2022), *World Energy Employment*, IEA, https://www.iea.org/reports/world-energy-employment. [75]

IEA (2022), *World Energy Investment, IEA, Paris*, http://www.iea.org/reports/world-energy-investment-2022. [37]

IEA (2022), *World Energy Outlook 2022*, https://doi.org/10.1787/3a469970-en (accessed on 10 January 2023). [7]

IEA (2021), *Financing clean energy transitions in emerging and developing economies, IEA, Paris*, https://www.iea.org/reports/financing-clean-energy-transitions-in-emerging-and-developing-economies. [39]

IEA (2021), *Net Zero by 2050: A roadmap for the global energy sector, IEA, Paris.*, https://www.iea.org/reports/net-zero-by-2050. [38]

Ietto-Gillies (1998), *"Different conceptual frameworks in the assessment of the degree of internationalization: empirical analysis of various indices for the top 100 transnational corporations", Transnational Corporations, Vol. 7/1*, http://unctad.org/en/Docs/iteiit9v7n1_en.pdf. [81]

Ietto-Gillies, G (2021), *"Transnationality in the XXI centure. Concept and Indicators"*, https://doi.org/10.1108/cpoib-11-2020-0135. [83]

Ietto-Gillies, G (2010), *"Research notes special: Measures and indicators of internationalization: Conceptual issues behind the assessment of the degree of internationalization"*, https://doi.org/10.18356/02556e29-en. [82]

IFC (2019), *Moving Toward Gender Balance in Private Equity and Venture Capital*, https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/gender+at+ifc/resources/gender-balance-in-emerging-markets. [29]

IFC (n.d.), *Bridging the gender gap*, https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/bridging-gender-gap#:~:text=IFC%20has%20estimated%20that%20worldwide,no%20access%20to%20financial%20services. [30]

IISD (2021), *Mainstreaming gender objectives in sustainable bond*, https://www.iisd.org/publications/brief/mainstreaming-gender-objectives-sustainable-bonds. [27]

IMF (2023), *IMF World Economic Outlook Update, January 2023.*, http://www.imf.org/en/Publications/WEO/Issues/2023/01/31/world-economic-outlook-update-january-2023 (accessed on 12 February 2023). [5]

IMF (2022), *Global Financial Stability Report: Navigating the High-Inflation Environment, International Monetary Fund, Washington DC*, https://www.imf.org/en/Publications/GFSR/Issues/2022/10/11/global-financial-stability-report-october-2022. [6]

IMF (2022), *IMF World Economic Outlook Database, October 2022*, http://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022 (accessed on 10 January 2023). [4]

IMF (2022), *Regional Economic Outlook: Asia and Pacific*, International Monetary Fund, https://www.imf.org/en/Publications/REO/APAC/Issues/2022/10/13/regional-economic-outlook-for-asia-and-pacific-october-2022. [15]

ITU (2022), *Internet surge slows, leaving 2.7 billion people offline in 2022, International Telecommunications Union, Geneva*, https://www.itu.int/en/mediacentre/Pages/PR-2022-09-16-Internet-surge-slows.aspx. [59]

ITU (2020), *New ITU study estimates US$ 428 billion are needed to connect the remaining 3 billion people to the Internet by 2030*, International Telecommunications Union, https://www.itu.int/en/mediacentre/Pages/PR16-2020-ITU-publishes-Connecting-H. [63]

ITU (n.d.), *Bridging the digital divide with innovative finance and business models*, International Telecommunications Union, https://www.itu.int/hub/2021/11/bridging-the-digital-divide-with-innovative-finance-and-business-models/. [57]

ITU and UN-OHRLLS (2021), *Connectivity in the Least Developed Countries: Status report 2021*.. [61]

JPMorgan (2022), *JP Morgan DFI Methodology 2022*, https://www.google.com/url?esrc=s&q=&rct=j&sa=U&url=https://www.jpmorgan.com/content/dam/jpm/cib/complex/content/news/2020-dfi-announcement/pdf-1.pdf&ved=2ahUKEwjus-mTur_8AhVKXaQEHdqXD4gQFnoECAEQAw&usg=AOvV. [23]

Komatsu Ltd (2023), *Komatsu Ltd Company Reports*, http://www.komatsu.jp. [108]

Mastercard (2022), *IPEF – Unlocking Asia's Digital Potential*, https://www.mastercard.com/pcde/en/perspectives/indo_pacific_economic_framework_2022.html. [55]

Mastercard (n.d.), *Mastercard Trust Center website*, https://www.mastercard.com/global/en/business/overview/safety-and-security/trust-center.html. [67]

McKinsey (2020), *Don't let the pandemic set back gender equality*, https://www.mckinsey.com/mgi/overview/in-the-news/dont-let-the-pandemic-set-back-gender-equality. [68]

McKinsey Global Institute (2021), *Shattering the status quo: A conversation with Haier's Zhang Ruimin*, https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/shattering-the-status-quo-a-conversation-with-haiers-zhang-ruimin#/. [98]

McKinsey Global Institute (2020), *COVID-19 and gender equality: Countering the regressive effects*, https://www.mckinsey.com/featured-insights/future-of-work/covid-19-and-gender-equality-countering-the-regressive-effects. [72]

McKinsey Global Institute (2015), *How advancing women's equality can add $12 trillion to global growth*, https://www.mckinsey.com/featured-insights/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth. [71]

Midea (2023), *Midea Annual Reports and Corporate Website*, http://www.midea.com. [105]

Minar (2021), *The Next Management Model...is from China?*, https://www.corporate-rebels.com/blog/next-influential-management-model-of-the-world. [99]

OECD (2023), *OECD Economic Outlook, Interim Report March 2023: A Fragile Recovery*, OECD Publishing, https://doi.org/10.1787/d14d49eb-en. [3]

OECD (2023), *OECD Economic Outlook, Volume 2022, Issue 2*, OECD Publishing, https://doi.org/10.1787/f6da2159-en (accessed on 10 Juanuary 2023). [2]

OECD (2023), *OECD Economic Outlook, Volume 2023 Issue 1: Preliminary version, No113*, OECD Publishing, https://doi.org/10.1787/ce188438-en. [1]

OECD (2022), *Business Insights on Emerging Markets 2022*. [25]

OECD (2022), *Economic Outlook for Southeast Asia, China and India 2022: Financing Sustainable Recovery from COVID-19*, OECD Publishing, https://doi.org/doi.org/10.1787/e712f278-en. [16]

OECD (2022), *FDI in Figures*, OECD Publishing, https://www.oecd.org/investment/investment-policy/FDI-in-Figures-October-2022.pdf. [8]

OECD (2022), *Key Issues Paper: Strong, Shared, Green: Development We Can Do Together*. [11]

OECD (2021), *Development Co-operation Report 2021: Shaping a Just Digital Transformation*, OECD Publishing, https://doi.org/10.1787/ce08832f-en. [49]

OECD (2021), *Economic Outlook for Southeast Asia, China and India 2021: Reallocating Resources for Digitalisation*, OECD Publishing, https://doi.org/10.1787/711629f8-en. [54]

OECD (2021), *OECD Business and Finance Outlook 2021 : AI in Business and Finance*, OECD Publishing, https://www.oecd.org/daf/oecd-business-and-finance-outlook-26172577.htm. [51]

OECD (2020), *"Putting finance to work for gender equality and women's empowerment: The way forward", OECD Development Policy Papers, No. 25*, OECD Publishing, https://doi.org/10.1787/f0fa4d91-en. [70]

OECD (2020), *Global Outlook on Financing for Sustainable Development 2021: A New Way to Invest for People and Planet, OECD Publishing, Paris*, https://doi.org/10.1787/e3c30a9a-en. [21]

OECD (2020), *OECD Digital Economy Outlook 2020*, OECD Publishing, https://doi.org/10.1787/bb167041-en. [64]

OECD (n.d.), *"Foreword", in Man Enough? Measuring Masculine Norms to Promote Women's Empowerment, OECD Publishing, Paris*, https://doi.org/10.1787/430f34c8-en. [74]

OECD (n.d.), *OECD Economic Outlook OECD Publishing, Paris, https://doi.org/10.1787/ce188438-en.*, OECD Publishing, https://doi.org/10.1787/ce188438-en. [111]

OECD Economic Outlook, Volume 2023 Issue 1: Preliminary version, No113, OECD Publishing, Paris, https: et al. (n.d.), , https://doi.org//10.1787/ce188438-en. [110]

OECD et al (2021), *Latin American Economic Outlook 2021: Working Together for a Better Recovery*, OECD Publishing, https://doi.org/10.1787/5fedabe5-en. [44]

OECD et al. (2022), *Latin American Economic Outlook 2022: Towards a Green and Just Transition*, OECD Publishing, https://doi.org/10.1787/3d5554fc-en. [18]

OECD/UNDP (2021), *Closing the SDG Financing Gap in the COVID-19 era, Scoping note for the G20 Development Working Group*, https://www.oecd.org/dev/OECD-UNDP-Scoping-Note- [19]

Closing-SDG-Financing-Gap-COVID-19-era.pdf.

OECD/WTO (2022), *Aid for Trade at a Glance 2022: Empowering Connected, Sustainable Trade*, OECD Publishing, https://doi.org/10.1787/9ce2b7ba-en. [66]

Orbis (2022), *Orbis Database*, https://orbis.bvdinfo.com/. [88]

Oxford Business Group (2022), *Emerging Market Trends 2021: Digital Transformation*, https://oxfordbusinessgroup.com/news/emerging-market-trends-2021-digital-transformation#:~:text=Key%20aspects%20of%20the%20ongoing,infrastructure%20and%20expanding%20financial%20inclusion. [50]

Plane, P. (2021), *What factors drive transport and logistics costs in Africa?, Journal of African Economies.*, Oxford University Press. [35]

Renault (2022), *Geely and Renault Group sign framework agreement to create leading powertrain technology company*, https://media.renaultgroup.com/geely-and-renault-group-sign-framework-agreement-to-create-leading-powertrain-technology-company/?lang=eng. [90]

S&P Capital IQ (2023), *Capital IQ*, http://www.capitaliq.com. [96]

SAIC Motor (2023), *SAIC Motor Annual Reports and Corporate Website*, https://www.saicmotor.com. [95]

Sany (2023), *Sany Company Reports*, http://www.sanyglobal.com. [109]

Sany (2022), *History*, https://www.sanyeurope.com/en/unternehmen/geschichte/. [113]

Telecom Advisory Services (2022), *The role of the digital economy in the economic recovery of Latin America and the Caribbean*. [58]

The Economist (2022), *Why it costs so much to move goods around Africa*, https://www.economist.com/middle-east-and-africa/2022/03/26/why-it-costs-so-much-to-move-goods-around-africa. [36]

Toyota (N/A), *Toyota Motor Annual Reports and Corporate Website*. [97]

Trentini (2021), *"A reassessment of UNCTAD's transnationality indices in the digital economy"*, https://doi.org/10.18356/2076099x-28-3-10. [85]

Trust, C. (n.d.), *Briefing: What are Scope 3 emissions?*, https://www.carbontrust.com/our-work-and-impact/guides-reports-and-tools/briefing-what-are-scope-3-emissions#:~:text=Scope%201%20covers%20direct%20emissions,in%20a%20company%27s%20value%20chain. [112]

Tyson, J. (2022), *Rising interest rates are threatening debt sustainability in Africa*, Overseas Development Institute, https://odi.org/en/insights/rising-interest-rates-are-threatening-debt-sustainability-in-africa/. [12]

UNCTAD (2022), *Global foreign direct investment flows over the last 30 years*, UNCTAD, https://unctad.org/data-visualization/global-foreign-direct-investment-flows-over-last-30-years (accessed on 13 February 2023). [13]

UNCTAD (2021), *Multinational Enterprises and the International Transmission of Gender Policies and Practices, United Nations, New York*, https://unctad.org/webflyer/multinational-enterprises- [73]

and-international-transmission-gender-policies-and-practiceshttps://unctad.org/webflyer/multinational-enterprises-and-international-transmission-gender-policies-and-practices.

UNCTAD (2007), *The universe of the Largest Transnational Corporations*. [84]

UNEP (2021), *Adaptation Gap Report 2020*, United Nations, https://www.unep.org/fr/resources/rapport-2020-sur-lecart-entre-les-besoins-et-les-perspectives-en-matiere-dadaptation-aux. [40]

United Nations (2022), *UN E-Government Survey 2022: The Future of Digital Government, Department of Economic and Social Affairs*, https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2022. [65]

Van der Lecq (2018), *Haier- A company worth studying*, https://www.corporate-rebels.com/blog/haier-a-company-worth-studying. [100]

Verisk Maplecroft (2021), *Political Risk Outlook, Verisk Maplecroft*, https://www.maplecroft.com/insights/analysis/resource-nationalism-surges-in-2020-covid-19-worsens-outlook/. [43]

Whirlpool (2023), *Whirlpool Annual Reports and Corporate Website*, http://www.whirlpoolcorp.com. [106]

Wodon, Q. and B. Brière (2018), *Unrealized Potential : The High Cost of Gender Inequality in Earnings. The Cost of Gender Inequality, World Bank Group*, https://www.worldbank.org/en/topic/gender/publication/unrealized-potential-the-high-cost-of-gender-inequality-in-earnings. [69]

World Bank (2022), *Sovereign Green, Social, and Sustainability Bonds Set to Grow as Emerging Markets Focus on Sustainability*, https://www.worldbank.org/en/news/press-release/2022/11/07/sovereign-green-social-and-sustainability-bonds-set-to-grow-as-emerging-markets-focus-on-sustainability. [24]

World Bank (2020), *Demystifying Sovereign ESG, World Bank Group*, https://documents1.worldbank.org/curated/en/842671621238316887/pdf/Demystifying-Sovereign-ESG.pdf. [22]

World Bank (n.d.), *COVID-19 Drives Global Surge in use of Digital Payments, World Bank Group*, https://www.worldbank.org/en/news/press-release/2022/06/29/covid-19-drives-global-surge-in-use-of-digital-payments. [77]

World Bank (n.d.), *Small and Medium Entreprises (SMEs) finance*, https://www.worldbank.org/en/topic/smefinance. [32]

World Economic Forum (2022), *Digital for Climate Scenarios, World Economic Forum*, https://initiatives.weforum.org/digital-transformation/climate-scenarios. [46]

World Economic Forum (2022), *Why digitalization is our best shot at saving the planet*, World Economic Forum, https://www.weforum.org/agenda/2022/05/why-digitalization-is-our-best-shot-at-saving-the-planet/. [47]

WTO (2021), *Adapting to the digital trade era: challenges and opportunities*, World Trade Organisation, https://www.wto.org/english/res_e/publications_e/adtera_e.htm. [52]

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