UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Global economic fracturing and shifting investment patterns

A diagnostic of 10 FDI trends and their development implications

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Key messages

Based on a diagnostic of 10 trends in foreign direct investment (FDI), this report puts forward three insights with major implications for developing countries and their industrialisation strategies.

Triple divergence

Over the past two decades, transformative shifts driven by technological advances, policy developments, and sustainability demands have reshaped globalisation. FDI patterns have adapted in three key aspects. First, the growth of FDI (and that of Global Value Chains or GVCs) has lost pace with GDP and trade – their growth paths have disconnected. Second, there is a widening gap in investment trends between manufacturing and services sectors. Third, investment patterns in China have delinked from the rest of the world.

From divergence to fracturing

In recent years, geopolitical differences and global crises have led to a transition from divergence to fracturing. This disruption of historical investment patterns is marked by high levels of uncertainty and limited possibilities for countries to strategically benefit from diversification. Geopolitical factors are increasingly driving the location decisions of investors, at times overriding economic considerations.

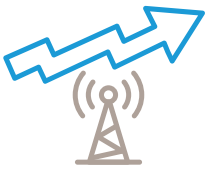
Sustainability push, but marginalisation of many developing countries

The sustainability imperative and the drive to stimulate investment in the Sustainable Development Goals (SDGs) have opened new opportunities for investment-driven industrial development, particularly in environmental technologies. However, these new opportunities can only compensate in part for the lack of FDI growth in other industrial sectors. Many smaller developing countries, and especially the least developed countries (LDCs), are experiencing growing marginalisation and vulnerability. The sectoral shifts and geographic rebalancing that are affecting global FDI patterns offer potential benefits mostly to larger developing economies equipped to compete for investment in the burgeoning services sector. Other developing countries face declining manufacturing investment and a shrinking pool of efficiency-seeking, lower value-added projects to leverage for GVC participation. Heightened uncertainty and fracturing are eroding the predictable and open global investment environment upon which they rely to effectively support their development objectives. This necessitates a re-evaluation of traditional strategies to harness FDI for inclusive and sustainable development.

Overview – 10 FDI trends

Trend 1: Long-term FDI stagnation

The long-term trend in cross-border investment shows that a slowdown in global FDI already started around 2010. It no longer kept pace with global trade and GDP. Trade within global value chains also slowed, confirming the close link between FDI and GVCs.



Trend 2: The increasing weight of services

The overall stagnation in FDI conceals sectoral differences. Cross-border investment in services flourishes while manufacturing lags. This reflects a global shift towards more services-centric and asset-light investment.

Trend 3: The deglobalisation of manufacturing (from an FDI perspective)

Manufacturing FDI, stagnant for two decades, shows negative growth after the outbreak of the Covid-19 pandemic. While global manufacturing activity and investment remain robust, their international component is shrinking, suggesting a trend towards deglobalisation. This trend is exacerbated by the growing prevalence of non-equity modes of international production.

Trend 4: The growing ends of the smile curve

The transition from manufacturing to services is part of a broader change in the role of FDI in global value creation. Cross-border investment is moving from the centre to the two ends of the smile curve, most notably towards business and ICT services upstream and marketing services downstream.

Trend 5: Convergence of sectoral patterns across regions

All regions, including developing ones, are feeling the effects of the transition towards services-oriented asset-light FDI. Consequently, traditional differences in sectoral patterns between developed and developing regions are increasingly blurring.

Trend 6: The diminishing role of FDI in China

The regional rebalancing of global FDI has been significantly influenced by the declining share of China as a recipient country. Despite a waning interest from multinational corporations in initiating new investment projects in China, the country continues to maintain a dominant position in global manufacturing and trade, signifying a transformation in its global production model.

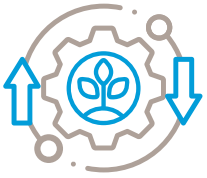
Trend 7: Unstable investment relationships

Heightened geopolitical tensions are increasing the volatility of investment sources and destinations, and the susceptibility of traditional investment links to disruptions. Instability in investment relationships limits the capacity of developing countries to strategically capitalise on diversification opportunities arising from shifts in investment patterns.

Trend 8: Fracturing along geopolitical lines

Geopolitical differences are causing a fracturing trend in global FDI, with the reduction in investments between geopolitically distant countries highlighting their significant influence on investors' location choices, overshadowing traditional determinants of FDI.

Trend 9: The sustainability imperative driving new FDI sectors



FDI in environmental technologies stands out as the main pocket of growth outside services. Since 2010, while manufacturing investment stagnated across all industries, the number of cross-border greenfield projects along the entire value chain of environmental technologies sectors has steadily increased.

Trend 10: The increasing concentration of FDI and marginalisation of developing countries

Amid historical shifts and economic fracturing, the proportion of FDI greenfield projects in smaller developing countries and least developed countries is diminishing. This trend exacerbates their marginalisation and vulnerability, as FDI becomes increasingly concentrated in developed and emerging economies.

Introduction

Recent editions of the World Investment Report have shown that international production through FDI has experienced a long-term gradual decline. FDI increased by more than 15 per cent per year on average in the '90s, by less than 10 per cent in the '00s, and substantially stagnated since the 2010s. Manufacturing activity has suffered the most. Services and intangibles continue to grow; hence the term asset-light investment coined in WIR2017.

The long-term trend, the effects of the trade tensions starting in late 2017, and the shock of the Covid pandemic led to WIR2020 and WIR2021 discussing the implications for developing countries of a "shrinking pool of large-scale industrial FDI projects".

The subsequent additional shocks of conflicts and political fragmentation have brought to the fore the trend of global economic fracturing and moves towards a decoupling of global value chains between the United States (and other developed) and Chinese economies, with implications for many other countries and regions (Fajgelbaum and Khandelwal, 2021; Eppinger et al., 2021; UNCTAD, 2022a; IMF, 2023; Seong et al., 2024).

The combined shocks are expected to accelerate the reconfiguration of international production driven by considerations including supply chain resilience, national security concerns around strategic industries, the desire for re-industrialisation, reshoring, nearshoring and prioritisation of geopolitical considerations in investment decisions.

A zoom-in on the effects of economic fracturing, and particularly the resulting shifts in patterns of FDI in developing countries, sheds new light on the prospects and required policies for economies on the bottom rungs of the GVC development ladder (WIR2013).

But the ramifications of economic fracturing, a trend emerging since the latter half of the last decade, are inherently intertwined with broader, long-term shifts in trade, investment and GVCs. Therefore, this report undertakes an analysis of FDI trends spanning two decades, from 2003 to 2023, based on the full range of available data on greenfield FDI projects.

The primary source of data on cross-border greenfield FDI projects is the fDi Markets database. This database provides comprehensive and granular information on announced cross-border greenfield projects, including information on investors and recipients, project classifications based on industries and business activities, and estimations of economic impact in terms of invested capital and employment generation. Despite some limitations (box 1), it has become an established complementary source of information to official FDI statistics, particularly for the analysis of FDI trends at industry-level (see for example the World Investment Report series).

This report aims to provide a simple yet comprehensive and transparent account of the ongoing changes in FDI patterns based on a descriptive analysis of the fDi Markets dataset. It owes credit to and is directionally consistent with several studies that have explored specific aspects of the FDI transformation. These relate to the reconfiguration of international production (WIR2020; WIR2021; World Bank, 2019; Zhan, 2021), digitally enabled, asset-light investment (WIR2017; Dobbs et al., 2016; Casella and Formenti, 2018;

Gestrin and Staudt, 2018; Bolwijn et al., 2018), economic fracturing (IMF, 2023), as well as FDI diversification and trade tensions (Blanchard et al., 2021). However, to date, a fully integrated diagnostic covering both short- and long-term perspectives and across the sectoral, geographical, and bilateral dimensions of FDI patterns has been lacking. This report covers this gap, with the objective of providing a comprehensive reference for policymakers and analysts of the main trends reshaping the global FDI landscape.

The analysis of the effects of transformative trends, whether related to GVC reconfiguration or economic fracturing, is already quite well-established in trade research (Nicita, 2019; Antràs, 2020; Fajgelbaum and Khandelwal, 2021; Eppinger et al., 2021; UNCTAD, 2022a; Subramanian et al., 2023; Baldwin et al., 2024; Seong et al., 2024). Given the intertwined nature of trade and FDI in the global production landscape dominated by GVCs, this report also aims to build a much-needed bridge between connected narratives in the FDI and trade areas.

The structure of the report is organized around ten empirical trends – each accompanied by at least one supporting exhibit – grouped into three overarching themes (as captured in the key messages): the triple divergence, the rise of economic fracturing and the implications for sustainability and development. The first part examines aggregate FDI trends over both the short and long term, alongside comparative analyses with other relevant global economic indicators. It then zooms in on shifts in the sectoral composition of FDI, followed by an analysis of investment destinations and the declining role of FDI flows to China in the global picture. The second part focuses on sources and destinations of FDI and on the reshuffling in investment relationships in times of economic fracturing. It highlights the increasing importance of geopolitical considerations in shaping FDI patterns. The third part emphasizes the rising trend of sustainable investment. This promising advancement, however, is overshadowed by the increasingly marginalised position of many developing countries within the changing global FDI landscape. The concluding policy part provides a summary of the development challenges and proposes a set of policy recommendations.

Part I

Triple divergence

Over the past two decades, transformative shifts driven by technological advances, policy developments, and sustainability demands have reshaped globalisation. FDI patterns have adapted in three key aspects. First, the growth of FDI (and that of Global Value Chains or GVCs) has lost pace with GDP and trade – their growth paths have disconnected. Second, there is a widening gap in investment trends between manufacturing and services sectors. Third, investment patterns in China have delinked from the rest of the world.

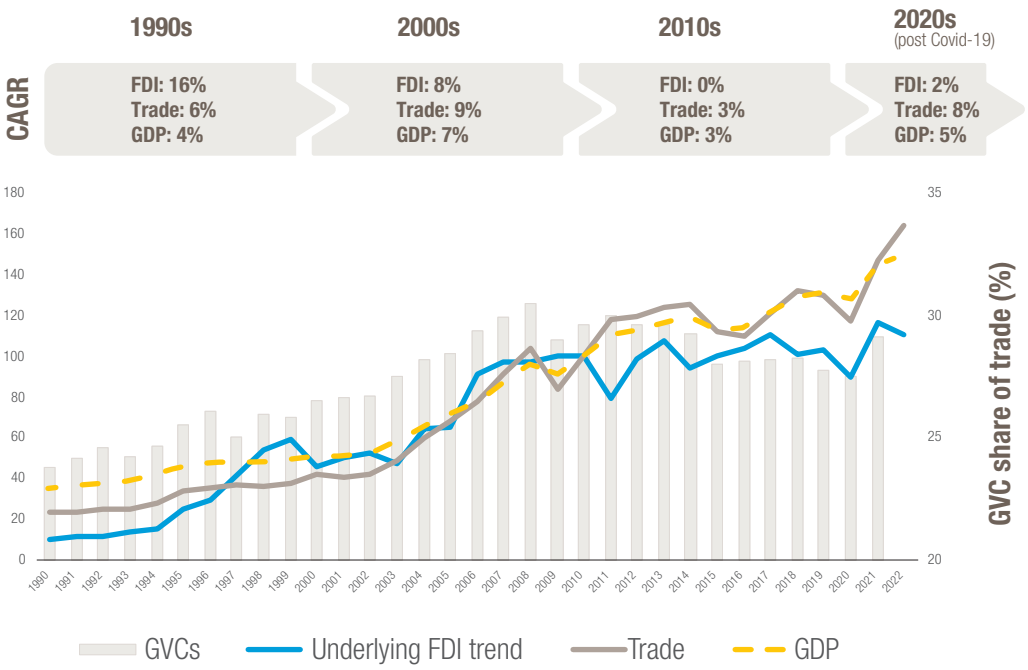
Trend 1. Long-term FDI stagnation

The long-term trend in cross-border investment shows that a slowdown in global FDI already started around 2010. It no longer kept pace with global trade and GDP. Trade within global value chains also slowed, confirming the close link between FDI and GVCs.

Exhibit 1

FDI and GVCs lost pace with trade and GDP growth around 2010

FDI, trade and GDP trends, indexed 2010 = 100



Source: UNCTAD, based on Eora26 and Asian Development Bank (ADB) input-output tables.

Note: CAGR: Compound Annual Growth Rate. Trade is global exports of goods and services. GVC (Global Value Chains) share of trade is proxied by the share of foreign value added in exports, based on the UNCTAD-Eora GVC database (Casella et al., 2019). The value of the GVC share for 2021 was estimated from ADB input-output tables, based on the methodology of Borin et al. (2021). The underlying FDI trend is an UNCTAD indicator capturing the long-term dynamics of FDI by netting out fluctuations driven by one-off transactions and volatile financial flows (Vujanović et al., 2021).

Long-term FDI stagnation

FDI has essentially plateaued from about 2010, well before the onset of trade tensions and recent crises (exhibit 1). While global gross domestic product (GDP) and global trade continued to grow, FDI stagnated. This is different from previous decades, in which FDI grew rapidly in parallel with other macroeconomic indicators.

The comparison with trends in GDP and trade underscores the distinctive nature of the early *slowbalisation* of cross-border investment. GVC participation, which tracks the trade component of GVCs, shows a similar pattern to FDI (see also Antràs, 2020). This suggests a connection between the decline in FDI and the slowdown in GVC trade, emphasizing the importance of GVCs in shaping international trade and investment (WIR2013). Since the 2010s, GVCs have undergone a process of prolonged restructuring, partially reversing the trend towards offshoring, fragmentation and unbundling that fuelled the concurrent growth of trade and investment in the 1990s and the 2000s (Baldwin and Okubo, 2019). The persistence of this process confirms its structural nature, primarily tied to *technological*, *policy* and *sustainability* factors (WIR2020; WIR2021; UNCTAD, 2023d; Baldwin, 2019).

Among the *technological trends* that are reshaping international production are robotics-enabled automation, enhanced supply chain digitalisation, and additive manufacturing (WIR2020). Robotics reduce the share of labour in total costs, increase economies of scale, and can prompt the rebundling and reshoring of fragmented processes. Supply chain digitalisation reduces governance and transaction costs, improves coordination, and can enhance access to GVCs for smaller firms through platforms. Additive manufacturing leads to greater geographic distribution of activities, closer proximity to markets, and concentrated value in design phases.

Adoption rates of these technologies, however, are affected by *trade and investment policies* that are trending towards higher levels of interventionism and protectionism, along with a shift from multilateral to regional and bilateral policy frameworks. In particular after the outbreak of the Covid-19 pandemic and the intensification of geopolitical and trade tensions, major public interventions in developed economies, such as the Inflation Reduction Act in the United States and the Recovery and Resilience Plan in the European Union, are contributing to reshaping the public policy landscape for FDI.

Finally, *sustainability concerns*, including differences in approach between countries and regions on emission targets and environmental, social and governance (ESG) standards, market-driven changes in products and processes, and supply chain resilience measures are driving further change in international production networks. For example, carbon border adjustment mechanisms are likely to affect trade flows and locational decisions for export-oriented investment.

In recent years, FDI has faced additional challenges. Its recovery from the pandemic, slower than that of GDP and trade, re-iterates the trend of dual-speed economic globalisation. However, it also shows a degree of resilience to shocks, a characteristic long associated with FDI, relative to other international capital flows such as foreign portfolio investment.

Overall, in the analysis of economic fracturing and shifting investment patterns, it is important to note that the long-term trends over the past decade and a half continue to exert a greater and more enduring influence on global investment flows than recent exogeneous shocks – at least until today.

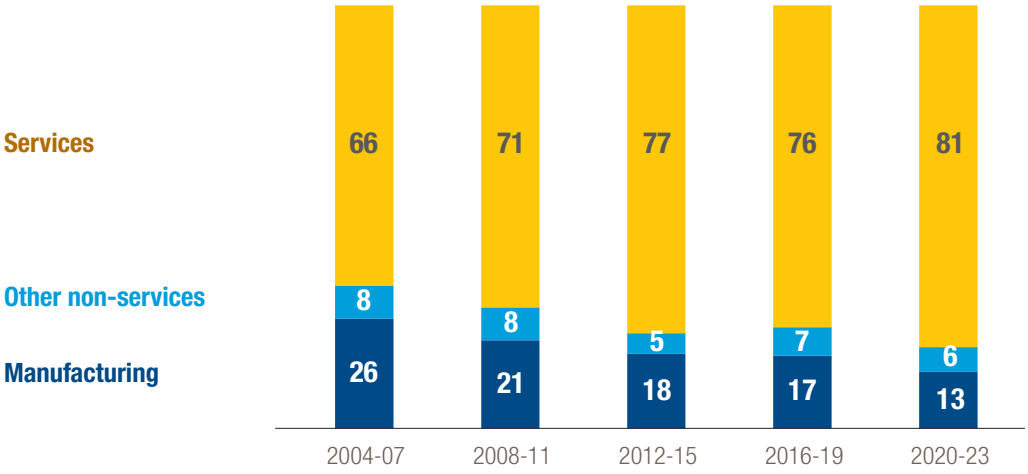
Trend 2. The increasing weight of services

The overall stagnation in FDI conceals sectoral differences. Cross-border investment in services flourishes while manufacturing lags. This reflects a global shift towards more services-centric and asset-light investment.

Exhibit 2

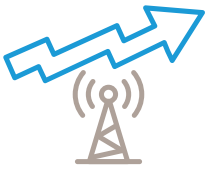
Services activities have become dominant in global FDI

Sectoral distribution of cross-border greenfield projects, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: The sectoral analysis is based on the variable "Business Activity" from fDi Markets. Crucially, this means that "Services" include services activities within typical manufacturing industries (for example sales offices of car manufacturers). "Manufacturing" is as classified in the database. "Other non-services" includes several activities normally classified as services but physical asset-heavy in nature; it comprises the following categories: construction, electricity, extraction and infrastructure. "Services" includes all remaining (service-related) business activities. The business activity "ICT & Internet Infrastructure" was split into internet infrastructure, allocated to "Other non-services", and the remaining part of ICT services allocated to "Services".



The increasing weight of services

The historical trend in cross-border greenfield project announcements, often used to gauge FDI patterns (box 1), mirrors that of the underlying FDI trend, showing a slowdown followed by long-term stagnation.[1] However, a more dynamic reality can be observed in its composition (exhibit 2).

Since the mid-2000s, the share of services in total greenfield projects has increased. This includes investments not only in typical services industries (such as banking or consulting) but also the services component of traditional manufacturing industries.[2] This service-oriented component is rapidly expanding within (traditionally defined) manufacturing industries (exhibit 3).

Over the course of 20 years, the share of investment in services activities within manufacturing industries has nearly doubled, now representing the majority of projects. This shift underscores a broader trend towards the "servitisation" of manufacturing (Lightfoot et al., 2013), enhanced by rapid technological advances.[3] The transition to services has been facilitated by a policy trend favouring investment incentives that promote FDI in the service sector. According to UNCTAD's Investment Policy Monitor Database, the proportion of investment incentives directed towards the services sector rose from 35 per cent in the period 2014-2018 to 46 per cent in the period 2019-2023.

Services investments, in particular those linked to digital technologies, are intrinsically more asset-light than investments in manufacturing. Digital economy operations make a physical presence overseas less fundamental, leading to a lighter international production footprint of multinational enterprises (MNEs) (WIR2017; Casella and Formenti, 2018; UNCTAD, 2021).

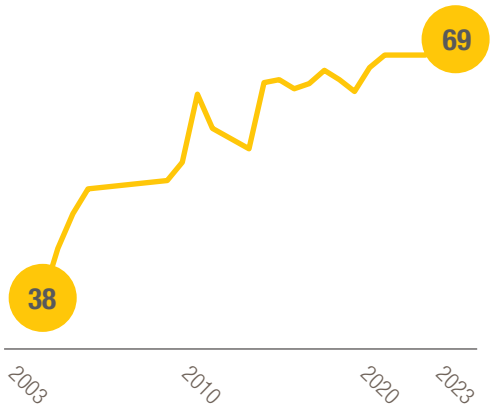
The obvious corollary of the rise of investment in services is the steep decline in the share of investment in manufacturing activities, which halved over the past two decades (from 26 to 13 per cent). There has also been a decline in greenfield project announcements in other non-services activities (or service-sector activities requiring physical investment), such as construction, electricity, extraction and infrastructure.[4] While these activities are not technically part of manufacturing, they share similarities from an FDI perspective as they involve "asset-heavy" investment in tangible assets for material production and transformation (as opposed to "asset-light" investment in services activities).[5]

The decline in manufacturing activities challenges their traditional centrality in cross-border investment and their role as a cornerstone of FDI- and GVC-based development. Investigating whether this decline is part of an overall process of deglobalisation is essential to understanding the changing dynamics of manufacturing investment and its development prospects.

Exhibit 3

Fast-growing manufacturing servitization

Share of service-related cross-border greenfield projects in manufacturing industries, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: The sectoral analysis is based on the variable "Business Activity" from fDi Markets. The classification of manufacturing industries follows UNCTAD's industry classification of greenfield projects (see Annex 15, WIR2023). See note to exhibit 2 for details on the sectoral classification.

Box 1
Data on cross-border greenfield project announcements

The fDi Markets database. The analysis in this report relies on project-level data on cross-border greenfield investment announced by MNEs. These data are sourced from fDi Markets, a database and platform provided by fDi Intelligence, a division of the Financial Times Ltd. Spanning 20 years, from 2003 to 2023, this study uses all available project-data from fDi Markets. Figures for 2023 are annualized based on data until the end of November. fDi Markets categorizes announced cross-border greenfield projects according to their country of origin, destination, industry and business activity. Supplementary metrics such as the estimated value of each project and the anticipated employment it is expected to generate are also provided.

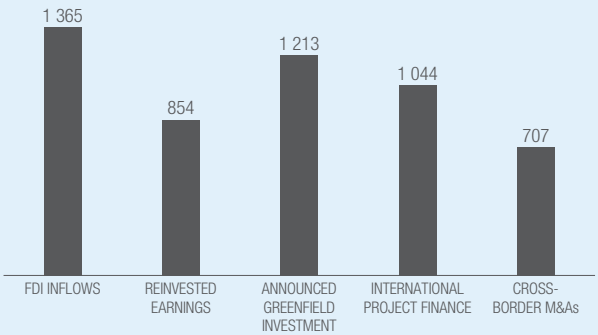
Differences with official FDI statistics. Project-level data on cross-border greenfield investment present some key differences from official FDI statistics that can make trends difficult to compare. Balance-of-payments-based FDI statistics include intra-company loans and reinvested earnings of existing foreign affiliates, not considered in new greenfield project announcements. Greenfield projects do not include cross-border mergers and acquisitions (M&As), an alternative mode of entry for FDI. The growth of international project finance – which largely concerns infrastructure and is only partially captured by greenfield data – also amplifies the gap between FDI and cross-border greenfield projects (box exhibit 1; see also Vinè et al., 2022). Furthermore, data on cross-border greenfield projects rely on public announcements, with estimated values and employment projections, rather than realized investment. For this reason, the metric used in the analyses in this report (and in most other empirical analyses) is the number of projects, rather than the estimated value, due to inherent uncertainty in estimates. Finally, the fDi Markets dataset may be affected by coverage biases related to the availability of public information across different countries. Notwithstanding these caveats, the two sets of data representing the number of greenfield projects and FDI inflows are highly correlated at the destination country-year level (R-squared equals 60 per cent in the logarithmic scale).

Advantages for this analysis. For the purpose of this study, project-level data from fDi Markets offer three unique advantages relative to official FDI. First, they provide a comprehensive sectoral classification, including, critically, the variable "Business Activity" indicating the positioning of a project across different stages of production. This is the main variable used to capture shifts in the sectoral composition and GVC structure (see note to exhibit 2). Second, they are updated monthly, allowing timely insights crucial to capture the impact of recent crises. Finally, they feature a straightforward bilateral structure by investor and recipient entities, enabling the tracking of changes in bilateral investment patterns.

Selected references. Greenfield data are widely used to complement FDI statistics in the analysis of investment trends. They feature prominently in all UNCTAD World Investment Reports and Investment Trends Monitors, particularly for the analysis of FDI trends across industries. Notably, they were also the primary database used by the International Monetary Fund in the related study of "Geoeconomic Fragmentation and Foreign Direct Investment" (IMF, 2023; Chapter 4), which includes some cross-validation analysis between greenfield data from fDi Markets and BoP-based FDI statistics. An increasing volume of academic research is also relying on greenfield data from fDi Markets to analyze FDI and international production (Amighini et al., 2014; Wall et al., 2016; Iacoella et al., 2021).

BOX EXHIBIT 1. The relative importance of various measures and types of FDI

Billions of dollars, 2022



Source: UNCTAD.

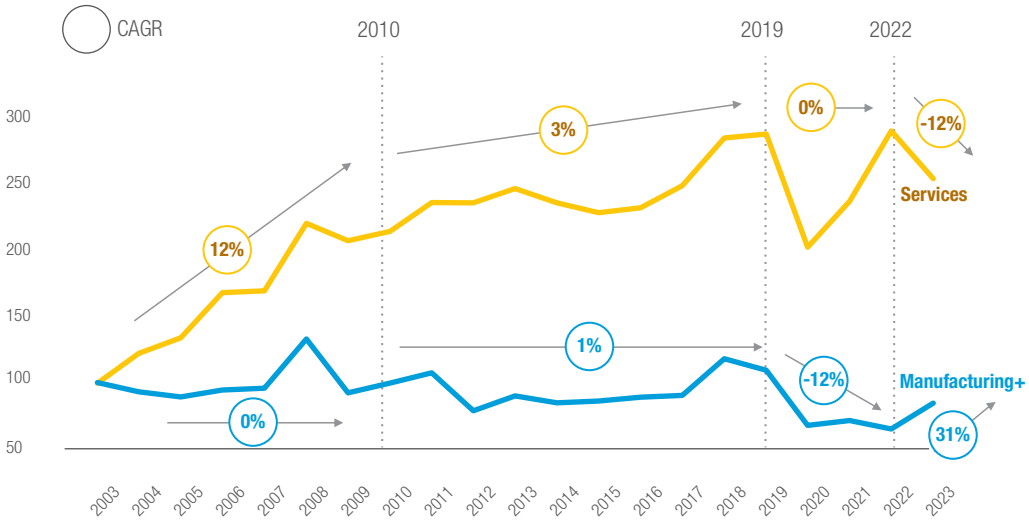
Trend 3. The deglobalisation of manufacturing (from an FDI perspective)

Manufacturing FDI, stagnant for two decades, shows negative growth after the outbreak of the Covid-19 pandemic. While global manufacturing activity and investment remain robust, their international component is shrinking, suggesting a trend towards deglobalisation. This trend is exacerbated by the growing prevalence of non-equity modes of international production.

Exhibit 4

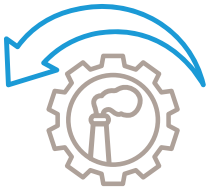
Manufacturing FDI: prolonged stagnation and post-pandemic decline

Number of cross-border greenfield projects, indexed 2003 = 100



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: CAGR: Compound Annual Growth Rate. The sectoral analysis is based on the variable "Business Activity" from fDi Markets. "Manufacturing+" includes "Manufacturing" and "Other non-services" activities. The latter group comprises the following categories: construction, electricity, extraction and infrastructure. See note to exhibit 2 for further details on the sectoral classification.



The deglobalisation of manufacturing

Zooming in on the historical patterns of greenfield projects in manufacturing and services reveals strikingly different trajectories (exhibit 4). The services sector grew rapidly throughout the 2000s. This growth stabilized in the 2010s and showed resilience in the post-Covid phase. In contrast, manufacturing has followed a substantially flat trajectory over the past two decades. In the three years following the outbreak of the Covid-19 pandemic, manufacturing entered negative growth territory, experiencing an annual decline of more than 10 per cent.[6] The year 2023 partially re-balances this post-pandemic narrative, as manufacturing saw a rebound. It remains to be seen whether this rebound signals a structural recovery from the Covid-19 pandemic downturn or merely a temporary fluctuation.

The prolonged struggle of manufacturing and its stark contrast with the growth of the services sector raise questions about a possible manufacturing deglobalisation process.[7] Complementary evidence on other indicators, particularly GVC trade data, supports the hypothesis of increasing localisation of manufacturing (see Appendix). While manufacturing activity and investment are not declining overall, their international component appears to be shrinking. This is evidenced not only by reduced FDI but also by reduced trade in intermediate inputs. The two indicators reflect two sides of the same coin: as the multinationals coordinating the international production system reduce their FDI footprint, intra-firm trade of intermediate inputs – a prominent component of GVC trade – also experiences a decline. This broad picture is consistent with a process of reconfiguration of GVCs towards less complex and fragmented structures in the quest for security and resilience.

The stagnation in international production through FDI can be explained not only by increased domestic production but also by the increased use of governance modes alternative to FDI, i.e. non-equity modes (NEMs) or contract forms of international production, such as third-party outsourcing or franchise relationships (WIR2011). The data cannot capture the degree to which a shift to NEMs contributes to the negative trend in manufacturing FDI. It is likely that offshore manufacturing is undergoing both a retreat (reshoring) and an evolution towards NEMs simultaneously. The former is likely the main driver of the structural shifts observed in the FDI project data, while the latter potentially acts as an amplifier of these effects (see also discussion in Appendix).

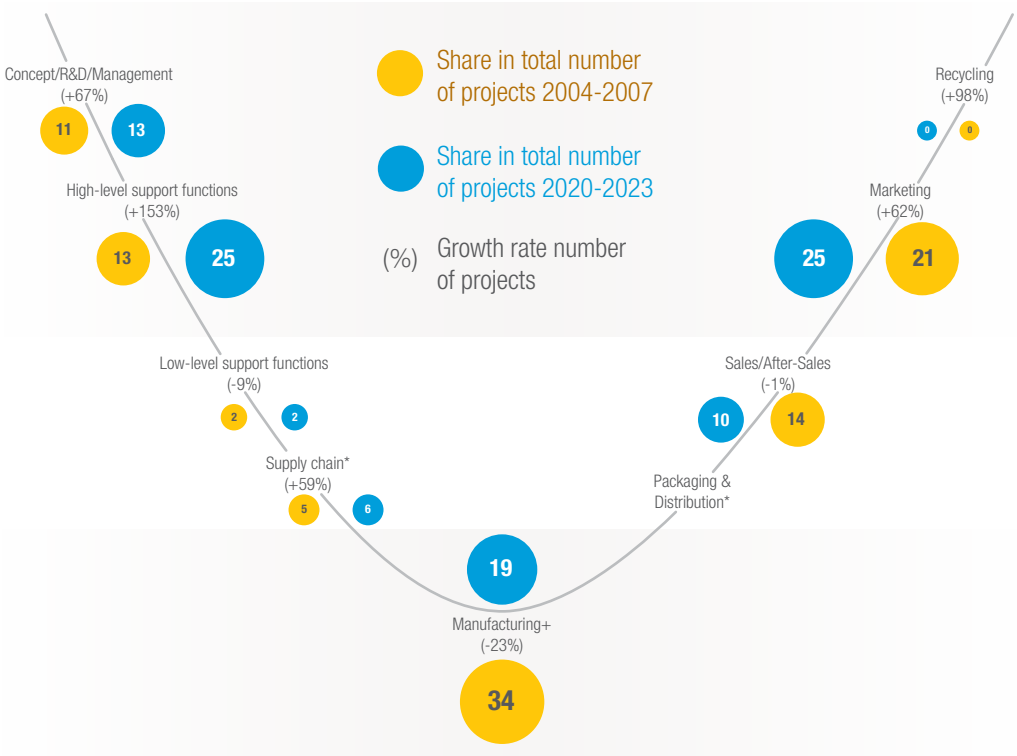
Trend 4. The growing ends of the smile curve

The transition from manufacturing to services is part of a broader change in the role of FDI in global value creation. Cross-border investment is moving from the centre to the two ends of the smile curve, most notably towards business and ICT services upstream and marketing services downstream.

Exhibit 5

FDI is moving towards the upper ends of the "smile curve"

Distribution of cross-border greenfield projects across stages of production, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: The allocation of investment projects along the smile curve is based on a mapping of the variable "Business Activity" from the fDi Markets database. This approach leveraging the link between fDi Markets activities and stages of GVCs was introduced by Crescenzi et al. (2014) (see also Crescenzi and Harman, 2022 for an application). "Manufacturing+" includes "Manufacturing" and "Other non-services" activities. The latter group comprises the following categories: construction, electricity, extraction and infrastructure. * Figures for "Supply chain" also cover "Packaging & Distribution"

The growing ends of the smile curve

Traditionally depicted as a graphical representation of value addition at various stages of production, the "smile curve" (Gereffi, 2019) offers relevant insights on the nature of the shift of investment from manufacturing to services. Global investment increasingly targets the upper regions (or ends) of the curve, both upstream (pre-production) and, to a lesser extent, downstream (post-production) (exhibit 5).

Investment in manufacturing activities at the bottom of the curve has declined from a third of greenfield projects in the mid-2000s to one-fifth, marking an almost 25 per cent decrease in the absolute number of projects. While the share of the middle layer, encompassing low value-added services like logistics and distribution, remains relatively stable, there is a clear "leap" of projects from the bottom to the upper ends of the smile curve. The share of projects in high-level support functions (including business and ICT services) has doubled over the past two decades, increasing by more than 150 per cent in absolute terms and now comprising a quarter of all projects.

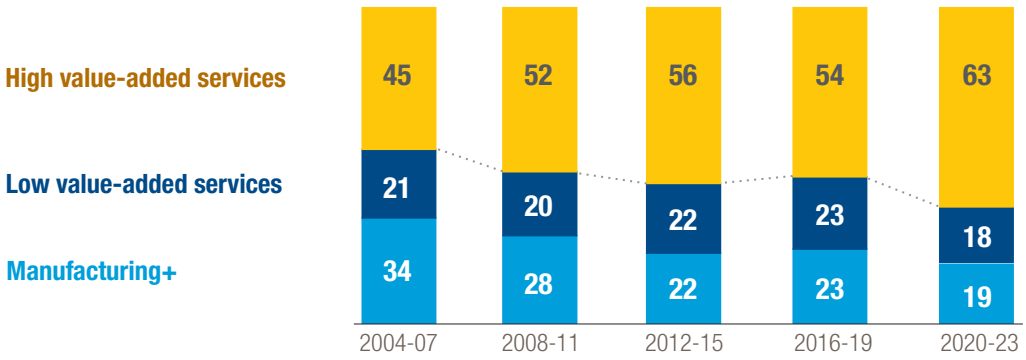
Other high value-added service activities such as concept/R&D/management upstream and marketing downstream have also grown in both share and number.

This representation nuances the interpretation of trend #2 by highlighting the specific set of services increasingly targeted by international investment. It follows that the shift towards services is not merely sectoral but signifies a deeper transformation in the role of FDI in global value creation. The pool of low value-added, mainly efficiency-seeking, FDI projects, which traditionally served as entry points for developing countries in GVCs, is clearly narrowing (exhibit 6). At the same time, investment at the higher value-added stages of the smile curve, characterized by service-oriented, knowledge-intensive activities, typically accessible only to advanced and emerging economies, is gaining prominence. This presents formidable challenges for policymakers in low-income countries that are still in the early stages of their GVC development path.

Exhibit 6

Higher value-added activities increasingly dominate the FDI landscape

Distribution of cross-border greenfield projects by sector and value added, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: "Manufacturing+" includes includes "Manufacturing" and "Other non-services" activities. The latter group comprises the following categories: construction, electricity, extraction and infrastructure. Low value-added services include the following stages of the smile curve (exhibit 5): "Low-level support functions", "Supply chain", "Packaging & Distribution", "Sales/After-Sales". High value-added services include all other activities, at the upper ends of the smile curve.

Trend 5. Convergence of sectoral patterns across regions

All regions, including developing ones, are feeling the effects of the transition towards services-oriented asset-light FDI. Consequently, traditional differences in sectoral patterns between developed and developing regions are increasingly blurring.

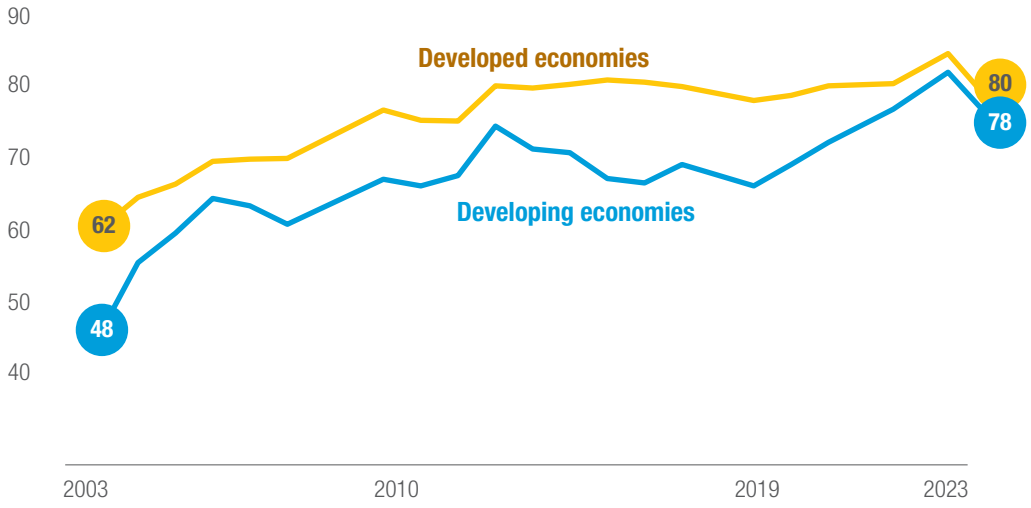
While the shift towards high value-added services is overall more beneficial to developed economies, it does not exclude developing countries from participating in this transformation. Greenfield data show a notable increase in the number and share of projects in service activities across all regions, including developing ones. Each region on its own replicates the movement towards the upper echelons of the smile curve.

As a consequence, traditional distinctions between developed and developing regions regarding the types of FDI they attract are blurring. In 2003, the gap in the share of greenfield projects in service activities

Exhibit 7

The gap in the share of services in developing countries is closing

Cross-border greenfield projects in services as a share of the total, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: The sectoral analysis is based on the variable "Business Activity" from fDi Markets. See note to exhibit 2 for details on the sectoral classification.

between developed and developing regions was still significant, reflecting historical specializations, with developing countries traditionally more focused on commodity processing and manufacturing and developed ones on services. However, two decades later, this gap has been substantially absorbed, with the shares of both developed and developing countries at about 80 per cent (exhibit 7).

An analysis at the regional level confirms the convergence among developing regions. The FDI footprints of regions across different development levels are much more similar now than they were two decades ago (exhibit 8).

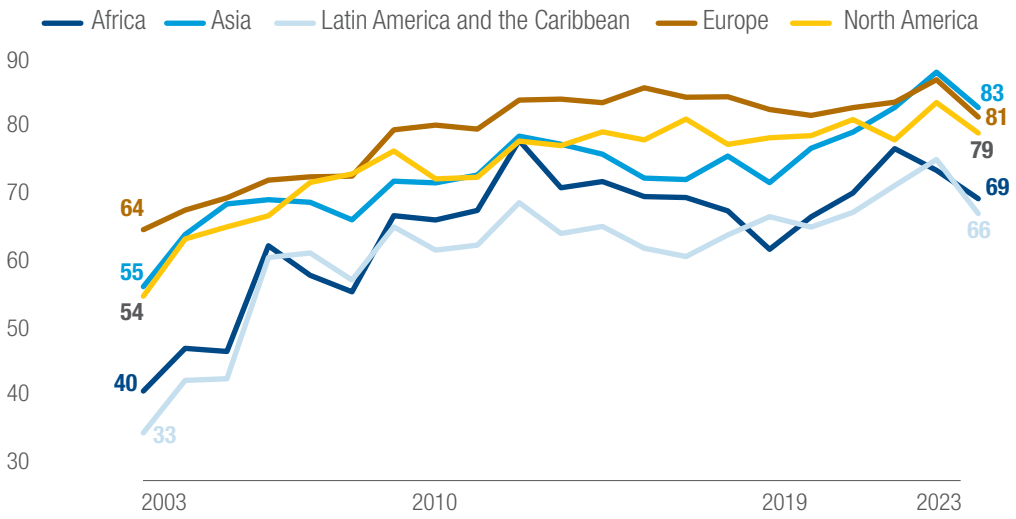
This convergence again has important development implications. It partly explains the continued lackluster growth in absolute project numbers in several developing regions and increasing concentration of investment in economies with the hard and soft infrastructure required to attract investment in the services sector. FDI-based structural transformation – attracting investment to move from primary sector through manufacturing to higher value-added activities – is increasingly difficult for other developing countries.

Convergence of sectoral patterns across regions

Exhibit 8

Convergence in FDI footprints across regions

Cross-border greenfield projects in services as a share of the total, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: The sectoral analysis is based on the variable "Business Activity" from fDi Markets. See note to exhibit 2 for details on the sectoral classification.

Trend 6. The diminishing role of FDI in China

The regional rebalancing of global FDI has been significantly influenced by the declining share of China as a recipient country. Despite a waning interest from multinational corporations in initiating new investment projects in China, the country continues to maintain a dominant position in global manufacturing and trade, signifying a transformation in its global production model.

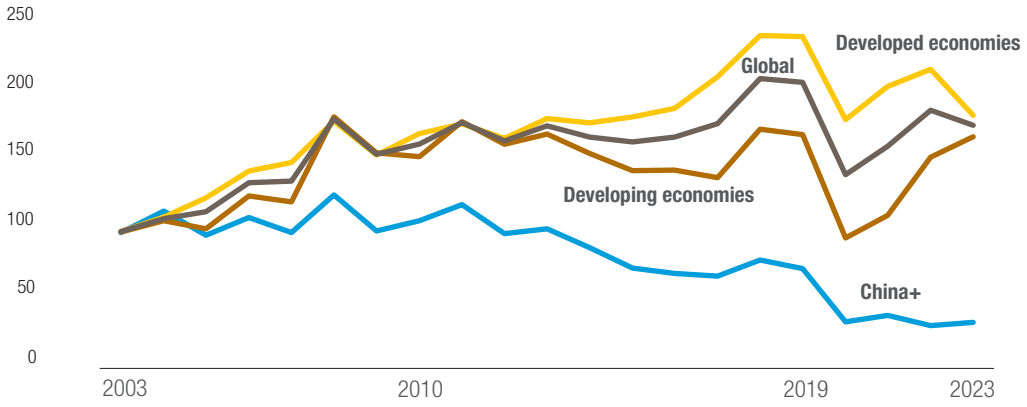
Based on fDi Markets data, the number of announced cross-border greenfield investments in China (inclusive of Hong Kong, China as an important conduit for Chinese investment), remained relatively stable throughout the 2000s (exhibit 9). It then began a gradual decline, markedly exacerbated by the Covid-19 pandemic. Unlike most other countries, a recovery of greenfield investment to China after the pandemic has not yet fully materialized.

Over the past three years, the number of greenfield projects to China and Hong Kong, China has hovered at a level around one-third of the same figure a decade ago. As a result, according to fDi Markets, China's share of the total number of greenfield

Exhibit 9

Cross-border greenfield investments in China show a declining trend

Number of projects, indexed 2003 = 100



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: China+ includes China and Hong Kong, China.

The diminishing role of FDI in China

projects has steadily dwindled from about 15 per cent in the 2000s to currently only about 3 per cent.[8] Statistics produced by China's MOFCOM[9] show a less dramatic decline, but they confirm the divergence between the trends of FDI values, on the one hand, and project numbers, on the other. Their data show a gradual decrease in the establishment of new foreign enterprises in China from the mid-2000s until about 2016, followed by a partial recovery. This contrasts with the steady growth in Chinese FDI inflows over the same period, which show a decline only in 2023. This discrepancy may indicate a shift in the composition of Chinese FDI, increasingly consisting of reinvestment and fewer but larger transactions (including cross-border merger and acquisitions), rather than new ventures. The substantial re-routing of capital flows through Hong Kong, China is a further likely factor.

China's declining share in the number of announced cross-border greenfield projects does not imply a diminishing significance of China in global production. On the contrary, its share in global manufacturing output remains substantial, at about 30 per cent according to World Bank data. Similarly, China's share in merchandise exports has been stable over the last ten years, fluctuating between 13 and 15 per cent, making it by far the largest global exporter. This suggests that "Global Factory China" is not downsizing but it is rather changing its operational model from globally-integrated to more domestically-focused production networks, while still maintaining its leadership in global trade (see also Baldwin et al., 2023).

The long-term nature of China's declining trend in greenfield project announcements show that multiple factors beyond recent trade tensions and geopolitical divergences are at play. Rising labour and production costs, coupled with intensified competition from emerging markets offering lower-cost alternatives, diminished China's relative appeal for MNEs early on. Other structural changes in China's economy, transitioning towards consumption and services-oriented activities, further contributed to a shift away from FDI to more domestic investment. An increasing reliance by MNEs on non-equity modes of engagement with Chinese manufacturers, not captured by greenfield data, may have amplified the trend. Non-equity modes entail lower levels of risk compared to FDI, offering greater flexibility in market entry and exit and allowing companies to adjust strategies more easily or terminate agreements based on market conditions.

Part II

From divergence to fracturing

In recent years, geopolitical differences and global crises have led to a transition from divergence to fracturing. This disruption of historical investment patterns is marked by high levels of uncertainty and limited possibilities for countries to strategically benefit from diversification. Geopolitical factors are increasingly driving the location decisions of investors, at times overriding economic considerations.

Trend 7. Unstable investment relationships

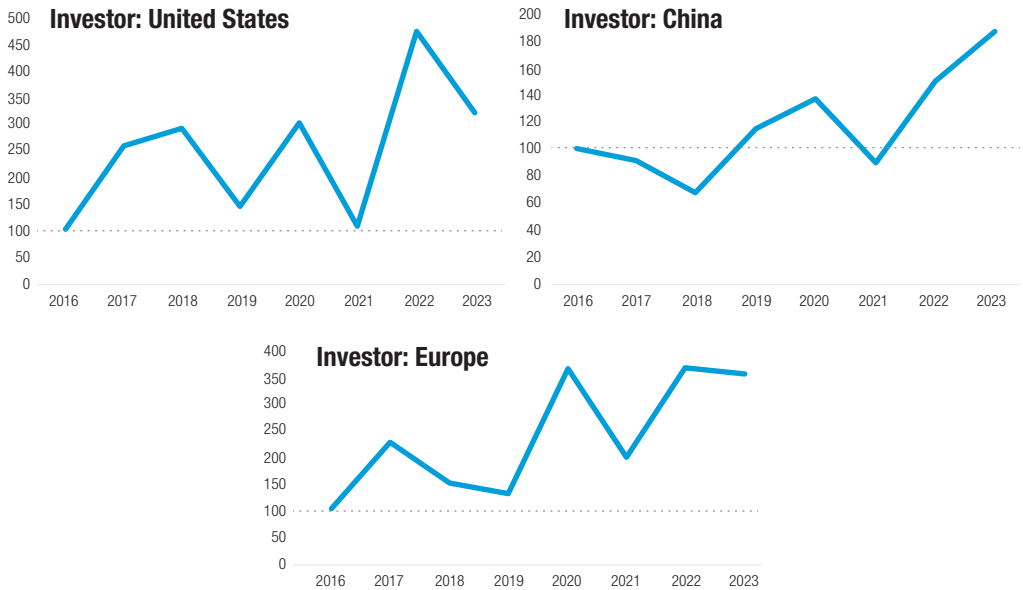
Heightened geopolitical tensions are increasing the volatility of investment sources and destinations, and the susceptibility of traditional investment links to disruptions. Instability in investment relationships limits the capacity of developing countries to strategically capitalise on diversification opportunities arising from shifts in investment patterns.

Exhibit 10

FDI fracturing: disruptive shifts in investment patterns

Indicator of annual change in the geographic distribution of outward cross-border greenfield projects, indexed 2016 = 100

Euclidean distance between the geographic distributions of outward cross-border greenfield projects in two consecutive years t and t+1



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: See box 2a for details on the construction of the indicator. The perimeter of "Europe" includes the European Union and other Western European countries. Outward projects from the three selected investor home economies (United States, Europe and China) cover 75 per cent of the total number of projects in the period 2016-2023 (72 per cent in 2023).

Unstable investment relationships

Since the escalation of trade tensions in 2018, bilateral investment patterns have become increasingly volatile, with indicators of annual change in the geographic distribution of outward investment from the United States, China and Europe showing a significant upward trend (exhibit 10). An increase in this indicator implies heightened instability and unpredictability in investment decisions, with geographical patterns changing at a faster pace than their historical evolution.[10] Following a temporary slowdown in 2021, instability shot up further in the last two years.

Significant annual fluctuations in global investment patterns could mean that each year some countries stand to benefit significantly from FDI re-allocation. However, these fluctuations also imply that patterns of winners and losers are less likely to remain steady over time. While isolated shocks can present opportunities for diversification, the presence of long-term uncertainty will generally yield negative effects. An examination of relative gains and losses across recipient regions over the past four years corroborates this perspective (exhibit 11).

Some expected shifts can be clearly observed, including the diminishing investment share of China and South-Eastern Europe and Commonwealth of Independent States (CIS) in outward investment from the United States and Europe, and the decline in the United States and Europe's share in Chinese investment. Beyond these shifts, only some countries in West Asia and North Africa (MENA region) have gained share consistently across time and investors in recent years. This region has emerged as a viable alternative for diversifying investment. Current developments in the region though could again alter the outlook, further underscoring the precarious nature of temporary gains in the current unstable global geopolitical landscape.

The picture is less clear for all other regions, with no discernible and consistent diversification pattern across years and investors. Focusing on the past two years only, the broader Asian region, encompassing East Asia (excluding China and Hong Kong, China), South-East Asia, and South Asia, has also notably benefited from redistributive mechanisms (UNCTAD, 2022b). This trend suggests a potential diversion effect, which had not yet emerged in earlier periods. Prior analyses on greenfield projects before the Covid-19 pandemic have shown that rising trade tensions brought a shift of FDI flows to South-East Asia in specific industries; however, the overall redistributive effect on South-East Asia was still negative (Blanchard et al., 2021).

This analysis – focusing on the relative gains and losses from the reallocation of investment flows only – assumes the total outward investment as given (box 2b). It does not account for the impact of heightened uncertainty potentially depressing the total number of cross-border investment projects. This effect was observed in both 2020 and 2022 (see FDI trend in exhibit 1).

Exhibit 11

Regional gains and losses from fracturing are unequal and unstables

Relative gains and losses from the reallocation of outward cross-border greenfield projects

Recipients	Change 2020-21 vs 2018-19	Change 2022-23 vs 2020-21
Investor: United States		
Asia (excl. China+ and West Asia)	-16%	55%
China+	-40%	-26%
Europe	13%	-18%
Latin America and the Caribbean	-8%	-4%
MENA	25%	47%
South-East Europe and CIS	-3%	-28%
Sub-Saharan Africa	-41%	56%
United States	...	...
Others	6%	-17%
Investor: China		
Asia (excl. China+ and West Asia)	-35%	78%
Europe	36%	-39%
Latin America and the Caribbean	0%	26%
MENA	6%	87%
South-East Europe and CIS	-45%	7%
Sub-Saharan Africa	-7%	-30%
United States	26%	-19%
Others	-41%	-7%
Investor: Europe		
Asia (excl. China+ and West Asia)	-17%	33%
China+	-21%	-18%
Europe	11%	-10%
Latin America and the Caribbean	-26%	-2%
MENA	6%	52%
South-East Europe and CIS	-42%	-27%
Sub-Saharan Africa	-21%	8%
United States	12%	6%
Others	10%	4%

Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: See box 2b for details on the construction of the indicator. China+ includes China and Hong Kong, China. MENA: Middle East and North Africa. CIS: Commonwealth of Independent States. The perimeter of "Europe" includes the European Union and other Western European countries.

Box 2
Measuring "fracturing" in investment data

a. Tracking "fracturing": How to construct an indicator of change in bilateral investment patterns (exhibit 10)**.**

Objective. While the concept of economic "fracturing" (or "fragmentation") has become commonplace in discussions within the realm of international economics, including in FDI literature (IMF, 2023; chapter 4), a precise definition remains elusive. Broadly, it denotes the disruption of historically established linkages due to exogenous shocks. For a given investor home economy, this can be tracked by looking at the changes in the distribution of outward FDI across recipients, as measured by some appropriate norm, such as for example the Euclidean (L2) distance.

Computation. The analysis in exhibit 10 employs this notion. For each investor, the indicator of change is computed as the square root of the sum of the squared differences of the shares of each recipient in the investor's total outward projects at time t and t+1. Recipients are grouped as follows: Asia (excluding China, Hong Kong, China and Middle East), Central America and the Caribbean, China+, Europe, Middle East and North Africa, South-East Europe and CIS, South America, Sub-Saharan Africa.

b. Identifying "winners and losers": How to construct an indicator of relative gains and losses (exhibit 11)**.**

Objective. Within the approach to measuring fracturing introduced above (a), the main goal is to identify those recipients that have benefited and those that have been penalized by changes in bilateral investment patterns. In line with the approach introduced by IMF (2023), recipients' performance is assessed relative to the change in total number of the investor's outward projects to focus solely on the redistributive effects, discounting the impact of the trends in aggregate figures.

Computation. For each investor, recipient, and pair of periods (t+1 and t), the indicator of relative performance is computed in two steps. The first step requires determining the number of projects that the recipient would receive from the investor in t+1 if it maintained the same share in the investor's total outward investment as in t. This number serves as the theoretical benchmark. In the second step, the indicator of relative performance is calculated as percentage change between the actual number of inward projects from the investor at time t+1 and the theoretical benchmark.

Example. Assuming the United States as the investor, Europe as the recipient and 2020-2021 and 2018-2019 the two periods of interest: From fDi Markets, the average share of Europe in the total outward projects from the United States is 43 per cent in 2018-2019. Applying this share to the total outward projects from the United States in 2020-2021 gives a theoretical benchmark for Europe of 2.525 projects. This is the number of projects Europe would have received from the United States had it maintained the 2018-2019 share in the number of United States outward projects. However, in 2020-2021 Europe increased its weight in United States outward investment to 49 per cent, equivalent to 2.861 inward projects. This increase represents a 13 per cent rise relative to the theoretical benchmark, in line with the result reported in the relevant cell in exhibit 11.

Advantages. This metric offers three main advantages: i. It enables the discounting of the effects on recipients caused by changes in the total number of outward projects, such as those resulting from re-shoring, focusing solely on the redistributive effects. ii. It provides a straightforward interpretation of the "winners and losers": when the indicator of relative performance is negative/positive, the recipient's share has decreased/increased. iii. It also allows for a more nuanced understanding by providing an indication of the relative gain and loss normalized by the size of the recipient.

Source: UNCTAD.

Trend 8. Fracturing along geopolitical lines

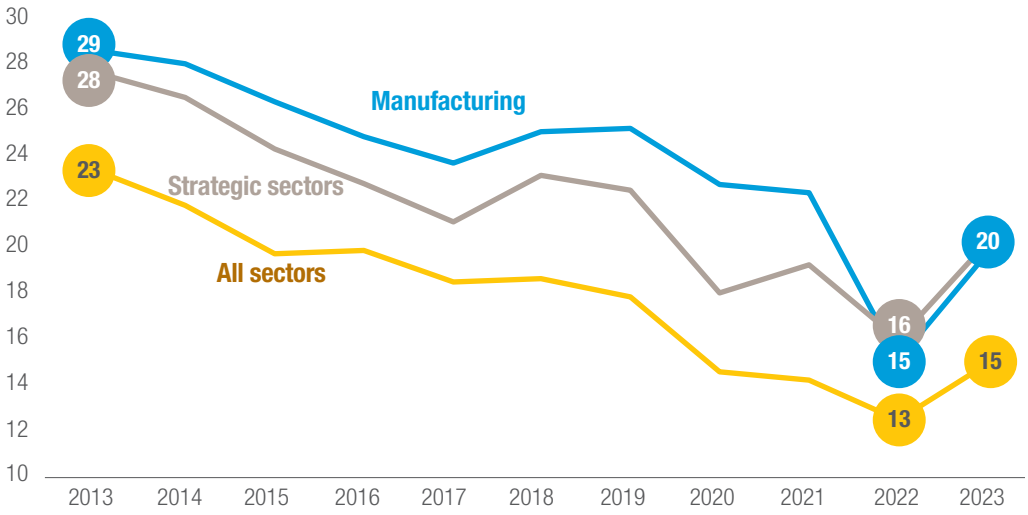
Geopolitical differences are causing a fracturing trend in global FDI, with the reduction in investments between geopolitically distant countries highlighting their significant influence on investors' location choices, overshadowing traditional determinants of FDI.

Tracking investment between countries according to their geopolitical alignment[11] clearly shows the effect of geopolitics on FDI patterns. The first signs of fissures in investment patterns emerged a decade ago already, with investment flows between geopolitically distant countries showing an initial moderate decline. Over the past five years, however, this decline has accelerated, particularly in 2019 amid escalating trade tensions and further in 2022, clearly underscoring the geopolitical nature of the trend. Overall, between 2013 and 2022, the share of FDI projects between geopolitically distant countries decreased by 10 percentage points,

Exhibit 12

The share of global investment between geopolitically distant countries is in decline

Cross-border greenfield projects between geopolitically distant countries as a share of the total, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: The classification "Strategic sectors" follows IMF (2023). Assessment of geopolitical alignment is based on United Nations voting patterns (see endnote 11). The findings remain robust under alternative definitions of geopolitical groupings.

Fracturing along geopolitical lines

from 23 to 13 per cent (exhibit 12).[12]

The decline and synchronization with major geopolitical events was even more pronounced in the manufacturing sector, where investment between geopolitically distant countries started to fall sharply in 2019, with the escalation of the trade tensions. Manufacturing investment, inherently more "sticky" than services investment, responded to the geopolitical context with some delay but, at that stage, the response was more pronounced. This trend does not differ substantially for the subset of strategic sectors, including high-tech and semi-conductor industries, despite their additional sensitivity.

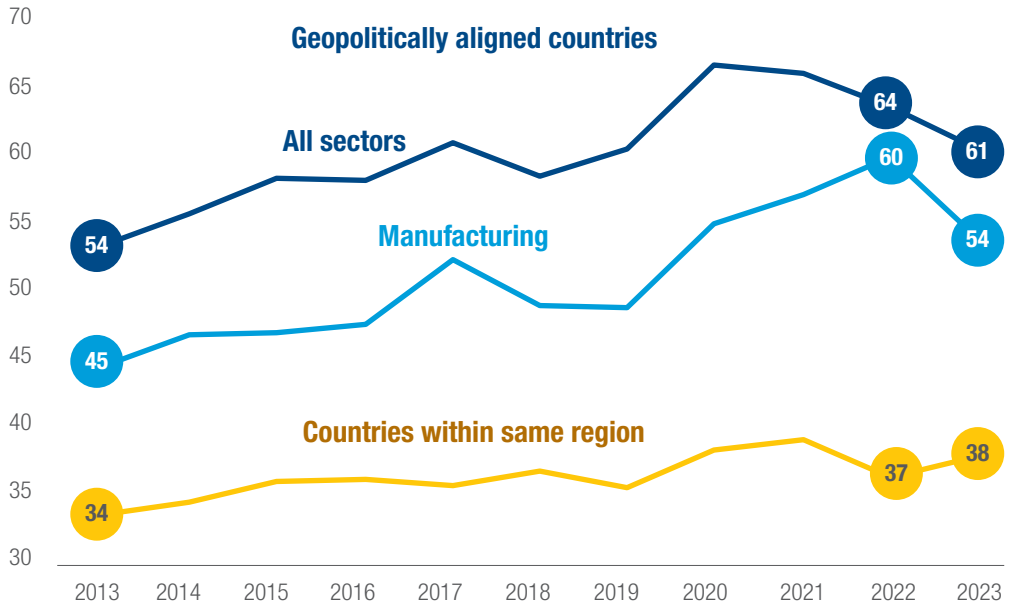
The year 2023 stands out as an exception to historical patterns. Whether this signals the onset of a structural change or merely reflects a transient rebound remains uncertain.

The share of investment between geopolitically aligned countries (linked but not fully complementary to that between geopolitically distant countries in exhibit 12)[13] is increasing faster than investment between geographically close ones (exhibit 13). (The data for 2023 again show a partial reversal of this trend.) Geopolitical motivations could thus emerge as primary drivers of investment decisions, potentially overshadowing relevant geographic factors such as near-shoring and regionalisation.

Exhibit 13

The rising influence of geopolitics on investment location decisions

Cross-border greenfield projects between geopolitically aligned countries and between countries in the same region as a share of the total, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: Assessment of geopolitical alignment based on United Nations voting patterns (see endnote 11). The findings are robust under alternative classifications of geopolitical groupings. Regions used to identify regional investment are defined according to UNCTAD classification.

Part III

Sustainability push, but marginalisation of many developing countries

The sustainability imperative and the drive to stimulate investment in the Sustainable Development Goals (SDGs) have opened new opportunities for investment-driven industrial development, particularly in environmental technologies. However, these new opportunities can only compensate in part for the lack of FDI growth in other industrial sectors. Many smaller developing countries, and especially the least developed countries (LDCs), are experiencing growing marginalisation and vulnerability.

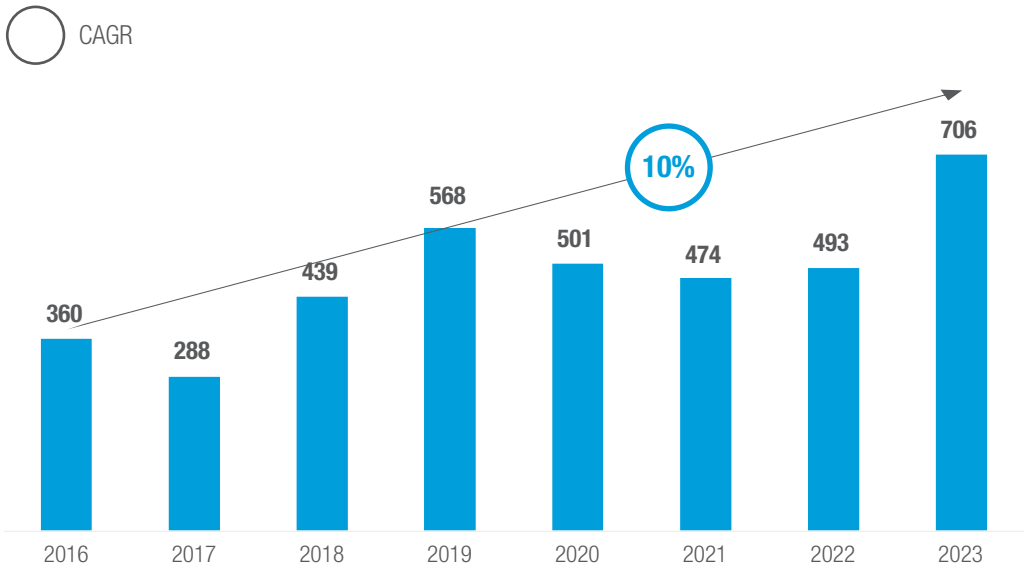
Trend 9. The sustainability imperative driving new FDI sectors

FDI in environmental technologies stands out as the main pocket of growth outside services. Since 2010, while manufacturing investment stagnated across all industries, the number of cross-border greenfield projects along the entire value chain of environmental technologies sectors has steadily increased.

Exhibit 14

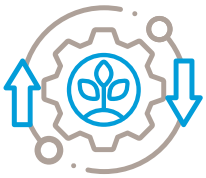
Investment in environmental technologies bucks the trend

Number of cross-border greenfield projects in environmental technologies (excluding services activities)



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: CAGR: Compound Annual Growth Rate.



The sustainability imperative driving new FDI sectors

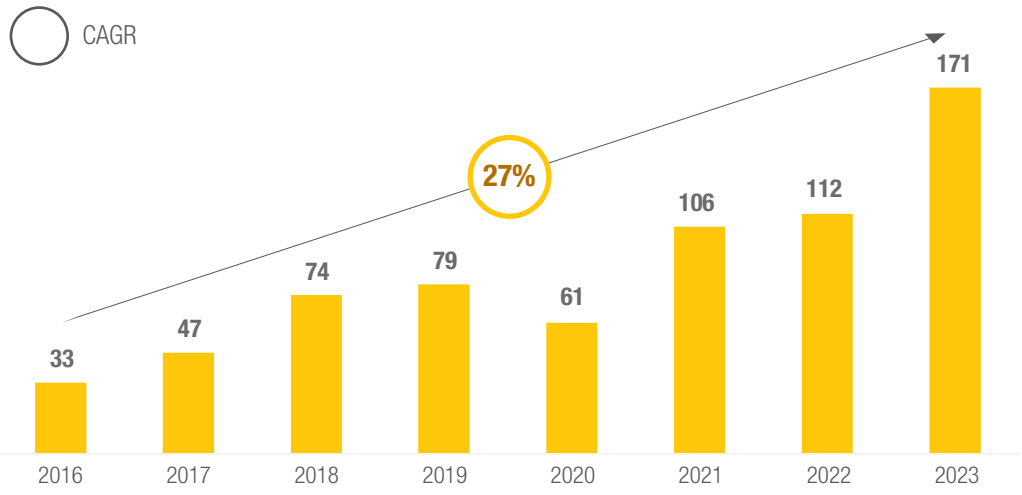
One industry has shown significant investment growth in recent years, which is environmental technologies (WIR2023; UNCTAD, 2023c). Since 2010, the number of greenfield projects in environmental technologies has steadily risen. Unlike other industries, such increase was not just confined to services-related activities but occurred along the entire value chain (exhibit 14). Projects in environmental technologies have increased from comprising 1 per cent of all greenfield projects in non-services activities in 2003 to 20 per cent in 2023, transitioning from the lowest rank to becoming the leading industry in terms of project numbers (outside the services sector).

Furthermore, at the intersection between green energy FDI and technology, the number of FDI projects in the manufacturing of electric vehicles and batteries, while currently still representing a small proportion, has been accelerating at an average annual growth rate of 27 per cent since the middle of the past decade (exhibit 15). Beyond the green energy sector, other environmental technology industries are also likely to provide opportunities for industrial development and investment attraction in the coming years, ranging from green hydrogen production to sustainable aviation fuels, battery recycling and material recovery, or eco-friendly packaging solutions.

Exhibit 15

Other pockets of growth: manufacturing of batteries and electric vehicles

Number of cross-border greenfield projects in manufacturing of batteries and EVs



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: CAGR: Compound Annual Growth Rate.

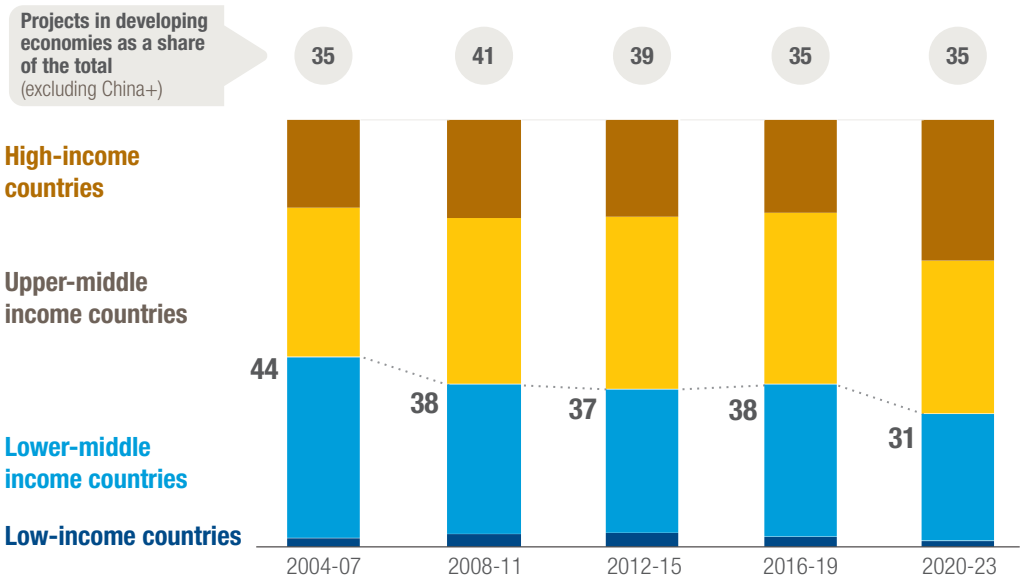
Trend 10. The increasing concentration of FDI and marginalisation of developing countries

Amid historical shifts and economic fracturing, the proportion of FDI greenfield projects in smaller developing countries and least developed countries is diminishing. This trend exacerbates their marginalisation and vulnerability, as FDI becomes increasingly concentrated in developed and emerging economies.

Exhibit 16

Higher income developing countries absorb an increasing share of FDI

Distribution of cross-border greenfield projects by income level of recipient countries, developing economies excluding China+, per cent



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: Income categories based on World Bank classification. The analysis excludes cross-border greenfield projects in China and Hong Kong, China ("China+") to net the effects of the declining share of China as FDI recipient (trend #6).

The increasing concentration of FDI and marginalisation of developing countries

After netting out the effect of the declining share of China (trend #6), the share of developing countries in the total number of greenfield projects has been relatively stable. However, the distribution of projects among developing economies has notably shifted towards higher-income and upper-middle income countries (exhibit 16).

Over the past two decades, the proportion of projects in countries categorized as low-income and lower-middle income by the World Bank classification has decreased by 15 percentage points, equivalent to a one-third reduction. The share of lower income countries in the total number of greenfield projects in developing economies (excluding China) has decreased to just over 30 per cent. This share encompasses a large number of lower-income developing countries – 86 countries classified as low-income and lower-middle income.

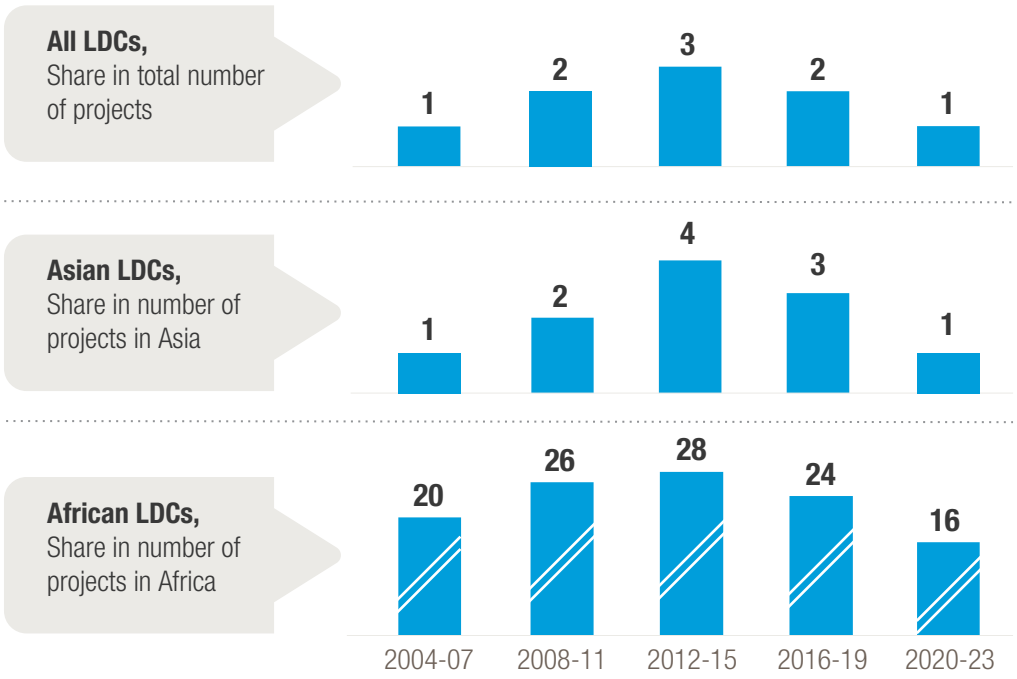
This trend of increasing marginalisation of smaller developing countries is observed across all developing regions. Specifically, in Asia and Latin America and the Caribbean, the decline in the share of projects in lower-income countries has been continuous since the 2000s, while in Africa it has mostly occurred in the last decade.

Focusing specifically on the group of least developed countries (LDCs), the number of cross-border greenfield projects in these countries remains alarmingly low, comprising merely 1 per cent of the total (exhibit 17). What is particularly concerning is the consistent downward trajectory of this share over the past decade, declining from 3 per cent in the mid-2010s to 2 per cent during 2016-2019.[14] This regression undoes the progress made

Exhibit 17

Growing marginalisation of Least Developed Countries

Cross-border greenfield projects in LDCs as a share of the total, per cent



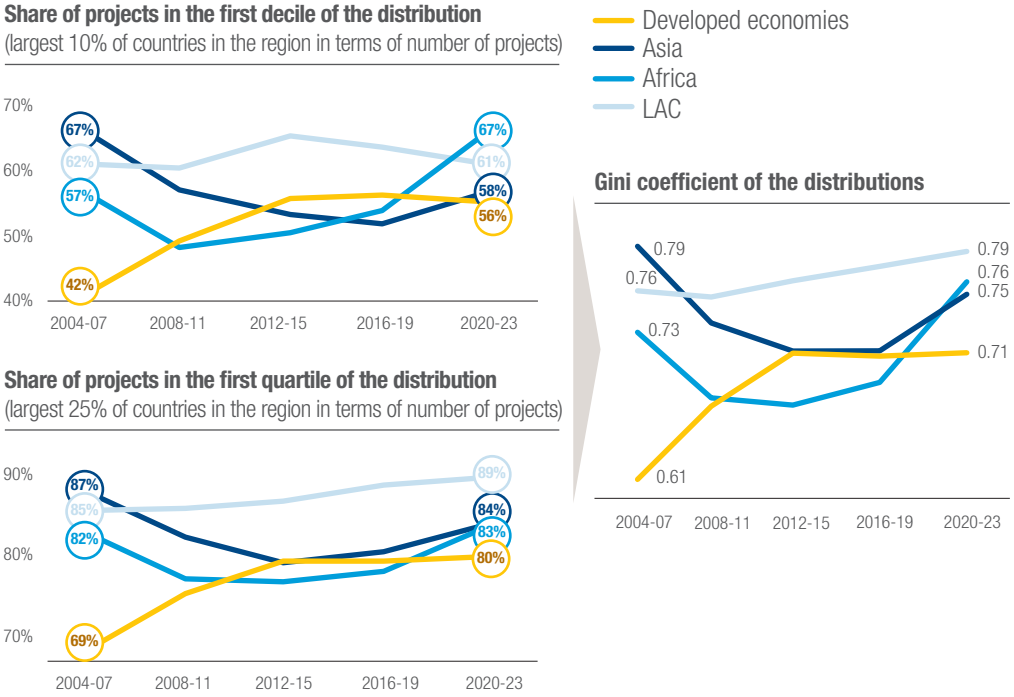
Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: LDCs: Least Developed Countries.

Exhibit 18

Greenfield investment is increasingly concentrated

Concentration analysis of cross-border greenfield projects across recipient countries in selected regions



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: LAC: Latin America and the Caribbean. Quantiles refer to the distribution of inward projects by recipient countries in the selected geographies.

in the previous decade towards greater inclusion (see also UNCTAD, 2023e).

Regrettably, the marginalisation of lower income developing countries and LDCs aligns with the broader trend towards increasing FDI concentration (exhibit 18). The dynamics of FDI concentration across regions is consistent with patterns in exhibit 17: a phase of decline was followed by a reversal towards higher concentration in the last decade. For instance, in Africa, the top ten percent of recipient countries accounted for 57 per cent of projects in 2000s, decreasing to 49 per cent by early 2010s before climbing back to 67 per cent in the last three years.

From a development perspective, the emerging narrative is particularly worrisome. While the geographic rebalancing away from China (trend #6) may benefit some developing regions, it primarily favours the largest economies in these regions. These are better positioned to compete with developed economies to attract investment in the fast-growing services sector (trend #2). Conversely, the decline in manufacturing investment (trend #3) leaves smaller countries increasingly marginalized, with a shrinking pool of efficiency-seeking, lower value-added projects that can support their industrial transformation and their efforts to integrate into GVCs (see also UNCTAD, 2023a).

Part IV

Conclusions and policy implications

The sectoral shifts and geographic rebalancing that are affecting global FDI patterns offer potential benefits mostly to larger developing economies equipped to compete for investment in the burgeoning services sector. Other developing countries face declining manufacturing investment and a shrinking pool of efficiency-seeking, lower value-added projects to leverage for GVC participation. Heightened uncertainty and fracturing are eroding the predictable and open global investment environment upon which they rely to effectively support their development objectives. This necessitates a re-evaluation of traditional strategies to harness FDI for inclusive and sustainable development.

This report has shown that the impact of relatively recent economic fracturing trends on GVCs and FDI cannot be seen as separate from longer-term structural trends in international production and, moreover, that aspects of these longer-term trends outweigh – at least for now – the effects of fracturing. The report has highlighted ten trends in global FDI with far-reaching consequences for international production patterns and for the GVC- and FDI-based development strategies of developing countries. Three important conclusions can be drawn:

First, the long-term stagnation of investment in GVCs and the sectoral shifts in investment patterns fundamentally alter the development paradigm based on promoting investment in manufacturing export-led growth. These shifts affect the prospects for developing countries to increase their GVC participation and to gradually upgrade to higher value-added industrial activities. The GVC development ladder – a concept developed by UNCTAD in WIR2013 – is becoming harder to climb.

Second, changes in the patterns of sources and destinations of investment due to global economic fracturing, de-risking, and resilience trends can bring opportunities for some countries, but are a challenge for most. They not only reinforce the effects of the long-term trends but also introduce new complexity into international production and increased uncertainty for both investors and investment policymakers as geopolitical considerations become more important FDI determinants.

Third, the continued marginalisation of countries at the lower echelons of the GVC development ladder, especially (but not exclusively) LDCs, coupled with decreasing windows of opportunity in typical GVC-intensive industrial activities, necessitates an intensified search by investment policymakers in these countries for investment promotion opportunities in industries that are less GVC-dependent or in which growth is driven by policy considerations other than those that drive the general trend in GVCs.

The following sections will briefly discuss each of these three areas in turn.

i. Re-examining the GVC development ladder

FDI has historically served as a primary channel for developing countries to increase their participation in GVCs. Through the attraction of FDI, they become part of international production networks governed by multinational enterprises through their foreign affiliates.

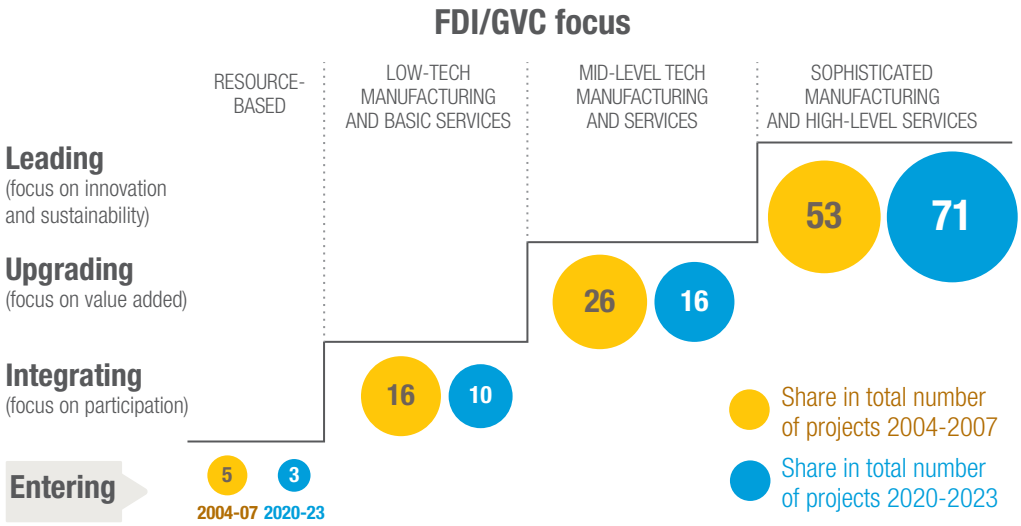
Although the benefits of participating in GVCs are by no means automatic (WIR2013), for policymakers in many developing economies increasing GVC involvement has constituted a pivotal element of their economic development strategies. They recognize that GVCs act as a route to market for export products and services. Production for exports directly generates value added and contributes to GDP, job creation, income generation, and tax revenues, among others. Longer term, the synergies between FDI and trade under the GVC coordinating framework can generate opportunities for industrial upgrading and increased domestic value added.

GVC development paths involve both gradually increasing participation and upgrading to higher value-added activities. Typical paths include steps expanding from commodities to processing and low value-added manufacturing, to higher value-added manufacturing and services, and then to knowledge-based services. In practice, GVC development paths are not smooth progressions along the participation and value-added dimensions. They are rather a sequence of steps akin to the gradual climbing of a GVC-development ladder: from limited participation in GVCs, often confined to upstream commodity supply, to full participation as producers of intermediate inputs, with upstream and downstream linkages; and upgrading from

Exhibit 19

The GVC development ladder is becoming harder to climb

Distribution of cross-border greenfield projects across stages of the GVC-development ladder, per cent



Source: UNCTAD, building on the concept developed in WIR2013 (pages 179-181); project shares based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Note: The classification of projects along the ladder is based on fDi Markets variables "Business Activity" and "Cluster" and Lall's technological classification (Lall, 2000; Sturgeon and Gereffi, 2009). Shares at the intermediate time interval 2012-2015 are the following: 3% ("Resource-based"); 12% ("Low-tech manufacturing and basic services"); 24% ("Mid-level tech manufacturing and services"); 61% ("Sophisticated manufacturing and high-level services").

low value-added GVC tasks to higher value-added activities (WIR2013).

Different types of FDI tend to support different stages of the GVC-development path in developing countries. They broadly range from resource-seeking, commodity-driven FDI at the bottom of the GVC-ladder to knowledge-based services FDI at the summit. Typically, the transition between these two extremes occurs via resource-based processing and efficiency-seeking manufacturing FDI characterized by increasing technological sophistication and diminishing reliance on low labour costs, coupled with an expanding presence of FDI in the services sector.

The trends outlined in this report are fundamentally reshaping FDI patterns along the GVC development ladder. In the 2000s, the distribution of cross-border greenfield projects was evenly split between the upper and lower echelons of the ladder. However, two decades later, in the 2020s, projects situated at the lower rungs of the GVC ladder constitute only a third of the total (exhibit 19).

This shift presents major policy challenges for developing countries, particularly for those at the early stages of their GVC-development journey. At the initial integration stage, the "entry door" to GVCs – mainly FDI in resource-related activities and in low value-added manufacturing – is narrowing. At the later upgrading stages, the steps towards engaging in higher value-added activities are becoming steeper. A shrinking pool of FDI in mid-level manufacturing and basic services exacerbates the challenges of climbing the GVC-ladder.

Lower-income developing countries typically lack the technological capacity and human capital to access FDI and GVC trade in higher value-added services.

The shifts in FDI patterns also present some areas of opportunity. The lower degrees of fragmentation of GVCs and the relative decline in the importance of efficiency-seeking FDI could lead to opportunities to attract more integrated (and hence higher value-added) market-seeking industrial activities. The growing importance of services FDI could provide some countries with opportunities to accelerate development through services offshoring activities. And the relative weakness of global value chains further accentuates the importance of regional value chains – which were already an important feature of international production (WIR2013). However, these opportunities will be mostly available only to few developing countries with larger markets and with the hard and soft infrastructure needed to capitalize on them.

The consolidation of regional value chains appears as a particularly attractive development opportunity. It potentially offers developing countries an avenue to diminish their exposure to global economic and geopolitical ties for access to capital, markets and technologies. Amid economic fracturing and uncertainty associated with FDI from major global investors, regional FDI can serve as a comparatively more secure source of investment. The growth of regional value chains can also stimulate the process of local development by fostering internal specialization within the region and by opening opportunities to structural transformation and value chain upgrading.

However, the regional value chain opportunity is not easy to capitalize on. Despite intensifying policy efforts to strengthen regional integration in international trade and investment, the growth in regional FDI has remained subdued over the last decade, outpaced by growth in investment between geopolitically close countries (exhibit 13). To ensure that policy initiatives aimed at regional integration translate into a substantial increase of intra-regional cross-border flows, policymakers need to consider the close links between trade and investment facilitation and effective investment provisions in regional free trade agreements (FTAs). They need to take into account the exigencies of modern cross-border value chains in such FTAs; facilitating data flows, payment systems, and digital trade are important elements in FTAs – as important for the purpose of promoting investment as the investment provisions per se (UNCTAD, 2020). And they need to consider options to build or strengthen the infrastructure required to enable the growth of regional trade and investment. This includes regional transportation links, but also regional industrial infrastructure, such as border industrial zones or shared special economic zones (SEZs), which can be instruments of regional industrial policies and hubs for the development of industrial clusters serving regional markets (see, for example, Karambakuwa et al., 2020).

To date, a focus on development through GVCs has led to export-led growth policies oriented towards global markets, industrialisation strategies focused on narrow value chain segments in which countries might have had a competitive advantage, and infrastructure developments dependent on large-scale industrial investment. The shift towards regional value chains relying on neighbouring markets, more integrated value chain activities and smaller-scale investments is likely to be a long-term process. Some regional economic cooperation initiatives, such as the Association of Southeast Asian Nations (ASEAN), are making significant progress in stimulating intra-regional trade and investment. However, despite significant policy efforts over several decades, regional FDI still accounts for only about 15 per cent of total FDI in the region.

Regional FDI in developing countries is more likely to involve small and medium-sized enterprises (SMEs) than large global MNEs. SMEs face significant challenges when they

attempt to establish operations overseas, and they are often overlooked by investment policies (UNCTAD, 2024). Most incentives are conditional on criteria that SMEs struggle to meet. And the performance of investment promotion agencies (IPAs) tends to be measured by indicators such as employment and export generation that lead them to focus on large-scale industrial investors. Business facilitation efforts, especially information provision, transparency of rules and regulations, and the streamlining of administrative procedures for businesses and investors, are relatively more important for SMEs than for large MNEs, which are more experienced in overseas operations and have the resources to engage professional services and advisors to guide them through the establishment process. Investment facilitation is thus part of the policy response to the long-term shifts in FDI patterns.

ii. Responding to global economic fracturing

Economic fracturing trends first and foremost reinforce the effects and policy implications of the longer-term structural international production trends that predate them. The main additional strategic responses for MNEs to global economic fracturing and to the vulnerabilities exposed by supply chain disruptions include reshoring and supply chain diversification. The latter can present opportunities for developing countries to attract industrial investment by becoming alternative or complementary manufacturing hubs. However, capitalizing on this opportunity is not automatic and may be possible only for a select group of economies. In addition to maintaining low-risk political relationships with major investor countries, it presumes that several prerequisites for attracting the relevant industrial investment are in place. Most importantly, these include the infrastructure connections needed to effectively operate in global and regional supply chains, and the market access through trade agreements and memberships in economic blocs that can make a country a strategic location for manufacturers looking to serve global as well as regional markets (UNCTAD, 2023b).

The evidence presented in this report suggests that investment location decisions based on geopolitical alignments, including for the purpose of supply chain diversification, have already become an important feature of FDI in recent years. Locations that have successfully attracted industrial activity to service large developed markets include the ASEAN region, some countries in West Asia and North Africa, such as Morocco, which enjoys easy access to European Union markets, and Mexico, which is attracting manufacturing activity to serve the United States market (including in response to new industrial policy measures favouring sourcing from USCMA countries).[15]

The success of these locations in benefiting from supply chain diversification trends can be attributed to several factors beyond strengths in infrastructure and market access. They offer a skilled and relatively low-cost workforce, a stable environment with business-friendly regulatory frameworks for attracting foreign investment, and efficient customs. They make significant policy efforts to attract FDI and offer SEZs to facilitate operations for industrial investors.

Further policy efforts that will become increasingly important to attract supply chain diversification investments include investing in the development of local suppliers and supporting industries to enhance the competitiveness of a country as a manufacturing location and, especially, enabling and facilitating sustainable industrial operations, increasingly a prerequisite to access developed markets – particularly the European Union. This can include both hard and soft sustainability infrastructure development, such as investing in green energy generation and promoting sustainability reporting and climate disclosure.

Finally, as shown in this report, fracturing has increased the uncertainty and instability of investment relationships. Industrial and

investment policymakers should therefore consider options to maintain a level of flexibility in both the policy instruments and infrastructure they develop for the attraction of FDI. The risks associated with large-scale single-purpose industrial infrastructure developments are higher than before.

iii. Reducing vulnerability to GVC volatility

The most direct way for investment policymakers and promoters to mitigate the effects of shifts in GVC investment patterns and the decline of FDI across most manufacturing sectors is to focus on exceptions to the general trend and on industries and activities that are less vulnerable to the whims of global value chain movements.

One of the reasons why environmental technology sectors are not affected by the general stagnation in manufacturing FDI (exhibit 14) is that its growth is driven by policy considerations that override the factors hindering GVC expansion. The sustainability imperative and the drive to stimulate investment in the SDGs point to a broader set of investment promotion opportunities for industrial development. For example, the local production of pharmaceuticals is gaining increased attention from policymakers in developing countries and from special economic zone authorities aiming to stimulate cluster development with the involvement of both international producers and local SMEs to service local and regional markets. The drivers of growth are health policy considerations rather than international production logic, potentially making the activity relatively immune to the general trend (UNCTAD, 2023g).

Finally, it should be noted that SDG investment, apart from specific industry needs as in the case of pharmaceuticals, is mostly infrastructure investment, for example in transportation, power generation, renewable energy, or water and sanitation. The majority of international (cross-border) SDG investment takes place through project finance (analysed in depth in UNCTAD's World Investment Reports and SDG Investment Trends Monitors; Viné et al., 2022). International project finance has not displayed the same long-term trends observed in GVCs; it has grown substantially during the last two decades. While it is affected by fracturing trends – to some extent it is being used as an instrument to strengthen political alignments – it is less susceptible to the uncertainty and instability caused by fracturing in more mobile manufacturing activities. For investment policymakers and promotion agencies, project finance may not bring all the same industrial transformation benefits as greenfield projects, but a greater focus on developing infrastructure investment can nevertheless support both inward investment growth and sustainable development.

Notes

1 The annual time series of the number of global greenfield projects and that of the underlying FDI trend show a strong positive correlation (R-squared value equal to 65 per cent in the logarithmic scale).
2 For example, a foreign research and development (R&D) operation or a regional headquarter set up by a multinational automotive manufacturer. This report generally refers to these operations as services activities (within manufacturing industries).
3 Servitisation refers to increasing content of services in manufacturing processes, products and value added. Servicification, often used as a synonym, is a broader concept and refers generically to the increase in the role of services in manufacturing. It encompasses servitisation and the outsourcing of tasks by lead firms, often multinational enterprises, to third-party service providers (Kim et al., 2022).
4 For infrastructure investment, the decline in greenfield project announcements is compensated by a rise in international project finance, which includes an important debt component. It is less closely associated with international production and hence not included in the analysis in this report.
5 This component amounts to about a quarter of total investment in non-service activities. For simplicity, unless the context requires otherwise, the narrative in this report will refer to "manufacturing" as the complementary set of "services", comprised of all non-services activities. The main findings apply equally when considering manufacturing separately. In all exhibits, for analytical transparency and replicability, the set of manufacturing activities and other non-service activities will be conventionally denoted as "Manufacturing+".
6 Notwithstanding the statistical differences between FDI data and cross-border greenfield data (box 1), revisiting the underlying FDI trend in exhibit 1 from a sectoral perspective (exhibit 4) provides a more nuanced interpretation of trend #1. The growth observed in the 2000s ultimately stemmed from a strong expansion in services, balancing the early slowdown of manufacturing. As services decelerated in the 2010s, the underlying FDI trend entered the prolonged period of stagnation characterizing trend #1.
7 In this context, the term "deglobalisation" should not be interpreted (in stock terms) as a plain loss of international productive assets in manufacturing. It is meant instead as the slower growth of international productive assets in manufacturing relative to domestic assets due to a slowdown in FDI projects.
8 The decline in reported project announcements in China may be overestimated. Projects considered sizeable in other countries may be relatively insignificant in China and fail to appear in public reports that are the source of fDi Markets data.
9 MOFCOM refers to the Ministry of Commerce of the People's Republic of China, which provides official statistics and data on foreign direct investment in China.
10 In probabilistic terms, the investment process displays a *non-ergodic* behaviour.
11 The method utilized in this analysis (exhibits 12 and 13) to categorize countries into groups based on geopolitical alignment relies on the Ideal Points measure developed by Bailey et al. (2017). This measure, which is derived from voting patterns in United Nations resolutions, has previously been employed in analyses of economic fracturing by both the IMF (IMF, 2023) and UNCTAD (UNCTAD, 2023f). By examining the relative positions of the Ideal Points of investment partners, bilateral investment links are classified into three categories: "between geopolitically close", "between geopolitically distant", or "between neutral" countries. The findings presented in exhibits 12 and 13 remain robust when using alternative definitions of geopolitical groupings, such as for example the groupings employed by IMF (2023) (also based on Ideal Points) and the geopolitical groupings provided by the economic research consultancy Capital Economics.
12 The findings of the analysis also hold when excluding China, which provides reassurance that the trend is not driven by the declining share of China as a greenfield project recipient (trend #6).
13 The approach used to the geopolitical grouping (endnote 11) allows for a third grouping of investment links "between neutral countries".
14 The shares of LDCs in the global number of greenfield projects may present some differences from the corresponding shares in FDI inflows. This is due to the effects on total FDI inflows (the denominator of the ratio) of highly volatile FDI components not linked to greenfield investment, such as FDI through offshore financial centers and large M&A deals (see also box 1). Nevertheless, the two sets of data representing respectively FDI inflows to LDCs and greenfield project numbers in LDCs are positively correlated at the destination country-year level.
15 Notably, the 2022 Inflation Reduction Act includes provisions that make some of the investment benefits conditional on production in and sourcing from USCMA (United States-Mexico-Canada Agreement) markets.

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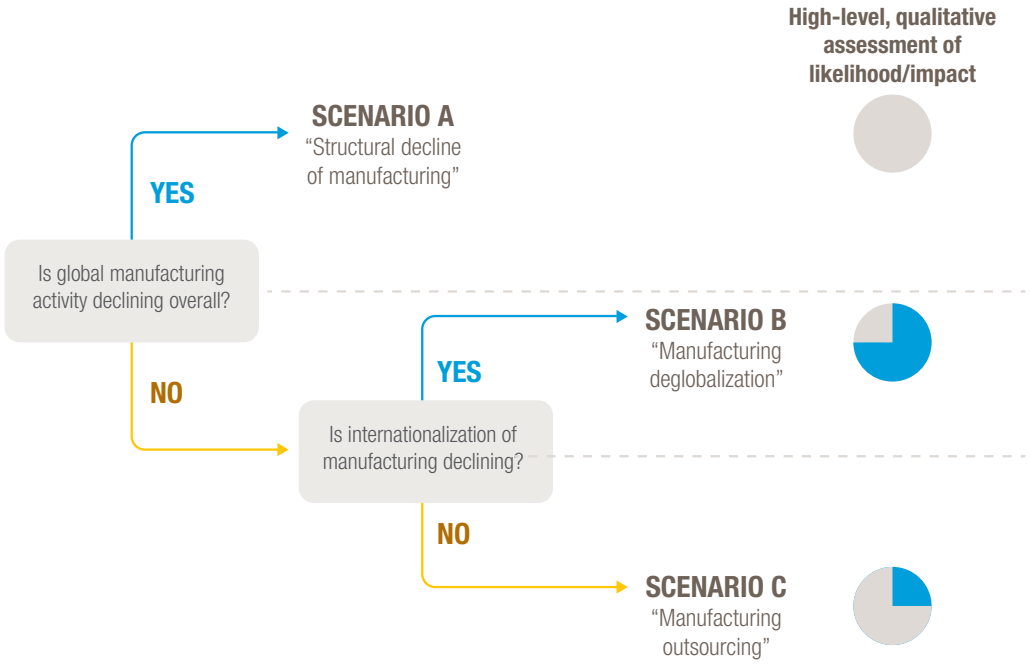
Appendix. Is manufacturing deglobalising? Complementary evidence from other macroeconomic indicators

Tracker

What is behind the decline in greenfield FDI in manufacturing? An interpretative framework



Source: UNCTAD.

The historical stagnation and recent decline in greenfield projects in manufacturing activities over the past two decades (exhibit 4) prompt inquiry into whether there is a decline in output or investment across the entire manufacturing sector globally (tracker, scenario A).

SCENARIO A. Exhibit A1 shows a major decrease in the global share of manufacturing value added from 1970 to 2000. However, since the 2000s, approximately in concomitance with the observation period of this report, this decline has halted. Global manufacturing value added as a share of GDP has since stabilized, consistently hovering around 20 per cent.[1]

The trend of gross fixed capital formation

1 As customary in the literature (e.g. Subramanian et al., 2021), the share is computed using the ratio of manufacturing value added and GDP at current prices. The stylized fact of a constant share of manufacturing value added to GDP over the last two decades does not change if manufacturing value added and GDP at constant prices are used in the analysis.

(GFCF) also does not support the hypothesis of a long-term decline in manufacturing capital accumulation globally in the last two decades. Both the time series of total gross fixed capital formation and manufacturing gross fixed capital formation as shares of GDP – the latter extrapolated from data on OECD countries – exhibit relatively flat or growing trajectories (exhibit A2).

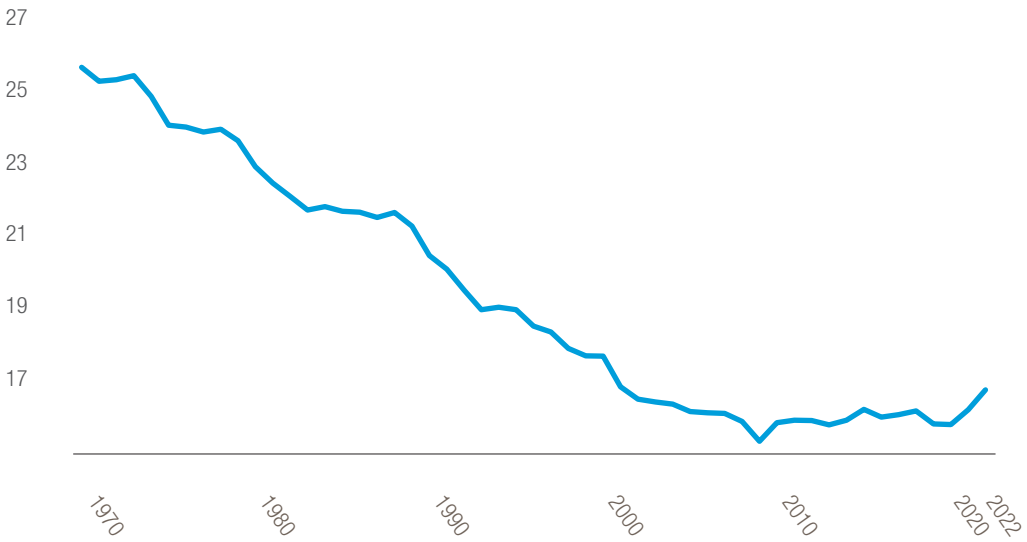
Hence, macro-level evidence from GDP and GFCF statistics does not substantiate the hypothesis of a structural decline in global manufacturing as a main factor underlying the weakness of manufacturing FDI.

In this context, the trend observed in manufacturing FDI may indicate a decrease in the international component of manufacturing relative to total manufacturing activity. This scenario aligns with the hypothesis of a deglobalisation of manufacturing (tracker, scenario B).

Exhibit A1

Weight of manufacturing relatively stable over the past two decades

Global manufacturing value added as a share of GDP, per cent



Source: UNCTAD.

Note: Manufacturing value added is defined as the sum of all intermediate production steps contributing to final output, classified according to the ISIC Rev. 4 section C. Manufacturing value-added and GDP at current prices (see footnote 1).

SCENARIO B. GVC analysis offers compelling supplementary evidence to explore this scenario. Global participation in GVCs is quantified by the proportion of foreign value added embedded in gross exports. Until the 2008 financial crisis, GVC participation in global value chains increased consistently in both manufacturing and services (exhibit A3). However, since then, there has been a contraction in participation in manufacturing global value chains. In contrast, services GVCs have continued to expand.

Although based on metrics that are not directly comparable, the trends observed in manufacturing GVCs (exhibit A3) align with those of manufacturing FDI (exhibit 4), reinforcing the scenario

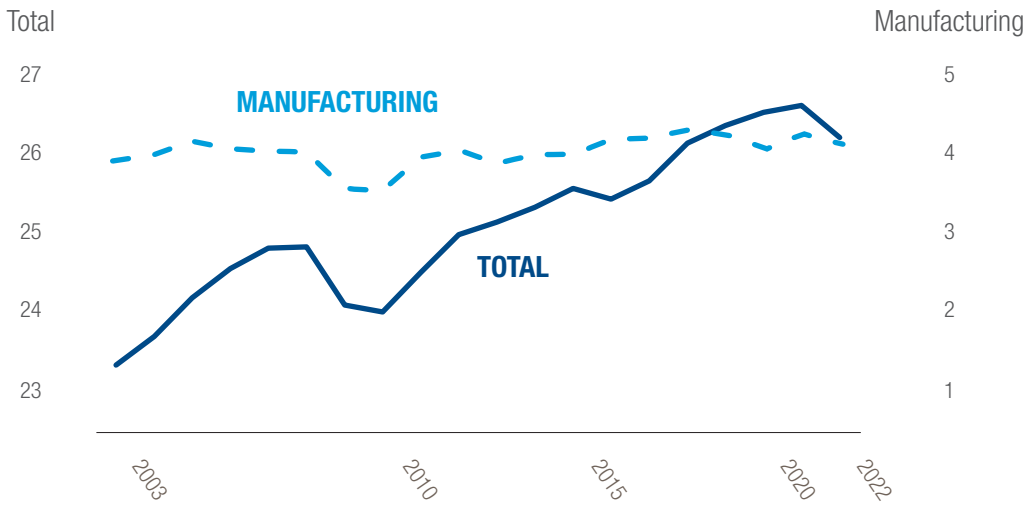
of deglobalisation in manufacturing. As global manufacturing transitions towards more localized operations, MNEs reduce their offshore investment and their (intra-firm) trade of intermediate inputs between these investments – a significant component of GVC trade. This overarching scenario reflects a restructuring of GVCs towards simpler and less fragmented structures, driven by the pursuit of security and resilience.

Finally, a decline in international production through FDI can also result from the increased adoption of alternative governance modes, such as non-equity modes of international production, including contract manufacturing, third-party outsourcing or franchising. In this scenario, while manufacturing international production may not be diminishing, its governance model relies less on FDI (tracker, scenario C).

Exhibit A2

Overall investment not declining relative to GDP

Global gross fixed capital formation as a share of GDP, per cent



Source: UNCTAD, based on OECD Annual National Accounts and IMF World Economic Outlook.

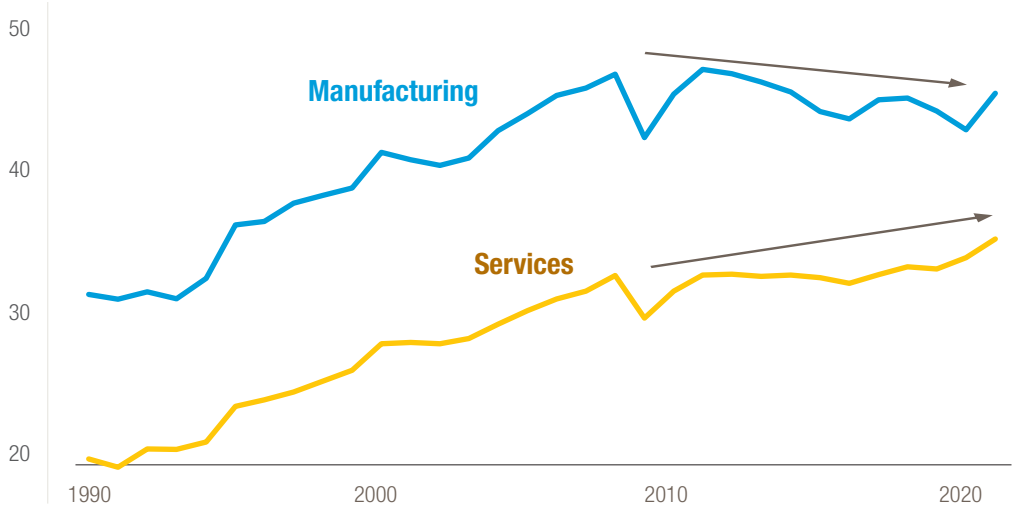
Note: For the manufacturing sector, the trend line of gross fixed capital formation as a share of GDP has been derived from OECD countries only (dotted line). This indicator reflects the purchase of fixed assets employed in the manufacturing industry, according to the ISIC Rev. 3 classification.

SCENARIO C. This scenario is at best assessed residual due to the unavailability of relevant data to directly test it, i.e. the reduction in cross-border manufacturing investment that is not explained by the deglobalization scenario can be attributed to changes in the governance mode of international production, moving away from FDI towards non-equity methods. The prolonged stagnation and subsequent fall in manufacturing FDI, compared to the relatively modest and recent decline in manufacturing GVCs resulting from exhibit A3, suggest that this scenario is somewhat contributing, reinforcing the negative effects of the deglobalisation scenario (B) on FDI trends.

Exhibit A3

Manufacturing less GVC-intensive over the last decade

Foreign value added as a share of gross export, per cent



Source: UNCTAD, based on Eora26 database and Asian Development Bank (ADB) input-output tables.

Note: The share of foreign value added in exports is based on the UNCTAD-Eora GVC database (Casella et al., 2019). The value for 2021 has been estimated on ADB input-output tables based on the methodology of Borin et al. (2021).