

FDI in critical infrastructure

Supporting EMDEs in attracting more, better and safe FDI

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Key issues

- EMDEs need more FDI to rebuild, strengthen their resilience and prepare for the challenges ahead. The qualities of FDI play a critical role in transferring the particular benefits of FDI to host societies.
- Some FDI, especially foreign State-backed FDI in critical infrastructure can have economic security implications. New OECD data shows that a sizable share of FDI in critical infrastructure is carried out by foreign State-backed entities, often bundled with financing and implementation also entrusted to State-backed entities. Many EMDEs currently do not have policies in place to identify or manage these implications.
- The G7 has set out to assist EMDEs in developing better policies to attract more, better, and safe FDI.

Revitalising economies after the succession of recent crises, strengthening their resilience, adjusting them to address the climate crisis, and achieving the Sustainable Development Goals require international co-operation and better policies. Better policies are needed specifically with respect to foreign direct investment (FDI), which can address part of the large financing gap that emerging market and developing economies (EMDEs) experience. The positive spill-over effects of FDI that are documented by OECD work on FDI Qualities make FDI a particularly valuable source of financing for EMDEs.

While FDI is an important funding source especially for countries that lack sufficient capital domestically, some FDI may have security implications that are often overlooked and eclipsed by prospects of new infrastructure – especially in many EMDEs where infrastructure is poor and choices of funding are limited. Seemingly attractive foreign State-backed investment in critical infrastructure can undermine security interests and economic and strategic independence today or in future scenarios: It can create dependencies and compromise network confidentiality and integrity. Economies in which foreign State-funded FDI in critical infrastructure is prevalent may also become less attractive destinations of foreign private capital if access to infrastructure is assessed as unreliable and its integrity questionable, and if governments are known to be indebted – literally and figuratively – to third countries' governments.

While G7 economies and indeed most advanced economies have established policies to manage security implications of FDI, especially foreign-State backed FDI and FDI in critical infrastructure, many EMDEs have not yet put in place comparable policies, and some have yet to develop a fuller understanding about the risks that foreign State-backed investment may entail.

The G7 has set out to assist EMDEs in developing better policies to attract more, better and safe FDI to fund their sustainable development, enhance their resilience and generate inclusive growth. It has tasked the OECD to contribute evidence and analysis that would help G7 members develop a work programme to assist EMDEs in this endeavour. This note by the OECD Secretariat sets out evidence that could guide the G7 in their reflection on how EMDEs could be best supported in attracting more, better and safe FDI.

Emerging market and developing economies urgently need large volumes of FDI to fund infrastructure development

The recent successive global crises have disproportionately affected EMDEs' path to prosperity and sustainable development. EMDEs are also the least resilient to future shocks, and insufficiently prepared for a swift adaption and transformation to address the climate crisis. One of their main challenges is access to financial resources: The financing gap to reach the Sustainable Development Goals (SDGs) has widened to USD 3.9 trillion annually since the beginning of the COVID-19 pandemic and is estimated to increase by USD 400 billion per year between 2020 and 2025 (OECD, 2022, p. 4^[1]).

FDI is a particularly valuable source of financing for EMDEs, because FDI is associated with benefits such as transfer of technology and management practices (OECD, 2022^[2]). [OECD work on FDI Qualities](#) documents that since 2021 greenfield FDI created more than 160 000 new direct jobs every month worldwide and accounts for around 30% of all new investment in renewable energy. Foreign firms are known to be more productive, pay higher wages and offer women greater opportunities for career advancement than domestic firms. Foreign firms investing in non-OECD economies are also over 50% more likely to offer training opportunities than their domestic counterparts, 60% more likely to invest in research and development, and more than twice as likely to incorporate climate change issues in their strategic objectives than domestic firms. Greater performance and innovation by foreign investors suggest that there is a potential for knowledge spill overs, although this depends on the absorptive capacities of the host economy, particularly of domestic SMEs. For FDI to play a catalytic role in these various dimensions of great importance to the Sustainable Development Goals, greater attention needs to be paid to the qualities of FDI.

At present, EMDEs do not receive near as much FDI as they need. FDI flows to EMDEs were already on a downward trajectory in the decade leading up to the COVID-19 crisis. The overall momentum observed in 2021 was uneven and weakened in 2022.¹ Africa experienced a decline of FDI inflows since 2017 (AUC/OECD, 2022^[3]) and FDI shrank by a further 8% in 2020, leaving the African continent's share of global FDI at its lowest level since 2004 (OECD, 2022^[1]). The decline of FDI to EMDEs affected particularly greenfield investment, with announced project numbers in this group of economies [dropping by 40%](#) during the pandemic. Despite rebounds in the number of announced projects in 2021 and 2022, greenfield investment activity for EMDEs overall remained below pre-pandemic levels.²

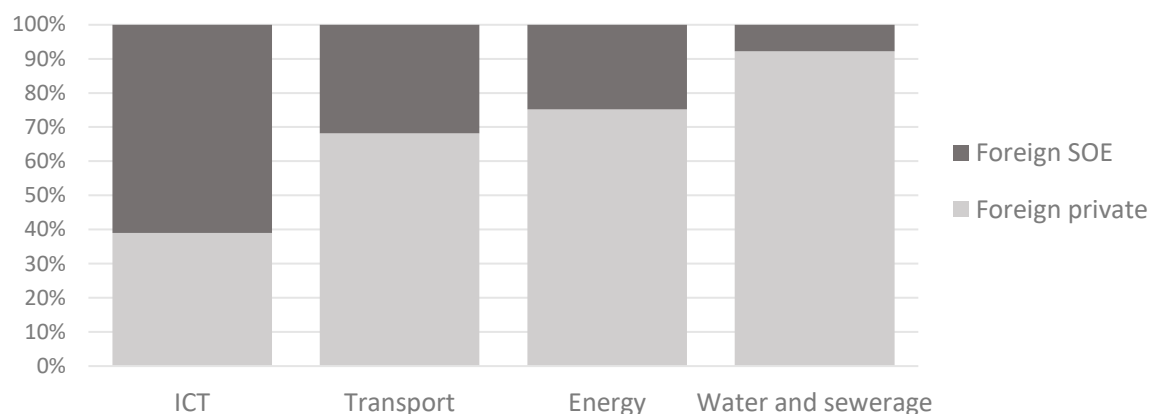
A sizable share of FDI in critical infrastructure is backed by foreign States

Attracting private investment in infrastructure is particularly difficult due to long-term and complex risks associated with such investment (OECD, 2023^[4]). The shortage of investment that many EMDEs experience in this sector makes FDI of any origin particularly attractive and may limit attention to mid- and long-term implications that come with some FDI, especially foreign State-backed FDI. State-backed investors, often State-owned enterprises (SOEs), receive direct or indirect financial, political, or diplomatic support from their home governments and may pursue not just economic motives on behalf of their home governments.

State-backed FDI has grown significantly and now constitutes a sizable share of FDI in infrastructure in EMDEs. New OECD evidence about State-backed FDI in infrastructure and in particular 'critical infrastructure' – assets whose disruption has severe consequences on socio-economic well-being and public safety, including national security (OECD, 2019^[5]) – in 67 Asian and African EMDEs³ documents that SOEs represent the majority of investors in some EMDEs' critical infrastructure.

Investment in Africa and South/Southeast Asia by State-owned enterprises over the past 30 years represents more than 40% of such FDI by volume overall, with a particularly high share of 60% in information- and telecommunications infrastructure (Figure 1).

Figure 1. Foreign investment commitments in public infrastructure in Africa and South/Southeast Asia (percent of total, 1990-2021): Ownership of main sponsor

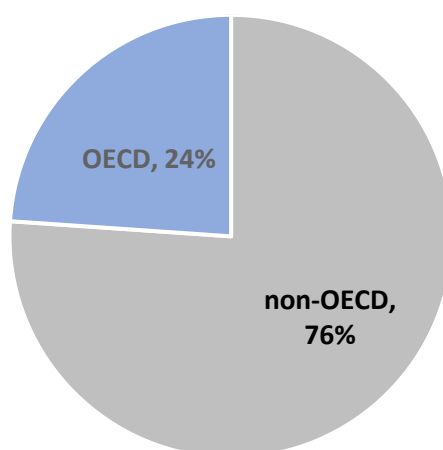


Note: Aggregate infrastructure investment in Africa and South/Southeast Asia. The World Bank PPI database tracks contractual arrangements for public infrastructure projects that have reached financial closure, in which private parties (including foreign SOEs) assume operating risks. Cancelled and distressed projects removed. Projects domestically sponsored were removed. Foreign sponsorship and ownership type coded based on location of the sponsor's headquarters. Final sample of 1 232 projects.

Source: OECD based on World Bank PPI Database.

Most of these SOEs originate in jurisdictions that have not adhered to market principles or internationally agreed policy disciplines (e.g. OECD Anti-Bribery Convention, Guidelines for Multinational Enterprises on Responsible Business Conduct, OECD Arrangement on Officially Supported Export Credits) (Figure 2).

Figure 2. Investment commitments in public infrastructure by foreign SOEs in Africa and South/Southeast Asia (percent of total, 1990-2021): Origin of SOE sponsor



Note: Aggregate infrastructure investment in Africa and South and Southeast Asia. The World Bank PPI database tracks contractual arrangements for public infrastructure projects that have reached financial closure, in which private parties (including foreign SOEs) assume operating risks. Only energy, ICT, transport, water, and waste are included. Cancelled and distressed projects removed. Projects domestically sponsored were removed, with foreign sponsorship and ownership type coded based on location of the sponsor's headquarters. Final sample of 226 projects.

Source: OECD based on World Bank PPI Database.

A further characteristic of State-backed FDI in critical infrastructure is that financing, construction, and operation are frequently also entrusted to foreign State-owned entities of the same origin as the investor. Infrastructure projects are often financed by official lending through State-owned banks on terms that do not qualify them as official development assistance (ODA). Project implementation and construction is also frequently carried out by SOEs: For example, between 2000 and 2017, Chinese entities were involved in the implementation or construction of 90% of Chinese official loan commitments in critical infrastructure in Africa and South/Southeast Asia.⁴

Qualitative analysis of individual investment projects in sensitive infrastructure corroborates findings suggested by aggregate data. Project-level analysis carried out by the OECD on submarine communications cables, 5G networks and data centres, on electricity grids and nuclear energy generation, and on seaports in EMDEs all point to the strong involvement of State-backed investors in critical infrastructure, frequently associated with funding and construction arrangements.

Project characteristics of submarine communications cables, which carry 99% of transoceanic internet traffic, show a significant involvement of State-backed investors, suppliers, and funders. In one case, the landing point is located in a port under foreign control and built and financed by State-backed entities of the same nationality.

Similar observations were made in power generation and electricity grid projects in EMDEs in South/Southeast Asia and Africa. For example, new projects for nuclear power generation in these regions that were not domestically designed were overwhelmingly carried out by State-owned entities from only two countries. One of the projects that was studied involved the construction of two nuclear power plants by foreign State-owned companies. The construction is financed by a State bank from the same country under terms outside those recommended by the [OECD Arrangement on Officially Supported Export Credits](#) and secured with sovereign guarantees.

Case studies of foreign State-backed FDI in electricity grids show similar characteristics. In one case under study, a government entrusted the operation of the country's electricity grid through a 25-year concession to a joint venture in which a foreign SOE holds a significant stake. Security relations between the involved countries subsequently deteriorated over unrelated matters.

The case studies carried out by the OECD underline that foreign State-backed investment may generate economic or technological dependencies on investors and the associated foreign States that could lead to leverage over host-governments and exposure to other risk.

EMDEs have limited instruments to manage security implications of FDI

Many advanced economies have responded to the rise of foreign State-backed investment and security implications in a degraded geopolitical and geo-economic context with [adjustments to their policies](#) to manage security implications of FDI. Investment policies in place in EMDEs mostly lack comparable instruments that would allow governments to identify and address security implications of foreign State-backed investment in critical infrastructure.

Limited options to obtain FDI and the size of the funding shortfall currently make any source of FDI appear attractive to many EMDEs. Support for better policies that would allow them to attract more and beneficial FDI from safe sources would help these governments address current capital scarcity while managing security implications.

Such better policies would be beneficial beyond EMDEs. To the extent that G7 economies, other advanced economies, and the global economy depend on the availability and integrity of critical infrastructure located in EMDEs, a path to more, better, and safe investment, particularly in critical infrastructure in EMDEs is in the interest of all. Indeed, infrastructure has characteristics of global public goods: Its integrity and

availability to market participants is a condition for prosperity and the global economy beyond the jurisdiction where it is located. Advanced economies and EMDEs have a shared interest that critical infrastructure is being built, that its integrity can be trusted, and that it remains available to all potential users.

What can advanced economies do to support EMDEs in attracting more, better, and safe FDI and what can the OECD contribute?

Advanced economies could assist the OECD to support EMDEs in promoting policies to attract more, better, and safe FDI, based on a work plan that the OECD could develop later in 2023. The strategy could help EMDEs on:

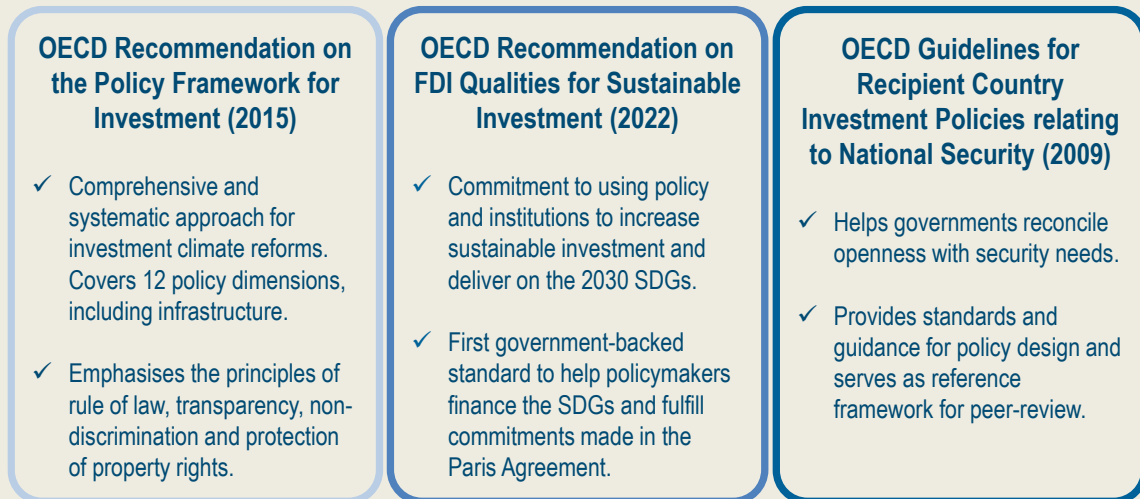
- how to attract more and better FDI to advance their development interests by applying the OECD Policy Framework for Investment and the FDI Qualities Policy Toolkit
- how to develop and implement effective risk management policies that respect the principles of non-discrimination, transparency, predictability, proportionality, and accountability.

Advanced economies could draw on the OECD to deliver or support this effort and thus leverage the policy disciplines and evidence-based policy guidance that the OECD has developed to foster better investment policies. These disciplines, recommendations and guidance are valid beyond OECD countries. Recent updates and additions to the rules and recommendations – for example the [Recommendation of the Council on Foreign Direct Investment Qualities for Sustainable Development](#) and the 2009 [Guidelines for Recipient Country Investment Policies relating to National Security](#) – as well as OECD work with EMDEs in the context of [investment policy reviews](#) constitute a solid, evidence based foundation on which specific work related to security aspects of FDI can build.

Current OECD work with EMDEs to help them attract more, better and safe FDI

The OECD supports EMDEs in their efforts to enhance the positive impact of FDI and to manage security implications that may arise in the context of international investment. This support leverages the OECD's standards, indicators, tools, and guidance that many governments already rely on to undertake reforms.

Figure 3. OECD standards to support governments attracting more, better, and safe FDI



Support investment climate reforms through the Policy Framework for Investment: Investment Policy Reviews (IPRs) have been used by almost 40 countries at varying levels of development and on all continents to assess investment and business climates and to design and implement corresponding reforms. IPRs use the OECD Policy Framework for Investment, which takes a deep, comprehensive and whole of-government approach to investment climate reform. IPRs may lead to a subsequent adherence to the OECD Declaration on International Investment and Multinational Enterprises. Bangladesh, Mauritius, Morocco, Indonesia, and Thailand recently finalised or currently carry out IPRs.

Help governments mobilise investment to meet the SDGs through the FDI Qualities Initiative: The FDI Qualities initiative provides governments with policies, data, and expertise to encourage sustainable investment that is greener, promotes quality jobs and upskilling, improves gender equality, and contributes to a more productive and innovative economy. This support is backed by the FDI Qualities Policy Toolkit and the Recommendation on FDI Qualities for Sustainable Development – the first multilateral standard that puts forward a set of policy principles to enhance the contribution of FDI to sustainable development. Over 50 countries have adhered to this standard. Canada, Chile, Ireland, Jordan, Tunisia, and Viet Nam have recently completed or are currently carrying out FDI Qualities Reviews.

Integrate reflections on security implications in investment policy advice: In 2009 Guidelines for Recipient Country Investment Policies relating to National Security were adopted. These Guidelines enshrine good policy principles for the design and implementation of security-related investment policies. Experts meetings in 2021 and 2022 on implementation experience and ongoing documentation of policy trends support governments adopt best practices. EMDEs do not currently enjoy access to a community from which they can draw guidance on options to open further to beneficial FDI while managing security implications. The OECD Secretariat is working with some EMDEs – efforts that could be expanded to other interested economies.

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Notes

¹ Available data for the first nine months of 2022 indicate a drop of 16% compared to the first nine months of 2021. See OECD [FDI in Figures - April 2023](#) for latest trends in global FDI.

² Source: FT fDI Markets database, OECD calculations.

³ The list of countries considered includes: Algeria; Angola; Bangladesh; Benin; Botswana; Brunei Darussalam; Burundi; Cabo Verde; Cambodia; Cameroon; Central African Republic; Chad; Comoros; Congo; Cote d'Ivoire; Democratic Republic of the Congo; Djibouti; Egypt; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; India; Indonesia; Kenya; Lao People's Democratic Republic; Lesotho; Liberia; Libya; Madagascar; Malawi; Malaysia; Maldives; Mali; Mauritania; Mauritius; Morocco; Mozambique; Myanmar; Namibia; Niger; Nigeria; Pakistan; Philippines; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; South Sudan; Sri Lanka; Sudan; Tanzania; Thailand; Togo; Tunisia; Uganda; Viet Nam; Zambia; and Zimbabwe.

⁴ OECD based on Aiddata's Global Chinese Development Finance Dataset. Loan and export credit commitments by Chinese authorities or state-owned entities (grants excluded). Suspended and cancelled commitments removed. Data was coded if the loan was disbursed for critical infrastructure projects specifically. Sample: 1 034 loans.

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