MENON ECONOMICS

REPORT

NORWEGIAN FDI IN DEVELOPING COUNTRIES

Foto: Scatec

MENON PUBLICATION NO. 168/2024

By Per Fredrik Johnsen, Odin Dager Moe, Live Nerdrum, Jonas Erraia and Torfinn Harding

Preface

On behalf of Norad (Norwegian Agency for Development Cooperation) and NHO (the Confederation of Norwegian Enterprise), Menon Economics has analysed Norwegian foreign direct investment in developing countries. This analysis consists of a literature review, a detailed empirical analysis of Norwegian FDI, as well as a chapter on the reasons and barriers to investing in developing countries.

Jonas Erraia has been the project owner, while Per Fredrik Johnsen has been the project leader. Live Nerdrum and Odin Dager Moe have been project members. We thank Torfinn Harding for acting as subject matter expert and for having quality assured the report.

Menon analyses economic issues and provides advice to companies, organisations, and authorities. We combine economic and commercial expertise in fields such as industrial organisation and competitive economy, strategy, finance, organisational design, and social profitability. We use research-based methods in our analyses and work closely with leading academics in our field.

We would like to thank Norad and NHO for an exciting project. We would also like to thank everyone who has contributed through interviews and with discussions, data, and valuable input during the process. The authors are responsible for all content in this report.

_____

December 2024

Jonas Erraia
Project owner
Menon Economics

_____

December 2024

Per Fredrik Johnsen
Project leader
Menon Economics

Content

Summary

This report provides insights into Norwegian foreign direct investment (FDI) in developing countries. We examine the potential impact of FDI through a literature review. Additionally, we dive into the composition and development of Norwegian FDI over time. Furthermore, we use survey and interview data to highlight the main reasons Norwegian businesses invest in developing countries, as well as the barriers that currently limit their investments. Finally, we discuss public policy initiatives that could mobilise more investment from Norwegian businesses directed towards developing countries.

Foreign direct investment (FDI) involves a foreign investor making an investments in a company within a host country, which provide significant ownership influence. "Significant" is often defined by a threshold of 10 percent ownership. FDI includes investments in subsidiaries, reinvested earnings, and intra-company loans, encompassing a variety of activities such as establishing new companies (greenfield investments) or acquiring existing ones (brownfield investments). FDI can be measured both as the flow of FDI and as the stock of FDI. Both metrics are potentially important; the flow highlights shifts in investment dynamics, while the stock reveals the overall capital accumulation and long-term economic impact.

The report is based on a variety of data sources, including statistics from various international and Norwegian statistical offices, a survey conducted among all NHO members, and interviews with Norwegian companies that either currently have a presence in developing countries or are considered potentially relevant for establishing a presence there. Collectively, this information provides insights into the development of FDI over time, as well as the opportunities Norwegian companies perceive in developing countries and the barriers that prevent them from seizing these opportunities.

Litterature review

In the literature review, three main questions are examined:

1. How does FDI affect economic growth?
2. What factors drive FDI, including how this varies with countries' attributes?
3. How can governments stimulate FDI?

The relationship between FDI and economic growth is complex, characterised by mutual influence and methodological challenges in isolating their effects. FDI is generally seen as a catalyst for growth through both direct corporate investments and broader economic spillovers. However, results vary significantly due to the intricate dynamics involved. Evidence broadly suggests positive spillover effects, though these are contingent on factors such as the host country's level of development. Key influencing factors include human capital, financial institutions, and technological disparities between countries, with spillovers exhibiting a non-linear relationship based on a country's development stage. The motivations behind FDI also shape its impact, particularly in relation to local firms and competition (see Box 1). The literature review further examines FDI's influence on greenhouse gas emissions, presenting contrasting theories on pollution havens and halos, accompanied by mixed empirical results.

Box 1: The three main motivations behind FDI

Broadly speaking, there are three main reasons behind FDI (Caon, 2020):

- **Market-seeking:** a company looks to invest in a location due to its market size and growth potential.
- **Efficiency-seeking:** a company looks to invest in a location due to lower costs, better production processes etc. in the host country.
- **Resource-seeking:** a company looks to invest in a location due to its natural resources. This type of FDI is particularly prevalent in energy, mining and agrifood industries.

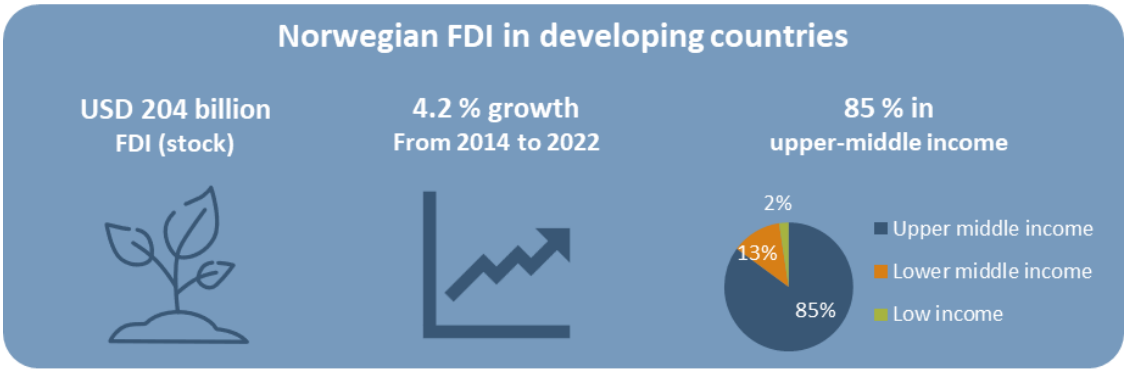
The literature identifies that countries attracting FDI typically have large market sizes, strong liquidity, industrial agglomeration, good infrastructure, educated populations, and cultural or linguistic proximity. Negative factors include high salaries, corruption, high taxes, and political risk. Studies by Tocar (2018) and Blonigen & Piger (2014) emphasise the importance of economic size, geographical proximity, and cultural factors in predicting FDI, while factors like trade openness and host country infrastructure are less influential.

The literature underscores a lack of consensus regarding the precise cause-and-effect relationships between FDI and development, highlighting the need for caution when designing policies intended to influence FDI. Attributes like geographical distance and population affecting FDI are hard to change, but infrastructure and corporate tax can be influenced to boost FDI levels. Strategies for stimulating FDI emphasise the crucial role of government investment promotion where an agency promote inward investment by providing information and easing bureaucratic processes. This is the typical investment promotion strategy.

Norwegian FDI in developing countries

In the second part of the report, we provide an overview of Norwegian FDI in developing countries (FDIDC), focusing on geographic distribution, country types, and sectoral breakdowns.

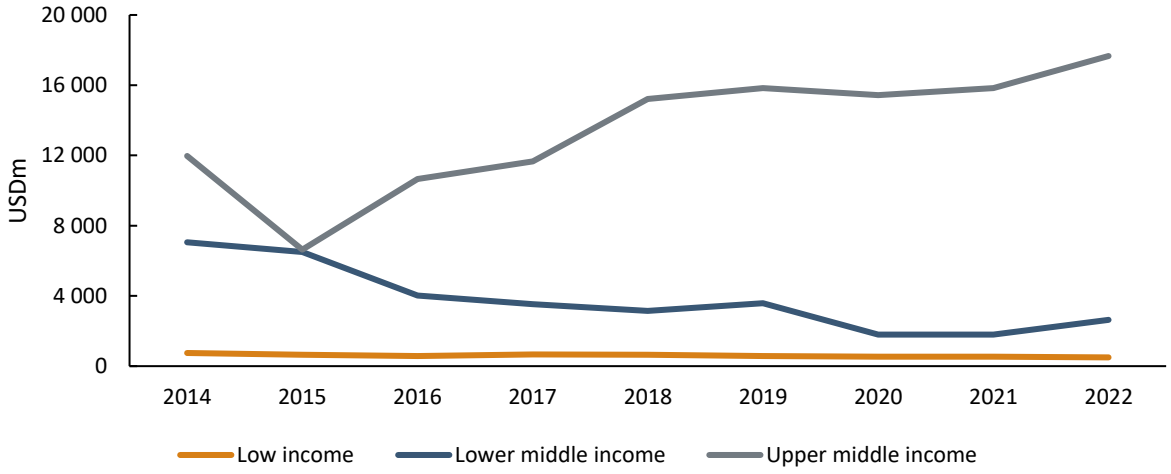
Figure 1: An outline of Norwegian FDI in developing countries



Our analysis shows that Norwegian FDIDC is predominantly concentrated in South America and Asia, with Brazil being the largest recipient by a wide margin. Relative to the distribution of global FDI, Norwegian FDI shows a notable pattern of concentration in South America and Europe, while investments in Asia are relatively lower. In terms of sectors, the largest investments are found in petroleum and manufacturing. Key players in these industries include prominent Norwegian companies such as Equinor, Aker, Hydro, Yara, and Borregaard. It is however, an important finding of the report, that there is a high degree of uncertainty regarding the sectoral distribution, stemming from limited data availability.

This distribution of Norwegian FDIDC closely mirrors the global pattern of FDI concerning different income levels. Both Norwegian and global FDIDC tend to gravitate towards upper-middle-income countries. Norwegian investments in these regions are concentrated in resource-rich markets like Brazil, as well as emerging markets such as India and China. This has, however, not always been the cases. Previously, a larger share of the FDIDC went to lower middle income countries, as shown in the graph below.

Figure 2. Norwegian FDIDC (stocks) by income level over time. Current prices. Source: IMF, World Bank



Over time, Norwegian FDIDC has increasingly focused on upper-middle-income countries, primarily driven by rising investments in Brazil and China. Conversely, FDIDC in lower-middle-income countries has declined, largely due to decreased investments in Angola. Nevertheless, this trend reversed in 2021-2022 with increased FDIDC in India.

Our analysis of Norwegian FDIDC in emerging markets and Least Developed Countries (LDCs), show a distinct divergence in investment trends between Norwegian FDIDC towards emerging markets and LDCs. There has been a significant reduction in Norwegian investments in LDCs, contrasted by a substantial rise in investments in emerging markets. This contrasts with global trends, where global FDIDC in LDCs has more than doubled over the same period, while Norwegian FDIDC in these countries has diminished. In contrast, global FDI to emerging markets has also increased, albeit not at the same pace as Norwegian FDI in these countries.

Opportunities and barriers for Norwegian businesses

In the final part of the report, we provide an in-depth analysis of Norwegian companies' experiences with FDI, drawing insights from interviews and a survey of NHO (Confederation of Norwegian Enterprises) members. This analysis examines both the motivations and barriers that Norwegian businesses encounter when investing in developing countries. In addition, we also find that businesses generally report positive local and regional impacts from their investments, such as the creation of stable jobs with good working conditions, fostering infrastructure development, and the promotion of a well-established business culture.

Motivations for investing generally align with the framework presented in the literature review of market-seeking, resource-seeking, and efficiency-seeking. More specifically, the main motivations mentioned by the interviewed and surveyed companies are

1) Proximity to customers
2) Access to raw materials
3) Lower production costs

Proximity reduces logistical challenges and improves customer relations, while access to crucial resources like crude oil and bauxite minimises transportation costs. Although low production costs are considered, they are often less critical for Norwegian firms, which typically engage in sectors where labor costs are a minor part of overall expenses.

However, significant barriers persist, which can be categorised into three types:

- **Informational and relational barriers for Norwegian businesses.** The NHO survey highlights a lack of knowledge about market conditions as one of the main reasons why many Norwegian companies avoid investing in Africa, which underscores the need to understand local market opportunities. Relational barriers also obstruct investment, as building crucial relationships with business and government representatives often requires long-term efforts due to cultural and institutional differences.
- **Risk factors in the host country.** Risk factors like political instability, climate risks, and geopolitical tensions increase funding costs and deter investment by raising the necessary risk premium.
- **Country-dependent structural barriers.** Structural barriers such as insufficient market size and lack of infrastructure further discourage investments, with some markets lacking regulatory-driven demand, particularly in climate technology. As a result, the absence of robust physical and financial infrastructure raises operational costs and uncertainties, often deferring investment decisions until these challenges are addressed.

Norwegian authorities have several policy tools to support businesses interested in investing in developing countries. However, a significant portion of businesses surveyed expressed a lack of awareness or perceived inadequacy of these tools, indicating potential gaps in their adaptation to business needs or insufficient promotion. We present examples of relevant policy tools to address barriers that combine suggestions from Norwegian businesses gathered through interviews and tools proposed by Menon. These examples are based on the assumption that there is political will to increase FDI in developing countries.

To address informational barriers, authorities can implement strategies to enhance knowledge about opportunities and stakeholders in specific regions, leveraging insights from public institutions with market expertise. Coupled with a proactive approach through industry-specific forums or outreach to relevant companies, this can help businesses recognise new opportunities.

Financial guarantees and risk-reduction measures can mitigate high funding costs associated with external risks. Some schemes may require redesigning to serve diverse industries and smaller enterprises better. Furthermore, Norwegian businesses can utilise emission-reducing technologies to address global challenges like climate change.

1. Introduction

Over the past decades, the world economy has undergone substantial integration, driven by a rapid increase in foreign direct investment (FDI) and international trade. However, this trend has reversed since the financial crisis, particularly in the years after the 2008 financial crisis. This has contributed to a slowdown in global growth, but the effects have arguably been hardest felt in developing countries.

Investment in developing countries is crucial for accelerating their economic growth and achieving sustainable development. Nations with low per capita production often grapple with significant resource constraints, such as insufficient domestic savings and limited access to advanced technologies, which impede their capacity to invest in essential sectors like infrastructure, manufacturing, and services. FDI provides a vital source of capital to bridge these financial gaps, fostering technology transfer and managerial expertise. Moreover, increased FDI can lead to improvements in governance and institutional frameworks as countries endeavor to create favorable investment climates through enhanced regulatory practices. Through these linkages, FDI can contribute to fueling long-term economic prosperity and social progress.

Beyond its direct economic benefits, FDI also plays a crucial role in addressing global climate change. Investments in clean energy, sustainable infrastructure, and environmentally-friendly technologies, often facilitated through foreign investments, can significantly reduce carbon footprints and promote resilience against climate-related challenges, which are expected to hit the least developed countries (for example in Sub-Saharan Africa and Micronesia) particularly hard.

Despite its numerous benefits, global FDI flows to developing countries have been relatively sluggish in recent years. In 2023, UNCTAD data suggest that while global FDI fell by 2 percent, FDI flows to developing countries dropped a full 7 percent to $867 billion, and a fall to African countries by 3 percent. UNCTAD specifically call out the problem of such as a fall for developing countries, with «as [they] remain marginalized, struggling to attract foreign investment and participate in global production networks».

Norway reflects this broader trend, with its outward FDI to developing nations showing particularly slow progress. Notably, total Norwegian FDI to developing countries remains at roughly the same level as in 2014, with almost half of these investments concentrated in a single country. For the least developed countries (LDCs) — those most in need of capital — the levels are even lower, highlighting the stark disparity between the needs of these nations and the actual flow of investments.

This report offers an in-depth examination of Norwegian FDI in developing countries, highlighting its potential impacts through a comprehensive literature review and analysing its evolution over time. We explore the opportunities available to Norwegian businesses in these regions, as well as the barriers that currently constrain their investment activities. Finally, the report discusses public policy initiatives that could mobilise increased investment from Norwegian businesses in developing countries.

The report is structured as follows: In chapter 2 we present a definition of FDI and an overview of information sources. Chapter 3 consists of a literature review of the impact of FDI, with particular focus on economic growth and the mechanisms that drive investments. In chapter 4 we present an analysis of Norwegian FDI in developing countries over time and put it in an international perspective. In chapter 5 we present findings from an analysis of Norwegian companies' opportunities and barriers for investments, as well as the companies' suggestions for public policy tools that may stimulate Norwegian FDI in developing countries. Chapter 6 summarise findings.

2. FDI: Definition and data

2.1. Definition of FDI

FDI refers to an investor from one country making investments in a company located in another country (hereafter referred to as host country), with the investor obtaining or maintaining a substantial degree of influence over the company.

FDI consists of investments in subsidiaries, reinvested profits in the business, and intra-company loans (loans between parent and subsidiary companies). The scope of FDI encompasses a wide range of activities, such as investments in newly established companies, acquisitions of existing companies and the establishment of subsidiaries abroad. One categorisation of FDI that is often made is between "greenfield" and "brownfield". Greenfield investments are investments that are built up from scratch, such as the establishment of a subsidiary in another country. Brownfield, on the other hand, refers to the development or acquisition of existing companies.

In measuring FDI , the definition has been operationalised in different ways. The first aspect in which data from different sources differs is the threshold value set for the parent company having a "significant degree of control or influence". Most international sources set the threshold for the shareholding at more than 10 percent, while Statistics Norway, for example, has set the threshold at 20 percent.

A fairly high threshold of ownership (typically 10 percent) implies that a long-term relationship is established between the investor and the company in which the investor has a lasting interest and a significant degree of influence in the company (Wacker, 2013). However, this threshold does not necessarily imply a long-term economic relationship and in practice the disctinction from foregin portfolio investment (FPI) can be ambiguous. FPI are short-term and more volatile investments where the investor does not take active ownership of the company. Indeed, Blanchard and Acalin (2016) document that measured FDI flows resemble portfolio debt flows, in responding to short-run movements in US monetary policy conditions instead of medium-run fundamentals of the country. The Government Pension Fund of Norway is, for instance, primarily classified as FPI and will therefore not be covered in this analysis.

Furthermore, FDI can be measured both as the flow of FDI and as the stock of FDI. The flow of FDI refers to the investments entering and leaving a country within a specific time frame, offering insights into year-on-year changes in investment levels. In contrast, the stock of FDI represents the total accumulated capital at a given point in time. Both metrics hold significance; the flow highlights shifts in investment dynamics, while the stock reveals the overall capital accumulation and long-term economic impact.

There are a number of challenges associated with the measurement of FDI that lead to uncertainty in the data. When it comes to the stock of FDI, one challenge is that the value of the investments must be evaluated annually. Among other things, changes in price and exchange rates, write-downs and reclassifications can affect the value of a previous investment (Wacker, 2013). Another challenge is the recipient company's capital structure (Wacker, 2013). A significant portion of a recipient company's funding often comes from sources outside the parent company's home country. For instance, a Norwegian-owned subsidiary operating in a developing country might receive financing from a local bank within that country. This can potentially lead to an underestimation of foreign-controlled assets. Nonetheless, this issue tends to be more common among subsidiaries located in developed countries.

Furthermore, there are differences in other methodological aspects of measurement across both countries and organisations. This leads to varying degrees of uncertainty in the figures and challenges with comparability across countries. Most Western countries tend to use administrative data or comprehensive surveys, while developing countries often use data from central banks, tax authorities or less comprehensive surveys, which creates greater uncertainty in the data. Additionally, there have been changes in how FDI is measured over time.

Measured FDI captures flows through, rather than to, a country (Blanchard & Acalin, 2016), which makes measured FDI more volatile than expected. One of the most important motivations for these intermediate investment stops is favorable corporate tax conditions. Consequently, measured FDI could be quite different from true FDI, which constitutes an important methodological challenge in studying FDI.

2.2. Data sources

The report is based on a variety of data sources that collectively provide insight into the development of FDI over time, as well as the opportunities Norwegian companies perceive in developing countries and the barriers that prevent these companies from seizing these opportunities. The information sources are described in the box below.

INFORMATION SOURCES

- **Statistics** from various international and Norwegian statistical offices
- **A survey** directed towards all NHO (Confederation of Norwegian Enterprise) members
- **Interviews** with Norwegian companies that either currently have a presence in developing countries, or are considered potentially relevant for having a presence in developing countries

In the following, we briefly describe the different sources of information utilised in this report.

2.2.1. FDI statistics

To conduct the empirical analysis of FDI in developing countries in Chapter 4, we have made use of the following data sources:

Table 1: Data sources

Data	Sources
Statistics on stock of FDI	IMF statistics is used in analyses of total FDI from the world (including Norway and the other Nordic countries) to various developing countries. IMF has put significant effort into ensuring that the FDI data is as comparable as possible across countries.
Statistics on flow of FDI from Norway	For flow of FDI from Norway to various countries, we used data from Statistics Norway (SSB). Unlike international databases, SSB requires a minimum ownership of 20 percent for an investment to be counted as a Norwegian FDI (global databases set a threshold of 10 percent ownership).
Country classifications	We have relied on multiple data sources to classify countries into different groups. When analysing trends over time, we have not adjusted for changes in country classifications during the period. As a result, the analysis of how FDIDC flows to different country groups have

	evolved over time is based on their current classification. The data sources we used are as follows: • Developing countries is defined according to SSB's classification of country codes. SSB's list is based on the OECD DAC list. • Income groups are based on the World Bank's classification, which in turn is based on the individual countries' GNI (Gross national income). • Least Developed Countries (LDCs) is based on the United Nations' classification of LDCs. • Emerging markets relies on the IMF's definition.
Statistics on FDI by sector	We used SSB data both to estimate Norwegian FDI by sector and revenue in Norwegian foreign subsidiaries. For Nordic FDI in various sectors, we used data from the respective statistical agencies in the Nordic countries, namely SCB in Sweden, SSB in Norway, Statistics Finland in Finland, and Statistics Denmark in Denmark.
Norwegian subsidiaries	An overview of Norwegian subsidiaries in developing countries by sector and continent was collected from the international database Orbis. A Norwegian subsidiary was defined as a company established abroad where a Norwegian company owns more than 50 percent.

Note that the most recent available year for international FDI statistics is 2022. This means that 2022 is the latest year for which we can make comparisons with FDI from other countries. To maintain consistency throughout the analysis, we use 2022 figures even when we analyse data that is available for 2023, such as data on FDI flows, collected from Statistics Norway (SSB).

For a more in-depth explanation of different data sources and from where to collect them, see Appendix C: Figures and statistics.

2.2.2. Survey directed at NHO' members

NHO has designed and distributed a broad survey directed at all NHO members. The survey data was collected in May and June 2024. The survey received 2,234 responses.

The survey encompassed a wide range of topics, with only a select few questions explicitly addressing investments in countries in Africa. It sought to determine whether Norwegian businesses have invested in Africa the last two years. Companies that had not invested in Africa were asked about the primary reasons for not doing so. Companies that had investments in Africa received questions about their use of government support schemes. Additionally, respondents were asked to consider whether the availability of certain support mechanisms might make them consider investing in Africa. This approach aimed to uncover the barriers and the potential for support schemes to stimulate Norwegian investment in the African continent. For a complete list of the questions in the survey, see Appendix A: Questions from survey to NHO's members.

2.2.3. Interviews with Norwegian businesses

We have conducted interviews with Norwegian businesses to provide in-depth insights into the choices and considerations on the topic of FDI in developing countries. The interviews have been an important source of information to gain insights in the perceived motivations and opportunities for investments in developing countries, as well as the potential barriers. The interviews were complementary to the broad insights collected through the survey described above.

Interviews have been conducted with both companies with current or past experience with FDI in developing countries, and companies that were regarded as having the potential to do FDI in developing countries in the future. In the latter group we find companies with either existing suppliers and/or customers in relevant countries, as well as potential suppliers or customers.

Over the course of this project, we have conducted 11 interviews. For a complete list of Norwegian businesses interviewed, see Appendix B: List of interviewed businesses.

In addition, the interviews addressed the topic of potential government-supported initiatives that can stimulate Norwegian businesses to invest in developing countries.

3. Literature review

This chapter reviews the literature on the relationship between FDI and economic growth by addressing three key questions. The first is whether FDI promotes economic growth. The evidence points to positive spillover effects, though these are heavily influenced by factors such as the host country's level of development. The second question concerns the drivers of FDI's impact, with factors like market size, geographical proximity, corruption, and political risk playing significant roles. The third question explores how to stimulate FDI. The literature highlights a lack of clarity on the precise cause-and-effect relationships between FDI and development, underscoring the need for caution when designing policies to influence FDI.

It is well documented that FDI is a driver of growth, both directly in the companies which receive the investment and indirectly for the wider economy through spillover effects.[1] The cause-and-effect relationships are complex, with FDI contributing to economic growth at the same time as economic growth attracts FDI. Because these variables mutually influence each other, methodologically strong analyses are required to measure the isolated effects well. The difficulty in disentangling these effects also means that the results in the literature vary quite a bit. For example, studies such as Li and Liu (2005) have documented a negative effect on economic growth.

In this literature review, three main questions are examined:

4. How does FDI affect economic growth?
5. What factors drive FDI, including how this varies with countries' attributes?
6. How can governments stimulate FDI?

In the following we look at the literature regarding these three questions. For a complete overview of the relevant literature in this chapter, see Appendix D: Overview over the relevant literature.

3.1. The effects of FDI

The effect of FDI on economic growth in the host country depends on the extent of the spillover effects to the rest of the economy. There are many factors that can contribute to increasing or decreasing these spillovers. In terms of firm-specific characteristics, the literature suggests that the extent of spillovers varies with the characteristics of the investing multinational enterprise (Meyer, 2004; Driffield & Love, 2007; Spencer, 2008), the local recipient firms (Feinberg & Majumdar, 2001; Sinani & Meyer, 2004), and the context in which the multinational company and the recipient firm interact (Keller, 1996; Blomström & Kokko, 2003).

When examining the overall effects at the country level, it is important how developed the host country's economy is. Spillover effects from FDI have a non-linear relationship with economic development. More specifically, studies have found a U-shape between the per capita GDP and the effect of FDI (Meyer & Sinani, 2009; Bénétrix, 2023). This means that a low and high degree of economic development is associated with larger spillover effects, while an economy in the middle range is associated with smaller and potentially negative effects.

[1] *Spillover effect refers to an unintentional effect on the surroundings.*

A key theme in the literature has been which factors impact the effect of FDI on economic development in host companies and countries through spillover effects. The literature identifies these factors and the direction in which they impact the effect of FDI.

If we look into the country-specific factors, it is particularly human capital, income level, financial institutions and the technology gap between the sender and host countries that have been studied. A meta-study from 2009 finds the same U-shaped relationship to FDI for all these aspects (Meyer & Sinani, 2009). The study argues that the primary driver of spillovers is the motivation and ability of local firms to respond to FDI in a constructive way, which is largely dependent on the country's human capital and institutional framework. In less advanced economies where the technology gap is large, other local companies have the opportunity to adopt the new technology directly. At the same time, local companies are unlikely to be in direct competition with the multinationals. According to the study, this was the case in 2009 in low-income countries such as India and China. The study argues that FDI in middle-income economies has a negative effect because the local companies are in direct competition with the companies receiving the foreign investment, but lack the capabilities to improve in the face of stronger competition. Examples of countries that were considered middle-income economies at the time of the study are Russia, Estonia, Hungary and Mexico. In high-income economies, there is strong competition as well, but also a greater ability to respond to this competition in a constructive way. Local companies are often able to take advantage of the latest technologies and increase productivity.

At the same time, the spillover effects are likely to be dependent on the reasons behind the investments. There are three main types of FDI according to Caon (2020):

Box 2: Three motivations behind FDI

- **Market-seeking:** a company looks to invest in a location due to its market size and growth potential.
- **Efficiency-seeking:** a company looks to invest in a location due to lower costs, better production processes etc. in the host country.
- **Resource-seeking:** a company looks to invest in a location due to its natural resources. This type of FDI is particularly prevalent in energy, mining and agrifood industries.

These motivations are likely associated with the spillover effects. Especially market-seeking companies can theoretically negatively impact local competitors because of harder competition. On the contrary, resource-seeking companies may be more positive for local firms, via especially backward linkages, where the foreign firm buys from local firms. There are some evidence of spillover effects through backward linkages, from foreign affiliates to their local suppliers from other sectors (Beata, 2004). The three motivations are likely associated with the development of the host countries. There is for instance a high correlation of FDI trends and gross domestic product growth (Caon, 2020).

A recent article (Bénétrix, 2023) shows that the relationship between FDI and growth varies over time. The same goes for the conditioning effect of education and financial depth. The article documents the same effect that is described above when considering growth spells starting in the 1970s, namely no positive correlation between FDI and growth for countries with average levels of education or financial depth. The results change however when considering growth spells starting in the 1990s. For the latter there is a positive correlation between FDI and growth for the average economy and a negative correlation for countries with high levels of education or financial depth. For growth spells in the 2000s, however, there is no significant correlation between FDI and growth, even for countries with average levels of education and financial depth. These results highlight the instability of the relationship between FDI and growth.

Furthermore, the literature has investigated the significance of countries' research and innovation activity on the economic impact of FDI. Barrios et al. (2004) found that spending on research and development increases the spillover effects of FDI. A 2010 study from China found that regional innovation has a double threshold effect on spillovers (Huang et al., 2012). In other words, the productivity effects of FDI are only positive above a certain threshold of innovation activity, and the effects become significant above an even higher innovation threshold. This is further supported by the meta-analysis from 2009, which finds a positive correlation between spillover effects and the level of research and patent activity (Meyer & Sinani, 2009). They conclude that countries with low levels of research and patents are less able to translate the exposure of foreign investors into productivity improvements.

3.1.1. Effects of FDI on greenhouse gas emissions

In recent years, researchers have begun to focus on the impact of FDI on climate and nature, including clean energy, carbon emissions, and environmental degradation. The goal of many research communities is now to study how FDI can contribute to sustainable growth in developing countries (Wang et al., 2022).

Research has begun to focus on the effect of foreign FDI on CO2 emissions in the host country. A much-discussed issue regarding FDI is the potentially negative consequences for the environment, which could undermine the economic benefits associated with FDI for the host country. There are two competing hypotheses in the literature. The "pollution haven" hypothesis suggests that investors are attracted to countries with lax environmental regulations. The "pollution halo" hypothesis states that foreign investors might bring universal environmental standards, as well as environmentally-friendly technology and management practices to their host countries. Evidence from oil drilling in forests suggest that better corporate governance does not seem to protect forests, which indicates no pollution halo effect (Cust, Harding, Krings, & Rivera-Balle, 2023). It is challenging to identify a general relationship between FDI and CO2 emissions, as FDI has a heterogeneous effect on economic growth, which in turn affects CO2 emissions.

Several empirical studies indicate that economic growth leads to increased CO2 emissions up to a certain level of GDP per capita, after which the effect reverses and economic growth contributes to a reduction in CO2 emissions (Al Sayed & Sek, 2013). This relationship is independent of FDI, and is known as the 'Environmental Kuznets Curve', where the relationship between GDP per capita and CO2 emissions has an inverted 'U' shape.

Most studies conclude that there is a positive relationship between FDI and greenhouse gas emissions, while in theory, FDI can also contribute to reduced greenhouse gas emissions by introducing emissions-reducing technologies in the host country. Theoretically, the effect of FDI on the environment can be both negative and positive, and empirical analyses have produced conflicting results. In a meta-analysis, Demena & Afesorgbor (2020) examine the effect of FDI on environmental emissions and find an underlying effect on environmental emissions close to zero. After accounting for heterogeneity in the studies, however, they find robust relationships between FDI and greenhouse gas emissions. They find that a 1% increase in FDI is associated with a 0.12% decrease in emissions in developing countries. A possible explanation for the effects through FDI is the pollution halo theory. Foreign firms may have better and more efficient green technologies, transferring their innovations to their domestic counterparts. "Multinational corporations with clean state-of-the-art technologies can transfer their green know-how to countries with low environmental-friendly technologies." (Demena & Afesorgbor, 2020).

3.2. Drivers: What characterises countries that attract FDI?

The literature also investigates which attributes characterise countries attracting FDI. A meta-study has compiled the previous findings on this question, summarised in the figure below (Tocar, 2018).

Table 3-1: Host countries' attributes that are associated to the level of foreign investment according to the literature. Source: Tocar (2018)

Attribute	Relation to the inflow of FDI
Market size (GDP)	Positive
Liquidity*	Positive
Industrial agglomeration**	Positive
Infrastructure facilities	Positive
Population	Positive
Level of education	Positive
Geographical proximity between the countries	Positive
Linguistic proximity	Positive
Salary level	Negative
Corruption	Negative
Corporate tax	Negative
Political risk	Negative
Unemployment rate	Negative

** Liquidity is measured, among other things, as how well the authorities manage available cash and total reserves.*

*** Industrial agglomeration is measured as both the industry's share of total GDP, the sector's share of foreign presence, as well as foreign presence both upstream and downstream in the value chain.*

Among the characteristics that are positively related to the level of FDI in the recipient country is market size, which is one of the factors that is one of the most robust findings in the literature. Other characteristics that are positively correlated with FDI are agglomeration (cluster effects), geographical proximity, and population size. In addition, cultural factors like linguistic proximity have a positive impact on FDI. Characteristics that are negatively associated with foreign investment include corruption, the level of corporate tax and political risk.

Although the literature has previously documented that a number of characteristics are associated with the level of FDI, a study tested which attributes best explain differences in FDI (Blonigen & Piger, 2014). The variables that consistently predict FDI are the economic size of the sending and host countries, the geographical distance between the countries, economic friction, cultural distance, the GDP of the sending country, wage levels, and regional trade agreements. Variables that have less explanatory power, on the other hand, include multilateral trade openness, business costs in the host country, the host country's infrastructure (including credit markets), and the institutions of the host country.

3.3. How to stimulate FDI?

Many of the attributes associated with FDI are difficult to influence, such as geographical distance and population. At the same time, there are some attributes that can be influenced to a greater extent, such as infrastructure facilities in the host country and corporate tax. Measures that affect these attributes can thus have a beneficial effect on the level of FDI. A robust finding in the literature is the role of governmental investment promotion on the flow of FDI (Harding & Javorcik, 2011; Harding & Javorcik, 2013; Crescenzi et al., 2021). The aim of investment promotion activities is predominantly to reduce transaction costs by making available

information about the host country and support bureaucratic processes. Harding and Javorcik (2013) find that higher quality of investment promotion intermediaries is associated with higher FDI inflows across different sectors. Another study from the same authors (2011) show that investment promotion is linked to higher FDI flows in countries where information asymmetries are a significant barrier. The results show that investment promotion is efficient in increasing FDI in developing countries but not in industrialised economies. Crescenzi et al. (2021) find that FDI respond to investment promotion also in areas within Europe.

Despite the mentioned robust findings, the tools governments have to influence FDI is a complex issue where we still do not know enough about the cause-and-effect relationships and where uncertainty is high. It is therefore advisable to be cautious in designing policies aimed at attracting more FDI. Another question is whether the factors that increase FDI also increase the economic impact of these investments. It is therefore important to look at the big picture when working to stimulate FDI.

3.4. Summary

In this literature review, we have examined the effects of FDI on economic growth, what factors drive FDI and how governments can stimulate to FDI. The key findings from the litterature review are:

- The relationship between FDI and economic growth is complex, with mutual influence and challenges in isolating effects - FDI is a growth catalyst, but results vary.
- The impact of FDI depends on factors like human capital, financial systems, and technological disparities, with spillovers affected by development levels and investment motivations.
- Countries with large markets, good infrastructure, and cultural proximity attract FDI, while factors such as political risk, high unemployment and high salaries deter it.
- When looking to stimulate FDI in developing countries, studies point toward government promotion strategies as one of the most effective tools.

4. Norwegian FDI in developing countries

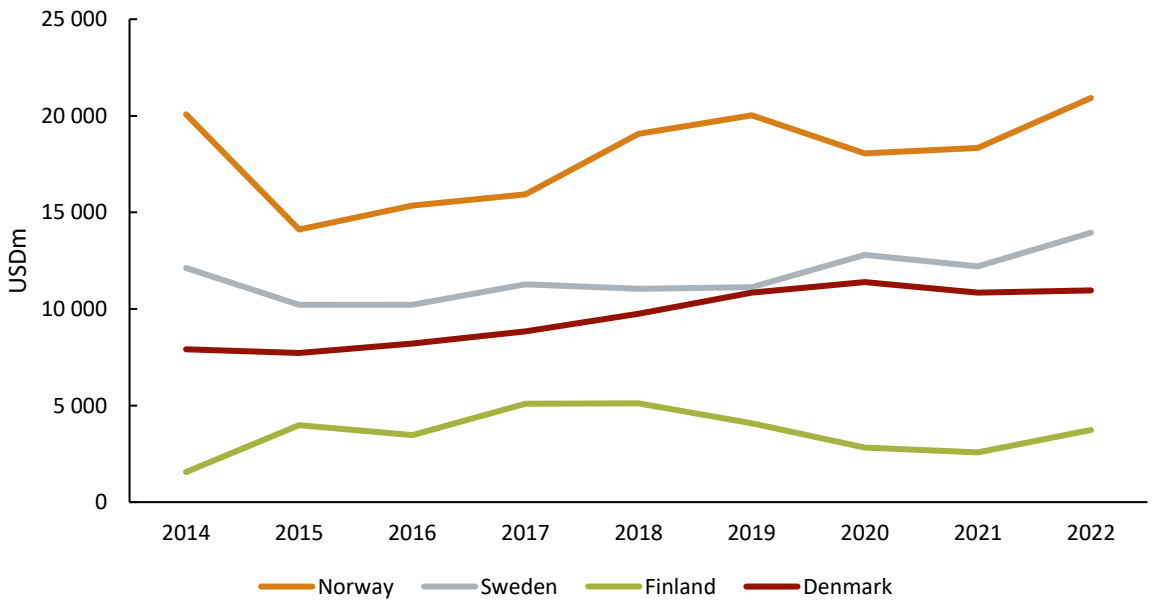
This chapter provides an overview of Norwegian FDI in developing countries (hereafter referred to as FDIDC), focusing on geographic distribution, income levels, and sectoral breakdowns. We have found that Norwegian FDIDC is particularly concentrated in South America and Asia, with Brazil as the largest individual recipient. The investments primarily go to upper-middle income countries, with significant FDIDC in resource-rich markets like Brazil, and emerging markets like India and China. Compared to global FDIDC, Norwegian FDI is notably more concentrated in South America and Europe, with relatively low investment in Asia. In terms of sectors, the largest investments are in petroleum and manufacturing. Due to limited data availability, there is some uncertainty surrounding how Norwegian FDI in developing countries is distributed among sectors.

In this chapter, we present an overview of Norwegian FDI in developing countries (hereafter referred to as FDIDC). The first subsection provides an overview of Norwegian FDIDC, both current and historical, and compares it to other Nordic countries. Subsequently, an overview is provided of the geographical distribution of Norwegian FDIDC across different countries. Finally, we present the distribution of investments across various sectors.

4.1. Overview of Norwegian FDI in developing countries

Norwegian FDIDC totalled USD 20.9 billion in 2022, accounting for approximately 0.4 percent of the world's total FDI in developing countries. By comparison, total Norwegian FDI in 2022 amounted to USD 204 billion. The figure below illustrates the development of Norwegian FDIDC since 2012, in comparison to other Nordic countries.

Figure 3: Norwegian and Nordic FDIDC (stocks) in developing countries. Current prices. Source: IMF, Norges Bank



As seen in the figure, throughout the period, Norway has had the largest FDIDC of any of the Nordic countries. However, total Norwegian FDIDC is today at the same level as in 2012, indicating a fall when adjusted for inflation. Since 2015, however, growth has been strong.

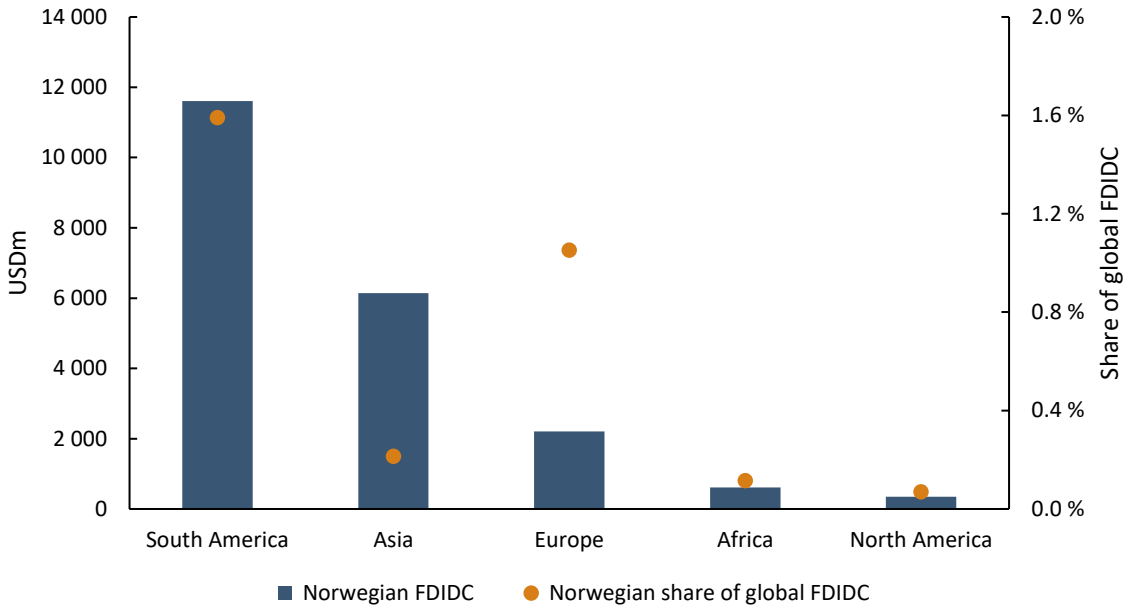
Overall, the level of FDI can change either through capital inflows and outflows (transactions), shifts in the valuation of existing investments, or a combination of both. Statistics Norway provides data on total FDI

transactions, as well as on reinvested earnings. The latter serves as a proxy for changes in the value of investments. This data is available only for the period from 2019 to 2022. The data indicates that both transactions and reinvested earnings were positive throughout this period, with the exception of 2020, when both were around zero. This aligns closely with the trend shown in the graph above, which highlights consistent growth in the period of 2019 to 2022 except 2020.

4.2. FDI in developing countries by geography

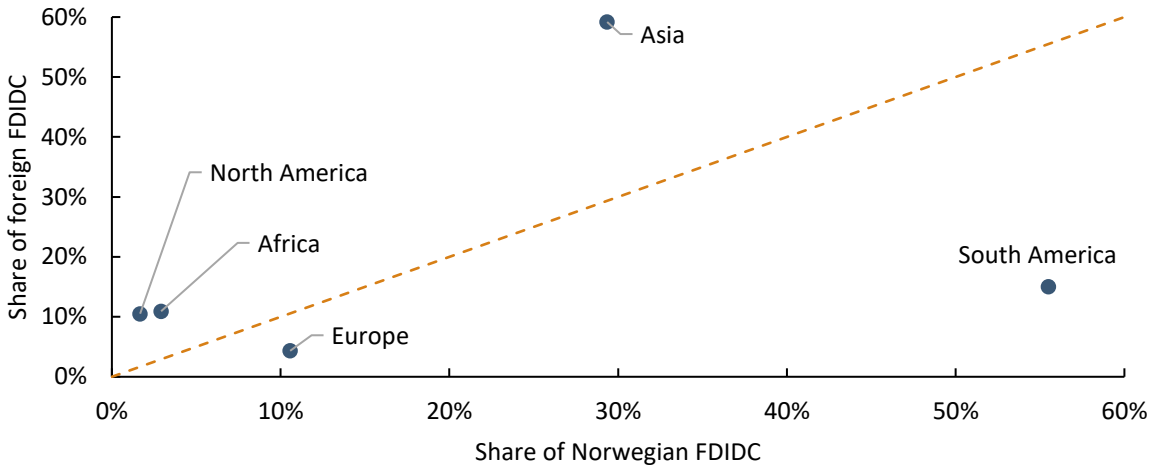
To further explain the drivers of Norwegian FDI in developing countries, it is useful to examine the geographic distribution of these investments. The figure below shows how Norwegian FDI in developing countries are distributed across different continents, as well as Norwegian FDI as a proportion of global FDI in these continents.

Figure 4. Norwegian FDI (stocks) in developing countries, by continent (2022). Current prices. Source: IMF



As the figure shows, Norwegian FDIDC is largest in South America and Asia. Europe is the third largest continent, while investments in Africa and North America make up small shares of total investments. The relatively low investments in Europe and North America are due to the limited number of developing countries in these regions, particularly in the latter. Furthermore, we see that South America and Europe are the continents where Norwegian FDIDC constitutes the largest share of global FDIDC, at 1.6 and 1.1 percent, respectively. This becomes apparent when looking at the FDIDC to different continents as a share of total Norwegian FDI, compared to the same shares of global FDI.

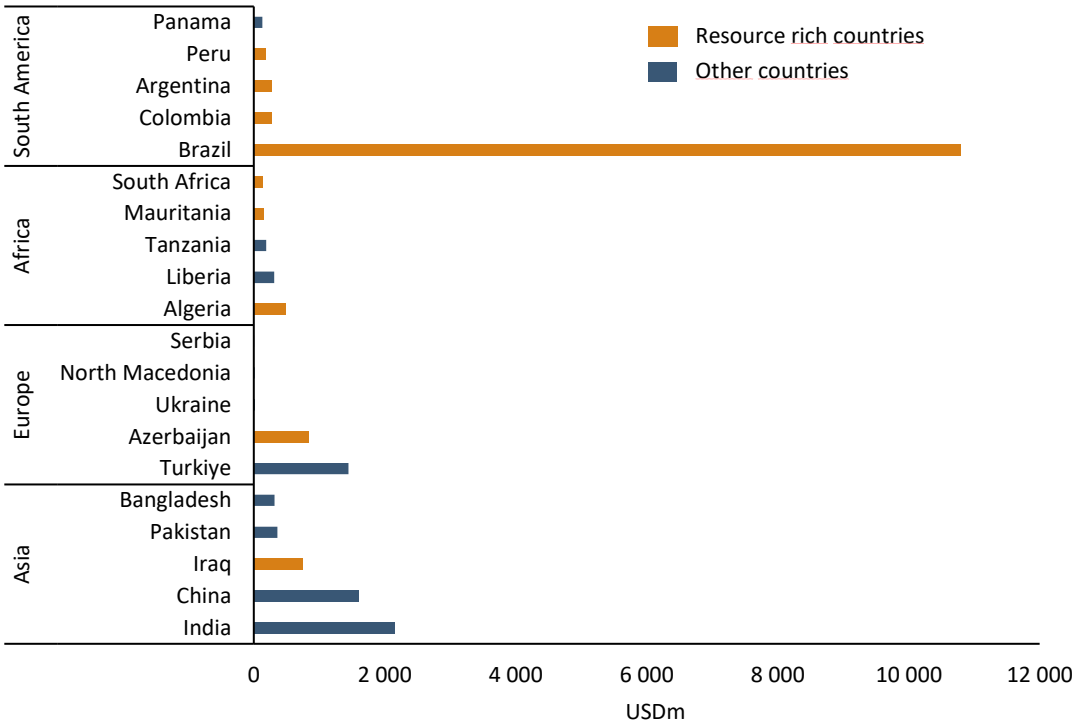
Figure 5. Share of Norwegian FDI (stocks) in developing countries by continent compared to global shares of FDI in developing countries (2022). Source: IMF



Compared to global FDIDC, Norwegian FDIDC is significantly more concentrated in South America and Europe. Especially the latter aligns well with the literature: Europe shares more cultural similarities with Norway and is geographically closer than both Africa and North America. Norwegian FDI in developing countries, on the other hand, are less concentrated in Africa, Asia and North America than the global average. In Asia, Norwegian FDI is particularly underrepresented in Southeast Asia, while the low proportion of investments in Africa is largely due to low investments in Sub-Saharan countries. Also compared to other Nordic countries, the share of Norwegian FDIDC in Africa is low. While Norwegian FDIDC in Africa constitutes 3 percent of the total Norwegian FDIDC, the corresponding share is 11 percent for Denmark and 14 percent for both Sweden and Finland.

To dig deeper into the geographical distribution of Norwegian FDI to emerging markets, the figure below illustrates the five largest developing countries per continent.

Figure 6. Norwegian FDIDC (stocks) in various countries in 2022. Resource-rich countries marked orange.[2] Current prices. Source: IMF



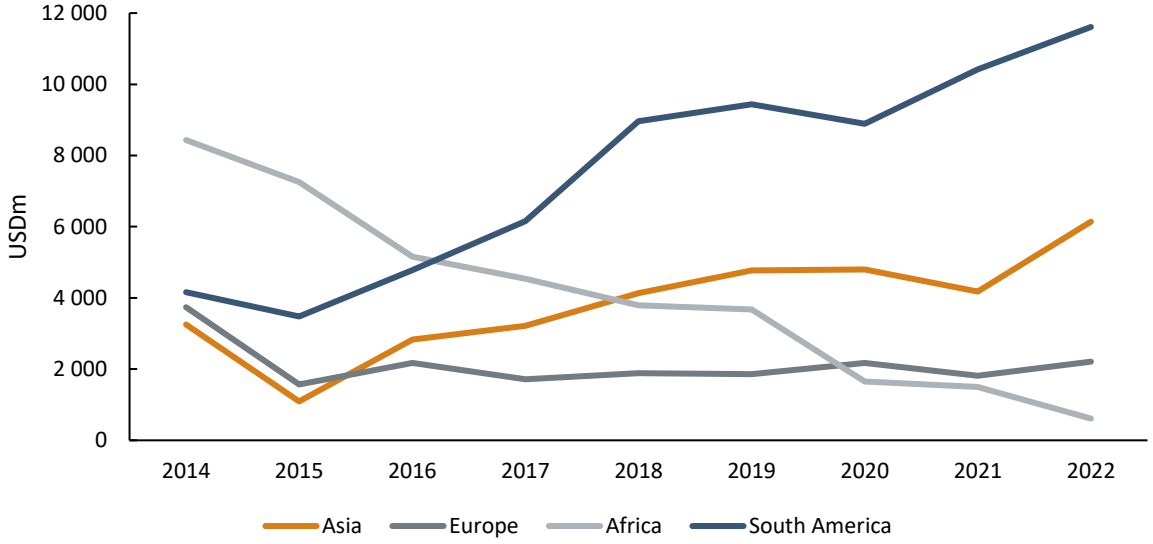
Norwegian FDI is particularly significant in Brazil, which alone receives over half of Norway's FDI in developing countries. As shown in Menon (2023), Norway has been a major investor in Brazil over the last years, especially in the fields of oil and gas, shipping, and renewable energy. Norwegian companies have played an important role in the development of Brazil's oil and gas sector, with significant investments in exploration, production, and technology transfer. Brazil also offers a relatively stable macroeconomic climate, including increasingly developed financial markets, and low government debt (World Bank, 2024). Additionally, Brazil is rich in both fossil and renewable natural resources.

When examining other developing countries with Norwegian FDI, a common trait among many of them is their wealth in natural resources. This is unsurprising as Norway's economy is resource-intensive, and Norwegian companies possess expertise related to several important resources. However, both China and India, which are the second and third largest in terms of Norwegian FDIDC, respectively, are not resource rich. These two countries are, however, among the largest contributors to global GDP growth. Hence, investments in these countries are more driven by market-seeking motivations than resource-seeking. Despite this, investments in Asia make up a smaller share of total Norwegian FDIDC compared to the corresponding share for global FDIDC.

In the graph below, we show how the shares of Norwegian FDI in developing countries in different regions have changed over time.

[2] *Resource rich countries are defined on the basis of World Bank staff estimates for total natural resources rents of at least 7.5 percent of GDP. World Bank staff estimates based on sources and methods described in the World Bank's The Changing Wealth of Nations. Collected from: https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS?most_recent_value_desc=true*

Figure 7. Norwegian FDI (stocks) in developing countries by continent over time. Current prices. Source: IMF

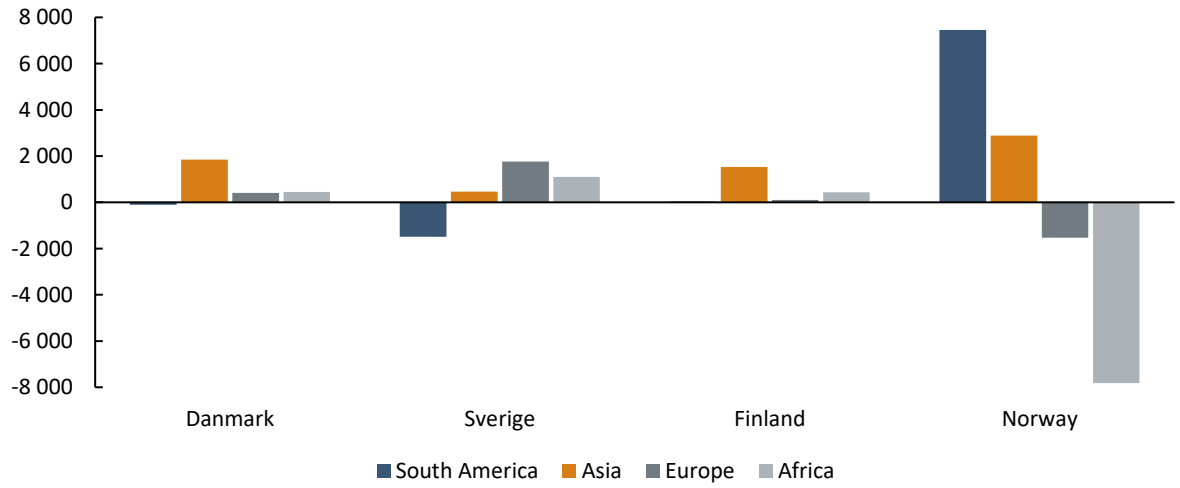


As shown in the figure, Norwegian FDIDC have shifted away from Africa and towards South America and Asia in recent years. The reduced FDIDC in Africa are primarily due to lower investments in Angola. Since the oil price shock of 2014, Angola has aimed to reduce its reliance on the oil sector (Orre & Hofstad, 2023), and since almost all Norwegian activity in Angola in 2014 was oil-related (Menon Economics, 2014), the decline in Norwegian activity in the country over this period is unsurprising.

However, when we look at trends in global FDIDC in the same period, it is interesting that FDIDC in Africa have declined so significantly. In the same period, global FDIDC in Africa have increased by more than 30 percent. This difference in development contributes to what we observed in Figure 5, namely that Norwegian FDIDC in Africa represent a much smaller share of Norwegian FDIDC than the global average.

When looking at how the other Nordic countries have carried out FDI in developing countries in recent years, there is significant variation in the continents where they have made investments. This is clearly illustrated in the figure below, which shows the percentage growth in FDIDC from the various Nordic countries by continent for the period 2014 to 2022.

Figure 8. Growth in FDIDC (stocks) from the various Nordic countries by continent for the period 2014 to 2022. Current prices. Source: IMF



As the figure shows, the strong growth in FDIDC from Norwegian companies in South America is not representative for other Nordic companies. Furthermore, all the Nordic countries have increased their FDIDC in Asia. Similar to the increased Norwegian FDIDC in Asia during this period, the growth in Nordic FDIDC to Asia is primarily directed to India. When it comes to Nordic companies' investments in Africa, we see that Sweden stands out with the largest increase in FDIDC in Africa. Also Finnish and Danish companies have slightly increased their investments in the continent.

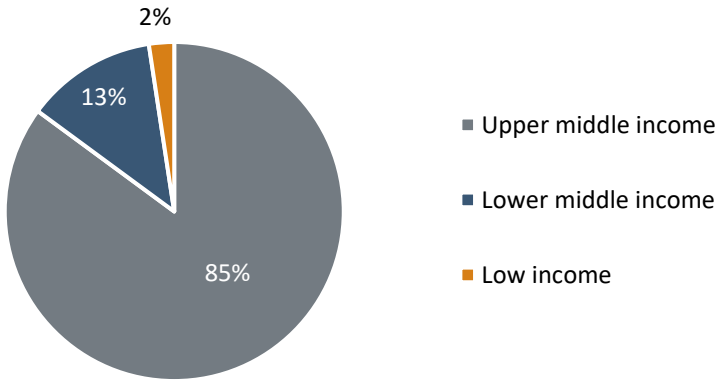
The large variation in how much the different Nordic countries have increased or decreased FDIDC across continents underscores that the nationality of investors can be crucial in determining how various regions measure in terms of investment attractiveness, not only the characteristics of the host country. This may, in turn, be related to the fact that different nations may have varying cultural ties or different economic structures that influence their willingness or ability to invest in different countries.

4.3. FDI in developing countries by income groups

Despite all developing countries being characterised by relatively low income levels, there is variation in income levels even among these countries. Measured by GDP per capita, income levels in developing countries range from 0.24 percent to 17 percent of Norway's GDP per capita (World Bank, 2024). This disparity in income levels may also influence how attractive foreign investors perceive investing in a given country to be, and the expected effect from FDI. In this subsection, we therefore present Norwegian FDI across countries grouped by income levels.

The figure below shows how Norwegian FDI in developing countries are distributed by income level. In the figure, we have used the World Bank's categorisation of countries based on income levels.[3]

Figure 9. Norwegian FDI (stocks) in developing countries, by income level of countries (2022). Source: IMF, World Bank



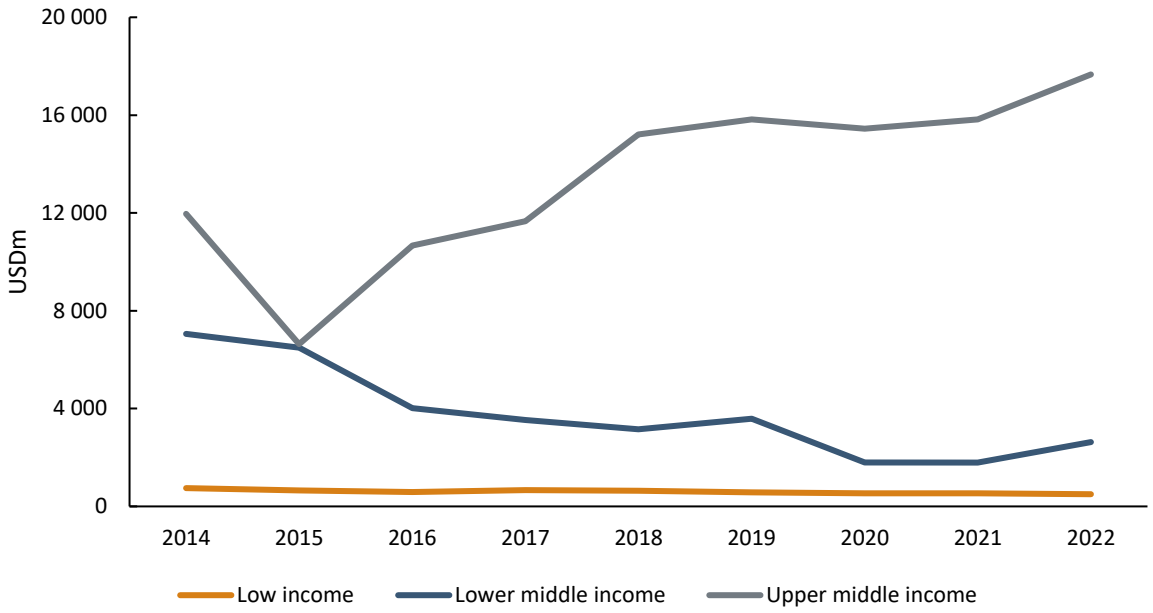
The figure shows that 85 percent of Norwegian FDI in developing countries are directed toward upper-middle income countries, largely due to major investments in Brazil and China. The remaining investments are primarily in lower-middle income countries, including India, while only 2 percent go to low-income countries. As discussed in Chapter 3, a 2009 research study identified a positive relationship between FDI and spillover effects in China and India. At that time, these countries were categorised as low-income nations, a group generally associated with beneficial spillover effects. Since then, both countries have experienced substantial economic growth, leaving the continued validity of this positive relationship uncertain. Even when Brazil, China, and India are

[3] *For a complete overview of developing countries by income group, see Appendix C: Figures and statistics*

excluded from the statistics, the distribution remains largely unchanged: the vast majority of Norwegian FDI in developing countries is still concentrated in upper-middle-income regions, with only a small fraction directed toward low-income countries.

This distribution of Norwegian FDIDC closely mirrors the global pattern of FDI in countries with different income levels. Overall, there is a clear trend that both Norwegian and global FDIDC gravitate toward upper middle-income level countries. However, upper middle-income countries have not always dominated the statistics in the way described above. The figure below shows how Norwegian FDI in developing countries have developed over time for each income group.

Figure 10. Norwegian FDIDC (stocks) by income level over time.[4] Current prices. Source: IMF, World Bank



Over time, Norwegian FDI has become increasingly concentrated in upper middle income-countries, primarily due to increased investments in Brazil and China. Meanwhile, FDI in lower middle income-countries have declined, largely due to reduced investments in Angola. However, this reduction was reversed in 2022 as investments in India picked up.

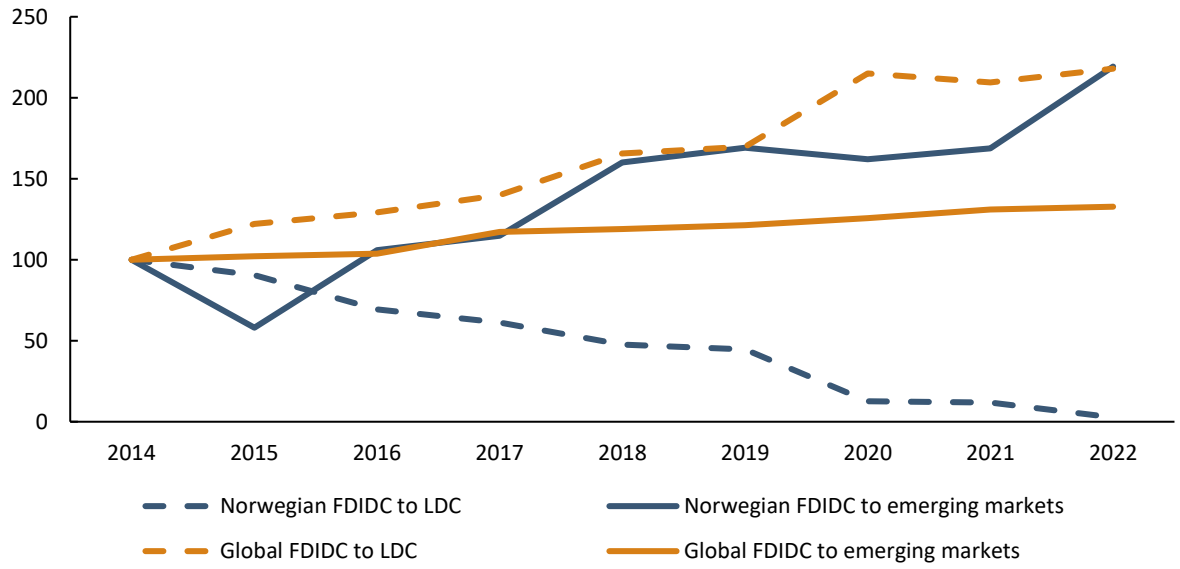
The income categories described above are based on GNI per capita. Hence, the classification says nothing about growth expectations or other structural factors in the economy. It is therefore relevant to include a categorisation of countries that also takes these factors into account. Below, we present a figure showing how Norwegian and global FDI has developed in both emerging markets and LDCs.[5]

---

[4] Note that we have not adjusted for changes in country classifications during the period. Hence, the analysis is based on their current classification. This may particularly affect the estimated FDIDC to low-income countries in earlier years, as several countries currently classified as middle-income countries were previously categorised as low-income countries.

*[5] **Emerging Markets** are countries experiencing rapid economic growth and industrialisation. They typically have growing middle classes, expanding financial markets, and are becoming increasingly integrated with the global economy. While they often face challenges like market volatility and regulatory issues, emerging markets offer substantial investment opportunities due to their economic potential. **Least Developed Countries (LDCs)** are nations identified by the United Nations as having low levels of income, limited industrial development, and challenges such as vulnerability to economic and environmental shocks. These countries often face significant barriers to growth, including inadequate infrastructure and limited access to healthcare and education, and thus rely on international support and investment to aid development.*

Figure 11. Norwegian and global FDIDC (stocks) in least developed countries (LDC) and emerging markets[6], indexed to 2014. Current prices. Source: IMF, World Bank



The figure above reveals a clear divergence in investment trends between Norwegian FDIDC to emerging markets and LDCs, respectively. Notably, there has been a significant reduction in Norwegian investments directed toward the least developed countries (LDCs), alongside a marked increase in investments in emerging markets. A primary factor behind this shift is the decrease in investments in Angola, an LDC, over the period, contrasted with rising investments in Brazil, India, and China – each classified as emerging markets. This pattern reflects a strategic reallocation of capital toward markets with higher growth potential and stronger economic stability. Another reason could be that Norwegian companies have become more aware of political risk and are redirecting their investments into countries with more political stability as well.

Comparing Norwegian and global FDIDC in these country groups, we see clear differences. Global FDIDC in LDC countries has more than doubled during the same period in which Norwegian FDIDC in these countries has nearly dropped to zero. The strong development in global FDIDC to LDC countries is particularly driven by Laos and Cambodia, both of which have received significant investments from China.[7,8] Global FDI to emerging markets, on the other hand, has also increased, but not at the same pace as Norwegian FDI in this country group.

4.4. FDI in developing countries by industry

Detailed data on Norwegian FDI in developing countries broken down by both industry and country is not available. Therefore, in this section, we first present Norwegian FDI by industry across both developing and developed countries. We then analyse the revenue of Norwegian subsidiaries in different industries by continent. In continents with a high proportion of developing countries, the latter can provide a good indication of the sectoral distribution of Norwegian FDI in developing countries across different continents.

---

[6] Note that we have not accounted for changes in country classifications over time, and the analysis is therefore based on current classifications. This may particularly impact the estimated FDIDC to LDCs in earlier years, as several countries now classified outside the LDC group were previously categorised as LDCs.

[7] See https://www.state.gov/reports/2024-investment-climate-statements/cambodia/

[8] See https://www.state.gov/reports/2021-investment-climate-statements/laos/

In the table below, we present total Norwegian and Nordic FDI in 2022 in the three largest sectors for the Nordic countries. In addition, we show the three largest industries in terms of growth in the period 2015 to 2022. Note that this includes investments in both developing and developed countries.

Table 2. Norwegian and Nordic FDI (stocks in 2022) by industry, and three largest industries in terms of growth in FDI (2015-2022). Current prices. Source: Statistics Norway

Country	Largest industries, by FDI	FDI, 2022 (USDm)	Largest industries, by growth in FDI
Sweden	Manufacturing	189 900	1. Manufacturing
	Financial and insurance activities	67 000	2. Professional services
	Professional services	53 500	3. Information and communication
Finland	Manufacturing	51 900	1. Financial and insurance activities
	Financial and insurance activities	28 800	2. Manufacturing
	Domestic trade, car repair shop	4 000	3. Domestic trade, car repair shop
Norway	Mining and quarrying[9]	49 700	1. Other industries
	Manufacturing	37 400	2. Information and communication
	Other industries	29 300	3. Manufacturing
Denmark	Manufacturing	62 400	1. Transportation and storage
	Financial and insurance activities	38 100	2. Manufacturing
	Transportation and storage	37 700	3. Electricity, gas and water supply

As shown in the table above, Norwegian FDI in 2022 was clearly largest within the mining and quarrying industry (primarily petroleum), followed by the manufacturing industry. Nearly a quarter of the investments were in mining and quarrying, while 18 percent were in manufacturing. This reflects the skills and experience in these industries developed on the Norwegian continental shelf. The companies which dominate FDI in these industries are well-known Norwegian companies, such as Equinor, Aker, Hydro, Yara, and Borregaard. Financial and insurance activities was the third largest industry, as several Norwegian financial institutions have subsidiaries and branches around the world, e.g. DNB. If we look at the corresponding industrial break-down for the other Nordic countries, we see several similarities. Although mining and quarrying is a much smaller industry for the other Nordic countries, manufacturing and financial and insurance activities are the largest and second largest industries for all countries, respectively.

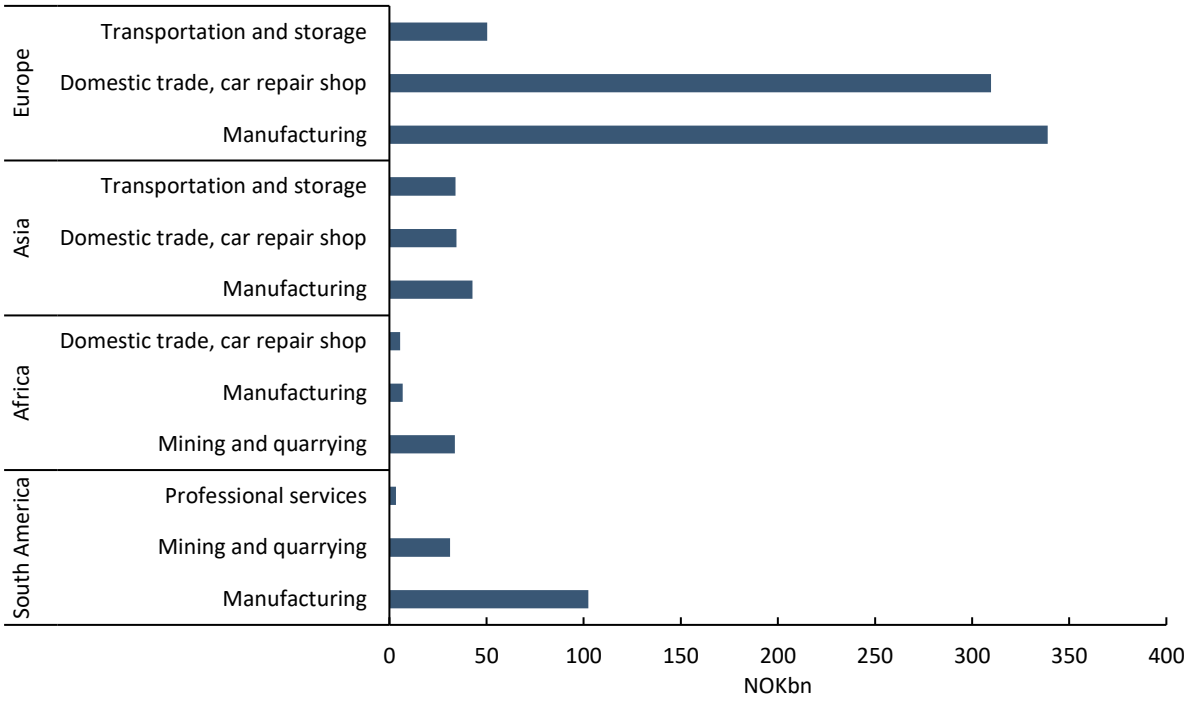
The growth in Norwegian FDI has been largest within "Other industries".[10] This includes, among others, education, public administration and defence, and the arts. The second highest growth has been in information and communication. Looking at the Nordic countries, we see that all countries have increased FDI in the manufacturing industry. However, manufacturing is a very broad industry – Norwegian FDI in manufacturing is dominated by the fairly commodity-like process industry (mainly fertiliser and aluminium), while Denmark and Sweden has a broader composition of industrial companies with higher value-added products (Menon

[9] Norwegian companies in the "mining and quarrying"-industry consists of predominantly petroleum producing companies.
[10] Note that there is considerable uncertainty regarding the actual growth in this sector during the period. This is because Statistics Norway had hidden FDI in the sector until 2017 due to privacy concerns. SSB does not publish figures for sectors with fewer than three investing entities or when one or two companies constitute a very large portion of the total. Therefore, the substantial growth may simply be due to the addition of more investors, without necessarily involving significant investment amounts.

Economics, 2023). Beyond that, we observe considerable variation between the different countries in terms of which industry has seen the largest change in investment.

As mentioned earlier, Statistics Norway does not publish data on FDI data broken down by both industry and continent. To provide an indication of how Norwegian FDIDC might be distributed across various industries and continents, we have compiled statistics on the revenue of Norwegian subsidiaries, categorised by industry and continent, as illustrated in the graph below. Note that the graph still includes revenue from both developed and developing countries. However, in continents with a high proportion of developing countries, the graph can provide a good indication of the sectoral distribution of Norwegian FDI in developing countries across different continents.

Figure 12. Revenue of Norwegian subsidiaries by industry (2022). Source: Statistics Norway[11]



In terms of revenue, manufacturing is the largest industry on three out of four continents. This is primarily due to the revenues of large companies in the process industry, such as Hydro, Yara and Borregaard. In Africa, however, mining and quarrying is the largest industry, reflecting investments in the oil and gas industry. Construction is also among the top three largest industries across all continents. However, the figure includes revenues from both developing and developed countries. As a result, the industry distribution may be less representative in regions where Norwegian companies also have subsidiaries in developed countries, such as Europe.

[11] Because of GDPR reasons, Statistics Norway has withheld revenue figures for several combinations of sectors and continents. For the combinations of sector and continent where data is missing, we have manually checked the annual reports of the largest Norwegian companies in the relevant industry which we know have activity in developing countries and filled in the revenue figures reported by these companies for these countries.

4.5. Summary

In this chapter, we have provided an empirical overview of Norwegian FDI in developing countries (FDIDC), focusing on geographic distribution, income levels, and sectoral breakdowns. The main findings are:

- Norwegian FDIDC is concentrated mainly in South America and Asia. Brazil is by far the largest developing country recipient. The Norwegian country-wise concentration differ from the global one, where FDIDC tend to go to Eastern Europe.
- Norwegian investments focus on the petroleum and manufacturing sector, involving major companies like Equinor. However, the sectorial distribution is uncertain due to limited availability.
- FDIDC from Norway increasingly targets upper-middle-income countries, such as resource-rich and emerging markets like Brazil, India, and China, while investments in lower-middle-income countries have diminished.
- There is a divergence between Norwegian FDIDC trends and global patterns, with Norwegian investments decreasing in LDCs but rising substantially in emerging markets.

5. Opportunities and barriers for Norwegian businesses in developing countries

This chapter provides an in-depth analysis of Norwegian companies' experiences with FDI, drawing insights from interviews and a survey of NHO members. It examines the motivations and barriers Norwegian businesses face when investing in developing countries. Key drivers for investment include proximity to markets, access to raw materials, and lower production costs. However, significant barriers remain, which can be grouped into informational and relational challenges, host country risks, and structural, country-specific factors. To address Norwegian businesses' limited awareness of opportunities in developing countries, a more robust policy support system is needed. Such a system should focus on informing companies about potential opportunities and proactively fostering connections between Norwegian businesses and relevant stakeholders in these regions.

To better understand companies' experiences and attitudes towards FDI in developing countries, we have conducted 11 interviews with Norwegian companies. We have carefully selected companies that vary across industry, size, geography and whether they have any foreign investments. The combination of interviews and the results from the survey directed towards all NHO members has provided insights into how Norwegian businesses assess opportunities and barriers for investing in developing countries. This analysis is based on FDI in developing countries in general, but the questions in the survey and our interviews with companies were primarily targeted at investments in Africa.

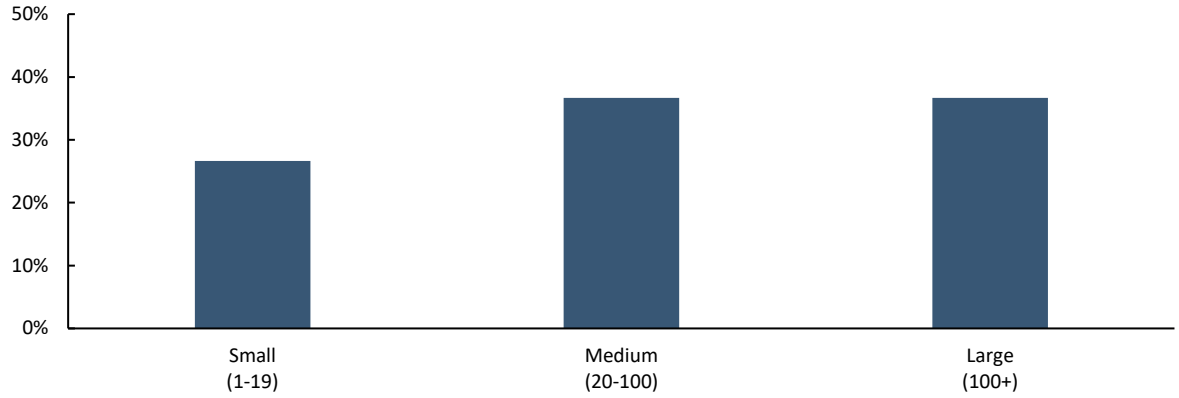
Before we dive into Norwegian companies' reasons for, and barriers against, investing in African and developing countries, we provide a brief overview of their own assessment of the main effects of their investments for their local economies. Overall, many of the interviewed businesses testify to positive local and regional impacts from their investments in developing countries. Firstly, FDI creates stable jobs with predictable and decent working conditions. Secondly, some companies point to the fact that their FDI is associated with infrastructure development, which benefits both local businesses and the population at large. Thirdly, the multinational companies introduce a proven and predictable business culture that in some cases are adopted by other companies, e.g. suppliers or competitors. This can decrease levels of corruption and contribute to more HSE- and ESG-friendly behaviour, as well as adherence to good practices of corporate governance. Confirming this hypothesis, several companies we have interviewed describe that one typical result of their activities abroad is implementing training programs about health, safety and environment to local suppliers.

In the following we present a synthesis of the findings from interviews and survey results. We start by explaining reasons the companies provide to invest in developing countries, before we present the identified barriers. By the end of the chapter, we briefly introduce a range of public policy tools that companies suggest as potential help for inducing further investments.

5.1. Reasons to invest for Norwegian businesses

Among 2234 respondents in NHO's survey, 30 companies report having invested in Africa during the past two years, constituting 1.3 percent of the companies. Of the companies that have made investments, almost 37 percent employ respectively between 20 and 100 people and more than 50 people. The rest is, as shown in the figure below, from small companies.

Figure 13: Share of companies with investments in Africa, by company size (number of employees). N=30. Source: NHO



In the survey, we also see that companies in the petroleum industry are overrepresented among the Norwegian companies reporting investments in Africa. These are almost exclusively companies working in the oil and gas value chain. The secondly largest sector is manufacturing, before the professional, scientific, and technical services sector coming in third among Norwegian companies with FDI in Africa.

In the interviews, we asked companies about their reasons for investing in developing countries—Africa in particular—as well as specific market opportunities. While we identified several common factors for the former, the latter was highly dependent on the company, industry, and country. There are few overarching market opportunities that apply universally across developing countries, which vary greatly: there are few common market opportunities between Brazil, China and Namibia.

Box 3: List of interviewed businesses

Interviewed businesses	
• Brynildgruppen	• Yara
• Cambi	• Hydro
• GC Rieber Compact	• Jotun
• Kverneland Group	• Hoseth Technology
• Lærdal Medical	• ScaleAQ
• Scatec	

We move on to look at the companies' main reasons for investing in developing countries. According to the literature[12], there are broadly speaking three reasons for investing abroad. These are:

- **Market-seeking**: where a company looks to invest in a location due to its market size and growth potential. There is a high correlation of FDI trends and gross domestic product growth.
- **Resource-seeking:** where a company looks to invest in a location due to its natural resources. This type of FDI is particularly prevalent in energy, mining and agrifood industries.
- **Efficiency-seeking**: where a company looks to invest in a location due to lower costs, better production processes and so on in the host country.

[12] https://www.investmentmonitor.ai/features/a-guide-to-the-key-fdi-drivers/

The companies we have interviewed describe a wide range of motivations to carry out FDI in developing countries, but generally they fall into three buckets, which align well with the literature. These are, as follows and ranked by our perceived relevance:

1. **Proximity to customers**
2. **Access to raw materials**
3. **Low production costs**

The most frequently stated motivation for FDI is **proximity to customers**. When the market in a developing country and its surrounding region is sufficiently large, businesses gain significant advantages from being close to their customers. This holds true for both sales offices and production facilities, as proximity reduces logistical challenges, enhances responsiveness to local demands, and strengthens customer relationships. We observe this in practice; the three largest recipients of Norwegian FDIDC are Brazil, China, and India, countries that together comprise almost 40 percent of the world's population. All three nations are emerging markets and represent enormous customer bases.

In many developing countries, rapidly expanding middle classes and consumer markets create substantial opportunities. For Norwegian firms, this growth represents a chance to increase sales of products that can meet these evolving needs, taking advantage of rising purchasing power in these markets. Additionally, proximity to the market can often help avoid import barriers, and meet specific customer preferences more effectively, giving companies a competitive edge. One interviewee company highlights indicators of growing consumer markets, such as macroeconomic trends, institutional development, and legal and tax systems. The company considers these factors important because they believe the middle class can expand and the country can progress as a result.

The second most common reason cited by companies we have interviewed is **access to raw materials**. As discussed in Chapter 4, Norwegian firms are notably active in resource-rich countries. This reflects the Norwegian economy's commodity-based nature, where businesses possess expertise in extracting raw materials and processing them into intermediate goods. The combination of access to scarce or immobile raw materials and Norway's advanced expertise and technology has proven to be a strong advantage.

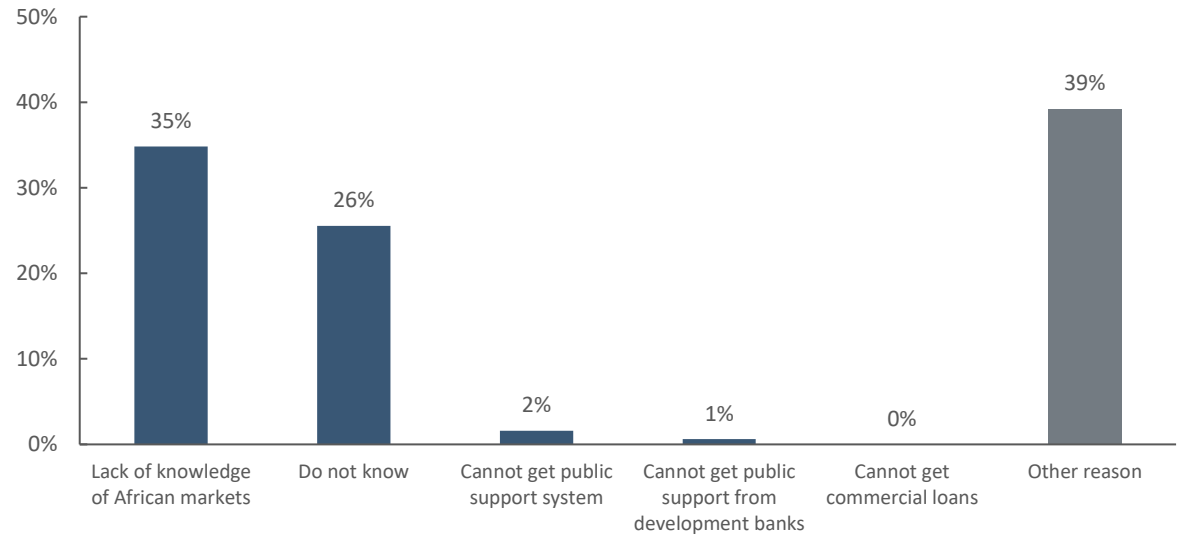
When specific raw materials are critical to production and transportation costs are substantial, processing and refining the materials near the extraction site is often the most commercially viable approach. This is the case for crude oil, as well as bauxite used in aluminium production. This approach both decrease overall transportation costs, which might be a significant part of overall input costs, as well as minimises logistical challenges.

The final reason frequently cited by companies is the **low production costs** in many developing countries. Some of the developing countries combine low labour costs with a relatively skilled workforce, enabling low-cost production. When the cost of producing goods in close proximity to customers is substantially higher than manufacturing and exporting them from a developing country, some Norwegian companies view this as a reason to invest. However, in contrast to companies producing goods in, say Asia, few of the interviewed companies pointed to low production costs as the sole reason for their FDI. This reflects the fact that Norwegian companies mainly operate in industries where labour costs are a comparatively small part of total costs.

5.2. Barriers

The interviewed companies highlight that even though there are interesting opportunities in several developing countries, there are some aspects about these countries which hinder businesses from investing. The overall results from the survey are shown in the figure below:

Figure 14: Question - *Name the most important reasons why your company has not invested in African countries.* N=1539. Answered by companies that have not invested in African countries. Source: NHO Survey



Combined with the barriers put forward in the interviews, we have identified what we believe to be the main reasons for companies not investing in Africa, and potentially developing countries. These barriers for Norwegian companies are prevalent on different levels or stages in the process of potentially conducting FDI in developing countries. These barriers can be thought of in a hierarchy, from getting to know about the potential opportunities up to the point where the actual investment decision is taken. Some of these barriers are informational and easier to address, whereas some are linked to structural factors and thus harder to break down:

1. **Informational and relational barriers for Norwegian businesses**
   - Lack of knowledge about opportunities among Norwegian businesses
   - Missing relations to key stakeholders in the respective developing country
2. **Risk factors in the host country**
   - Political risk
   - Geopolitical risk
   - Climate risk
   - High funding costs
3. **Country-dependent structural barriers**
   - Insufficient market size
   - Lack of infrastructure

The three groups differ substantially both in terms of how complex the barriers are and in terms of how to address them with policy tools. In the following we present the barriers in detail.

5.2.1. Informational and relational barriers for Norwegian businesses

In NHO's survey, the companies that have not invested in Africa were asked to name the most important reasons for not having done so. Almost 80 percent answer that they do not have products that are suitable for investing in Africa.

As seen from the graph, the single most important reason for companies not investing in Africa was **lack of knowledge** about Africa and its potential markets. This is the response of 35 percent of the companies, which believed they had products which might be relevant for production or sale in Africa. One might think that this barrier is most prevalent for SMEs, but the share of companies that say they do not have enough knowledge about potential markets is roughly the same across firm size. Lack of knowledge of Africa and African markets has also been put forward as a barrier in interviews. As one of the interviewees put it: *"Norwegian businesses have a strong need to understand different stakeholders and what the major challenges are locally. It's all about understanding what's happening on the ground and what's going on among people."* Company representatives point in particular to a lack of knowledge of everything from market opportunities, to institutions and customs.

> *«Norwegian businesses have a strong need to understand different stakeholders and what the major challenges are locally. It's all about understanding what's happening on the ground and what's going on among people. »*

Lack of relations to relevant stakeholders in the host country present another barrier for investing in developing countries. For Norwegian companies without existing relationships, it often proves challenging to connect with key individuals, including business and government representatives. Personal relationships typically hold greater significance in developing countries than in most developed ones due to cultural differences, distinct risk factors, and sometimes a lack of sound legal frameworks. One company highlighted the importance of developing strong relationships: *"Working with countries like that requires long-term efforts in building relationships"*. This importance is underscored by the survey indicating that 8 percent of respondents believe strategic partnerships would enhance the appeal of investments in Africa.

The informational and relational barriers highlighted in the interviews align well with empirical findings. One of the businesses interviewed reported positive experiences from connecting with charitable and local organisations to gain the knowledge they lacked. In addiion, Harding and Javorcik (2011) show that the presence of information asymmetries and "red tape" in developing countries leads to reduced FDI.

> *«Working with [developing] countries requires long-term efforts in building relationships. »*

5.2.2. Risk factors in the host country

There are several risk factors in developing countries that serve as barriers for FDI from Norwegian companies. These risks individually and collectively lead to higher funding costs, underscoring the intrinsic challenges faced by investors in these regions. Risk factors necessitate a higher risk premium, resulting in increased return requirements for investments, which can subsequently discourage or reduce the amount of investment overall. All of the reasons are well-known from the literature and so it is no surprise that they are also presented by the companies we have interviewed.

One of the most stated barriers to entry in developing countries is the high level of **political risk.** High political risk entails a wide range of sources of risk related to the political situation in the country and its institutions. It includes for instance unstable political regimes, a high degree of corruption, risk of conflict, crime, currency crises and cash flow issues. Political risk is widely regarded as a considerable barrier to FDI among the interviewed businesses.

Climate risk is becoming more visible as is a rising source of uncertainty and risk and poses a barrier for FDI. Severe weather events are becoming more frequent. Africa in particular is an especially vulnerable continent and this will have implications for both industry and society as a whole. [13] However, both the timing and the magnitude of these changes are highly uncertain.

Some of the interviewed businesses expresses that **geopolitical risks** and tensions is regarded as a barrier for investment. Geopolitical risk and the potential for unrest and armed conflicts poses a threat to potential employees and production facilities. Subsequently, this reduces the willingness to investment.

All these forms of risk factors tend to lead to **higher funding costs**. In developing countries where these risks are common, the cost of funding rises, occasionally making it challenging to secure investment financing. Rather than being a barrier of its own, increased funding cost is a consequence of the above-mentioned risks.

5.2.3. Country-dependent structural barriers

Finally, we have identified two additional barriers, which can be characterised as structural barriers.

The first is **insufficient market size**, meaning that the market is not large (or potentially mature) enough to be attractive for Norwegian companies. While many developing countries are experiencing rapid growth, their overall purchasing power remains relatively low. This often results in demand within a single country or region being lower than in wealthier markets. This is reflected in 85 percent of Norwegian FDIDC being directed to upper-middle-income countries. Moreover, the low maturity of some African markets means that automation technologies — often a competitive advantage for Norwegian companies — are less relevant. This is primarily due to the abundance of inexpensive labour and high costs of capital, which lead many countries to rely on labour-intensive production methods, reducing the demand for labour-saving technologies.

Additionally, some markets lack regulatory-driven demand, particularly in areas such as climate technology. Unlike in developed economies, where stricter regulations often drive demand for sustainable and innovative solutions, many developing countries have weaker or less enforced policies. This creates fewer incentives for businesses to adopt advanced technologies or practices, further limiting opportunities for Norwegian companies that specialise in these areas. This is particularly relevant in climate technology.

Lastly, interviewees point to **lack of infrastructure** as a barrier to investment. Infrastructure covers a wide range of factors including both physical, financial and digital infrastructure. Without access to relevant infrastructure, operations will be associated with high costs and uncertainty. As one representative in an interview put it: *"The problem is not the money, but the infrastructure in the host countries".* Physical infrastructure includes roads,

> *«The problem is not the money, but the infrastructure in the host countries»*

[13] https://wmo.int/publication-series/state-of-climate-africa-2023

ports, pipes as well as the electrical grid. Financial infrastructure includes a well-functioning system that allows for transparent and efficient monetary transfers. The absence of a well-functioning financial infrastructure increases risk, which in turn increases the cost of funding. In general, the lack of existing infrastructure combined with political risk leads to businesses postponing investment decisions until the infrastructure investments are completed. In some cases, the infrastructure will not be built until an investment decision is made by a foreign business, and the outcome will be a situation where neither infrastructure building nor FDI will happen due to this uncertainty.

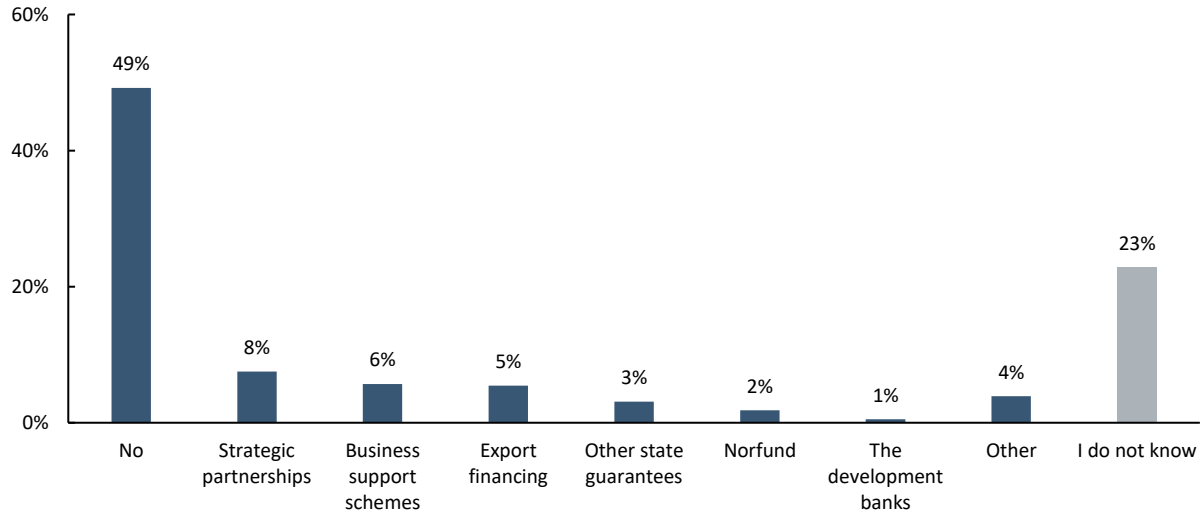
5.3. Policy tools to address barriers

Norwegian authorities have several policy tools at their disposal to support businesses interested in investing in developing countries. Institutions with mandates to assist companies in this area include Norad, Norfund, Eksfin, the Ministry of Foreign Affairs, and Innovation Norway. In this subchapter, we present examples of relevant policy tools designed to address the identified barriers. These examples combine suggestions from Norwegian businesses gathered through interviews and tools proposed by Menon, based on the assumption that there is political will to increase FDI in developing countries.

In NHO's survey, only a few companies with investments in Africa have made use of policy tools and financial support mechanisms to do so. This suggests one of three things. Either the available public policy tools are not very well adapted to the companies' needs, the financial support mechanisms are too small to matter, or companies do not know about them.

However, among the companies in the survey that regarded Africa as potentially relevant, around 30 percent state that investments in Africa would be more relevant with public policy tools. Almost the same share, 23 percent, answer that they do not know. This finding indicates that many companies lack an overview of the relevant public policy tools and need guidance in navigating this landscape.

Table 3: Question - *Would investments in Africa have been more relevant with government instruments/support schemes, and if so, which ones?* N=386[14]. Source: NHO Survey



[14] *Answered by companies that have not invested in African countries **and** state the reason for not investing is another reason than not having suitable products.*

Which policy tools are relevant depends on which barriers the Norwegian businesses experience. In particular, policy tools addressing Norwegian businesses' lack of knowledge of opportunities and relations to capitalise on differ considerably from policy tools designed to mitigate risks factors related to investing in developing countries. When it comes to structural factors, Norwegian authorities have little or no direct possibility of affecting the barriers. As a result, we discuss policy tools to address these barriers separately.

5.3.1. Policy tools to address informational and relational barriers

To address the Norwegian businesses' lack of knowledge about the opportunities in developing countries, it is natural to think of **policies and campaigns which seek to inform Norwegian companies about the opportunities (and barriers) in developing countries.** These should focus on the markets and customers that are particularly relevant for Norwegian businesses. A prerequisite for providing such information is that the Norwegian public institutions, including Team Norway and embassies, themselves have sufficient knowledge about the capabilities of Norwegian businesses in relevant sectors and their opportunities in different developing countries.

There are two main approaches to inform Norwegian businesses about opportunities. Firstly, a broad approach could consist of policies directed at Norwegian businesses in general, or at companies in specific sectors/industries. Campaigns could include information about the instruments that are available to companies investing abroad, whom to contact to get advice on relevant issues, and general information about the advantages of investing abroad.

A more targeted approach would be to prioritise information gathering and dissemination on certain regions or countries where there are specific opportunities for certain Norwegian industries. Several interviewees criticise the Norwegian authorities for not having enough knowledge about relevant stakeholders for Norwegian businesses or about local conditions both culturally and historically. There seems to be a need to help better understand the customers and their needs. One interviewee stated: "The company's likelihood of investing will increase through increased overall understanding of individual countries and regions, which can be achieved through advice and guidance." In addition, interviewees do not experience that public institutions have a sufficiently clear focus on commercial market opportunities. These findings mirror previous work by Menon Economics[15].

« The company's likelihood of investing will increase through increased overall understanding of individual countries and regions, which can be achieved through advice and guidance.»

Such targeted policies require Norwegian institutions to develop deeper, region-specific expertise. This could be paired with a more proactive approach, such as engaging directly with relevant companies, industry-specific forums, or business clusters. By doing so, institutions can help businesses identify new opportunities while equipping companies with insights to make informed investment decisions. Valuable information for planning investments includes detailed knowledge of the region's economic and social dynamics, regulatory environment, cultural customs and workforce capabilities. Additionally, insights into the local population's attitudes toward a specific industry, such as renewable energy or resource extraction, can inform strategies for community engagement and long-term success.

[15] *Available here (in Norwegian).*

Both alternatives require a proactive approach from public institutions with a presence, and knowledge of markets, in developing countries. These stakeholders include Innovation Norway, the Norwegian Embassy, the Ministry of Foreign Affairs (MFA), Norad and Norwegian Energy Partners (NORWEP). The interviewed businesses, especially the ones that have already invested in developing countries, state that the more narrowly targeted approach is more useful. An explanation for this preference could be that these companies have more knowledge about the opportunities that exist, but struggle with barriers to entry. For other companies with a less mature understanding of the opportunities, the broader approach could be more useful.

Experiences from the United States suggest that sector-specific investment promotion leads to higher FDI flows to countries where red tape and information asymmetries are likely to be severe, including developing countries (Harding & Javorcik, 2011). To increase knowledge among Norwegian businesses, it is essential to prioritise acquiring more in-depth knowledge about regions or countries where there are opportunities for certain Norwegian industries. This, combined with a more proactive approach involving reaching out to relevant companies or industry-specific forums, can help businesses recognise new opportunities. One way to operationalise this is by collaborating with FDI promotion offices in host countries that have insights into local opportunities.

Another related measure is proactively **building a bridge between Norwegian companies and relevant stakeholders in developing countries**. This would address the barrier of lacking relevant personal relations to capitalise on observed opportunities. This already happens. For example, a company reported receiving strong support from the Ministry of Foreign Affairs and Innovation Norway, which acted as "door openers" to local stakeholders, including business leaders and government officials. Another company explained: *"We primarily rely on networking support and have not used other policy tools. While Innovation Norway provided assistance during our initial establishment in the host country, we are now established and operate independently"*. Another role for public authorities could be to facilitate the formation of strategic partnerships. This is a potent tool for building relationships in developing countries. As already stated, these relationships are particularly vital in regions where the business environment is markedly different and where high levels of risk require trust and collaboration to navigate effectively.

« We primarily rely on networking support and have not used other policy tools. While Innovation Norway provided assistance during our initial establishment in the host country, we are now established and operate independently. »

5.3.2. Policy tools to address risk factors in developing countries

Norwegian authorities have limited ability to mitigate external risk factors such as political instability, geopolitical tensions, or climate-related risks in developing countries. However, their role becomes critical in addressing the consequences of these risks—particularly the high financing costs faced by Norwegian companies.

Many of the interviewed businesses highlighted the importance of **financial guarantees and risk-reduction mechanisms** provided by Norwegian institutions. For example, guarantees that lower financial risk can enable businesses to secure more favourable loan terms or access capital that would otherwise be prohibitively

expensive. Such tools not only alleviate funding challenges but also enhance the competitiveness of Norwegian companies in high-risk markets, making it more feasible for them to invest and operate in these regions.[16]

There are several existing insurance and guarantee schemes to stimulate investments abroad. However, the challenge put forward by some interviewees is that current schemes are mostly designed for renewable energy and emissions-reducing technology. Similarly, some point to the fact that large minimal capital investment requirements exclude all but the largest industrial companies. They point towards the need for more schemes that are industry agnostic, as well as schemes more suitable for SMEs.

Some interviewees that are invested in developing countries say that it would be helpful to receive financial support from the public support system in the process of deciding what country to invest in, and especially making the process easier once a country is chosen. At the same time, they say that it is difficult to sufficiently compensate for the level of risk in certain countries they were considering, especially in African countries.

Policy intervention can sometimes be justified by global challenges such as climate change. As a global issue, reducing emissions anywhere contributes to worldwide mitigation efforts. While the technology to lower emissions often exists, it is seldom prioritised in developing countries due to budget constraints or a lack of strategic focus by businesses and governments. Norwegian businesses, however, possess emission-reducing technologies that could address this gap. Schemes that support **projects that implement emission reducing technology can contribute to a reduction in global emissions.** This could be the case for support schemes to implement emission reducing technologies in developing countries, even though the market is non-existent in the absence of government intervention. However, it might be difficult to design support schemes that efficiently address such barriers.

The policy tools discussed in this chapter are mainly based on feedback from the Norwegian businesses we have interviewed. This is important to mention for two reasons. Firstly, we have not asssesed the relative cost and benefits of the policies, and by extension to which degree the government ought to support commercial investments in developing countries. Secondly, we have not gone beyond the feedback from the companies (through interviews and surveys) to identify potential policies.

5.4. Summary

This chapter provide an in-depth analysis of Norwegian companies' experiences with FDI in developing countries, drawing insights from interviews and a survey of NHO members. The analysis examines both the motivations and barriers that Norwegian businesses encounter when investing in developing countries, as well as possible government measures to stimulate FDI. Our findings can be summarized in the following:

- Key motivations for investment include proximity to customers, access to raw materials, and lower production costs.
- Barriers to investment are categorized as informational and relational, risk factors, and structural factors.

[16] *It is, however, not clear that Norwegian authorities should support purely commercial investments in developing countries. Public funding is typically justified when they address market failures or externalities, such as combating climate change or reducing poverty. If investments do not target such objectives, the cost of supporting companies might outweigh public benefits.*

- **Informational and relational barriers** refer to companies lacking knowledge of market conditions, particularly in Africa, and struggling to build necessary relationships due to cultural and institutional differences.

- **Risk factors such as political instability, climate risks, and geopolitical tensions** increase the cost of funding, requiring a higher risk premium and deterring investment.

- **Structural barriers** include insufficient market size, lack of infrastructure or high energy prices, which increase operational costs and uncertainties, particularly impacting investments in climate technology.

- Today, the government provide a range of support tools to support Norwegian FDI in developing countries. Still, many businesses are unaware of these or find them inadequate, highlighting a gap between existing policies and business needs. To overcome barriers, suggested measures include enhancing market knowledge through public institutions, financial guarantees.

References

Al Sayed, A. R., & Sek, S. K. (2013). Environmental Kuznets curve: Evidences from Developed and Developing Economies. *Applied Mathematical Sciences*, *7*(22), 1081-1092.

Barrios, S., Dimelis, S., Louri, H., & Strobl, E. (2004). Efficiency spillovers from foreign direct investment in the EU periphery: A comparative study of Greece, Ireland, and Spain. *Review of World Economics*, *140*, 688-705.

Smarzynska Javorcik, B. (2004). "Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers Through Backward Linkages." American Economic Review, 94 (3): 605–627.

Bénétrix, A., Pallan, H. M., & Panizza, U. (2023). The elusive link between FDI and economic growth (Policy research working paper no. 10422)

Blomström, M., & Kokko, A. 2003. The economics of foreign direct investment incentives, NBER Working Paper No. 9489, Cambridge, MA: NBER

Blonigen, B. A., & Piger, J. (2014). Determinants of foreign direct investment. *Canadian Journal of Economics/Revue canadienne d'économique*, *47*(3), 775-812.

Caon, V. (2020, September). *A guide to the key FDI drivers*. Investment Monitor. Retrieved November 18, 2024, from https://www.investmentmonitor.ai/features/a-guide-to-the-key-fdi-drivers/

Crescenzi, Riccardo, Marco Di Cataldo, and Mara Giua. (2021). "FDI inflows in Europe: Does investment promotion work?." Journal of International Economics 132 (2021): 103497.

Cust, J., Harding, T., Krings, H., & Rivera-Ballesteros, A. (2023). Public governance versus corporate governance: Evidence from oil drilling in forests. *Journal of Development Economics*, *163*, 103070.

De Mello Jr, L. R. (1999). Foreign direct investment-led growth: evidence from time series and panel data. *Oxford economic papers*, *51*(1), 133-151.

Demena, B. A., & Afesorgbor, S. K. (2020). The effect of FDI on environmental emissions: Evidence from a meta-analysis. *Energy policy*, *138*, 111192.

Driffield, N. & Love, J.H. 2007. Linking FDI motivation and host economy productivity effects: Conceptual and empirical analysis, Journal of International Business Studies 38: 460-473.

Feinberg, S.E. & Majumdar, S.K. 2001. Technology spillovers from foreign direct investment in the Indian pharmaceutical industry. Journal of International Business Studies, 32: 421-437.

Harding, T., & Javorcik, B. S. (2011). Roll out the red carpet and they will come: Investment promotion and FDI inflows. *The Economic Journal*, *121*(557), 1445-1476.

Harding, T., & Javorcik, B. S. (2013). Investment promotion and FDI inflows: Quality matters. *CESifo Economic Studies*, *59*(2), 337-359.

Huang, L., Liu, X., & Xu, L. (2012). Regional innovation and spillover effects of foreign direct investment in China: A threshold approach. *Regional Studies*, *46*(5), 583-596.

Keller, W. 1996. 1996. Absorptive capacity: On the creation and acquisition of technology in development, Journal of Development Economics 49: 199-227.

Li, X., & Liu, X. (2005). Foreign direct investment and economic growth: an increasingly endogenous relationship. *World development*, *33*(3), 393-407.

Menon Economics. (2014). *Norske økonomiske interesser i Angola*.

Menon Economics. (2023). *Brazilian-Norwegian trade relations and export opportunities.*

Menon Economics. (2023). *Eksportmeldingen 2023.*

Meyer, K.E. 2004. Perspectives on multinational enterprises in emerging economies, Journal of International Business Studies 34: 259-277.

Meyer, K. E., & Sinani, E. (2009). When and where does foreign direct investment generate positive spillovers? A meta-analysis. *Journal of international business studies*, *40*, 1075-1094.

Olivier, B., & Julien, A. (2016). What Does Measured FDI Actually Measure?. *Peterson Institute Policy Brief no. PB16-17*.

Orre, A., & Hofstad, K. (2023). Økonomi og næringsliv i Angola.

Sinani, E. & Meyer, K.E. 2004. Spillovers from technology transfer: The case of Estonia. Journal of Comparative Economics, 32: 445-66.

Spencer, J.W. 2008. The impact of multinational enterprise strategy on indigenous enterprises: Horizontal spillovers and crowding out effects in developing countries, Academy of Management Review, in press.

Tocar, S. (2018). Determinants of foreign direct investment: A review. *Review of Economic and Business Studies (REBS)*, (21), 165-196.

Wacker, K. M. (2013). On the measurement of foreign direct investment and its relationship to activities of multinational corporations.

Wang, X., Xu, Z., Qin, Y., & Skare, M. (2022). Foreign direct investment and economic growth: a dynamic study of measurement approaches and results. *Economic research-Ekonomska istraživanja*, *35*(1), 1011-1034.

World Bank. (2024). GDP per capita (current US$). Retrieved from World Bank - Data: https://data.worldbank.org/indicator/NY.GDP.PCAP.CD

World Bank. (2024). The World Bank in Brazil. Retrieved from https://www.worldbank.org/en/country/brazil/overview

Appendix

Appendix A: Questions from survey to NHO's members

Four tailored survey questions regarding FDI in Africa for NHO's member companies:

1. Has your company invested in countries in Africa in the last 2 years?
   Response options:
   a) Yes, b) No, c) Don't know

   If yes:

   2) Has your company used government instruments/support schemes to invest, if so which?
      Response options:
      a) Norad, b) Norfund, c) Eksfin, d) Ministry of Foreign Affairs or Innovation Norway, e) Other

   If no:

   3) Indicate the main reasons why your company has not invested in countries in Africa.
      Response options:
      a) Do not have products and services that are suitable, b) Cannot get commercial loans, c) Cannot get government support through development banks, d) Cannot get government support through the Norwegian support apparatus, Norad, Eksfin Norway, Innovation Norway, or similar, e) Do not have enough knowledge about Africa and potential markets, f) Other (free text)

   4) Would investments in Africa have been more relevant with government instruments/support schemes, if so which?
      Response options:
      a) No, b) Export financing, c) Other government guarantees, d) Business support schemes, e) Strategic partnerships, f) Norfund, g) Development banks, h) Other."

Appendix B: List of interviewed businesses

Company name
Brynildgruppen
Cambi
GC Rieber Compact
Kverneland Group
Lærdal Medical
Scatec
Yara
Hydro
Jotun
Hoseth Technology
ScaleAQ

Appendix C: Figures and statistics

List of developing countries by income levels (GNI)

Table 4: Developing countries by income levels (GNI)

Country	Income level	Country	Income level
Afghanistan	Low income	**Lesotho**	Lower middle income
Albania	Upper middle income	**Liberia**	Low income
Algeria	Upper middle income	**Libya**	Upper middle income
Angola	Lower middle income	**Madagascar**	Low income
Argentina	Upper middle income	**Malawi**	Low income
Armenia	Upper middle income	**Malaysia**	Upper middle income
Azerbaijan	Upper middle income	**Maldives**	Upper middle income
Bangladesh	Lower middle income	**Mali**	Low income
Belarus	Upper middle income	**Marshall Islands**	Upper middle income
Belize	Upper middle income	**Mauritania**	Lower middle income
Benin	Lower middle income	**Mauritius**	Upper middle income
Bhutan	Lower middle income	**Mexico**	Upper middle income
Bolivia	Lower middle income	**Micronesia, Fed. Sts.**	Lower middle income
Bosnia and Herzegovina	Upper middle income	**Moldova**	Upper middle income
Botswana	Upper middle income	**Mongolia**	Upper middle income
Brazil	Upper middle income	**Montenegro**	Upper middle income
Burkina Faso	Low income	**Morocco**	Lower middle income
Burundi	Low income	**Mozambique**	Low income
Cabo Verde	Lower middle income	**Myanmar**	Lower middle income
Cambodia	Lower middle income	**Namibia**	Upper middle income
Cameroon	Lower middle income	**Nauru**	High income
Central African Republic	Low income	**Nepal**	Lower middle income
Chad	Low income	**Nicaragua**	Lower middle income
China	Upper middle income	**Niger**	Low income
Colombia	Upper middle income	**Nigeria**	Lower middle income
Comoros	Lower middle income	**North Macedonia**	Upper middle income
Congo, Dem. Rep.	Low income	**Pakistan**	Lower middle income
Congo, Rep.	Lower middle income	**Panama**	High income
Costa Rica	Upper middle income	**Papua New Guinea**	Lower middle income
Cote d'Ivoire	Lower middle income	**Paraguay**	Upper middle income
Cuba	Upper middle income	**Peru**	Upper middle income
Djibouti	Lower middle income	**Philippines**	Lower middle income
Dominica	Upper middle income	**Rwanda**	Low income
Dominican Republic	Upper middle income	**Samoa**	Lower middle income
Ecuador	Upper middle income	**Sao Tome and Principe**	Lower middle income
Egypt, Arab Rep.	Lower middle income	**Senegal**	Lower middle income
El Salvador	Upper middle income	**Serbia**	Upper middle income
Equatorial Guinea	Upper middle income	**Sierra Leone**	Low income
Eritrea	Low income	**Solomon Islands**	Lower middle income
Eswatini	Lower middle income	**Somalia**	Low income
Ethiopia	Low income	**South Africa**	Upper middle income
Fiji	Upper middle income	**South Sudan**	Low income
Gabon	Upper middle income	**Sri Lanka**	Lower middle income
Gambia, The	Low income	**St. Lucia**	Upper middle income
Georgia	Upper middle income	**St. Vincent and the Grenadines**	Upper middle income
Ghana	Lower middle income	**Sudan**	Low income
Grenada	Upper middle income	**Suriname**	Upper middle income
Guatemala	Upper middle income	**Syrian Arab Republic**	Low income
Guinea	Lower middle income	**Tajikistan**	Lower middle income
Guinea-Bissau	Low income	**Tanzania**	Lower middle income
Guyana	High income	**Thailand**	Upper middle income

Haiti	Lower middle income	**Timor-Leste**	Lower middle income
Honduras	Lower middle income	**Togo**	Low income
India	Lower middle income	**Tonga**	Upper middle income
Indonesia	Upper middle income	**Tunisia**	Lower middle income
Iran, Islamic Rep.	Upper middle income	**Turkiye**	Upper middle income
Iraq	Upper middle income	**Turkmenistan**	Upper middle income
Jamaica	Upper middle income	**Tuvalu**	Upper middle income
Jordan	Lower middle income	**Uganda**	Low income
Kazakhstan	Upper middle income	**Ukraine**	Upper middle income
Kenya	Lower middle income	**Uzbekistan**	Lower middle income
Kiribati	Lower middle income	**Vanuatu**	Lower middle income
Korea, Dem. People's Rep.	Low income	**Viet Nam**	Lower middle income
Kyrgyz Republic	Lower middle income	**West Bank and Gaza**	Lower middle income
Lao PDR	Lower middle income	**Yemen, Rep.**	Low income
Lebanon	Lower middle income	**Zambia**	Lower middle income
		Zimbabwe	Lower middle income

Data sources

Below, we explain the various data sources used to conduct the empirical analysis of FDI in developing countries.

Statistics on FDI

When analysing total FDI from the world (including Norway and the other Nordic countries) to various developing countries, we based our analysis on IMF statistics. In general, IMF is a widely recognised international data source. In the context of FDI, they are recognised as one of the best, as they put significant efforts into ensuring that the FDI data is as comparable as possible across countries. The data were sourced from this link: IMF Data.

When it comes to flow of FDI from Norway to various countries, we used data from Statistics Norway (SSB). Unlike international databases, SSB requires a minimum ownership of 10 percent for an investment to be counted as a Norwegian FDI (global databases set a threshold of 20 percent ownership). Nevertheless, SSB is the data source with the best overview of Norwegian FDI in terms of transactions. The data were retrieved here and were reported in Norwegian kroner: SSB Data.

Statistics on country classifications

To define countries as developing countries, we used SSB's classification of country codes for developing countries, which is based on the OECD DAC list. The overview was retrieved here: SSB Classification.

When classifying countries into different income groups, we used the World Bank's classification, which is widely used in international literature. The classification is based on the countries' GNI (Gross national income). The classification was retrieved here: World Bank Income Classification.

The categorisation of Least Developed Countries (LDCs) was based on the United Nations' classification of LDCs. This is widely known as the primary classification used for LDCs. When defining emerging markets however, there is no official definition. Hence, various sources define different countries as emerging markets. We chose to rely on the IMF's definition due to their good reputation within international macroeconomics and statistics. The method they provide is relatively conservative, resulting in a shorter list of emerging market countries than many other definitions: IMF Definition of Emerging Markets.

Note that when analysing trends over time, we have not adjusted for changes in country classifications during the period. As a result, the analysis of how FDIDC flows to different country groups have evolved over time is based on their current classification.

Statistics on FDI by sector

We used SSB both to estimate Norwegian FDI by sector and Revenue in Norwegian foreign subsidiaries. As described above, there are some differences between the ownership threshold SSB and the IMF set for what constitutes a Norwegian FDI. Nevertheless, we relied on SSB since no other global data sources provide a breakdown of Norwegian FDI by sector. The data were reported in Norwegian kroner.

In the analysis of Nordic FDI in various sectors, we used data from the respective statistical agencies in the Nordic countries, namely SCB in Sweden, SSB in Norway, Statistics Finland in Finland, and Statistics Denmark in Denmark. The data were reported in local currencies.

To show the number of Norwegian subsidiaries in developing countries by sector and continent, we used the international database Orbis. In the analysis, a Norwegian subsidiary was defined as a company established abroad where a Norwegian company owns more than 50.1%.

Other statistics

GDP and GDP per capita in various countries were obtained from the World Bank. The data were retrieved here: World Bank GDP.

As indicated in the description above, several of the time series we collected were reported in local currency. To convert these to a comparable currency (USD), we used average annual exchange rates obtained from the respective central banks. Specifically, this includes:

- USDEUR: Retrieved from the ECB
- USDSEK: Retrieved from the Riksbank
- USDNOK: Retrieved from Norges Bank
- USDDKK: Retrieved from Danmarks Nationalbank

Appendix D: Overview over the relevant literature

Table 5: Overview over the most relevant articles in the literature review and the main findings

Name of the article	Author (year)	Main finding
When and Where Does Foreign Direct Investment Generate Positive Spillovers? A Meta Analysis	Meyer, K. E., & Sinani, E. (2009)	The analysis suggests a curvilinear relationship, more specifically a U-shape, between spillovers and the host country's level of development in terms of income, institutional framework and human capital. Another finding is a positive correlation between spillover effects and the level of research and patent activity.
Efficiency spillovers from foreign direct investment in the EU periphery: A comparative study of Greece, Ireland and Spain	Barrios, S., Dimelis, S., Louri, H., & Strobl, E. (2004)	Spending on research and development increases the spillover effects of FDI.
Regional Innovation and Spillover Effects of Foreign Direct Investment in China: A Threshold Approach	Huang, L., Liu, X., & Xu, L. (2012)	Regional innovation has a double threshold effect on spillovers. In other words, the productivity effects of FDI are only positive above a certain threshold of innovation activity, and the effects become significant above an even higher innovation threshold.

Determinants of foreign direct investment: A review	Tocar, S. (2018)	This meta study identifies the attributes that characterise countries attracting FDI. Among the characteristics that are positively related to the level of FDI in the recipient country is market size, which is one of the factors that is one of the most robust findings in the literature. Other characteristics that are positively correlated with FDI are agglomeration (cluster effects), geographical proximity, and population size. In addition, cultural factors like linguistic proximity have a positive impact on FDI. Characteristics that are negatively associated with foreign investment include corruption, the level of corporate tax and political risk.
Determinants of foreign direct investment	Blonigen, B. A., & Piger, J. (2014)	The study tested which attributes best explain differences in FDI. The variables that consistently predict FDI are the economic size of the sending and host countries, the geographical distance between the countries, economic friction, cultural distance, the GDP of the sending country, wage levels, and regional trade agreements. Variables that have less explanatory power include multilateral trade openness, business costs in the host country, the host country's infrastructure (including credit markets), and the institutions of the host country.
Foreign direct investment and economic growth: an increasingly endogenous relationship	Li, X., & Liu, X. (2005)	Has documented a negative effect of FDI on economics growth.
The elusive link between FDI and economic growth	Bénétrix, A., Pallan, H. M., & Panizza, U. (2023)	The study shows that the relationship between FDI and growth varies over time. The same goes for the conditioning effect of education and financial depth.
Roll out the red carpet and they will come: Investment promotion and FDI inflows	Harding, T., & Javorcik, B. S. (2011)	Investment promotion leads to higher flows of FDI to countries where bureaucracy and information asymmetries are likely to be severe. The results suggest that investment promotion is efficient in developing countries but not in industrialised economies.
Investment promotion and FDI inflows: Quality matters	Harding, T., & Javorcik, B. S. (2013)	Information asymmetries are a significant barrier to flow of FDI. Governmentally organised investment promotion aims at reducing that barrier. The results suggest that there is a link between high quality investment promotion and the volume of FDI.

Menon Economics analyserer økonomiske problemstillinger og gir råd til bedrifter, organisasjoner og myndigheter. Vi er et medarbeidereiet konsulentselskap som opererer i grenseflatene mellom økonomi, politikk og marked. Menon kombinerer samfunns- og bedriftsøkonomisk kompetanse innenfor fagfelt som samfunnsøkonomisk lønnsomhet, verdsetting, nærings- og konkurranseøkonomi, strategi, finans og organisasjonsdesign. Vi benytter forskningsbaserte metoder i våre analyser og jobber tett med ledende akademiske miljøer innenfor de fleste fagfelt. Alle offentlige rapporter fra Menon er tilgjengelige på vår hjemmeside www.menon.no.

+47 909 90 102 | post@menon.no | Sørkedalsveien 10 B, 0369 Oslo | menon.no