

REPORT

MEXICAN-NORWEGIAN TRADE RELATIONS AND OPPORTUNITIES IN THE MEXICAN MARKET





Preface

On behalf of the Norwegian Embassy in Mexico, Menon Economics has conducted a study on Mexican-Norwegian trade relations and Norwegian companies' opportunities in the Mexican market. This report provides an overview of bilateral trade between Norway and Mexico, as well as an assessment of sectors with high potential for Norwegian companies in Mexico. The work has been conducted by Lotte L. Rognsås as project leader and Christoffer T. Hamnes as project member. Per Fredrik F. Johnsen is quality assurer for the project and Jonas Erraia is the responsible partner.

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 within our field of work.

We thank the Norwegian Embassy in Mexico for an exciting project. We would also like to thank everyone who has contributed with discussions, data, and valuable input to this study. The authors are responsible for the content of the report.

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Jonas Erraia Lotte L. Rognsås

Project owner Project leader

Menon Economics Menon Economics

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Executive summary

Mexico is a major economic force in Latin America, and Norway has established trade relations with Mexico under the EFTA-Mexican Free Trade Agreement. Nevertheless, bilateral trade and investments remain limited, both in absolute terms and relative to other regional markets, such as Brazil.

In this report, we provide an overview of the economic ties between Norway and Mexico, followed by a framework for identifying high-potential markets and sectors for Norwegian companies in Mexico. Using this framework, we have identified five sectors in Mexico that we consider to be attractive for Norwegian companies. Finally, we briefly discuss insights related to the efforts of Norwegian authorities in the Mexican market and their work to enhance the success of Norwegian companies there.

Mexican-Norwegian trade relations and Norwegian investments in Mexico

Trade between Norway and Mexico has grown significantly in the last years, making Mexico Norway's second largest trading partner in Latin America. In 2023, Norwegian exports of goods to Mexico amounted to NOK 2.3 billion. The exports of goods mainly consist of chemicals and seafood products. The Norwegian exports of services amounted to NOK 1.3 billion in 2022, and export of services is primarily related to shipping and offshore supply services.

Norway imported goods and services from Mexico totalling NOK 7.8 billion in 2023. Imports of goods accounted for 87 percent of the imports and Norway is a net importer of goods from Mexico. The most significant goods imported from Mexico are electric vehicles, animal oils and fats, and casing for oil and gas. However, on a global scale, Norway's trade with Mexico remains small both relative to Norwegian exports to other countries, as well as compared to Mexico's trade with, say, Denmark and Sweden.

In addition to direct trade relations, we have identified around 50 Norwegian companies with a presence in the Mexican market through production facilities and/or sales offices. Norwegian companies have a particularly strong presence in the energy sector. Collectively, the Norwegian companies employ roughly 4,000 people in Mexico. Compared to Swedish and Danish multinationals, Norwegian multinationals employ fewer people in Mexico.

Opportunities for Norwegian companies in Mexico

To identify Mexican markets of particular interest for Norwegian companies, we have developed a framework to analyse whether the market in Mexico is of particular interest for Norwegian companies and the potential of Norwegian companies to tap into the market. The framework considers:

- 1) Internal factors of the Mexican market
- 2) International factors that affect the Mexican market
- 3) Norwegian companies' capabilities to tap into this potential

Using this framework, we have identified five industries with high potential in the Mexican market.

Maritime Industry: Mexico has a sizeable maritime industry, with the Lázaro Cárdenas and Manzanillo being important regional ports. The country is a significant hub for shipping due to its geographic location with access to both North- and South America, Asia, and Europe. The strong demand for shipping services is fuelled by a

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robust manufacturing sector, which depend on shipping of inputs used in production and for export of their products. Several Norwegian shipping and logistic companies are already established in Mexico, although there is limited Norwegian presence in maritime technology and service provision. The green transition in the maritime sector presents further potential for Norwegian companies, given their leadership in low- and zero emission technologies.

Offshore suppliers: Mexico is the 11th largest oil producer globally. Several Norwegian companies are already established in the offshore supply sector in Mexico, but the presence is relatively limited compared to the larger Norwegian clusters in the Americas, such as in Brazil and Texas. The Norwegian offshore supply industry is well-developed and highly internationalised and holds the know-how and expertise to expand to new markets. Further, Norwegian offshore suppliers have developed expertise in developing low carbon technologies for the petroleum industry. Overall, there is a significant potential for Norwegian offshore suppliers delivering services to the extensive petroleum sector in Mexico.

Manufacturing of design and consumer goods: With well-known brands known for high-quality such as Glamox, Ekornes, and Swix, the Norwegian design industry has an untapped potential in the large Mexican consumer market. For high-end products, Mexico constitutes a large potential export market driven by a growing middle class and upper class. The possibility is supported by the EFTA-Mexico Free Trade Agreement, that allows Norwegian producers to export most goods, including consumer goods, to Mexico at zero tariffs. In addition to export of design and consumer goods to Mexico, the country also offers various possibilities in terms of general industrial production. Mexico is one of the top manufacturing hubs in the world, due to its low wages, specialised workforce, and proximity to the large US market. This has attracted European manufacturers of furniture and other consumer goods to Mexico. There are no structural reasons that this should not be possible for Norwegian industrial companies.

Offshore wind: Offshore wind has a large potential in Mexico, with an estimated technical capacity of nearly 870 GW. Norwegian companies, with their advanced offshore expertise and technology, are well-positioned to tap into this market. Historically, there has been little focus on developing renewable energy production in Mexico except for hydropower, but it is expected that renewable energy will gain more attraction going forward. If this is followed through by the authorities, this will present future opportunities for offshore wind projects in Mexico. Given Norwegian strengths, such a market will present opportunities for both cables, floating wind concepts, maritime services providers, in addition to potential ownership of wind parks.

Green Hydrogen: Mexico has significant potential for green hydrogen production due to favourable conditions for both solar and wind energy. Currently, several hydrogen projects are being planned or are under development in Mexico. The development of this sector could accelerate with government support. Norway, due to a range of factors including resources and industry experience, has built a strong position in the green hydrogen supply chain. However, a range of barriers remain for green hydrogen development in Mexico. These include, first and foremost, the fact that green hydrogen production is not currently commercially profitable, as well as the substantial production subsidies for green hydrogen provided by the US through the Inflation Reduction Act.

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1 Background and introduction

Mexico is a major economic force in Latin America. In recent years, two noticeable trends have emerged regarding the landscape around Mexico's economy. Firstly, Mexico has seen a sizeable increase in foreign direct investments (FDI) and secondly, the country has significantly increased its exports to the US and has surpassed China as the main trading partner of the US. On top of that, Mexico is an interesting consumer market on its own, with a large national market and a substantial upper and middle class. Combined, these factors have led to increased interest in the Mexican market from international companies.

Mexico and Norway, through the membership in the European Free Trade Association (EFTA), entered into a free trade agreement in 2001. However, the bilateral trade relations between Norway and Mexico remains limited, with exports to Mexico representing a mere 0.33 percent of Norway's total mainland exports in 2023, total exports. In addition, interest from Norwegian companies has so far been limited, even though the Mexican market attracts an increasing amount of FDI.

With this as a backdrop, we assess the Mexican-Norwegian trade relations today, and analyse if and in which sectors the Mexican market holds opportunities for Norwegian companies. We also assess the potential of the Mexican market as increased exports is an important focus area for the Norwegian government. The current Norwegian government has an outspoken ambition to increase exports, excluding oil and gas, by 50 percent by 2030. To achieve this goal, the government launched the export reform "The whole of Norway exports" in 2022. The aim of the program is to achieve the export ambitions by uniting government, businesses, and organisations to promote Norwegian businesses. So far, five industries of special interest for Norwegian exports are explicitly mentioned as part of the program. The five industries are offshore wind, the maritime industry, the design and finished goods industry, health care and life science, and tourism. Taking into account the export reform, we have analysed the potential in the Mexican market for these five industries.

The report is structured as follows: In chapter 2 we present an overview of Mexican-Norwegian trade relations today before we dive into Norwegian investments in Mexico in chapter 3. In chapter 4 we present the identified high potential opportunities for Norwegian companies in Mexico, as well as briefly discuss possible learnings from the export support work done by the Danish and Swedish authorities in Mexico.

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¹ "Hele Norge eksporterer" in Norwegian

2 Mexican-Norwegian trade relations

Trade between Norway and Mexico has grown significantly in the last years, making Mexico Norway's second largest trading partner in Latin America. Nevertheless, Norwegian exports of goods amounted to only NOK 2.3 billion in 2023 while exports of services amounted to NOK 1.3 billion in 2022². The largest goods export categories are chemicals and seafood products. Export of services is primarily related to shipping and offshore supply services. The export of services has remained relatively stable over the last years. Norway's import of goods and services from Mexico amounted to NOK 7.8 billion in 2023, the majority of this was goods imports. The most significant goods imports from Mexico are electric vehicles, animal oils and fats, and casing for oil and gas. Compared to other Nordic countries, Norway exports significantly less to Mexico. Norway's exports are only approximately one-third of Denmark's exports and one-fifth of Sweden's exports to Mexico.

In this chapter we present an overview of the trade in goods and services between Mexico and Norway, and its development over time.

2.1 Norwegian exports to Mexico

2.1.1 Trade in goods

Mexico is Norway's second largest trading partner in Latin America, only surpassed by Brazil. In 2023, Norway exported goods to Mexico worth NOK 2.3 billion. Exports to Mexico represents approximately 0.33 percent of Norway's total mainland exports in 2023, making the Mexican market a relatively minor one for Norwegian goods producers. The figure below illustrates the distribution of total goods exports from Norway to Mexico across various commodity categories.

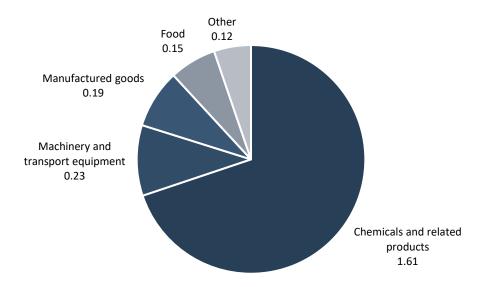


Figure 1. Exports of goods from Norway to Mexico in NOK billions. 2023. Source: Statistics Norway

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² Last available numbers for trade in services

About 70 percent of the goods Norway exports to Mexico are chemicals, which is assumed to almost exclusively consist of fertilizer.³ The Norwegian company Yara is one of the largest producers of fertilizers in the world, with operations in 160 countries. Yara exports complex fertilizer to Mexico where the products are blended and packed for sales in the Mexican market. Seafood is the main product group in the food-category, and export of bacalao accounts for approximately 80 percent in this category, with frozen salmon fillets making the second largest contribution. Norway does not export fresh salmon to Mexico, which is the by far largest export product from the seafood sector to the rest of the world. Norway also exports NOK 121 million of nickel and NOK 130 million of non-electric machines and appliances. Miscellaneous manufactured articles and inedible crude materials (except fuels) are the largest commodity groups exported under the category "other".

The graph below illustrates the historical development of the value of goods exported from Norway to Mexico between 2010 and 2023.

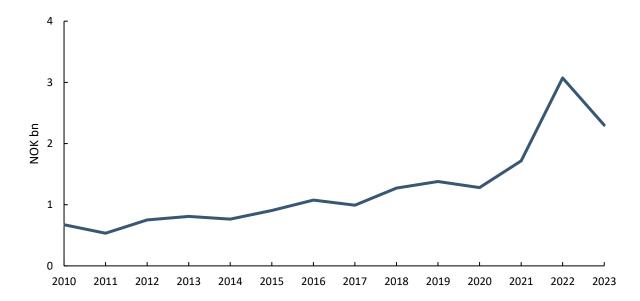


Figure 2. Exports of goods from Norway to Mexico, 2010-2023. Source: Statistics Norway

The figure shows a steady increase in exports from 2010 to 2020, with the following three years having somewhat higher volatility. Since 2020, there has been an 80 percent increase in the value of exports to Mexico. In the same period, export volumes have only increased by 25 percent⁴, leaving the rest to be explained by higher export prices and weakening of the Norwegian krone. Chemical products, mainly containing fertilizer, are the primary driver for both the growth observed from 2020 to 2022 and the subsequent decline in 2023. From the beginning of 2021 to the end of 2022, fertilizer prices doubled⁵, before they declined in 2023 though stabilising on a high level.

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³ The goods included in the category "Chemicals and related products" are often subject to publication restrictions. Therefore, we are unable to provide exact information on how much of these goods constitutes fertilizer.

⁴ The growth in export volume is calculated based on the total amount of tons exported in 2010 and 2020. It is important to note that changes in the types of goods exported will impact this figure.

⁵ https://www.ifpri.org/blog/whos-afraid-high-fertilizer-prices

In general, over the period from 2010 to 2023, the Norwegian krone has fluctuated significantly. As most goods sold to from Norway to Mexico are denominated in USD (or EUR), this change has influenced the exports values in NOK significantly. To adjust for these fluctuations, we have calculated the Norwegian goods exports to Mexico measured in USD, shown in the figure below.

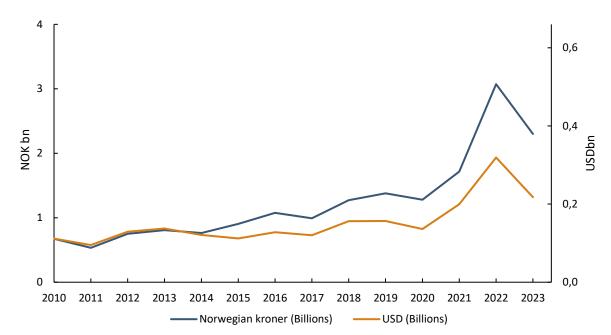


Figure 3. Exports of goods from Norway to Mexico in NOK and USD. 2010-2023. Source: Statistics Norway and Menon

The growth in exports is significantly lower when measured in US dollars than in Norwegian kroner, which shows that exchange rate fluctuations are a major contributor to the growth in exports. Between 2010 and 2023, exports have increased by 240 percent measured in Norwegian kroner, compared to a growth of 100 percent measured in US dollars.

As shown earlier, exports of goods to Mexico account for a small proportion of Norway's total exports. To put Norwegian exports in a perspective, we have compared Norwegian exports to those of the other Nordic countries. The graph below illustrates exported goods to Mexico from Nordic countries over the last years.

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14 12.2 12 9.4 10 8.5 **NOK bn** 8 6.8 6.7 6.3 5.4 6 5.0 3.5 4 2.9 2.3 1.6 2 0 Sweden Denmark Finland Norway ■ 2021 ■ 2022 ■ 2023

Figure 4. Exports of goods from Nordic countries to Mexico, 2021-2023. Source: Eurostat and Statistics Norway

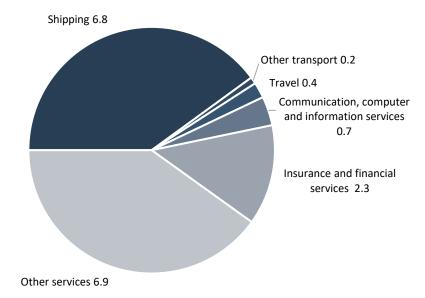
Although Norwegian exports have seen a growth in recent years, exports remain low compared to other Nordic countries. In 2023, Sweden exported more than five times as much to Mexico as Norway did. This disparity is disproportionately large, especially considering that Sweden's total export of goods globally is approximately three times larger than Norway's. This illustrates that in terms of exports to Mexico, Norway is lagging the neighbouring countries. The commodity group "Machinery and transport equipment" makes up about half of the Swedish exports, with parts for motor vehicles and telecommunications equipment being the largest categories. In addition, Sweden has significant exports of iron and paper. Danish exports of machinery largely consist of industrial machines and other equipment, such as castings, pumps, and transport equipment for industrial use. Denmark's second largest export commodity group is medical and pharmaceutical products, including insulin drugs.

2.1.2 Trade in services

In 2022, the value of Norwegian exports of services to Mexico amounted to NOK 1.3 billion, accounting for around 0.3 percent of Norway's overall services exports. Since Statistics Norway does not publish service exports to Mexico by service category, it is not possible to obtain information on the specific services Norway exports to Mexico. However, the statistics show the segmentation of services from Norway to Latin America and the Caribbean. Since Mexico is part of Latin America and accounts for 8 percent of Norway's total export of services to the region, this segmentation can give an indication of which services are exported to Mexico. However, the services exported to Mexico may differ from those generally exported to Latin America.

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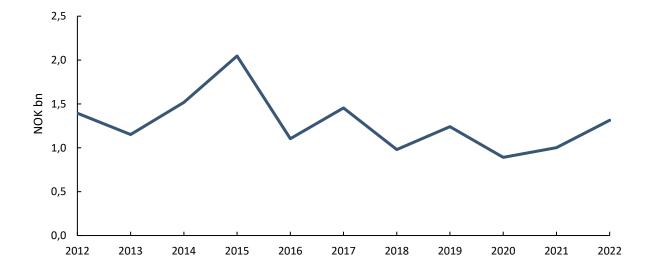
Figure 5. Exports of services from Norway to Latin America and the Caribbean in NOK billion. 2023. Source: Statistics Norway



The largest share of service exports to Latin America was "other services" and "shipping". The former likely includes services related to offshore activities. Although "shipping" might also include some offshore activity, it mainly contains export of services related to the maritime transportation of goods.

The graph below illustrates the historical development of the value of services exported from Norway to Mexico between 2012 and 2022. The value has remained relatively stable over the past decade, apart from a minor spike in 2015. Considering the likely increase in service prices in recent years and the consistent value, it's likely that the volume of exported services has experienced a slight decline.

Figure 6. Total value of exports of services from Norway to Mexico, 2012-2022. Source: Statistics Norway



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2.2 Imports from Mexico

In addition to exports, we have also analysed imports from Mexico to Norway, which have increased substantially in recent years. Mexico is currently positioned as Norway's fourth largest importer in North and South America, following the United States, Canada, and Brazil.

In 2023, Norway imported goods and services from Mexico totalling NOK 7.8 billion. Out of this, NOK 6.8 billion, or 87 percent, was goods imports. The graph below illustrates Norwegian imports over the past decade.

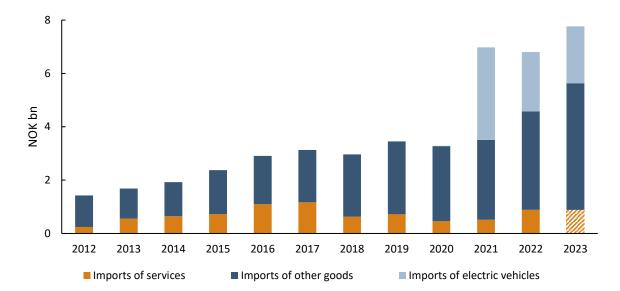


Figure 7. Imports of goods and services from Mexico to Norway, 2012-2022. Source: Statistics Norway⁶

Norway's imports from Mexico have increased about five times over the last decade, with a notable jump from 2020 to 2021. This growth was exclusively driven by an increase in imports of electric vehicles. Although Norway began importing electric vehicles from Mexico in 2018, the quantities were initially limited. In 2021 imports rose to NOK 3.5 billion. The increase coincides with the car Ford Mustang Mach-E becoming one of the best-selling cars in Norway. The Ford Mustang Mach-E is produced in Mexico and imports of this car model is probably driving the imports of electric vehicles from Mexico.⁷

Norway's imports of goods are greater than imports of services, both from Mexico and globally. While the imports of goods have increased the last years, imports of services have remained relatively stable. One reason why imports of services from Mexico have not experienced the same growth as imports of goods may be that trade in services is often more dependent on factors such as expertise and adaptation to local conditions. This can make it more difficult to establish and expand trade in services compared to trade in goods, which can be more standardised and linked to established international supply chains.

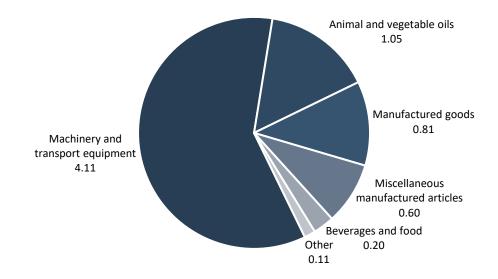
The figure below illustrates the distribution of total goods imported from Mexico across various commodity categories.

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⁶ Data for imports of services for 2023 are not available and we have therefore reused imports for 2022 as an estimate for 2023.

⁷ Ranking of most popular car models in Norway - TU.no

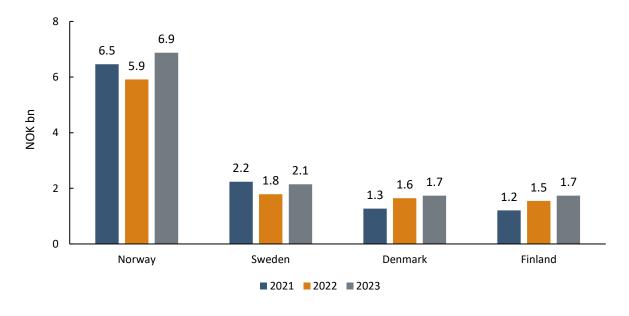
Figure 8. Imports of goods from Mexico to Norway in NOK billion. 2023. Source: Statistics Norway



Along with machinery and transport equipment, animal oils and manufactured goods are also significant contributors to Norwegian imports. Animal and vegetable oils primarily encompasses fats and oils derived from fish, used for animal and fish feed. The category accounted for 15 percent of imports in 2023. Casing and tubing for oil and gas constitute the majority of manufactured goods and represent the third largest category of imported goods, accounting for 9 percent of total imports.

As for goods export, we find it valuable to contextualise Norwegian imports by comparing them to those of other Nordic countries. The graph below illustrates Nordic countries' imports of goods over the last years.

Figure 9. Imports of goods from Mexico to Nordic countries, 2021-2023. Source: Eurostat and Statistics Norway



Norway emerges as a large importer of goods from Mexico, with 3-4 times more imports than the other Nordic countries. It is worth noticing that Norway stands out as a net importer of goods from Mexico, whereas the other Nordic countries are net exporters.

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3 Norwegian companies' presence in Mexico

We have identified around 50 Norwegian companies which operate in Mexico, with a particularly strong presence in the energy sector. These companies collectively employ approximately 4 000 people in Mexico, with Wallenius Wilhelmsen alone accounting for over half of these jobs. Norwegian multinationals employ fewer people in Mexico compared to Swedish and Danish companies. In addition to the presence of Norwegian companies in Mexico, Norway also invests around USD 6.1 billion through the Norges Bank Investment Management fund. Of this, USD 3.9 billion is allocated to 55 publicly traded companies, while the remaining USD 2.2 billion is invested in mainly government bonds.

3.1 Norwegian multinationals in Mexico

There are around 50 Norwegian companies operating in Mexico. Of these, nearly 20 are active in the energy sector, primarily in oil and gas with companies like DNV GL and Rystad Energy, as well as some in renewable energy. The IT, aquaculture, and manufacturing sectors are also represented. Additionally, Yara is a large contributor in the agriculture sector, and Wallenius Wilhelmsen and Höegh Autoliners are well established in the Mexican shipping industry.

In terms of number of jobs, Mexico ranks fifth among countries with the most jobs in Norwegian multinational companies when excluding European countries, and fifteenth when considering all countries. The former is illustrated in the graph below.

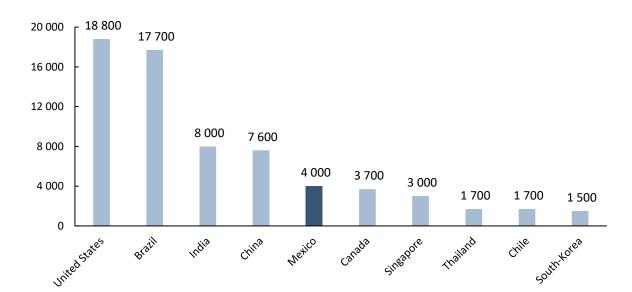


Figure 10. Top 10 countries by number of jobs in Norwegian multinational companies, excluding Europe. 2022. Source: Statistics Norway.

Wallenius Wilhelmsen stands out with over 2 100 employees across their group companies in Mexico. According to Orbis, a global database with information on companies, Norwegian companies Yara and Kongsberg Automotive employ 430 and 260 employees in Mexico, respectively.

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⁸ Wallenius Wilhelmsen Annual report 2023

If we compare employment from Norwegian companies with Swedish and Danish ones, we see that Norwegian companies employs far fewer, as shown in the figure below.

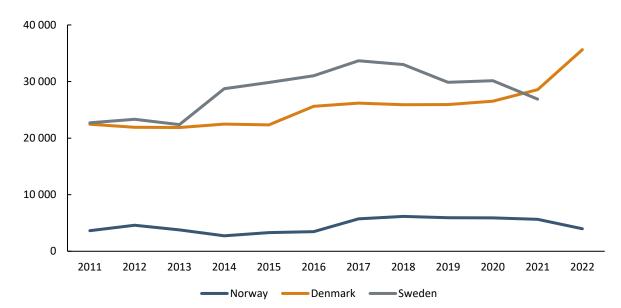


Figure 11. Number of jobs in Norwegian, Swedish, and Danish companies in Mexico. Source: Statistics Norway, Statistics Denmark, and Swedish Agency for Growth Policy Analysis.

In 2022, More than 90 Danish multinationals employed a total of 36 000 people in Mexico.⁹ Swedish multinationals employed 27 000 people across 70 companies in 2021.¹⁰ Both Swedish and Danish companies have an average of around 390 employees, while the average for Norwegian companies is around 80 employees.

3.2 Investments by NBIM

Norges Bank Investment Management (NBIM) is the largest sovereign wealth fund in the world, and invests in a wide range of asset classes, including equities, fixed income, and real estate, across various regions and markets. The goal of the fund is to preserve wealth for current and future generations of Norwegians. The fund's objective is to invest in a globally diversified portfolio to achieve the highest possible return while adhering to principles of responsible and ethical investing.

The fund's investments are benchmarked against a reference index established by the Norwegian Ministry of Finance. The reference index is determined based on indices from FTSE Group and Bloomberg Barclays Indices. The index largely dictates how the fund is invested, both in terms of the ratio between stocks and bonds and the sectors and countries in which the fund invests. Mexican companies accounted for 0.36 percent of the reference index as of the end of February 2024.

Currently, NBIM has invested approximately USD 6.1 billion in Mexico. This constitutes approximately 0.3 percent of all the fund's investments. Out of this, approximately USD 3.9 billion is invested in a total of 55 publicly traded

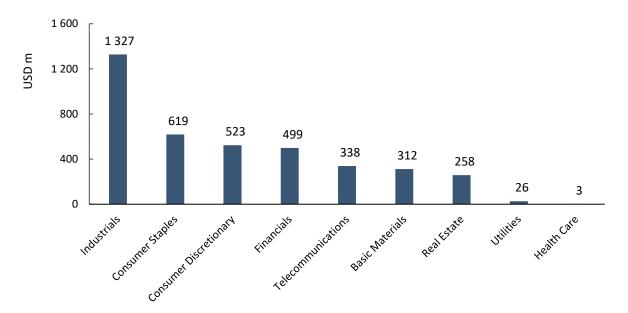
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⁹ <u>Danmarks Statistik - Danish subsidiaries abroad</u>

Tillväxtanalys – Swedish corporations with subsidiaries abroad

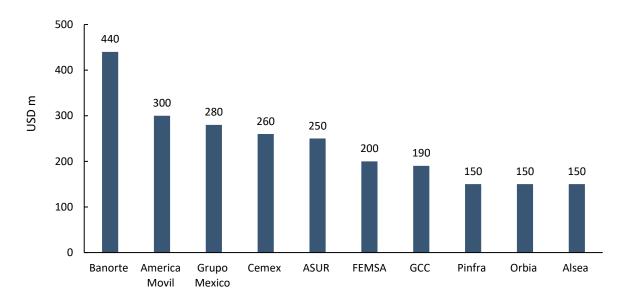
companies. The remaining USD 2.2 billion is invested in Mexican bonds. The figure below illustrates how the fund's equity investments in Mexico are distributed across different sectors.





As seen in the figure above, over 30 percent of the fund's investments in Mexico are allocated to the industrial sector. In this sector, the fund has a total of 12 investments, with the largest investments in companies like Cemex and ASUR. The fund has invested approximately USD 250 million in both companies. However, the fund's largest individual investment in Mexico is in Banorte. This investment amounts to USD 440 million and represents close to 90 percents of the investments by the fund in the financial sector in Mexico. This is also shown in the figure below, which displays the fund's top 10 individual investments in Mexico.

Figure 13. NBIM's largest equity investments in Mexico as of December 2023. USD million. Source: NBIM



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4 Potential for Norwegian companies in Mexico

Trade between Norway and Mexico is limited but increasing, as shown in the previous chapters. The upward trend indicates that a further strengthening of the bilateral economic trade relations is possible. By looking at internal and external factors of the Mexican market and specifics of the Norwegian capabilities in potential industries, we have identified five sectors there is a high potential for increased export or a potential for successful investments in Mexico. Increased trade and integration are these sectors will benefit both Norwegian companies and the Mexican economy.

Considering push and pull factors according to our framework, we find that the Mexican market holds large opportunities for Norwegian companies. We identify five sectors that can be classified as high potential sectors in the Mexican marked. These sectors are offshore suppliers, maritime industry, manufacturing of design and consumer goods, offshore wind, and green hydrogen. In addition, we find that there are additional sectors where there is a potential for closer integration or increased exports, but where factors in either the Mexican or Norwegian market limits the market opportunities.

In this chapter we briefly introduce our framework for identifying high potential sectors, before introducing the key internal and international factors that creates a potential for Norwegian companies in Mexico. Then, we will present the identified high-potential sectors. In addition, we briefly present action points for the Norwegian government to capitalise on the opportunities in Mexico.

4.1 Identifying high-potential sectors

In this report, we have built a framework that is designed to identify high-potential sectors. We begin by identifying macro factors that serve as push and pull factors for Norwegian companies the Mexican market. Firstly, we identify **internal factors** of the Mexican market identifies Mexico's market potential. Mexico is distant from Norway, both in terms of geographical location and culturally, compared to European countries or the US. There must be specific opportunities in the sectors or other factors which make Mexico an interesting market. Three internal push and pull factors are particularly relevant when considering if Mexico is an interesting market for the sector in question.

- Market size & market development
- Policy development & ambitions
- Risk factors & challenges

Secondly, we look at **international factors** that that affects the market potential and development in Mexico going forward. This is factors relating to Mexico's trade relations and overall trends in international economy and trade. We focus on two relevant factors.

- Mexico's trade relations and bilateral relations with the US and with Norway
- Overall trends: Nearshoring, integrated supply chains and the green transition

For both internal and external factors, our focus is on identifying both positive and negative factors, as both sides are vital to understand the potential in the Mexican market for Norwegian companies.

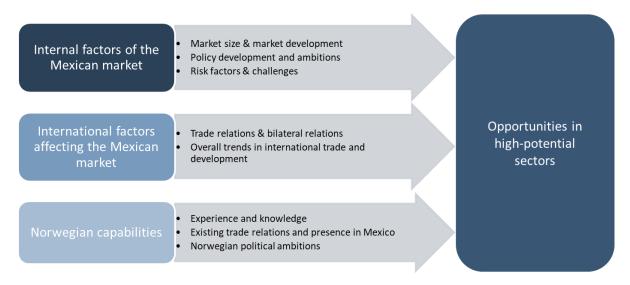
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We then turn to the Norwegian economy and consider what Norwegian companies have to offer in relevant industries, the so-called **Norwegian capabilities**. It is not sufficient that the Mexican market is considered attractive for Norwegian companies if the Norwegian companies do not have the capabilities to tap into this potential. Specifically, we consider comparative advantages of Norwegian companies. We have identified three factors which we believe are important prerequisites for Norwegian companies to capitalise on the opportunities in the Mexican market:

- Established sector in Norway with accumulated knowledge and experience
- Existing trade relations and presence in Mexico
- Norwegian political ambitions

The figure below summarises the framework.

Figure 14. Framework to analyse high-potential sectors



4.2 Push and pull factors for Norwegian companies in Mexico

In this section we will briefly explain the identified national and international factors influencing the market potential for Norwegian companies.

4.2.1 Internal factors

Stable macroeconomic environment and a growing middle class

Mexico is a large economy and a substantial economic force in Latin America. The country ranks among the 15 largest economies in the world and as the second-largest economy in Latin America. The country has also the second largest population in Latin America, with a population of approximately 128 million,

Over the last 30 years, the Mexican economy has on average grown by just over two percent annually. The income is unevenly distributed among the population, with 36 percent living below the poverty line and 35

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¹¹ World Bank - Mexico Overview: Development news, research, data

million people having a good or stable economic situation.¹² The market size, the growing economy and the growing middle and upper class, makes Mexico an interesting consumer market for Norwegian B2C companies, either for export or for establishing presence in the Mexican market.

Mexico is a relatively open and trade-dependent economy. The country has an extensive network of free trade agreements and enjoys preferential trade with 50 countries. The free trade agreements contribute to reduced costs when Mexican goods are exported to these countries.

Low wages and specialized work force

Mexico has a robust education system and a skilled and specialized workforce. Mexico also has a young population and a young work force. Both these factors contribute to a favourable labour supply the Mexican market. Further, the wage level in Mexico is low compared to other countries. Compared to for example China, another major manufacturing hub, both factory wages and non-factory wages are generally lower in Mexico. The solid labour supply and the low wage level makes Mexico an attractive destination for manufacturing companies that are looking to expand to the Americas.¹³

Well-developed manufacturing hub

Over the past decades, Mexico has transformed from being primarily an exporter of agricultural and energy products to becoming a prominent manufacturing hub. Mexico is today a global leader in production and export of automobiles, trucks, and car parts, and is gaining foothold in aerospace manufacturing, advanced manufacturing, and manufacturing of consumer goods. This change is, among other things, a result of Mexico's educated and specialised work force, low labour costs and its proximity to the United States. Unlike the oil and gas sector, the manufacturing sector is open for foreign companies and investments are encouraged. Mexico is attracting manufacturing companies from all over the world.

Mexican authorities have established several industrial parks, which are areas designated for heavy industrial activities. These parks facilitate the integration of production, transportation, and storage facilities, thereby creating an efficient and well-designed environment for manufacturers. These parks have often hired local security, which help to reduce the security risk for foreign companies. Many industrial parks are strategically located near the Mexican-US border, thus promoting trade between Mexico and the United States. The industrial parks create a safe and well-designed environment for international companies, which can help to reduce the risk and ease the operations also for Norwegian companies that want to establish production facilities in the Mexican market.

Security risks: Crime

National levels of criminal activity are high in Mexico. Crime such as road cargo theft and extortion could be potential safety risks for companies operating in Mexico. Violence, robbery, and express kidnappings are also a potential risk for private persons. Mexico has also a high level of organised criminal activity, often linked to narcotics-related criminal activity. The security risk varies among the different regions, with extremely high presence of organised crime in some parts of the country while the larger cities are often viewed as safer to do business in. The security situation is also challenging at many Mexican ports, where narcotics-related incidents

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¹² Defined as living not in poverty and not being vulnerable to falling into poverty. Source: Coneval - https://www.coneval.org.mx/Medicion/MP/Paginas/Pobreza_2022.aspx

¹³ https://www.bloomberglaw.com/external/document/X7FIB1NK000000/commercial-professional-perspective-nearshoring-to-mexico-opport

are causing concern. As the security situation is much more severe than in Norway, security is one of the main barriers for Norwegian companies in the Mexican market. Many businesses operating in Mexico choose to hire private security to mitigate the risk.

Political risk: Uncertainty regarding future energy policy and nationalistic policies

Mexico held election on June 2nd, and elected Claudia Sheinbaum as the next president. She represents the leftwing political party Morena, which is the same party as the sitting president, Andrés Manuel López Obrador. President Obrador has led Mexico in a more nationalistic direction. This has been most notable in the energy sector. Mexico implemented an energy reform in 2013, that opened up the power sector for private investment. Under President Obrador's leadership, the Federal Government has worked to reassert national control over the electricity market. The Federal Government has not succeeded in changing the legislation, but they have limited the market access of private companies on the electricity market. 14 The lack of new exploration opportunities has resulted in many private companies leaving Mexico, including the Norwegian company Equinor. The stateowned oil company Pemex have not been able to keep up production. The Mexican crude oil production has dropped by 40 percent between 2000 and 2022 and Mexico has become more dependent of imports of natural gas. Mexico now experiences an energy shortage, with periodic blackouts. Going forward, electricity production is expected to come under even more pressure due to an expected decline in hydropower production caused by drought and reduced water resources. Hydropower is today the leading technology for producing clean energy in Mexico, accounting for close to half of the total electricity production from renewables. 15 At the same time, the energy demand is expected to grow going forward, following an expected increase in investments and manufacturing activity. Mexico therefore has a direct need to transition towards renewables to increase domestic energy production.

President-elect Sheinbaum has consistently emphasised the need to transition to renewable energy. During her campaign, Sheinbaum announced plans to invest more than USD 13 billion on new energy projects through 2030 and stated that wind and solar power would be essential for the plan. These statements follow Sheinbaum's strong background in renewable energy, both academically and as previous head of the Ministry of Environment for Mexico City. However, Sheinbaum has also voiced support for the state-owned oil company Pemex, and analysts predict that much of the current energy policies will be continued when Sheinbaum takes office, but with an increased focus on green energy. It is still unclear how her policies will facilitate the change, if there will be sufficient governmental support and regulatory developments, and what energy sources that will receive support. If there is such a change, this will bring great opportunities for foreign and Norwegian energy companies.

Cultural differences & institutional differences

In addition to the above-mentioned risks, there are also language barriers and cultural barriers when entering the Mexican market. Several companies that are operating in Mexico today have highlighted that there are severe differences between the Norwegian and Mexican culture. The difficulties are expected to be largest in the first phase of establishing operations in Mexico. To mitigate these barriers, Norwegian companies can hire local staff and local advisors such as accountants and lawyers. This will reduce the risk of misunderstandings and help to navigate the complicated bureaucracy in Mexico. In general, Mexico is more bureaucratic than Norway, both

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¹⁴ Elizondo A. et al - Mapping renewable energy policy development at the state level in Mexico - NUPI report 6/2023

¹⁵ International Energy Agency - https://www.iea.org/countries/mexico/renewables

¹⁶ Wilson Center - The Mexican Energy Sector after AMLO

¹⁷ https://www.reuters.com/world/americas/mexico-presidential-frontrunner-pledges-136-billion-energy-investments-2024-04-16/

when it comes to establishing a company and to run operations. This is both costly and time consuming, and companies should therefore connect with local advisers. It has also been highlighted in interviews that the bureaucracy is paving way for corruption, which is another challenge for Norwegian companies in the Mexican market.

Another issue that has been highlighted in our interviews with industrial actors, is the importance of relocating to Mexico. This is emphasised as crucial for companies to successfully compete in the Mexican market. One reason for this is that the industry is based on fast requests and deliveries. This also has a cultural reference, as Mexican working life and culture in general have less planning and more spontaneity than in Norway.

4.2.2 International factors

Closeness to the US market

In economic terms, Mexico benefits from its location next to the world's largest economy, the United States. Through the geographical proximity a strong interdependence with the US economy has developed. Mexico and the US are now each other's largest trading partners, after trade between the two countries have grown over the last years. As labour costs are lower in Mexico than in the US, many US and international companies have set up production facilities in Mexico to export goods to the US.

Trade between the two countries is governed by the US-Mexico-Canada Agreement (USMCA). This trade deal entered into force in 2020 and replaced the North American Free Trade Agreement (NAFTA). The USMCA continues free trade between Mexico and the US (and Canada) and ensures that goods can be traded efficiently across the Mexican-US border. The USMCA establishes wider rules of origin than its predecessor NAFTA and the trade agreement holds provisions that that build on the trading partners' need to incentivise production in North America and increase dependency on the North American region. The USMCA thus ensures that more goods can be traded at preferential terms and more inputs must be produced in the region. This also provides opportunities for Norwegian companies that wish to export their goods from Mexico to the US.

Nearshoring and more integrated supply chains

Mexico is increasingly interesting for geographical relocation of manufacturing activities, a trend referred to as nearshoring. The trend is a result of many companies reevaluating their global production networks and prioritising supply chain security and resilience because of US-China trade tensions, the Covid-19 pandemic and following supply chain disturbances and increased uncertainty due to Russia's invasion of Ukraine. This has led the US to encourage and focus on improving supply chain resilience and foster the development of industries critical for security, climate, and competitiveness. The shift has led to the American support programmes such as the Bipartisan Infrastructure Bill, the CHIPS and Science Act, and the Inflation Reduction Act (IRA).

For Mexico, the US initiatives, and the overall geographical relocation trend, offers an opportunity to attract investments from the US and other countries.²⁰ Following the tensions between the US and China, and with no outlook of a changing US policy after the election, it is probable that the political and financial incentives for nearshoring to Mexico are likely to remain high for companies serving the US market.

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¹⁸ US-Mexico Forum 2025 report - https://usmex.ucsd.edu/_files/usmex-forum-2025_report_trade.pdf

¹⁹ https://carnegieendowment.org/2023/12/14/US-mexico-relationship-is-about-more-than-migration-pub-91254

²⁰ US-Mexico Forum 2025 report - https://usmex.ucsd.edu/_files/usmex-forum-2025_report_trade.pdf

Mexico as a manufacturing country for green energy due to IRA

The 2022 United States Inflation Reduction Act (IRA) is a legislative package that contains green subsidies in the order of USD 400 billion over 10 years. It is a significant step in US climate policy and is expected to reduce two-thirds of the greenhouse gas emissions gap between current policy and the US 2030 climate target²¹ The IRA offers fixed levels of subsidy for net-zero technologies, such as wind and solar energy, battery production and energy infrastructure. The support program offers tax subsidies for clean energy production in the US and requires inputs like critical minerals or battery components to be produced in North America or in a country that the U.S has a free trade agreement with.²² The IRA also offers tax subsidies for buyers of electric vehicles, with higher tax subsidies if the vehicle and a percentage of the battery components are manufactured or assembled in North America.^{23 24} The IRAs incentives to source inputs from neighbouring countries or free trade partners, makes Mexico a highly relevant market for production of these products. The IRA does not put restrictions on the nationality of the companies that are producing these products, and the IRA therefore also holds possibilities for foreign companies that are established in the Mexican market.

EFTA-Mexican FTA and tax agreement

The free trade agreement between the EFTA states (including Norway) and Mexico entered into force in 2001. Mexico is among the larger markets that Norway has established preferential duties with. Under the FTA, Norway has duty-free access to Mexico for all industrial products and for all important seafood products. The zero duties ensures that Norwegian goods can be traded to Mexico at competitive or better terms than goods from other countries. For Norwegian producers this means reduced costs when exporting to Mexico compared to other countries that Norway does not have a free trade agreement with. This is in contrast to the other main market in Latin America, Brazil, where Norwegian goods are met with tariffs.

Norway and Mexico have also entered into a tax agreement, which reduce double taxation of income or assets and thus also reduce obstacles for cross-border business transactions. The agreement has an important function for investments in one of the countries, as it avoids double taxation on profits and revenue from foreign investment. Although important, both Mexico and Norway have entered into such tax agreement with numerous countries, and the same benefits could be obtained also in many other countries.

Risk in US relationship: The future of the USMCA

The first joint review of the USMCA is to take place in July 2026.²⁵ At the joint review the parties will among others, review the operation of USMCA. The topics that are to be discussed is not yet decided, but it is likely that Chinese goods will be one of the issues. In the last years, Chinese manufacturers and suppliers have set up production facilities Mexico and export their goods from Mexico to the US. The US view this as a way for Chinese companies to avoid the US tariffs imposed on Chinese goods. The US concerns regarding Chinese companies using Mexico as a backdoor to the US market could potentially create challenges for trade between the neighbouring countries. Some experts also predict that if Trump wins the election, he will try to negotiate better

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²¹ Kleimann et al. (2023)., How Europe should answer the US Inflation Reduction Act, Policy Contribution Issue n°04/23, February 2023 https://www.bruegel.org/sites/default/files/2023-02/PB%2004%202023_0.pdf

²² There has been some confusion regarding how to interpret this requirement and which countries that are covered by relevant provisions

²³ https://www.federalregister.gov/documents/2023/04/17/2023-06822/section-30d-new-clean-vehicle-credit

²⁴ The percentage of the value of the components contained in the batteries that are produced in North America will increase year by year the coming years

²⁵ https://www.brookings.edu/articles/usmca-review-upcoming-elections-and-a-path-forward/

terms in the agreement.²⁶ At the joint review, the parties also have the possibility to withdraw from the agreement.²⁷ Failure to renew the USMCA would complicate investment and business planning and reintroduce significant uncertainty in economic relations across North America. This could pose a threat for companies that are established in Mexico and serves the US market.

4.3 High potential sectors for Norwegian companies in Mexico

In this section we will provide a deep dive into the five industries where we find that Mexico offers a high potential for Norwegian companies either for establishing a physical presence, a sales office or to increase exports. The five sectors are selected based on the current and future potential of the sectors in Mexico and sectors where Norway has a competitive advantage or high potential. For each of the five selected sectors will we describe the sector today, future potential and why the sector holds a strong potential for Norwegian companies.

The selection of these five sectors does not imply that other sectors lack potential for Norwegian companies. Some sectors do hold potential, but either the Mexican market or the sector in Norway is currently not conducive to expansion. Section 4.3.6 includes brief assessments of such sectors where potential exists but is limited by certain factors.

4.3.1 Maritime industry

Mexico has a large maritime industry, with main activities related to shipping and logistics, and the offshore industry. Mexico is a major hub for shipping of goods, as the country is in an excellent position for shipping of goods due to its geographical location in between North and South America and with access to both the Pacific and Atlantic Oceans. In total four Mexican ports are on the top 20 ranking of largest ports in Latin America²⁸, and with both the Lázaro Cárdenas and Manzanillo being important regional ports.

The demand for shipping services in Mexico stem partly from the large manufacturing sector, which is dependent on shipping services for its imports of intermediate goods and exports of final products. The car manufacturing industry is one of the large customers for the shipping industry, with an annual production in Mexico of 3.5 million cars and an export share of around 90 percent.^{29,30} The Norwegian shipping companies Höegh Autoliners and Wallenius Wilhelmsen are both established in Mexico. Both companies operate Ro-Ro (roll-on/roll-off) vessels that are used for transport of cars, heavy machinery, mining equipment, equipment for the energy sector and other heavy machinery and equipment at sea. Wallenius Wilhelmsen also runs their logistics operations for the automotive industry from Mexico and employs more than 2 000 people in Mexico.

The size of the shipping industry and port activity indicates that there also is a demand for equipment and service providers in the maritime industry. Yet, we find that only a few Norwegian companies are present in this part of the maritime sector in Mexico, specifically in maritime technology. We also find that there are some vessels in operation in Mexico today that has been built by Norwegian shipyards. The vessels are mainly ferries or vessels related to the offshore industry.³¹ Mexico does not have a substantial national shipyard industry, creating

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²⁶ https://www.brookings.edu/articles/usmca-review-upcoming-elections-and-a-path-forward/

²⁷ https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/34 Final Provisions.pdf

²⁸ https://www.porteconomics.eu/ranking-2023-of-latin-american-ports-and-container-terminals-the-seesaw-game/

²⁹ https://www.trade.gov/country-commercial-guides/mexico-automotive-industry

³⁰ https://www.amia.com.mx/publicaciones/industria_automotriz/

³¹ Based on data from Menon's Leading Maritime Cities report

opportunities for Norwegian shipyards. It is also worth noticing that Mexico has a sizeable fishing sector and fishing fleet, with a fleet consisting of close to 15 000 fishing vessels, mostly of smaller vessels. ³² This could hold a potential for Norwegian shipyards that are well-experienced in providing smaller fishing vessels for the Norwegian fisheries sector.

The Norwegian maritime sector consists of everything from ship owning companies, shipyards, and equipment and service providers. These companies form an industry cluster, which is considered among the most innovative and complete in the world. The maritime industry in Norway has undergone significant structural and content-related changes. Over the past decades, the industry has pivoted from being predominantly focused on deep-sea activities to serving the oil and gas sector. In recent years, the industry has also diversified to serve various maritime sectors, leading to a diverse and broad-based Norwegian maritime industry that could tap into various segments of the Mexican maritime market.

The green transition and cutting emissions are on the agenda the Norwegian maritime industries, and increasingly so also for the Mexican industry although there up until now has been a lack of green initiatives from the Mexican government's side. The green transition holds possibilities for the Norwegian maritime industry, as it is in the forefront of the green transition of the maritime industry. Norwegian shippards are leaders in low and zero emission vessels, and Norway is among the leaders in terms of development and implementation of green maritime technology. This makes the industry well positioned for the green transition, both in Norway and abroad.

Overall, the green transition, Mexico's position as a hub between the different continents and the large export and imports offers opportunities for Norwegian shipping companies and logistic companies. The Norwegian maritime industry is well-developed, and the Mexican industry also holds possibilities for service providers in the maritime industry such as maritime technology providers and possibly also Norwegian shippards.

4.3.2 Offshore suppliers

Mexico ranks as the 11th largest oil producer in the world, leading Norway by a single spot.³⁴ Mexico also has production of natural gas, although production volumes are relatively limited.³⁵ The market for offshore suppliers is well-developed. The sector today holds possibilities for Norwegian offshore suppliers delivering services to the extensive petroleum industry. Though some of the offshore suppliers set up offices following Equinor's venture in the Mexican market, many have stayed after Equinor's withdrawal from Mexico. However, the Norwegian offshore supply presence is relatively limited compared to the larger clusters in both Brazil and Texas.

For the petroleum sector to further develop, there is a need to increase exploration efforts. Such a change is dependent on the next administration's willingness to accept the current regulatory framework for the energy sector and willingness to open up the market for new auctions and public/private partnerships. If the sector is further developed, it will present renewed opportunities for Norwegian offshore suppliers. Norway and Mexico have a history of bilateral cooperation in the petroleum sector, where the Energy Reform of 2013 was based on a close dialogue between the Mexican authorities, the Norwegian government and Norwegian petroleum

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³² FAO – The State of World Fisheries and Aquaculture - Fishing fleet (fao.org)

³³ Menon-publikasjon nr. 29-2022, Grønn maritim 2022 – Teknologi, Utslipp, Verdiskaping og Sysselsetting

³⁴ International Energy Agency - https://www.iea.org/countries/mexico/oil

³⁵ International Energy Agency - https://www.iea.org/countries/mexico/natural-gas

companies. Significant oil reserves have been confirmed in Mexico, and Mexico has the possibility to remain a major producer of oil also going forward if the sector is developed.

The oil and gas industry in Norway has in recent years been under pressure to reduce greenhouse gas emissions, and the Norwegian offshore supplier industry has developed world-leading expertise in developing low carbon technologies for the petroleum industry,³⁶ This is likely to give Norwegian offshore suppliers delivering services to the oil sector an edge over its competitors in the years to come.

The competence that the Norwegian offshore suppliers possess puts them in a good position to deliver services to the offshore wind industry in Mexico, if the industry is developed. Similarly, Norwegian companies can have a competitive advantage in the market for services related to floating solar power.

4.3.3 Manufacturing of design and consumer goods

Manufacturing of design and consumer goods are products intended for the private and contract markets. As Mexico is a major manufacturing hub, both for industrial goods and for finished goods, many manufacturers of design and consumer goods have set up production facilities in Mexico. Both American companies and companies from other countries are attracted to the market due to the low wages, the highly specialised work force, the closeness to the US market and the tariff free trade to the US, which makes Mexico an excellent country for establishing production facilities that can serve the U.S market.

Norwegian manufacturing and design encompass a wide range of products, including furniture, interior items, sports equipment, machinery, 3D printers, car bumpers, composite products and more. The broader finished goods industry also produces parts for the defence industry, maritime and marine sectors, renewable energy production, as well as components and high-tech solutions integrated into other industrial products. In a previous study of the finished goods industry in Norway, Menon found that companies in the industry export goods worth NOK 77 billion annually, but that the opportunities are significantly greater and many more small and medium-sized enterprises have the potential to compete in the global market.

With a population of close to 130 million people and a middle- and upper class consisting of 35 million people, the Mexican market is an attractive one for Norwegian producers of high-end designer products, such as furniture or other interior products. Nordic and Scandinavian design has gained attraction internationally in recent years. According to industry actors it has also increased in popularity in a Latin-America, predominantly in Brazil and Chile. Norwegian manufacturers of design brands should capitalize on the increased awareness of Scandinavian design in Latin America, and Mexico could be a potential export market for Norwegian manufacturers of design and consumer goods.

Mexico also stands out as a possible export market because Norway enjoys zero tariffs on most consumer goods to Mexico, through the EFTA-Mexico FTA. For example, Norwegian producers of furniture can export their products to Mexico at a zero tariff but would be met with tariff rates ranging from 10 to 25 percent³⁷ without a free trade agreement. The agreement therefore ensures that Norwegian furniture producers can export their products to the Mexican market at the same terms as other free trade partners of Mexico, and at better terms that countries that do not enjoy preferential trade with Mexico. This also means that Norwegian producers can

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³⁶ <u>Menon-publikasjon nr. 53-2023 Eksportpotensial Nasjonalt Eksportråd</u>

³⁷ https://www.dsv.com/en-us/about-dsv/press/news/us/2023/08/updates-to-mexico-import-and-export-tariffs

export their goods to the Mexican market at lower cost than to for example the Brazilian market, which is the largest market in Latin America.

We find that there currently are no Norwegian manufacturers of design and consumer goods that are established in Mexico with production facilities, although there are some companies established elsewhere in Latin America. A handful of Danish and Swedish companies are present in Mexico, showing that there is a potential for Nordic companies in the market. Two examples of Nordic companies that are established in the Mexican market are IKEA and Lego. Lego has their largest manufacturing site in Ciénega de Flores. The site is located close to the US border and is serving the US market.

A challenge that has been highlighted by industry players that was interviewed for this report, is the risk of commercial infringement of designer goods as the intellectual property rights are weak in Mexico. To reduce risk, companies should take measures to protect their intellectual property rights, including registration under Mexican law.³⁸

In summary, Mexico has a great potential for Norwegian high-end design companies that want to export goods directly to the Mexican market, among other due to the EFTA-Mexican free trade agreement. Mexico also has a high potential for Norwegian manufacturers that are looking to establish production facilities to serve the US market or the Mexican market. Although there are no known manufacturer or design companies precent in Mexico today, the presence of Danish and Swedish companies shows that there are possibilities in the market.

4.3.4 Offshore wind

Offshore wind is considered a crucial technology for the transition to a low-carbon society, due to its potential to provide clean, reliable, and abundant energy, without occupying large land resources. Currently, offshore wind plays a minor role in the energy mix of Norway, while it is non-existing in Mexico.³⁹ Mexico has no currently operating offshore wind farms. One project owned by the Swedish operator Hexicon was previously under planning, but the project was put on hold in 2014.⁴⁰ Nevertheless, offshore wind has a significant potential in Mexico, with estimated technical potential of close to 870 GW, split between fixed and floating capacity.⁴¹

Norwegian companies have advanced offshore expertise and technological insight, and they deliver high quality goods and services. In addition, many of the relevant Norwegian companies already have international experience, and many have established a presence in the US or in Brazil. Examples of offshore wind technologies where Norwegian companies are leading include cables, floating wind concepts, and installations and maritime operations. Further, cooperation will promote synergies and provide international market access for Norwegian companies entering the offshore wind market.

It is expected that Mexico will increase the focus on renewable energy production going forward, and with Mexico having a great potential for offshore wind, this could be one of the sectors that are developed. However, to develop the sector will take time, and possibilities will probably emerge only in the medium-term. Additionally, it is uncertainty to what degree Mexican government will allow foreign companies to enter the offshore wind market. For the petroleum sector, the current administration has put in rules ensuring national ownership over

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³⁸ U.S International Trade Administration - https://www.trade.gov/country-commercial-guides/mexico-protecting-intellectual-property

³⁹ 4C database

⁴⁰ 4C database

 $^{^{41}\} World\ bank\ -\ https://documents1.worldbank.org/curated/en/540571586840981675/pdf/Technical-Potential-for-Offshore-Windin-Mexico-Map.pdf$

the petroleum resources, while the onshore wind sector is open for foreign companies. If the offshore wind sector is developed and opened for foreign companies, it will be a highly relevant market for Norwegian offshore wind companies as sub-contractors, suppliers of technology and services, and owners of offshore wind park.

4.3.5 Green hydrogen

Hydrogen, including hydrogen derivatives such as ammonia, is often highlighted as a key energy carrier to achieve net-zero emissions by 2050. There are three main reasons for green hydrogen's potential: it is suitable for transport and industries where direct electrification or batteries are difficult to implement; it can significantly reduce emissions in industries currently using hydrogen with high emissions; and it could play a role in energy storage, especially in combination with variable energy sources like wind and solar power. Given its high energy content and environmentally friendly combustion products (water), hydrogen is considered by many as an important fuel of the future.

Green hydrogen is produced through the electrolysis of water using renewable energy, making it a carbon-free but energy-intensive process. There are other types of carbon-free hydrogen, such as blue hydrogen, which is produced through steam reforming of natural gas with carbon capture. While Norway has significant expertise in both natural gas handling and carbon capture, our focus here is on green hydrogen. This is due to the limited natural gas production in Mexico, which in turn means that the sector would likely struggle to compete with countries like the US, which already have an abundant supply of cheap natural gas.

There are currently several hydrogen projects under planning or development in Mexico. According to the business Hydrogen Insight, there are at least 15 projects under development with estimated capacity of up to almost 7GW in Mexico. ⁴² In December 2023, a Danish investment fund announced plans to invest USD 10 billion in a green hydrogen project producing hydrogen for the shipping sector. ⁴³ The willingness to invest in the green hydrogen industry in Mexico stems, among other, from the large technical potential for both cheap wind and solar, as well as the proximity to the US. Although there are some initiatives in the hydrogen sector in Mexico today, the development is only expected to accelerate if the government allocate funds that enables the sector to grow. This is because green hydrogen today is not commercially profitable, and that the US through the Inflation Reduction Act offer significant subsidies of up to USD 3/kg green hydrogen.

For low and zero-emission hydrogen, the export potential from Norway is linked mainly to equipment deliveries (electrolysers for green hydrogen), services exports such as engineering and consulting, as well as potential ownership of hydrogen production facilities. Export of actual green hydrogen from Norway to Mexico is limited due to high transportation cost.⁴⁴ Norway has a range of resources and industry experience, which makes it particularly well suited to drive innovation in hydrogen production and technology development. These competitive advantages mean that the Norwegian hydrogen industry already has developed into one of the most advanced in Europe. Today it consists of both hydrogen and ammonium production and distribution, as well as equipment and technology distribution and service providers. The Norwegian hydrogen industry's own expectation is that international sales will increase from NOK 1 billion in 2021 to roughly 60 billion in 2030.⁴⁵

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 $^{^{42}}$ https://www.hydrogeninsight.com/transport/mexico-has-about-7gw-of-green-hydrogen-projects-under-development-without-any-subsidies-lined-up/2-1-1627318

⁴³ https://kommunikasjon.ntb.no/pressemelding/18034742/copenhagen-infrastructure-partners-signs-mou-with-mexican-authorities-for-helax-istmo-a-green-hydrogen-project?publisherId=4954260

⁴⁴ Menon-publikasjon nr. 32-2024 Eksportmeldingen 2024

⁴⁵ Menon-publikasjon nr. 134-2022 Verdien av den norske hydrogennæringen

4.3.6 Other sectors

In addition to the five sectors presented above, there are also other sectors where potential exists but is limited by certain factors. Our assessment of some of these sectors are presented below.

Seafood: With a population of around 140 million and an annual seafood consumption per capita of 14 kg, Mexico is a significant seafood market. However, none of the most consumed species are produced, captured, or exported from Norway. In 2023, Norway exported seafood to Mexico worth NOK 150 million, accounting for less than 1 percent of the global seafood exports from Norway. Mexico is today a very limited market for Norwegian salmon, due both to food traditions and because the long distance makes it difficult to export fresh salmon at a low cost. Norway's largest export product to Mexico is bacalao, which is consumed by Mexicans during Christmas. The exports of bacalao to Mexico have fluctuated over the last years and it is expected that this trend will continue going forward. In the coming years, the demand side will probably also be under pressure, due to reduced fishing quotas for cod in Norway, which could limit the export of bacalao of all species to smaller markets such as Mexico. Based on this, there is not expected to be a significant potential for increased exports to Mexico of bacalao in the short and medium term. To increase the export of seafood to Mexico, both of salmon, bacalao and other products, would require large marketing resources and improved logistics, and there are other markets where the potential is higher, the market more developed and where the Norwegian seafood industry shows more interest. In summary we do not foresee that the Mexican market will emerge as a major growth market for Norwegian seafood in the short or medium term.

- Other emerging green technologies: In this report we have emphasised the opportunities for Norwegian companies in green hydrogen and offshore wind but there are also other green technologies where the deployment of technologies in Mexico could hold possibilities. Norway has long traditions of environmental sustainability, innovative energy solutions, and renewable energy production. On the technological side of the green transition, Norway has particularly strong foundations for developing solutions and products that can be produced and deployed globally, including in Mexico. Solar power and onshore wind production have been on the rise in Mexico in recent years. If these sectors are opened to foreign ownership, this could present opportunities for Norwegian companies, such as Statkraft, Scatec Solar or Norsk Renewables. The latter two companies are already familiar with the region as they both have developed solar power plants in Brazil. The next administration is expected to develop renewables energy production, but it remains to be seen how the policies will be designed, and the future growth potential appears to be limited at least in the short and medium term.
- electrification and for renewable energy storage. Mexico is among the top car manufacturers globally and is also producing electric vehicles. As the transition to electric vehicles continue, Mexico will have an increasing demand for battery cells. Norway has ambitions of being a leader in developing a more sustainable future, with battery as one of the key areas of ambition in green technologies. Access to minerals, inexpensive green power and high expertise in the chemical industry give Norway comparative advantages in the development of the battery industry. ⁴⁶ The Norwegian battery technology value chain cover a wide spectrum, from the production of anode and cathode materials to the actual cell production, and from module assembly to recycling. One could imagine that Norwegian companies

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⁴⁶ Menon-publikasjon nr. 32-2024 Eksportmeldingen 2024

could consider establishing production facilities or export to the Mexican market. However, the IRA offer substantial tax credit to investments in battery capacity or production of battery or battery components if the production takes place in the US⁴⁷, which limits the potential for Mexico as a manufacturing country for batteries.

Health industry: Mexico has an advanced health care sector, and a highly developed pharmaceutical industry with more than 400 companies. The health sector in Norway is centred around a few areas where Norwegian companies are in the lead worldwide, such as contrast fluid, ultrasound equipment and radio pharmacy. Several of the leading companies produce their goods in Norway, and it is first and foremost the possibility of increased exports that could be a potential in the Mexican market. These companies already export their product to all over the world and although all export markets are potential markets for these companies, we do not find that the Mexican market is particularly relevant compared to other markets. This view is further emphasized by the Norwegian export reform "The whole of Norway exports", where the health industry is one of the focus sectors but where the reform identifies the EU as the most relevant market for Norwegian health. Mexican authorities have made advances towards the Norwegian health industry to attract Norwegian companies to the Mexican market, and some Norwegian companies have shown interest. However, as the smaller companies in the industry often have a tight financial situation due to high R&D costs, industry players have shared that the Mexican market can be perceived as distant and high risk compared to other potential markets. The lack of financial resources to scale up an overseas export effort is an obstacle for these companies' possibilities in the Mexican market.

4.4 Potential measures to capitalise on opportunities in the Mexican market

As documented in this report, Norwegian companies have a smaller presence in the Mexican market and export less to the market, than comparable countries. There are several reasons for this, ranging from structural economic factors to the individual companies' internal considerations and to the overall impression of the Mexican market. All these factors are difficult to change for Norwegian authorities. However, there are some measures the Norwegian government can take to facilitate closer economic integration and increased trade. In this brief sub-chapter, we will discuss these.

Menon has in a previously study documented that Norwegian export promotion efforts are fragmented ⁴⁸, partly because responsibility is distributed among various ministries. Overall, we found that by improving coordination of these efforts and leveraging each other's strengths, Norwegian export interests can be better promoted, leaving a potential to both increase exports volumes and export prices.

While writing this report, we have interviewed both Danish and Swedish trade promotion offices in Mexico. The Danish model for business support in international markets is based on a market-driven model. Under such a setup, the Danish Trade Council charge for the services offered to Danish companies in international markets. This ensures that the embassy delivers services that are useful and targeted for companies operating outside of Denmark. In the Norwegian setup, Innovation Norway has such a market-driven model while the embassies do not operate under such a model. In absence of a dedicated financial mechanism, it falls upon Norwegian

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⁴⁷ Menon-publikasjon nr. 46-2023 Battery Subsidy Regimes

⁴⁸ Menon-publikasjon nr. 18-2021 Oppskrift på norsk eksportsuksess

embassies to structure their efforts in a manner that provides the most valuable support to companies seeking to export to or establish a presence in foreign markets.

Mexico and the opportunities in the Mexican market is little known to Norwegian companies. In contrast, the Danish and the Swedish trade promotion offices, which have been interviewed during the writing of this report, experience that there is an established interest for the Mexican market. One trade promotion office has positive experiences from conducting proactive outreach to inform national companies about opportunities in Mexico. Such outreach, where one provides information about the market, market opportunities, and practical information on how to expand to the market, can help to increase the interest in the market and can help to reduce uncertainty and thereby lower the barriers to entering the market.

Bureaucracy is extensive in Mexico, and companies that are operating in Mexico are in need of the embassy's assistance to gain access to governmental authorities. The Ministry of Foreign Affairs can play a crucial role in finding contact points, contributing to dialogue and cooperation between Mexican governmental authorities and Norwegian companies operating in Mexico.

To establish presence in Mexico can be a lengthy and costly process, where companies depend on finding trustworthy partners and useful contacts in the market. Trade offices of other countries are organised differently from the Norwegian embassy and often have more personnel dedicated to business promotion. This enables them to offer more specialised and targeted services, such as identifying potential business partners. Providing specialised services is resource-intensive but can significantly lower barriers for Norwegian companies that want to expand in less familiar markets.

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