



Contribution of European firms' investments in China to European economies

Martin Šebeňa



Contribution of European firms' investments in China to European economies

Author: Martin Šebeňa

Content

Content	1
Executive summary.....	2
Introduction	4
Academic research on foreign direct investment’s impact on home countries	6
Benefits of the European companies' activities in China for the EU.....	9
Case study: Volkswagen China	17
Policy risk scenarios	21
Conclusion.....	25
Endnotes.....	27
About authors.....	32
About CEIAS	33

Executive summary

- 1 Academic studies indicate that outward foreign direct investment (OFDI) positively impacts domestic investment, employee compensation, and tax revenues in the home country.** Research shows that a 10% increase in foreign employee compensation is linked to a 3.7% increase in domestic employee compensation, while a 10% rise in foreign investment corresponds to a 2.6% increase in domestic investment. Additionally, a 1% increase in OFDI results in a 0.013% increase in tax revenue.
- 2 German firms' profits from Chinese operations keep growing.** Based on statistics from the German Central Bank and assuming similar profit and investment management patterns, **European firms are projected to earn approximately €30 billion in profits in China in 2024, with around €12 billion repatriated to the EU as dividends.**
- 3 After a decade of substantial dividend remittances to Germany, Volkswagen's (VW) operating profits have declined significantly.** The firm's steep increase in investment in China over the past five years is likely to result in minimal, if not negative, net dividend income for Germany.
- 4 Despite declining profits and market share in China, VW's operations in China continue to support thousands of jobs, particularly in white-collar positions, in Germany and other parts of the EU.** Furthermore, VW China contributes to output, exports, and research and development (R&D) activities in Germany.
- 5 The changing geopolitical landscape presents several political and regulatory risks that could adversely affect VW's operations in China and globally.** These challenges may arise from China, the EU, the United States, and other regions, and the severity of some risks may prompt VW to seek support from the German government.

6 Policy risk scenarios show that European firms in China operate in a highly volatile and risk-prone environment. **A number of risks with a relatively high likelihood of occurrence could quickly erode the profits the firms make in China.** While not all risks are expected to materialize, those that do will significantly alter the cost-benefit analysis of investments in China.

Introduction

The intensifying competition between European and Chinese firms, coupled with the deteriorating relations between China and the European Union (EU) in recent years, has prompted a re-evaluation of the benefits of European companies' engagement in the People's Republic of China (PRC). While these benefits can be analyzed from various perspectives, such as security, geopolitics, and technology transfer, it is essential to begin with a fundamental question: What are the benefits for European countries of European companies' investments in China?

To address this, we must differentiate between the perspectives of individual companies and those of governments. Companies are primarily motivated by profit maximization and often relocate production abroad to capitalize on lower labor and utility costs, a more relaxed regulatory environment, and access to a skilled workforce, advanced infrastructure, and raw materials. The advantages of such moves are evident; otherwise, companies would not pursue them. However, do their "home countries"—the nations where they are incorporated and headquartered—also benefit? If so, what are those benefits?

This inquiry is far from academic, as the findings have direct implications for various policies. Government agencies frequently provide support and incentives for companies investing abroad, including grants, preferential loans, assurances, insurance, diplomatic backing, trade missions, market intelligence, and legal and regulatory guidance. These measures can entail substantial costs, making it crucial to substantiate them.

Quantifying these benefits, however, poses challenges for two main reasons. First, the data necessary for analysis is not readily available, and even the existing data is often insufficiently detailed to provide a comprehensive view. This lack of transparency is somewhat natural; companies typically safeguard such information as part of their competitive advantage. Second, many indirect effects of companies' overseas activities on domestic output are difficult to estimate without detailed access to individual companies' financial records, and even that may not yield definitive answers. For instance, how many jobs in Italy are created, supported, or retained by an Italian carmaker's activity in China?

This paper will start by introducing the academic discussion on this topic, explaining key concepts, outlining the complexity of the issue, and reviewing the results of econometric studies. Next, it considers the various ways in which Chinese operations of European companies impact their home countries and, where possible, quantify the overall impact. In the following section, it narrows in on Volkswagen (VW), currently the EU's largest investor in China, and considers how Germany benefits from VW's Chinese operations. The last section analyzes

scenarios that can potentially alter the future payoffs from Chinese investment. This paper relies on extrapolations, assumptions, and estimates to quantify the benefits, yet it discloses every assumption or estimate and, where feasible, provides a range of figures, not a single one. We hope the findings will inform policymakers in their decisions and support them in discussions with domestic companies and in their engagement with China.

Academic research on foreign direct investment's impact on home countries

A number of academic studies have attempted to quantify the impact of outward foreign direct investment (OFDI) in the economies of developed countries, including the United States, Japan, and various European countries. The empirical evidence suggests that where a quantifiable impact was found, it tended to be small but positive.¹ In most cases, however, no discernible impact was observed.² Yet OFDI has been shown to enhance growth and output,³ exports,⁴ employment,⁵ productivity and efficiency,⁶ and know-how⁷ in some advanced home economies.

In theoretical debates, the impact of OFDI on home economies depends on whether the production abroad (in "host countries") complements or substitutes production in home countries. In simple terms, if it complements production, we should expect a positive impact on output, employment, and exports in the home country. Conversely, substitution should lead to a negative impact on the same factors. The debate about complementarity or substitution of OFDI in home countries is inconclusive due to two complications.

First, we cannot determine the net impact on a home country's exports, production, or investments because OFDI creates several effects with opposite signs. On the one hand, production abroad clearly replaces some jobs, output, and exports in the home country. On the other hand, production abroad tends to increase exports of intermediate goods from the parent company, thus increasing output and employment in the home country. The net impact of these two effects varies from case to case.⁸

Second, we cannot establish what would have happened to exports, employment, and output if the companies did not invest abroad. Would they have been able to maintain or increase their market share, output, or employment? Or would they be driven out by their competitors?

Empirical analyses of the impact of OFDI on home economies conducted in France, Australia, the United States, and Japan have concluded that the impact on the home country's exports, output and investment is small but predominantly positive. However, most studies add a caveat: it is possible to find individual instances where the home country is worse off.⁹ Analyses focused on the impact on labor and employment, for instance, found a shift from blue-collar to white-collar workers in home countries following OFDI. This stems from the fact that blue-collar jobs are typically transferred abroad, while management, marketing, and R&D are concentrated at the home base.

Most studies found a positive impact of OFDIs on home economies, exemplified by the Australian Productivity Commission's statement that "outward direct investment by Australian firms is mainly tapping into new growth and market opportunities for firms, rather than substituting for, or displacing, operations in Australia."¹⁰ However, the results for Sweden since the 1970s have shown a negative impact on the home country's exports and employment.¹¹

To explain this, we first must introduce the distinction between horizontal and vertical FDI. Horizontal FDI occurs when a company invests in the same industry at the same stage of production. The goal is to access new markets and exploit economies of scale. An example would be a car manufacturer opening a car factory in another country to produce the same types of vehicles as in the home country. Vertical FDI, by contrast, involves a company investing in different stages of production—upstream (raw materials) or downstream (distribution and sales)—than in a home country. The aim of vertical FDI is to acquire control over supply chains and reduce production costs. An example would be a car manufacturer acquiring a supplier of car parts in a foreign country. It seems plausible that horizontal FDI tends to substitute for the home country's exports, while vertical FDI tends to increase the parent company's exports.

Additionally, the impact of OFDI on the home country may also depend on the nature of the activity: whether it is goods or services; whether the OFDI is in a developed or a developing country; or whether the OFDI is in industries with plant-level or firm-level economies of scale.¹² In the Swedish case, most of the OFDI occurred in the form of mergers and acquisitions (M&A) rather than greenfield investments. Since the acquired companies already had local suppliers and subcontractors, they were less likely to need intermediate inputs from the home country of the company that purchased them. Therefore, we can conclude that greenfield OFDI is more likely to complement the home country's activities than M&As and portfolio investments.

Other important findings in Sweden and other, smaller European countries indicate that the home economy's size and relative position in the value chain determine the distribution of benefits of OFDI. Productivity benefits might be higher from investments in more advanced economies, while the impact on productivity is much lower (or non-existent) from investments in developing countries. Additionally, the spillover effect from higher R&D and increased productivity might not be captured in smaller economies with fewer companies that could benefit from it. For instance, Swedish multinational companies had a large share of their R&D activities at home, yet there were fewer non-multinational firms to absorb the potential of spillover effects due to the size of the country's economy.¹³

Econometric analyses indicate that OFDI increases domestic investment, domestic employee compensation, and the home country's tax revenues. For example, Desai, Foley and Hines found in their oft-cited study that 10% greater foreign employee compensation is associated with 3.7% greater domestic employee compensation, and 10% greater foreign investment is associated with 2.6% greater domestic investment.¹⁴ Another piece of research found that a 10%

increase in OFDI leads to a 0.13% increase in tax revenue.¹⁵ The authors of that study add a caveat that the increase in tax revenue is observed with a two-year lag, as investors typically receive tax breaks from governments.

According to an analysis of the German Central Bank that examined the impact of the internationalization of German firms on domestic investment, there is a clear increase in domestic investment supported by OFDI. This study found that “a domestic parent firm establishing (or acquiring) a new foreign affiliate is, on average, associated with a €458,000 increase in domestic investment (as measured by the change in gross fixed capital formation). The effect at the firm level is likely to be relevant in economic terms, as this figure equates to around 4% of the average gross fixed capital formation within the group under review (in this case, domestic parent firms that set up or acquire a new affiliate abroad).”¹⁶ Additionally, the study found that OFDI results in a shift from production jobs to Information and Communication Technology (ICT)-related jobs in the home country.

One explanation for this relates to the potential tax savings; multinational firms use international tax differentials to shift corporate profits from high-tax to low-tax countries. Shifting profits from one location to another can reduce a firm’s cost of capital and, thus, facilitate investment in countries with higher tax rates, such as Germany. The results show that the impact of OFDI on investment at home varies depending on the tax rate—the more German firms benefit from a low tax rate in the host country of their affiliates, the more those firms also invest domestically.¹⁷

Benefits of the European companies' activities in China for the EU

The benefits of European firms' investments in China for the economies of European countries can be broadly split into two categories: direct and indirect. Direct benefits are understood in this paper as the flow of profits European firms make in China and then repatriate to their home countries. Indirect benefits are increased domestic investment and employment, enhanced financial position, technology transfer, trade effects, vertical integration, and indirect tax benefits.

Profit repatriation

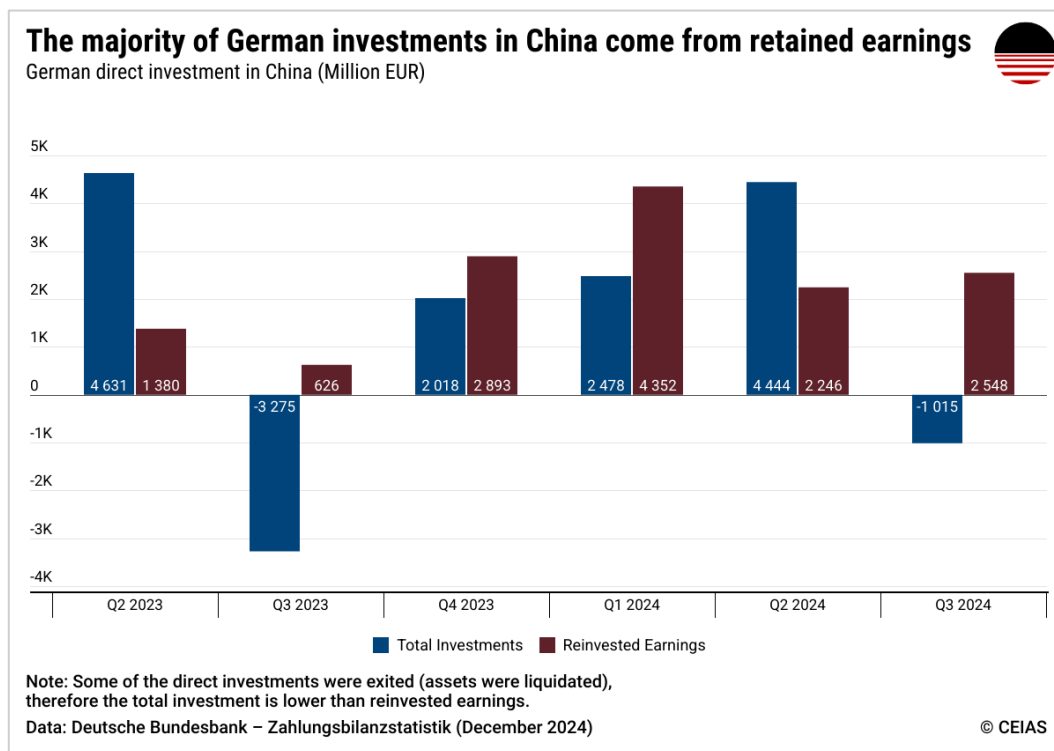
The profit European companies make in China can be repatriated to their home countries, which can then support the domestic activities of the firm. However, any analysis of profit repatriation must be prefaced with several considerations.

First, the profits made in China are also taxed in China, with which all the EU member states have double taxation treaties.¹⁸ This means that the repatriated profit will not be taxed in the EU countries and, therefore, does not constitute a direct income for the domestic government.

Second, not all profits are repatriated. Some profits remain on the balance sheets of the Chinese subsidiary as retained earnings, which can be reinvested into the Chinese operations of the company. In fact, most European companies' investments in recent years have come from reinvested earnings rather than from direct investments from their headquarters.¹⁹ It is, therefore, necessary to establish which part of the profits from China remains in the country and how much is repatriated to Europe.

Third, the European country's investment in China can be direct or indirect. While the majority of investment is direct, some companies prefer to invest through subsidiaries in Hong Kong or Singapore, which may allow them to lower their taxes or achieve benefits from the centralization of regional activities in one hub.²¹ This makes it difficult to trace profit flows from China back to Europe.

Figure 1 ²⁰



Fourth, the investment in China might be done in tandem with multiple co-owners. The most used form is a joint venture (JV) with a domestic firm. Because this type of investment was obligatory in certain sectors until recently, many companies, including the largest ones, operate using this model.²² This creates additional difficulties in tracing the repatriation of profits since companies mostly do not carry the financial information from their JV activities on their financial statements. Even when they do, they provide minimum information.

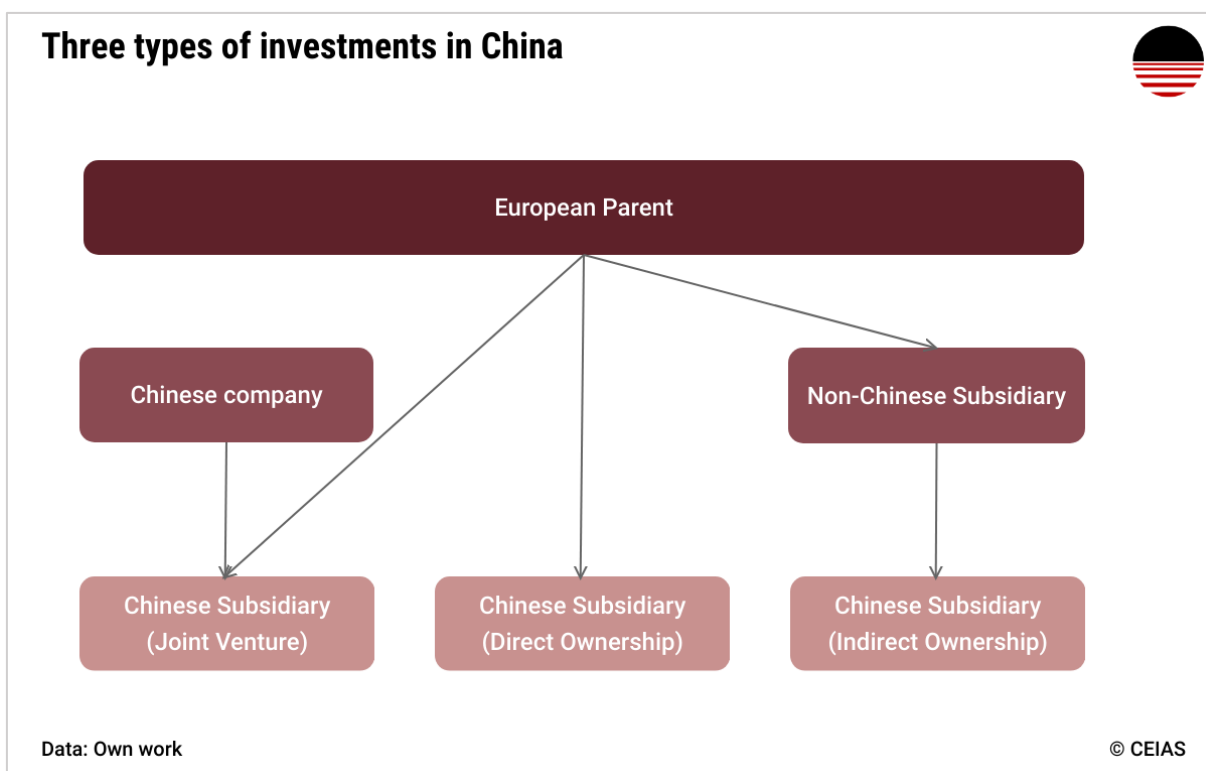
Fifth, there are multiple avenues for companies to repatriate earnings back to their head office. Not all of them can be readily derived from financial statements. Dividends are the most common method for repatriating cash. Because there are regulatory requirements for reporting the transfer of dividends, they will be this paper's central focus in quantifying the direct profit transfers. Dividends repatriated from foreign subsidiaries are typically recorded in the balance of payment, specifically under the income account. Additionally, central banks are responsible for collecting data related to the balance of payments and FDI, and companies are required to report this information to the central banks. Statistical reporting by central banks will then provide a tally of total dividend amounts and their geographical breakdown.

In the case of China, however, there are several limitations on dividend repatriation. Dividends can only be paid after corporate income tax is paid. Moreover, if the company made losses in previous years, the dividend can only be paid after the losses have been settled. Dividends are subject to a 10% withholding tax when repatriating cash to foreign investors. There are additional requirements for certain company types. For example, a wholly foreign-owned enterprise has to place 10%

of its after-tax profits into a mandatory reserve fund until it reaches 50% of its registered capital.²³

It is important to list the other options for cash repatriation.²⁴ However, because it is nearly impossible to quantify their contribution, they will remain left out of this analysis. Nonetheless, introducing the various mechanics of cash repatriation can provide an idea about the true scope of earnings transfers. (Note that these figures are based on observations and discussions with practitioners in the treasury field and an individual company's structure may differ significantly from this.) One option is intercompany loans extended by the parent company to the subsidiary. Due to transfer pricing regulations, the terms of the loan must reflect market prices. By repaying the loan, the subsidiary is transferring some of its profit to the parent. Intercompany loans typically account for 20-30% of the repatriated cash. Alternatively, intercompany fees can be paid by the subsidiary to the parent company through license fees, royalties, or management fees. They typically account for a smaller portion, usually around 10-20% of profit repatriation.

Figure 2



Quantifying profit repatriation

The German Central Bank, in its Balance of Payments Statistics (*Zahlungsbilanzstatistik*), provides a regular breakdown of German companies' investments abroad. Their tally provides data on total investment, reinvested earnings, and profits per host country. In its latest publication, it indicates that German firms made profits in China of approximately €15.1 billion in the first three quarters of 2024. Additionally, the German firms invested a total of €5.9 billion in China between January and September 2024, out of it €9.1 billion came from reinvested profits.²⁵ Note that the data indicates that some of the direct investments have been exited (assets have been liquidated), so the total investment is lower than reinvested earnings.

Since the German firms earned €15.1 billion and reinvested €9.1 billion, we can approximate that about 61% of profits stayed in China, while the rest was remitted back to Germany (Figure 3). The proportion remains the same when the financial data for Hong Kong are added to China (Figure 4). It should be noted that this calculation method is not precise, as there might be time differences between investment decisions and the earnings of profits. Nonetheless, it provides a reliable approximation of the split between reinvested earnings and dividends returned to Germany.

Some additional caveats are also needed. The data only shows the total primary income that flew from China to Germany. However, this statistic does not differentiate between income from direct investment and other forms of investment—portfolio investment or investment in financial assets, for instance. Therefore, the amount repatriated to Germany is derived from the data on total profit made in China and the total amount of reinvestments of German firms.

Figure 3²⁶

German firms' earnings and investments in China				
(Million EUR)				
Period	Total investment	Reinvested Earnings	Profit	Reinvested Earnings as % of Profit
Q2 2023	4,671	1,380	4,750	29%
Q3 2023	-3,275	626	4,825	13%
Q4 2023	2,018	2,893	4,668	62%
Q1 2024	2,478	4,352	4,884	89%
Q2 2024	4,444	2,246	5,051	44%
Q3 2024	-951	2,548	5,156	49%
First 3Qs of 2024	5,971	9,146	15,091	61%

Data: Deutsche Bundesbank – Zahlungsbilanzstatistik (December 2024) © CEIAS

Figure 4 ²⁷

German firms' earnings and investments in China and Hong Kong				
(Million EUR)				
Period	Total investment	Reinvested Earnings	Profit	Reinvested Earnings as % of Profit
Q2 2023	4,599	1,529	5,127	30%
Q3 2023	-3,439	1,059	5,315	20%
Q4 2023	3,202	3,329	5,136	65%
Q1 2024	2,342	4,428	5,339	83%
Q2 2024	4,599	2,479	5,429	46%
Q3 2024	-239	2,986	5,624	53%
First 3Qs of 2024	6,702	9,893	16,392	60%

Data: Deutsche Bundesbank – Zahlungsbilanzstatistik (December 2024) © CEIAS

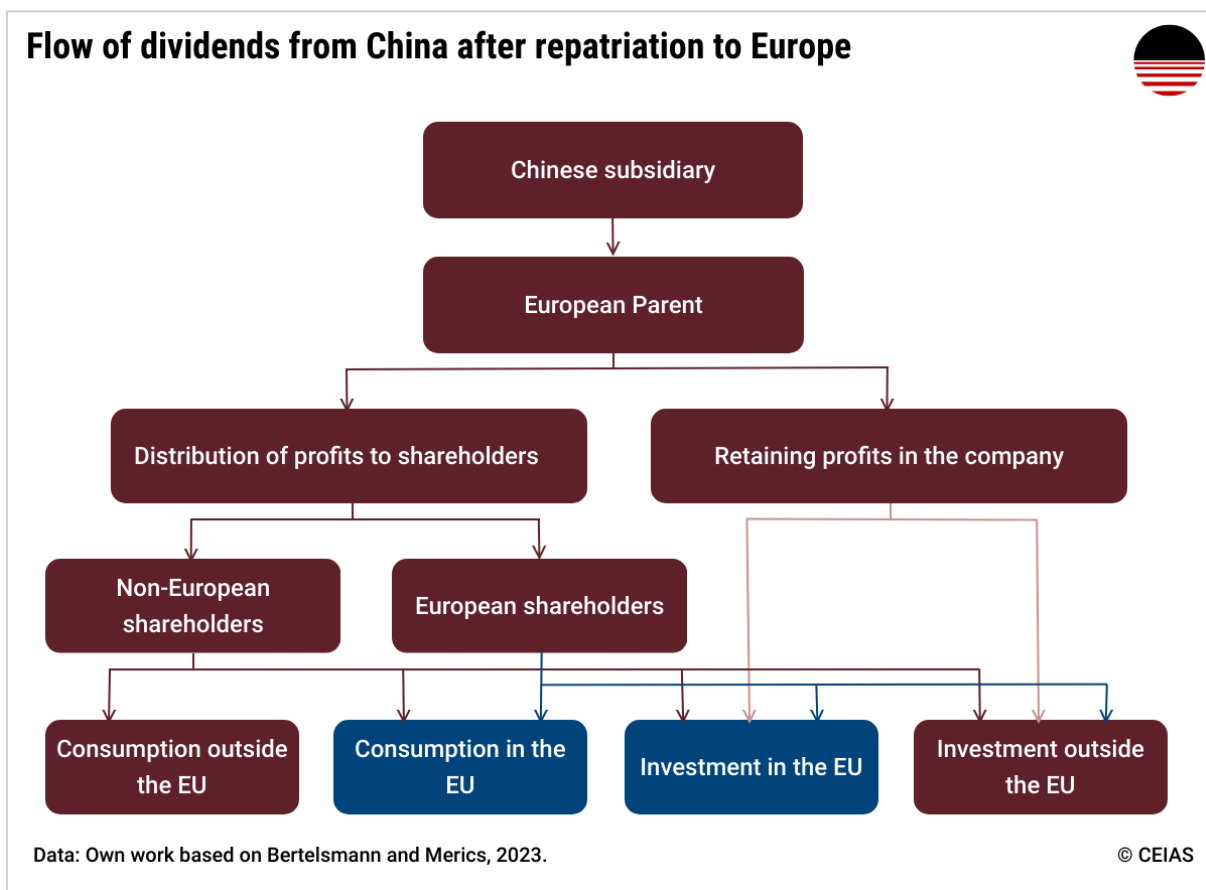
Additionally, the relative share of reinvested earnings and profits has changed over time. German companies used to repatriate the majority of profits back to their home country. For example, in 2021, €8 billion out of €15 billion of profits was remitted back to Germany (53%). This indicates that while the profits of German firms in China are increasing—the total profit in 2023 was €19 billion—the dividend amounts are shrinking because increasing competition from Chinese firms requires higher reinvestments into their Chinese operations

We can attempt to extrapolate these numbers on the whole of the EU. The total stock of German investment in China stands at approximately €110 billion, while the EU's total investment stock is €177 billion.²⁸ German companies are, thus, responsible for two-thirds of all EU investment in China. Assuming similar profit and investment management patterns, we can expect the European firms to earn a total profit of approximately €30 billion in China in 2024, with €12 billion repatriated to the EU in the form of dividends. This approximation depends on a number of assumptions that may not hold true. Yet, in the absence of similar data from the central banks of other European countries, this is the best option, particularly given that Germany accounts for such a high proportion of overall European investment in China.

While we established that as much as €12 billion in dividends from Chinese operations reach European parents each year, this does not immediately translate into benefits for the European governments due to the double taxation treaties, as mentioned earlier. A “decision-making tree” (see Figure 5 shows) that the parent companies in Europe can choose to pay out these dividends to their shareholders or keep them in the firm to support operational or investment needs. If the company retains the profits, it can choose to support activities in the home countries or subsidiaries elsewhere in the EU, or it can choose to invest outside of the EU. When the money is distributed to the shareholders, they can choose to spend it on consumption in the EU or outside of the EU, or they can use it to pursue

other investments, which can, again, be either within or outside of the EU. A logical conclusion is that only through investment and consumption in the EU do the European governments ultimately profit from profits earned in China.

Figure 5 ²⁹



Indirect impact

European countries are typically impacted by the Chinese operations of their multinationals in indirect ways. The main areas of impact—employment, output, and exports—were previously discussed. This section will expand on these concepts by laying out the impact conceptually and in more detail, and, where possible, discuss their specific position in China.

OFDI in China has both positive and negative impacts on **employment** in Europe. Particularly in the case of horizontal OFDI, companies typically eliminate production jobs in Europe and relocate them to China. Furthermore, due to local hire employment regulations, which define the proportion of local hires for each expat, there are limits on the number of European employees who relocate to China. On the other hand, companies in the home country hire new staff in non-production activities, such as management and supervision, coordination, research and development, corporate and financial services, and technology. This is due to the increase in coordination activities and the tendency of the companies

to keep high-value-added activities, such as research and development, in the home country. It is important to note that this is typically seen in developed countries with advanced R&D capabilities. However, if the investor is from a country with less developed R&D and the host country possesses such structures, R&D activities might be partially or fully relocated as well.³⁰ An example might be an Italian firm investing in the US, a German automotive company investing in the electric vehicles (EV) sector in China, or a Swedish company investing in Japan. This trend will likely be manifested in Czech firms' investments abroad, including in China, if the industry is one in which China is a leader in terms of technological advancement and innovation.

In terms of **output and exports**, there is a decrease in the home country's output in activities that are moved abroad, particularly in the case of horizontal OFDI. However, we can expect an increase in output and exports in areas that remain in the home country, particularly in the case of vertical OFDI. Newly-established subsidiaries in China will require a higher amount of more sophisticated intermediate goods exported from the home country, which has a positive effect on employment, output, and exports. Moreover, production in the home country tends to further specialize, which leads to a concentration of higher-value-added activities at home. While this has been the general trend in the last four decades of globalization, countries around the world are increasingly pushing for localization of production and issuing requirements on the proportion of domestically produced components. Although China does not have explicit economy-wide regulations demanding a certain percentage of components to be domestically produced (unlike, for example, Indonesia), several government policies and incentive structures push foreign companies toward increasing the proportion of made-in-China components in their products. Examples include subsidy schemes for EV supply chains³¹ or the Made in China 2025 program.³² This gradually decreases the benefit of European OFDI in China to their home country activities.

The increase in **domestic investment** from positive cash flow generated in China was empirically measured by the German Central Bank, as discussed earlier. As long as the Chinese subsidiaries remain profitable and remit dividends to their home countries, we can expect additional domestic investment for a variety of reasons. While the German Central Bank study focused on the tax differential, investments in upgrading domestic production, skills, and capabilities are also often co-funded by dividends from China. However, in recent years, we have also witnessed competition for investment, as China-based operations required additional and larger capital injections to stay competitive vis-à-vis domestic firms. This has been most evident in the automotive industry, in which local car manufacturers continuously increase their share of the domestic car market and foreign producers must invest in production, upgrading, R&D, and marketing to remain competitive. Concurrently, the same companies are reducing production and headcount in their home countries.³³

European firms' operations in China also impact the parent company's **financial position**. Profits, positive cash flow, and geographical diversification can help improve the parent company's cost of borrowing, financial metrics, or credit rating. However, if a company has a high concentration in the Chinese market,³⁴ high volatility of earnings, eroding market position, or if Chinese policymaking is highly unpredictable (as was the case with covid lockdowns),³⁵ the company's financial position will be negatively impacted, even if their activities in China remain profitable.

Subsidiaries in foreign countries can contribute to their parent companies' **know-how**. Subsidiaries often adopt advanced technologies and practices from the local market, which can facilitate technology transfer back to their home country. Local talent employed in R&D and operational and supply chain management practices, as well as market insights from China, can create a feedback loop that benefits the parent companies.³⁶ The technology transfer from China back to Europe has been on the rise as the Chinese economy has moved up the value chain and as China has achieved a leading position in certain industries.³⁷

European governments may benefit from the Chinese operations via **indirect taxes** on increased R&D activities, value-added tax (VAT) on services provided to Chinese subsidiaries, or an increase in income tax due to a higher number and/or better-paid jobs in the home country.

These indirect benefits are, in many instances, impossible to quantify without direct access to company data—even then, it would often be a matter of assumptions of subjective judgment to distinguish between the benefits directly stemming from operations in China and those in the rest of the world. Additionally, as discussed in the academic research section, we do not know whether home country jobs would have been lost or retained if a company decided not to invest in China. Without this information, it is difficult to quantify the impact on employment or production.

Another issue that also needs to be addressed is the regulatory limits on cash repatriation or cross-border cash transactions in general. These limit the amount of dividends that can be paid back to the parent company and are subject to regulatory change, which can be sudden, with a profound impact on a company's operations.

Case study: Volkswagen China

The previous sections analyzed the impact of investments in China on the macro level. An analysis on a company level is necessary to provide a more concrete example of the impact of investments in China on European countries. Volkswagen (VW) is the largest European employer in China, with approximately 90,000 employees in the country.³⁸ Additionally, it regularly ranks among the top five investors in China—it was number one in 2024 due to its electrification drive.³⁹ Because European investment over the past three years has been driven by German companies (65% of all European investment in China) and by car manufacturers (approximately 50% of all of the EU's OFDI in China), VW makes for a good case study of the impact of their Chinese operations on the home country activities. Moreover, other German car manufacturers or car parts suppliers follow a strategy very similar to VW's, which strengthens its representative position.

Following the structure outlined in the preceding sections, we will first quantify VW's cash repatriations to Germany and then discuss the indirect impact of its Chinese subsidiaries on activities in Germany and elsewhere in Europe. Since VW is also a parent of Skoda Auto, there will be several direct and indirect repercussions for the Czech economy.

Cash repatriation

VW discloses its profits in China differently between its JVs with local Chinese car manufacturers and its directly owned entities. The directly owned entities have their operational results disclosed on the financial statements, while the accounting for JV profits uses the equity method, recording the company's investment in the JV on the balance sheet at cost, adjusted for its share of the JV's profits or losses. Nevertheless, the JV profits are included in VW's consolidated financial statements, impacting its overall net income.⁴⁰

VW's annual reports indicate that it has made an average operating profit in China of €4.2 billion over the past decade. It does not disclose the proportion of earnings it repatriates back to Germany, yet several statements can be made about VW's earnings in China and their impact on Germany.

While VW does not report the proportion or amount of profits that are repatriated to Germany, we can get an understanding of the trends by tracing their investment activity in China, which is largely financed from reinvested earnings. Its investment activity has significantly increased over the past five years because of two factors: the removal of the requirement to form a JV with the local company and the

transition toward electric mobility. Following the initial relaxation and later removal of JV rules, VW, along with other large European car manufacturers in China, increased their share in their local JVs. VW increased its share in a JV with JAC Motors from 50% to 75% in 2020⁴¹ and announced further investments into this entity in 2024.⁴² In terms of electric mobility, VW has announced a number of investments and acquisitions to expand its production and development of EVs. These include investments into upgrading their existing factories and establishing new ones, investments into the battery supply chain, and partnerships with local firms, such as XPeng.⁴³ The impact of increasing investments is that VW will repatriate a smaller portion of its earnings in China to Germany.

The second trend is that VW China's operating profit has steadily decreased (see Figure 6). While it remains profitable, the operating profit in 2023 was approximately half of what it was in 2014. In Q3/2024, its latest quarterly report, VW announced that its profits had decreased by 60% year-on-year. While this report provides no details about Chinese operations, it specifically mentions the drop in sales in China as a major contributing factor.⁴⁴

Based on increasing investment and decreasing profits, we can infer that the amount of dividends that VW has sent from China have steadily decreased, particularly in the last five years. To provide a more granular view, we can separate the temporal analysis into three periods: the period of 2010-2020, the recent five years, and the outlook for the near future.

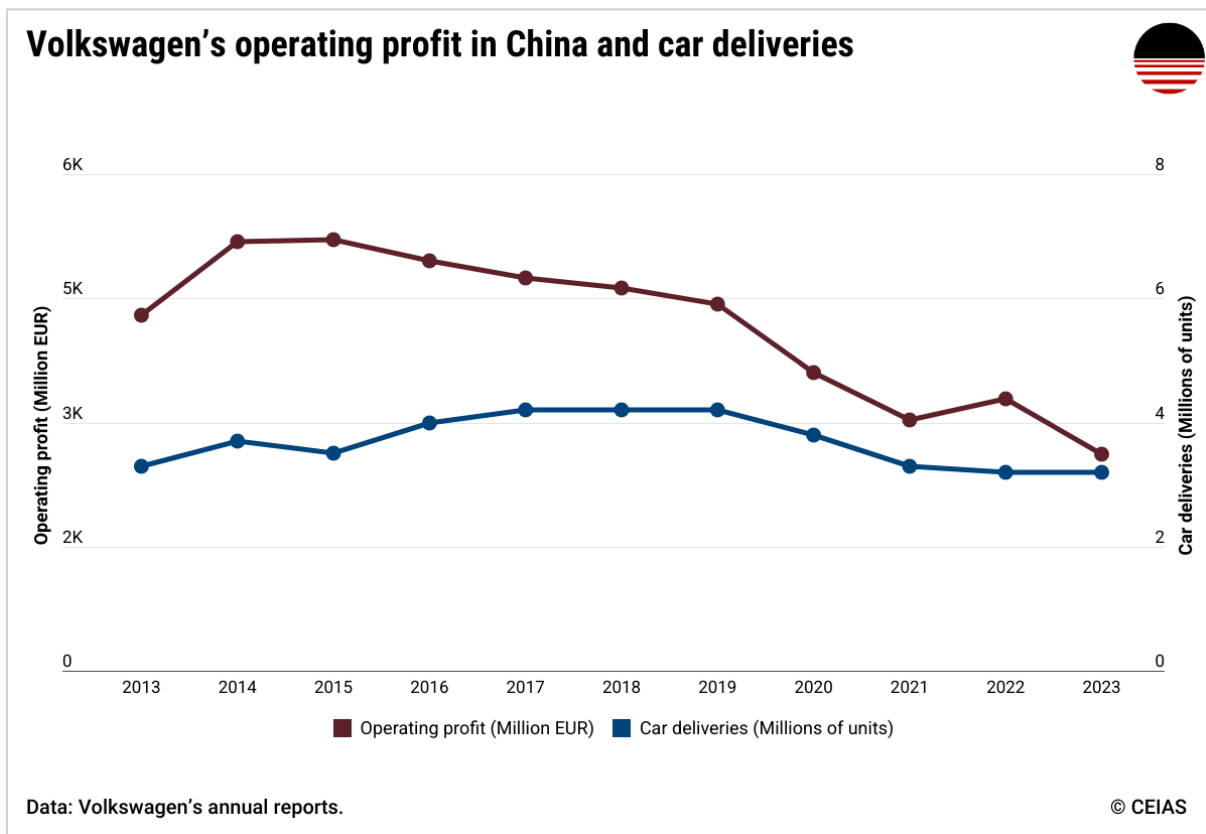
In the 2010s, VW's profits were much higher than the announced investment. Therefore, it is very likely that more than half of the profits were repatriated. While VW continually invests in China, the amounts were lower in the past, as the company prioritized production of non-premium models in the country and concentrated on R&D in Germany. One of the main reasons was the JV operating model, due to which VW needs to share the profits with a local company and which facilitates technology transfer (both illicit and legal). To protect its intellectual property and know-how in premium brands, which yield higher profits, VW only localized the production of non-premium brands in China.⁴⁵

In recent years, however, VW changed its strategy. In line with its "In China for China" strategy, it invested heavily in upgrading its production facilities, developed new models specifically for the Chinese market, acquired companies within the battery supply chains, and established R&D centers in China. This was part of VW's broader strategy of investing €180 billion to enable the transition towards electric mobility.⁴⁶ As for dividend payments to Germany, it is very likely that most of the investment in China was made from retained earnings of the Chinese subsidiaries, although some proceeds came from borrowing and the Initial public offering (IPO) of Porsche in 2022.⁴⁷

Looking forward, two large trends will define the amount of cash VW repatriates from China to Germany. VW's investment in China is expected to peak in 2024⁴⁸ and should ease off in the following years. This would allow for a higher portion of its earnings to be sent back to Germany. On the other hand, due to the steep drop

in VW's sales in China,⁴⁹ the anticipated earnings will be much lower than in preceding years. While some analysts are optimistic about VW's prospects and expect its investments to bear fruit, others are skeptical about VW's future potential in China. VW itself expects to reach operational profits of around €3 billion by 2030⁵⁰.

Figure 6



Indirect impact

Since VW China is responsible for 40% of all VW sales globally, it has a significant impact on the company's German operations in terms of employment, output and exports, investments, financial position, know-how, and indirect taxes.

Technological development conducted as part of the push toward EV production is predominantly located in Germany. The development of new modular platforms, software development, battery development, and quality and assurance are all concentrated in German cities, with a large part of these activities done at the central location in Wolfsburg. While there is a growing tendency to locate these activities in China or elsewhere in the world, thousands of highly skilled, technical jobs in Germany are supported by the firm's global activities. An indirect confirmation of this is the fact that VW is cutting a large number of jobs in Europe because of disappointing sales results globally but driven by a drop in China.⁵¹

As mentioned earlier, VW has maintained the production of premium models in its European plants (in Wolfsburg and Bratislava) and exports them directly to China. The high volume of sales in the Chinese market is partly a result of VW's Chinese operations. VW is frequently referred to as the first and oldest European carmaker in China, and its local presence is supported through collaboration with dealers and after-sales service providers, which are all sales-enhancing factors. Even then, the production of non-premium models in China requires a number of high-value-added intermediate inputs, which are manufactured in Germany. Both the demand for premium models and intermediate inputs into China-manufactured models increase the output, exports, and employment in Germany and other European locations of VW production.

The repatriated cash from VW China would have also supported domestic investment, especially in the 2010s, when the profits were at their highest and investment in China relatively low. VW does not distinguish in granular detail in its financial statements what sources of funds are used in individual investments. However, due to China's significant contribution to the firm's overall operating profits, the funds originating from VW China were certainly spent on investments in European locations.

Dividends from China to Germany help enhance VW's financial position. Cash flow from Chinese operations improves financial metrics, which can, in turn, lead to lower borrowing costs and a higher capacity to invest domestically. It is difficult to estimate the impact of Chinese dividends on VW's overall financial position. Yet, due to the recent ramp-up in investment in China, this effect has likely diminished, if not disappeared. Additionally, earnings from multiple geographies typically have a positive impact due to the diversification effect they create, yet earnings from China exhibit the opposite tendency: rating agencies have issued warnings about VW's concentration in the Chinese market.⁵²

In conclusion, VW China's operations have contributed to the generation of jobs, investments, research and development, and financing activities of VW in Europe. Due to VW's falling market share, drop in sales, and increase in investment in China, many of these contributions have been significantly reduced. However, there might be an increase in R&D and know-how flowing from China to Germany because of cooperation with local partners with better EV manufacturing, battery technology, and automotive software.

Policy risk scenarios

Several events could impact VW's ability to operate in China or to earn profits in the country. This section will focus on the political risk—actions conducted by state actors—and introduce several potential disruptions that may result from political or regulatory interventions.

Scenario 1: Ban on car exports from China to the United States

The United States has imposed tariffs and regulatory requirements on car exports from China, which can potentially impact VW China's performance. To provide a fuller picture, we include four policies—two recently implemented, one proposed, and one hypothetical—to show the magnitude of impact and the response from VW:

- Tariff increase to 100% on EVs imported from China
- US anti-forced labor laws
- Proposed ban on Chinese software in connected vehicles
- Potential blanket ban on Chinese-manufactured car exports to the United States

A **tariff increase** of 100% on EV imports from China, announced by the United States in May 2024, is essentially a ban on EV imports from China since it means these vehicles cannot compete on price with cars manufactured in the United States or elsewhere in the world.⁵³ Currently, VW does not export EVs made in China to the United States.

US anti-forced labor laws, such as the Uyghur Forced Labor Prevention Act, are primarily not concerned with car exports. Instead, they focus on manufacturing activities in western China's Xinjiang Autonomous Region, where VW operates a factory as part of a JV with Chinese partner SAIC and where it sources supplies of intermediate products.⁵⁴ In February 2024, several VW models, despite not being manufactured in China, were refused entry to the United States as they contained a "small electronic component" made by a supplier in Xinjiang.⁵⁵ In November 2024, VW announced the sale of its share in the Xinjiang plant, which should alleviate some of these issues.⁵⁶ Nonetheless, VW might still use suppliers located in Xinjiang, even if the company states that these are being replaced. Indeed, the third- or fourth-tier suppliers could be located in Xinjiang without VW directly knowing about it, especially as the company has a history of flawed audits in the

region.⁵⁷ Should VW continue to use Xinjiang-made components in its exports to the United States, this will likely result in a fine rather than an outright ban on exports to the country.

The **proposed ban by the United States on Chinese software in connected vehicles** could pose a significant issue for VW globally. The company conducts an increasingly large part of its R&D in China. Moreover, in 2023, VW partnered with Chinese EV producer XPeng, hoping to jointly develop automotive software.⁵⁸ In 2024, VW and XPeng announced a technical collaboration on Electronic/Electrical (E/E) Architecture.⁵⁹ While their statement specifies this collaboration extends only to vehicles made in China, it is possible that US regulators would question and challenge these statements. A US regulatory challenge could temporarily freeze all VW exports to the United States. The factories hardest hit would be those producing premium models and those located in Mexico, which primarily produce for the US market. In 2023, VW delivered 640,000 cars to the US, of which 174,000 were produced locally in its Chattanooga plant⁶⁰ and the remainder were imported from VW's plants abroad.

A **blanket ban on Chinese-manufactured car exports to the United States** is not a much-discussed eventuality, yet it could happen as part of the escalating trade war between the two countries. This would, however, only have a minimal impact on car sales. Chinese car exports to the US market are worth only US\$2.5 billion annually, and China is the only country that has seen its car exports to the United States decrease in volume.⁶¹ There is no knowledge of VW exporting cars made in China to the United States, and most car exports from China to the United States are by General Motors.⁶²

Scenario 2: Factory closures in China

Due to several unexpected events, VW may face forced factory closures in China. This would not be unprecedented; VW was impacted by lockdowns during the COVID-19 pandemic.⁶³ To be able to model factory closures in China, it is important to distinguish between different scenarios in which this could occur:

- Shutdown of all VW's operations in China
- Shutdown of VW's production facilities
- Ban on the use of VW's supply chain in China

In the first scenario, we assume the **shutdown of all of VW's operations in China**, including its R&D, battery manufacturing, and, importantly, sales of VW cars imported from other locations and imports of intermediate products. The first immediate impact would be the loss of all operating profit in China by VW China (€2.6 billion in 2023). However, the losses would extend to VW's entities in Europe, which rely on the exports of cars and intermediates to China. VW's plant in Bratislava, for instance, would be particularly strained because a quarter of this

factory's exports are to China.⁶⁴ All plants producing cars for export, especially those manufacturing brands not made in China, such as Porsche and Bentley, would also be exposed. Additional considerations of the shutdown of all operations would be the write-off of unused inventory, inability to remit cash and capital back to Germany, difficulty in repaying loans and other liabilities, and inability to export abroad cars and intermediate goods made in China

It is difficult to model the impact on VW without direct access to its granular financial data, yet the interconnectedness of the firm's operations in multiple locations and China's importance for VW (40% of sales) suggests the impact would be catastrophic, and the company would need significant state support in Germany to remain operational.

The second scenario, a **shutdown of Volkswagen's production facilities**, is like what happened in China during the COVID-19 pandemic when imports and sales of VW cars were either not impacted or impacted separately. If such a scenario were to unfold for political reasons, it would likely be implemented via sudden factory inspections, which could interrupt production for several days or weeks, Yet this would unlikely result in a long-term shutdown. Although such events would create issues with cash flow, output, and deliveries, VW should be able to weather these rather well, as it did during the COVID-19 pandemic.

A **ban by the Chinese government on the use of VW's supply chain in China** would be an indirect regulatory action, likely to emerge either as a retaliation—such as due to VW's unwillingness to use suppliers in the Xinjiang Autonomous Region—or to prevent VW from accessing sensitive technology. In any circumstance, VW would likely face a ban on the use of individual suppliers or a cluster of suppliers, defined either geographically or functionally and defined by the product supplied. While such actions would have the potential to disrupt VW's operations, any disruption would not be long-lived as VW could either negotiate a compromise with the Chinese regulators, switch suppliers, or discontinue the production that utilizes such inputs.

Moreover, VW mostly operates in China through JVs with major Chinese state-owned enterprises (SOEs), so those firms would also feel any disruption. Therefore, any regulatory action would likely be directed toward banning or limiting imports of VW cars from abroad rather than curtailing production in China.

Scenario 3: Removal of state support

Germany supports its companies in their exports and investments abroad. The Federal Ministry for Economic Affairs and Climate Action (BMWK) operates several schemes, including Export Credit Guarantees and Untied Loan Guarantees (UFK), which cover a significant part of exports and investment against the risks of payment defaults caused by economic or political events.⁶⁵ Germany's excellent credit rating is used to reduce the cost of insurance and provide better financing

conditions. Banks often require a federal guarantee to provide financing for activities abroad.

The total amount of state support extended to VW is not publicly available, yet we can estimate that removing state support would steeply increase the cost of insurance and borrowing. Germany is AAA-rated, whereas VW's rating is A-, which can translate to significant differences in interest rates and insurance premiums. Loss of the German state's support would inhibit VW's ability to finance its activities and lead to a downgrade in the credit rating of certain financial instruments. In certain cases, banks would likely not provide financing to VW without state guarantees, as they would consider the investment too risky. Moreover, due to the size of VW's investments in China, no single private insurer would likely be able to extend sufficient cover to the company, limiting its ability to invest abroad. Thus, the removal of state support would reduce the scope of VW's investment in China.

Scenario 4: Ban on technology transfer to Germany

This scenario considers a hypothetical ban by the Chinese government on technology transfer to Germany. Such a measure would discourage Chinese companies in certain industries from cooperating with VW. There are reports of unofficial instructions ordering Chinese EV companies to slow down or halt their investments in Europe. The most visible action was the decision in November 2024 by Leapmotor, a Chinese EV firm, to cancel plans to form a JV with Stellantis, a Polish company, in Poland, allegedly due to Warsaw voting in favor of the EU's decision to impose countervailing duties on imports of Chinese EVs.⁶⁶ While this may not directly concern VW, which does not operate or consider JVs with Chinese automakers in Europe, two types of regulatory actions that might be introduced by China and the EU could impact its operations.

First, VW would not be able to use certain types of inputs or technology produced in China in the EU. This could be analogous to the proposed US ban on connected vehicles made in China. Second, VW would not be able to extend these partnerships and products developed within these partnerships to the EU. For example, VW is developing an E/E architecture with Chinese XPeng, yet this technology might not be allowed to be used in European countries due to the possibility of data transfers to China. In both situations, the regulatory action would most likely hamper the competitiveness of VW in the short run until the company finds a solution by either engaging alternative suppliers or developing products in-house.

Conclusion

This analysis of the impact of European firms' investments in China underlines several key concepts and trends. Whether foreign investment benefits home countries remains inconclusive, as most studies indicate no significant impact. However, when effects are measured, they tend to be positive, although findings vary by country, industry, type of investment, and other factors. In some individual cases, the impact can even be negative.

Nonetheless, this paper may be evaluating a situation that structurally differs from those in previous studies. Most OFDI impact analyses were conducted within a framework in which OFDI flows from a developed home country to a developing host country. However, as China ascends the value chain and technology ladder, its companies pose formidable challenges to European investors, which slowly erodes the benefits of European OFDI in the country.

This is particularly evident in the case of German investment in China. Central bank figures show a rising trend in profits being repatriated by German companies as dividends. However, VW, the largest German investor in China, is experiencing declining profits even as it increases its investments in China. The shift towards EVs and the corresponding rise of Chinese automakers have intensified competition in the automotive industry, leading incumbents like VW to face reduced market share, revenues, and profitability.

Moreover, heightened geopolitical and geoeconomic competition—globally and in EU-China relations—has not only introduced economic risks, such as increased competition, but also heightened political risks. Our analysis identifies four potential areas of political risk inherent in VW's operations in China, indicating that the scope and severity of political and regulatory actions could pose significant operational challenges for the company. Some of these actions may necessitate support (or a bailout) from the German state.

While there are substantial benefits to be gained from investments abroad, European countries must carefully consider what types of investments to support, as well as the specific geographies and industries involved. Although Czech investments in China are not comparable in size and scope to German investments, there are noteworthy parallels. For instance, Škoda, one of the largest Czech investors and a subsidiary of VW, faces similar challenges. However, the distinctions between these cases warrant further exploration in a separate paper. Additionally, one of Czechia's largest investments in China, the consumer finance firm Home Credit, has exited the market due to a combination of economic and regulatory factors that parallel those discussed in the "Scenarios" section of this paper. These examples call for the adoption of scenarios-based evaluation of

opportunities and risks of investment in China not only by the business but also by policymakers, who need to be able to either prevent or mitigate the potential adverse impact of political risks on their companies' performance.

Endnotes

1. Knoerich, J. (2017). How does outward foreign direct investment contribute to economic development in less advanced home countries?. *Oxford Development Studies*, 45(4), 443–459. <https://doi.org/10.1080/13600818.2017.1283009>.
2. Lipsey, R. E. (2004). Home- and host-country effects of foreign direct investment. In R. E. Baldwin & L. A. Winters (Eds.), *Challenges to globalization: Analyzing the economics* (pp. 333–379). Chicago, IL: University of Chicago Press.
3. Herzer, D. (2008). The long-run relationship between outward FDI and domestic output: Evidence from panel data. *Economics Letters*, 100, 146–149.
4. Herzer, D. (2010). Outward FDI and economic growth. *Journal of Economic Studies*, 37, 476–494.
5. Hijzen, A., Jean, S., & Mayer, T. (2011). The effects at home of initiating production abroad: Evidence from matched French firms. *Review of World Economics*, 147, 457–483.
6. Federico, S., & Minerva, G. A. (2008). Outward FDI and local employment growth in Italy. *Review of World Economics*, 144, 295–324.
7. Sunesen, E. R., Jespersen, S. T., & Thelle, M. H. (2010). *Impacts of EU outward FDI*. Copenhagen: Copenhagen Economics.
8. Globerman, S., Kokko, A., & Sjöholm, F. (2000). International technology diffusion: Evidence from Swedish patent data. *Kyklos*, 53, 17–38.
9. Kokko, A. (2006). The home country effects of FDI in developed economies. (EIJS Working Paper No. 225). Stockholm: The European Institute of Japanese Studies.
10. Lipsey, R. E. (2004). Home- and host-country effects of foreign direct investment. In R. E. Baldwin & L. A. Winters (Eds.), *Challenges to globalization: Analyzing the economics* (pp. 333–379). Chicago, IL: University of Chicago Press. P. 339.
11. Australia Productivity Commission. (2002). *Offshore investment by Australian firms: Survey evidence*. Commission research paper. Canberra: AusInfo.
12. Swedenborg, B. (2001). Determinants and effects of multinational growth: The Swedish case revisited. In *Topics in empirical international economics*, ed. Magnus Blomström and Linda S. Goldberg, 99–131. Chicago, IL: University of Chicago Press.
13. Lipsey, R. E. (2004). Home- and host-country effects of foreign direct investment. In R. E. Baldwin & L. A. Winters (Eds.), *Challenges to globalization: Analyzing the economics* (pp. 333–379). Chicago, IL: University of Chicago Press. p. 340.
14. Kokko, A. (2002), "FDI and the Structure of Home Country Production", in B. Bora, ed., *Foreign Direct Investment: Research Issues*, Routledge, London and New York.
15. Desai, M., Foley, F., Hines, J. (2009). Domestic Effects of the Foreign Activities of US Multinationals. *American Economic Journal: Economic Policy*, Vol. 1, No. 1 (February 2009), pp. 181-203.
16. Gaspareniene, L., Klietstik, T., Sivickiene, R., Remeikiene, R., & Endrijaitis, M. (2022). Impact of Foreign Direct Investment on Tax Revenue: The Case of the European Union. *Journal of Competitiveness*, 14(1), 43–60. <https://doi.org/10.7441/joc.2022.01.03>.

17. Deutsche Bundesbank (2018). The impact of the internationalisation of German firms on domestic investment. Monthly Report, January 2018, 13.
18. Overesch, M. (2009), The effects of multinationals' profit shifting activities on real investments, National Tax Journal, Vol 62 (1), pp 5-23.
19. China Briefing (2023, May). China's Double Taxation Avoidance Agreements. China Briefing. Retrieved December 11, 2024, from <https://www.china-briefing.com/doing-business-guide/china/why-china/china-s-double-taxation-avoidance-agreements>.
20. Marsh, S. (2023, September 20). Exclusive: German investment in China eases in first half after record high. Reuters. Retrieved from December 11, 2024, from <https://www.reuters.com/world/german-investment-china-eases-h1-after-record-high-2023-09-20>.
21. Deutsche Bundesbank (2024, December). Balance of payments statistics updated edition (Zahlungsbilanzstatistik: Aktualisierte Ausgabe). Deutsche Bundesbank.
22. JPMorgan & KPMG (2022). Understanding centralized trading centers in the post-Covid environment. JPMorgan. Retrieved December 11, 2024, from <https://www.jpmorgan.com/content/dam/jpm/treasury-services/documents/understanding-centralized-trading-centers-in-the-post-covid-environment.pdf>.
23. The requirement to form a joint venture (JV) with a local partner has inhibited the amount of automotive investment by foreign companies, as they feared their local JV partner would acquire their know-how. Therefore, they opted for exporting luxury cars to China instead of producing them in the country. However, there have been a number of adjustments to the JV requirement in the last five years. In 2018, the JV restriction was removed for special-purpose vehicles (carrying fire-fighting, ambulance and rescue equipment) and new energy vehicles, while the maximum foreign ownership share was increased to 80% for other types of vehicles. All restrictions were removed in 2022.
24. Dezan Shira & Associates (2019, July 31). Profit Repatriation from China. China Briefing. Retrieved December 11, 2024, from <https://www.china-briefing.com/news/profit-repatriation-from-china/>.
25. Ibid.
26. Deutsche Bundesbank (2024, December). Balance of payments statistics updated edition (Zahlungsbilanzstatistik: Aktualisierte Ausgabe). Deutsche Bundesbank.
27. Ibid.
28. Ibid.
29. Hanemann, T., Boullenois, C. (2024, September 10). CrossBorder Monitor: People's Republic of China <-> European Union Direct Investment 2Q 2024. Rhodium Group.
30. Zenglein, M., Sebastian, G. et al (2023, April 20). Profits of German investors in China – an empirical survey. MERICS.
31. Kokko, A. (2002), "FDI and the Structure of Home Country Production", in B. Bora, ed., Foreign Direct Investment: Research Issues, Routledge, London and New York.
32. Kennedy, S. (2024, June 20). The Chinese EV Dilemma: Subsidized Yet Striking. CSIS. Retrieved December 11, 2024, from <https://www.csis.org/blogs/trustee-china-hand/chinese-ev-dilemma-subsidized-yet-striking>.
33. Wübbeke, J., Miessner, M., Zenglein, M. J., Ives, J. & Conrad, B. (2016, December), Made in China 2025: The making of a high-tech superpower and consequences for industrial countries. MERICS.
34. Nöstlinger, N. (2024, October 28). VW plans to close 3 German plants as auto industry turmoil grows. Politico. Retrieved December 11, 2024, from <https://www.politico.eu/article/volkswagen-eyes-closure-three-german-plants-says-works-council>.
35. Moody's calling out Volkswagen's "China concentration risk".

36. Moody's Ratings (2024, July 1). Rating Action: Moody's Ratings affirms A3 long-term issuer and senior unsecured debt ratings of VW Financial Services AG and its guaranteed subsidiaries, outlook stable. Moody's Ratings.
37. Fitch rating of Volkswagen specifically mentions the impact of Chinese lockdowns on the firm's financial position.
38. FitchRatings (2022, May 11). Fitch Upgrades Volkswagen to 'A-'; Outlook Stable. FitchRatings. Retrieved December 11, 2024, from <https://www.fitchratings.com/research/corporate-finance/fitch-upgrades-volkswagen-to-a-outlook-stable-11-05-2022>.
39. Falzoni, A.M. and M. Grasseni (2005), "Home Country Effects of Investing Abroad: Evidence from Quantile Regressions". Bocconi University, Milano.
40. Hancock, A., Bounds, A. & Russell, A. (2024, November 19), EU to demand technology transfers from Chinese companies. Financial Times. Retrieved December 11, 2024, from <https://www.ft.com/content/f4fd3ccb-ebc4-4aae-9832-25497df559c8>.
41. Volkswagen Group (2024, November 4). 40 years of Volkswagen in China: Group accelerates its realignment with 'In China, for China' strategy. Volkswagen Group. Retrieved December 11, 2024, from <https://www.volkswagen-group.com/en/articles/40-years-of-volkswagen-in-china-group-accelerates-its-realignment-with-in-china-for-china-strategy-18322>.
42. Kratz, A., Goh, D., Sebastian, G. & Barkin, N. (2024, October 31). Don't Stop Believin': The Inexorable Rise of German FDI in China. Rhodium Group. Retrieved December 11, 2024, from <https://rhg.com/research/dont-stop-believin-the-inexorable-rise-of-german-fdi-in-china>.
43. Volkswagen Group (2024), Annual Report 2023. Volkswagen Group. Retrieved December 11, 2024, from <https://annualreport2023.volkswagen-group.com/divisions/volkswagen-group-china.html>.
44. JustAuto (2020, December 7). VW completes majority acquisition of JAC-VW. AustAuto. Retrieved December 11, 2024, from <https://www.just-auto.com/news/vw-completes-majority-acquisition-of-jac-vw>.
45. Reuters (2024, March 12). Volkswagen Group China plans to boost investment in majority-controlled JV. Reuters. Retrieved December 11, 2024, from <https://www.reuters.com/business/autos-transportation/chinas-jianghuai-automobile-volkswagen-china-boost-investment-jv-2024-03-12>.
46. Volkswagen Group (2024, November 4). 40 years of Volkswagen in China: Group accelerates its realignment with 'In China, for China' strategy. Volkswagen Group. Retrieved December 11, 2024, from <https://www.volkswagen-group.com/en/articles/40-years-of-volkswagen-in-china-group-accelerates-its-realignment-with-in-china-for-china-strategy-18322>.
47. Jolly, J. (2024, October 30). Volkswagen hit by 60% fall in profits as sales in China slump. The Guardian. Retrieved December 11, 2024, from <https://www.theguardian.com/business/2024/oct/30/volkswagen-hit-by-fall-in-profits-sales-in-china-slump>.
48. Howell, S. T. (2016). Joint Ventures and Technology Adoption: A Chinese Industrial Policy that Backfired. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.2795560>.
49. Waldersee, V. (2023, March 14). Volkswagen invests in batteries, raw materials in race for affordable EV. Reuters. Retrieved December 11, 2024, from <https://www.reuters.com/business/autos-transportation/volkswagen-invest-180-bln-euros-five-year-plan-2023-03-14>.
50. Jolly, J. (2022, September 29). Porsche shares rise on first trading day in €75bn stock market float. The Guardian. Retrieved December 11, 2024, from <https://www.theguardian.com/business/2022/sep/29/porsche-shares-rise-first-trading-day-volkswagen-75bn-stock-market-float>.
51. FitchRatings (2024, August 14). Fitch Affirms Volkswagen at 'A-'; Outlook Stable. FitchRatings. Retrieved December 11, 2024, from <https://www.fitchratings.com/research/corporate-finance/fitch-affirms-volkswagen-at-a-outlook-stable-14-08-2024>.

52. Hauss, C., Oemisch, C. (2024, October 30). Volkswagen Group's nine-month results impacted by higher fixed costs and restructuring provisions. Volkswagen Group. Retrieved December 11, 2024, from <https://www.volkswagen-group.com/en/press-releases/volkswagen-groups-nine-month-results-impacted-by-higher-fixed-costs-and-restructuring-provisions-18768>.
53. Hauss, C., Oemisch, C. (2024, April 24). Volkswagen Group takes the offensive in China by strengthening tech capabilities and reducing costs. Volkswagen Group. Retrieved December 11, 2024, from <https://www.volkswagen-group.com/en/press-releases/volkswagen-group-takes-the-offensive-in-china-by-strengthening-tech-capabilities-and-reducing-costs-18350>.
54. Jolly, J. (2024, October 30). Volkswagen hit by 60% fall in profits as sales in China slump. The Guardian. Retrieved December 11, 2024, from <https://www.theguardian.com/business/2024/oct/30/volkswagen-hit-by-fall-in-profits-sales-in-china-slump>.
55. Moody's Ratings (2024, July 1). Rating Action: Moody's Ratings affirms A3 long-term issuer and senior unsecured debt ratings of VW Financial Services AG and its guaranteed subsidiaries, outlook stable. Moody's Ratings.
56. Sherman, N. (2024, May 15). Biden hits Chinese electric cars and solar cells with higher tariffs. BBC News. Retrieved December 11, 2024, from <https://www.bbc.com/news/business-69004520>.
57. U.S. Customs and Border Protection (2021, December 23). Uyghur Forced Labor Prevention Act. U.S. Customs and Border Protection. Retrieved December 11, 2024, from <https://www.cbp.gov/trade/forced-labor/UFLPA>.
58. Agence France-Presse (2024, February 15). Volkswagen Cars Blocked by US Customs Over Part From China. Voice of America. Retrieved December 11, 2024, from <https://www.voanews.com/a/volkswagen-cars-blocked-by-us-customs-over-part-from-china/7488487.html>.
59. Reuters (2024, November 28). VW buckles after years of pressure to sell up in Xinjiang. Reuters. Retrieved December 11, 2024, from <https://www.reuters.com/business/autos-transportation/vw-exit-xinjiang-operation-with-sales-local-plant-test-track-sources-say-2024-11-27>.
60. Reuters (2024, September 19). Volkswagen's audit of Xinjiang plant failed to meet international standard, FT reports. Reuters. Retrieved December 11, 2024, from <https://www.reuters.com/business/autos-transportation/volkswagens-audit-xinjiang-plant-failed-meet-international-standard-ft-reports-2024-09-19>.
61. Nilsson, P., White, E. & Li, G. (2023, July 27). Chinese electric-car shares boosted by Volkswagen investment in Xpeng. Financial Times. Retrieved December 11, 2024, from <https://www.ft.com/content/f82f5f17-b4f8-4fb4-b0ec-a655b048ee75>.
62. XPeng (2024, April 17). XPENG and the Volkswagen Group Announce Entry into the Framework Agreement on E/E Architecture Technical Collaboration. XPeng. Retrieved December 11, 2024, from <https://ir.xiaopeng.com/news-releases/news-release-details/xpeng-and-volkswagen-group-announce-entry-framework-agreement-ee?mobile=1>.
63. Chattanooga Times Free Press (2024, February 16). VW Chattanooga expects assembly to grow by a third in 2024. Chattanooga Times Free Press. Retrieved December 11, 2024, from <https://www.timesfreepress.com/news/2024/feb/16/vw-chattanooga-expects-assembly-to-grow-by-a>.
64. Workman, D. (2024, April 3). US Imported Cars by Supplier Countries. World's Top Exports. Retrieved December 11, 2024, from <https://www.worldstopexports.com/us-imported-cars-by-supplier-countries>.
65. Shepardson, D. (2024, September 24). New US rule would require GM, Ford to halt imports of cars they build in China, official says. Reuters. Retrieved December 11, 2024, from <https://www.reuters.com/business/autos-transportation/gm-ford-would-need-halt-chinese-vehicles-exports-us-under-rule-official-says-2024-09-23>.
66. Bloomberg (2022, 31 March). Shanghai lockdown: Volkswagen joins ranks of Tesla and Toyota, to partially shut factory amid Covid-19 outbreak. South China Morning Post. Retrieved December 11, 2024, from <https://www.scmp.com/business/china-business/article/3172514/shanghai-lockdown-volkswagen-joins-ranks-tesla-and-toyota>.

67. Šebeña, M.; Chan, T.; Šimalčík, M. (2023) Hidden links: V4's final demand exposure to the Chinese market. CEIAS, October 2023. Retrieved December 11, 2024, from https://ceias.eu/wp-content/uploads/2023/10/V4-exposures-paper_FINAL.pdf.
68. Federal Ministry for Economic Affairs and Climate Action (2024). Export Credit Guarantees – Interim Report 2024. BMWK, July 2024. Retrieved December 11, 2024, from https://www.bmwk.de/Redaktion/EN/Publikationen/Aussenwirtschaft/export-credit-guarantees-interim-report-2024.pdf?__blob=publicationFile&v=2.
69. Reuters. (2024, 8 November). Exclusive: Stellantis, partner Leapmotor scrap plan to make second EV model in Poland, sources say. Reuters. Retrieved December 12, 2024, from <https://www.reuters.com/business/autos-transportation/stellantis-partner-leapmotor-scrap-plan-make-second-ev-model-poland-sources-say-2024-11-08>.

About the author

Martin Šebeňa | Chief Economist, CEIAS

Martin Šebeňa is the Chief Economist at the Central European Institute of Asian Studies. He has published research in the areas of global value chains, trade flows, geoeconomic policy, and supply chain finance. He has 14 years of experience in global trade and supply chain finance in Hong Kong, Switzerland, and Australia. Dr. Šebeňa received his Ph.D. degree in political science from the University of Hong Kong, a master's degree in finance from Curtin University, and a master's degree in political science and Chinese studies from Charles University in Prague.



sebena@ceias.eu



@MartinSebena

About CEIAS

Central European Institute of Asian Studies (CEIAS) is an independent think tank focusing on Europe-Asia relations and developments in the Indo-Pacific region. Originally founded in 2007 in Slovakia, CEIAS is today a transnational think tank with main branches in Bratislava (Slovakia), Prague (Czech Republic), and Vienna (Austria), and further regional presence in Poland, Hungary, Canada, Singapore, Taiwan, Hong Kong, and beyond.

As a sole transnational think tank focused on Asia in Central Europe, CEIAS's main goal is to spread knowledge about contemporary Asia among experts and the public in Central Europe and beyond, while also informing international audiences about Central European, as well as the EU's relations with Asia.

To this end, CEIAS conducts and publishes its own research, organizes seminars and conferences, supports education on Asia and Indo-Pacific-related topics, and provides expert commentary for the local, regional, and international media. CEIAS strives to combine its academic and policy advisory role, producing data-driven, methodologically rigorous, reliable, and practically relevant research that is highly valued by experts and policymakers alike.

CEIAS activities, organized into several workstreams, focus mainly on international relations, politics, security studies, economics, and societies in East, Southeast, South, and Central Asia.

Connect with us online



www.facebook.com/CEIASeu



www.twitter.com/CEIAS_eu



www.instagram.com/ceias_eu



www.linkedin.com/company/ceias-eu



www.ceias.eu



office@ceias.eu

Contribution of European firms' investments in China to European economies

Authors: Martin Šebeňa

Design: Veronika Blablová

Cite as: Martin Šebeňa. Contribution of European firms' investments in China to European Economies. CEIAS, January 2025.

Published by:

Central European Institute of Asian Studies
Murgašova 2, 811 04 Bratislava, Slovakia
www.ceias.eu
office@ceias.eu

All rights reserved.

© Authors

© Central European Institute of Asian Studies, 2025

This publication was funded by the Ministry of Foreign Affairs of the Czech Republic.



www.ceias.eu