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The Impact of COVID-19 on Foreign Investors:

Evidence from the Quarterly Global Multinational Enterprise (MNE) Pulse Survey for the First Quarter of 2021

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WORLD BANK GROUP

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Executive Summary

- **The pandemic's adverse effects on multinational enterprises (MNEs) in developing countries continued to ease in the first quarter of 2021 (Q1 2021)**. Impacts remained widespread with 93 percent experiencing at least one adverse impact, but fewer firms report negative demand, output, revenue, and profit impacts (relative to Q1 2020) than in prior survey rounds. The average magnitude of these impacts was also more limited. The recovery in demand has seen price pressures appear, with 52 percent of firms reporting elevated input costs relative to Q1 2020. With input costs excluded, the share of firms reporting any adverse effects fell from 89 percent in Q4 2020 to 79 percent in Q1 2021.
- **Despite these signs of improvement, 68 percent of firms were still operating below their pre-COVID capacity in Q1 2021.** Firms expect a gradual recovery over the coming year, with 52 percent of firms not expecting to return to full capacity until 2022 or later. The excess capacity means that, so far in 2021, firms have mostly focused on increasing output from their existing capital and workforce to respond to recovering demand. Nonetheless, 44 percent of firms expect to invest in new capital and 20 percent expect to expand their workforce in Q2 2021.
- **The longer-term outlook for foreign investment in developing countries remains subdued.** Overall, 92 percent of firms report that their foreign parent had no plans to change (increase or decrease) the company's level of investment over the next 1-3 years. Just 8 percent of firms expect the level of investment to increase, and there is little evidence of a major reorganization of supply chains with only 15 percent of firms reporting that nearshoring or reshoring was influencing investment plans.
- **Uncertainty about future demand is the key factor holding investment back, but policy and regulatory restrictions are also a factor for almost half of firms.** Removal of restrictive investment policies could be critical to help stimulate new investments, as over half of all respondents cite the relaxation of investment restrictions as one of the top initiatives that would support additional investment.
- **Survey results confirmed that almost all MNE affiliates have increased their adoption of digital technologies for remote working, e-commerce, and supply chain management** in response to the pandemic. Foreign parent companies played a critical role in technology adoption, including directly transferring technologies to their affiliates and providing financial support, guidance, and training.
- **Half of MNE affiliates also report increasing their focus on sustainability and decarbonization of products and services, with foreign parent companies again playing a critical role.** Government policies were the top driver of companies' adoption of sustainable solutions, but pressure or direction from foreign parent companies to improve environmental performance was also cited by three-quarters of firms. These results show that, as global investors, governments, and consumers increasingly focus on sustainability, this focus will flow through to production in developing countries.

Introduction

For more than a year, the world has been grappling with the unprecedented global health, social, and economic crisis caused by the COVID-19 pandemic. Consumer demand, supply chains, workplaces, and daily life have been severely affected. Moreover, the crisis continues to impact people, businesses, and economies, including both developed and developing economies.[1]

Since the onset of the crisis, the World Bank's Global Investment Climate Unit has been undertaking quarterly 'pulse' surveys of multinational enterprises (MNEs) operating in developing countries to assess the effects of the pandemic on the companies' operations and the outlook for foreign direct investment (FDI).[2] MNEs play a critical role in the global economy, and FDI is a key source of capital investment and employment in developing countries, making it an important factor in economic recovery prospects.

Looking back on the five survey rounds conducted since early 2020 reveals the extraordinary business recovery that has been underway, with the average effects on MNE revenues improving from as low as 40 percent below pre-crisis levels in Q1 2020, to almost break even in year-on-year terms in Q1 2021 **(Figure 1)**.

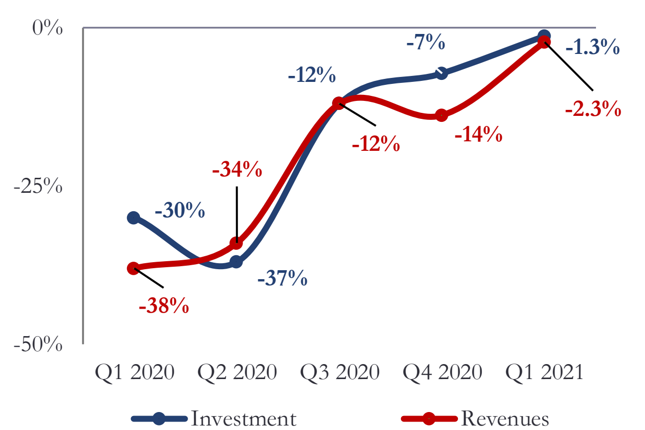
Nonetheless, results from the most recent survey suggest most firms are still operating below full capacity, and the outlook for FDI remains subdued. Survey results also reveal how trends that existed prior to COVID-19 have been accelerated by the pandemic, including digitization, automation, and a growing focus on sustainability.

ABOUT THE SURVEY[3]

The survey was administrated online from April 14th to May 14th, 2021. The resulting sample comprises 300 MNE affiliates (companies with full or partial foreign ownership) across 36 developing countries. The sample was evenly distributed across the six developing regions following the World Bank Group taxonomy, and across manufacturing and services sectors in each region.

While significant challenges lie ahead, there are also opportunities for policymakers in developing countries to support new investment that can capitalize on current trends in technology and sustainable investment.

Figure 1: Average year-on-year impact of the COVID-19 pandemic on MNE affiliates over 2020-21[4]



[1] Gill, Indermit, and Phillip Schellekens. "COVID-19 is a developing country pandemic." Brookings Institute blog, May 27, 2021. https://www.brookings.edu/blog/future-development/2021/05/27/covid-19-is-a-developing-country-pandemic/

[2] Full results from prior rounds of the survey are available at: https://openknowledge.worldbank.org/handle/10986/33774 (first); https://openknowledge.worldbank.org/handle/10986/34638 (second); https://openknowledge.worldbank.org/handle/10986/34924 (third); and https://openknowledge.worldbank.org/handle/10986/35321 (fourth).

[3] The fifth round of the survey was conducted by EY Advisory (EY) and Euromoney PLC (Euromoney) on behalf of the World Bank Group. The authors thank Vincent Raufast, Hugo Alvarez, Yannick Cabrol, Clémence Marcout, Clodagh Nash, Lawrence Bowden, Duncan Kerr, and Aura Popa for their contributions to the report.

[4] Chart shows results of multiple survey rounds with different sample sizes and methodologies, presented together for illustrative purposes. For Q1 2020, n=104. For Q2 2020, n=78. For Q3 2020, n=305. For Q4 2020, n=329. For Q1 2021, n=300. See prior reports (linked above) for detail on methodologies and sample composition for each survey round.

Effects of COVID-19 on MNE Affiliates in the First Quarter of 2021

The vast majority of MNE affiliates in developing countries were still feeling the effects of COVID-19 in Q1 2021. Overall, 93 percent of firms reported at least one adverse impact in Q1 2021 (relative to Q1 2020), unchanged from the prior survey round. However, the scale of effects continued to ease from Q4 2020. Demand increased, productivity rose, and a growing share of firms reported elevated input costs as recovery builds momentum. Excluding input costs, the share experiencing at least one adverse impact fell from 89 percent in Q4 2020 to 79 percent in Q1 2021.

Demand and output recovery

Demand has been consistently improving for the last three quarters and, on average, was one percent higher in Q1 2021 than in Q1 2020 **(Figure 2)**. Similarly, on average, firms reported their total output was 2 percent higher in Q1 2021, as firms ramped up production to meet demand.

The share of firms that experienced adverse demand and output impacts fell to less than 40 percent. Adverse effects continued to be more prevalent among manufacturing firms than services, and among smaller firms than large ones **(Figure 4)**, indicating an uneven recovery.

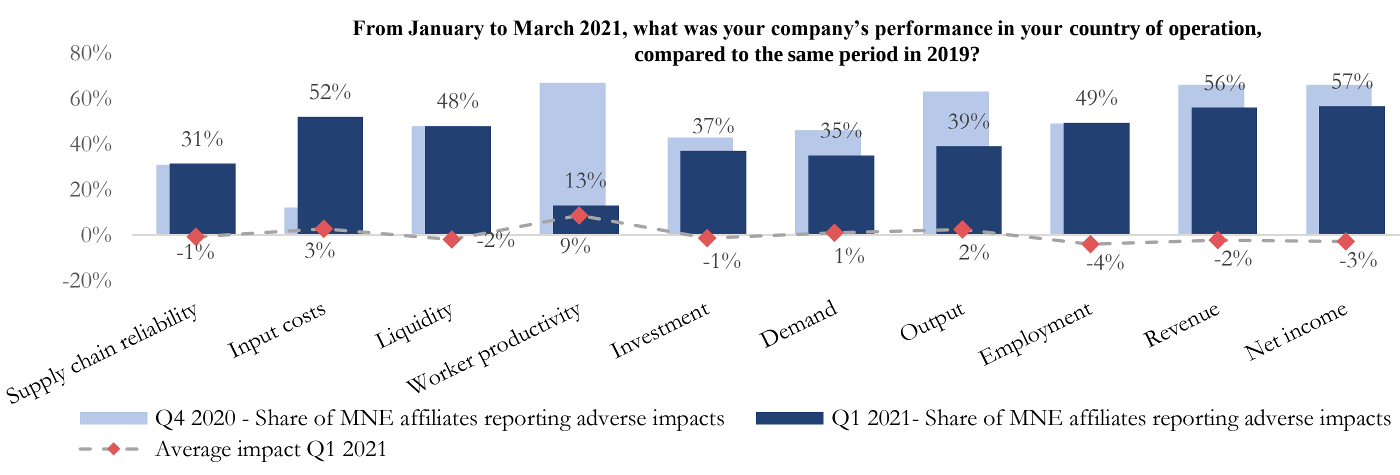
Importantly, many firms were already experiencing the early impacts of COVID-19 in the first quarter of 2020, which is the reference period for this survey round. This suggests that demand—as well as other performance indicators—remained below pre-pandemic levels. Answers to subsequent questions on firms' operating capacity in Q1 2021, explored in the next section of the report, support this interpretation.

Supply chains and input costs

Some firms continued to experience problems with the reliability of supply chains in Q1 2021. The share of firms that reported adverse supply chain effects (31 percent) and the average scale of the impact (minus one percent) remained largely unchanged from Q4 2020. Among firms experiencing supply chain issues, input shortages continued to be the primary concern **(Figure 3)**.

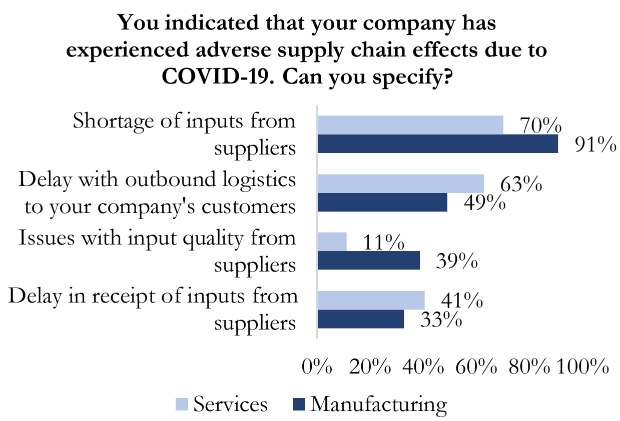
At the same time, the share of respondents that reported elevated input costs increased more than four-fold, from just 12 percent in Q4 2020 to 52 percent Q1 2021. The rise in input costs affected more manufacturing firms (69 percent) than services firms (35 percent).

Figure 2: Share of MNE affiliates reporting adverse impacts during Q4 2020 and Q1 2021, and average impact during Q1 2021 (N=300)



Note: Firms reported impacts as percentage variation from the same quarter in the prior year. Firms are classified as having an adverse impact if they report a negative outcome (or positive for input costs).

Figure 3: Share of MNE affiliates reporting specific supply chain challenges during Q1 2021 (N=94)



While this may in part reflect prices rebounding from a low base, the most severe price drops (for example oil prices) occurred after the end of the Q1 2020 reference period. Another possibility is that price pressures reflect ongoing costs of supply chain disruptions. However, only around a third of respondents that reported elevated input prices also reported experiencing supply chain issues.

Instead, for many firms, it is likely that price pressures were driven by rapidly rising demand for inputs as the recovery in global demand builds momentum. Supporting this conclusion, around two-thirds of firms that reported elevated input prices also reported experiencing elevated demand in Q1 2021.

Productivity, employment, and investment

The share of MNEs that reported adverse effects on worker productivity dropped significantly, from 67 percent in Q4 2020 to 13 percent in Q1 2021. The average effect likewise improved, from minus 13 percent in Q4 2020 (relative to Q4 2019) to positive 9 percent in Q1 2021 (relative to Q1 2020).

Again, this may partly reflect that worker productivity had already begun to be affected by the pandemic in the reference period. As explored in the next section of the report, firms primarily sought to increase the productivity of their existing workforce to meet growing demand in the early stages of the recovery period. In addition, multiple survey rounds have identified that firms have increased their investments in technology in the wake of the pandemic, and productivity improvements may also signal that these investments are beginning to pay off.

The share of MNEs that reported their employment levels were negatively impacted remained comparable to Q4 2020, despite the increase in output, reinforcing that output per worker improved from pandemic-period lows. The share of MNEs that reported negative employment impacts varied widely between small (57 percent) and large firms (34 percent), highlighting that the recovery process remains unevenly distributed across firms **(Figure 4)**.

The negative effects of COVID-19 on MNE investment continued to gradually diminish. In Q1 2021, 37 percent of respondents reported reduced investment compared with Q1 2020 levels (down from 43 percent in Q4 2020). Investment levels were close to Q1 2020 levels, down just one percent on average from Q1 2020.

Revenue and profits

Despite the rise in input costs, firms continued to report improving revenue and profit results. On average, revenue and profits were down just 2 and 3 percent respectively in Q1 2021 (relative to Q1 2020), a significant improvement compared to Q4 2020 when firms reported both revenue and profits were down as much as 14 percent on average. Firms that reported elevated input costs actually reported better profit results on average, suggesting that these price pressures are a sign of broader recovery.[5]

Regional differences

In every region, the majority of companies reported at least one adverse impact of COVID-19 from the ten business dimensions surveyed **(Figure 4)**. MNEs located in the Middle East and North Africa (MENA) were the most likely to report adverse effects across business dimensions, potentially reflecting the region's greater dependence on oil prices which remained low in Q1 2021.

Firms in East Asia and Pacific and South Asia were also more likely to report reduced demand, output, employment, investment than firms in other regions. This may in part reflect the resurgence of COVID-19 cases experienced in some countries in these regions in 2021, which began to emerge late in Q1 2021.

[5] World Bank. 2021. *Global Economic Prospects: Chapter 4: Emerging Inflation Pressures: Cause for Alarm?* June 2021. https://www.worldbank.org/en/publication/global-economic-prospects

Figure 4: Share of MNE affiliates reporting adverse effects of COVID-19 pandemic in Q4 2020 by sector, region, business model and size (N=300)

		Sector		Region						Business model		Company size	
	Total	Manufacturing	Services	East Asia and Pacific	South Asia	Middle East and North Africa	Sub-Saharan Africa	Europe and Central Asia	Latin America and the Caribbean	Export-oriented	Market-oriented	<250 emp.	>=250 emp.
Supply chain reliability	31%	45%	18%	48%	32%	58%	12%	24%	14%	46%	25%	37%	21%
Input costs	52%	69%	35%	46%	54%	38%	66%	44%	64%	27%	10%	17%	12%
Liquidity	48%	54%	42%	56%	36%	70%	34%	40%	52%	53%	46%	52%	41%
Worker productivity	13%	17%	9%	6%	8%	10%	2%	32%	20%	9%	15%	12%	15%
Investment	37%	40%	34%	50%	40%	64%	10%	26%	32%	52%	30%	40%	31%
Demand	35%	42%	28%	58%	44%	72%	4%	18%	14%	52%	28%	42%	23%
Output	39%	47%	31%	58%	42%	72%	6%	30%	26%	53%	33%	45%	29%
Employment	49%	52%	47%	90%	82%	92%	10%	12%	10%	77%	37%	57%	34%
Revenue	56%	64%	48%	60%	42%	86%	32%	58%	58%	60%	54%	60%	49%
Net income	57%	64%	49%	62%	42%	86%	34%	58%	58%	61%	55%	61%	50%
Any business dimension (excl. input costs)	79%	82%	75%	91%	93%	100%	50%	66%	72%	87%	75%	80%	72%
Any business dimension	93%	99%	87%	99%	100%	100%	88%	80%	90%	99%	90%	92%	97%

Note: Darker shading reflects higher intensity. For example, 45 percent of manufacturing firms surveyed experienced adverse supply chain reliability in the first quarter of 2021, relative to the first quarter of 2020.

MNE Capacity Utilization, Recovery, and Expansion Expectations for 2021

The potential contribution of MNEs to developing country economies depends in large part on their investments in productive capital and ability to create good jobs. Yet firms are unlikely to make new investments and hire new workers while they have spare capacity in the wake of the pandemic.

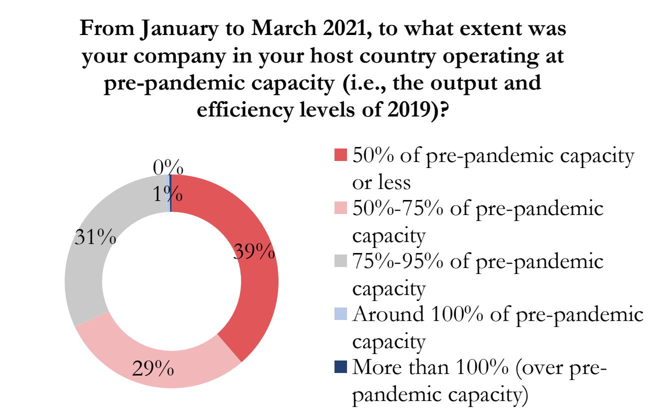
Survey results suggest that, despite improving economic conditions over Q1 2021, most companies have yet to reach a level of production that utilizes their full capacity, and most do not expect to return to pre-pandemic levels of production until 2022 or later. In Q1 2021, firms largely met increasing demand by improving the productivity of existing employees and assets, although there are indications that more firms will begin to undertake capital investment and hire new workers in Q2 2021.

Current capacity level

For most companies, production remained below pre-pandemic levels in Q1 2021. Overall, more than two thirds (68 percent) of respondents reported operating below 75 percent of their pre-pandemic capacity, including 39 percent operating below 50 percent (**Figure 5**).

Three-quarters of manufacturing companies were below 75 percent of their pre-crisis production level, compared to 60 percent of services companies. This reinforces prior findings that the magnitude of supply and demand shocks resulting from the pandemic have been more severe for MNE affiliates in the manufacturing sector.

Figure 5: MNE's level of operation in Q1 2021, relative to pre-pandemic levels (N=300)



By contrast, MNEs in services sectors such as business, IT, and financial services, which make up the majority of the services firms in the observed sample, have been better able to adapt to the challenges of the pandemic period.

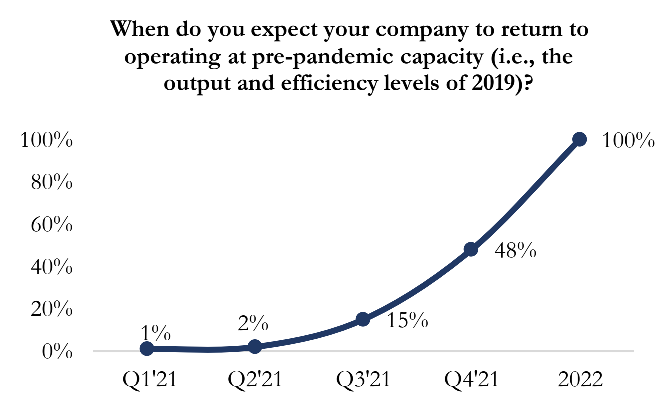
Similarly, 89 percent of export-oriented firms (MNE affiliates producing intermediate or final goods in their host country for export purposes) were below 75 percent of their pre-crisis production level, compared to 58 percent of domestic market-oriented ones.

Expected return to full capacity

Looking ahead, most firms expect a long road to recovery. With only one percent of survey respondents operating at their pre-pandemic capacity in Q1 2021, one additional percent of firms expect to reach full capacity in Q2 2021 and only another 13 percent expect to do so by Q3 2021 **(Figure 6)**. In fact, more than half of firms expect they will only return to their pre-pandemic level of production in 2022 or later.

The most impacted MNEs have the slowest recovery trajectory. Eighty-four percent of companies that were operating below 50 percent of their pre-pandemic levels forecast that recovery could take until 2022. Manufacturing, smaller, and export-oriented firms are also less likely to expect they will recover by the end of 2021.

Figure 6: Road to recovery: Expected cumulative share of firms operating at full capacity (N=300)



Outlook for capacity expansion in 2021

As noted in the first section of the report, many MNE affiliates in developing countries experienced a recovery in demand and increased their level of output in Q1 2021. However, spare capacity in the wake of the pandemic meant that only limited investment in new capital and hiring of new workers was needed to meet this demand.

The vast majority of respondents (93 percent) indicated that they relied mainly on their existing assets and workforce to meet increased demand in Q1 2021, and the same share expected to continue doing so in Q2 **(Figure 7)**. This is consistent with the finding that firms experienced large improvements in worker productivity in this quarter. A majority of firms also adopted complementary strategies of investing in technologies to increase productivity (69 percent) and increasing hours for their existing workforce (58 percent) in Q1 2021.

Fewer firms reported they that had taken expansionary steps, such as investing in new capital (36 percent) or expanding their total workforce (10 percent) in Q1 2021. Still, a growing share of firms expected to take these steps in Q2, signaling a gradual shift from relying on existing capacity to expansion of capacity as recovery continues.

Firms that were already operating close to their pre-pandemic capacity levels in Q1 2021 were significantly more likely to invest in new capital and hire new workers in Q2, highlighting the close relationship between capacity utilization and expansion **(Figure 8)**.

Most firms operating above 75% of their pre-pandemic levels in Q1 expected to invest in new technology (99 percent) and capital (81 percent) in Q2, and many expected to expand their workforce (41 percent). On the other hand, only a small number of those operating below 75% of their pre-pandemic levels expected to make similar investments and workforce decisions. Instead, such firms generally planned to increase hours for their existing workforce in Q2 to meet increasing demand.

Risks threatening MNEs' recovery

The resurgence of COVID-19 remains the most significant risk threatening recovery, ranking among the top three concerns for 68 percent of respondents **(Figure 9)**. In light of significant recent surges of COVID-19 in countries such as India, as well as the continued challenges of vaccine access and distribution in developing countries, these

Figure 7: Share of MNEs that took or expected to take steps to meet increased demand in Q1 and Q2 2021 (N=300)

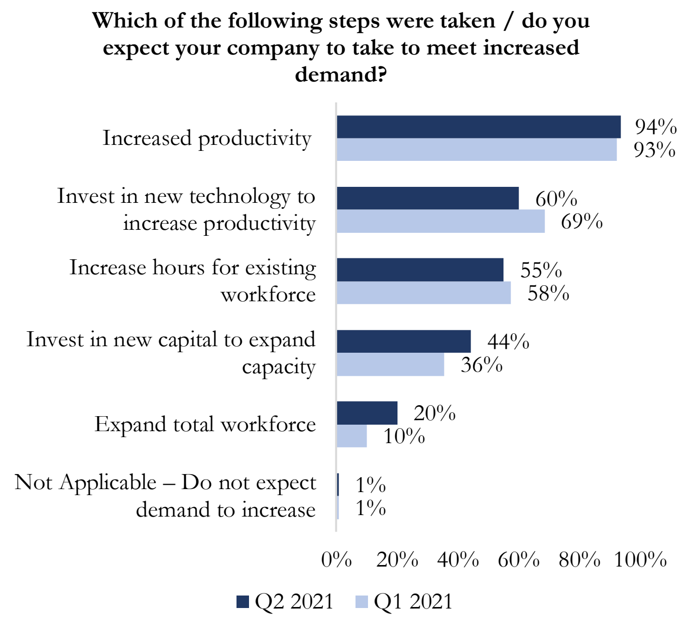


Figure 8: Share of MNEs that expected to take steps to meet increased demand in Q2 2021, by level of operating capacity in Q1 2021 (N=300)

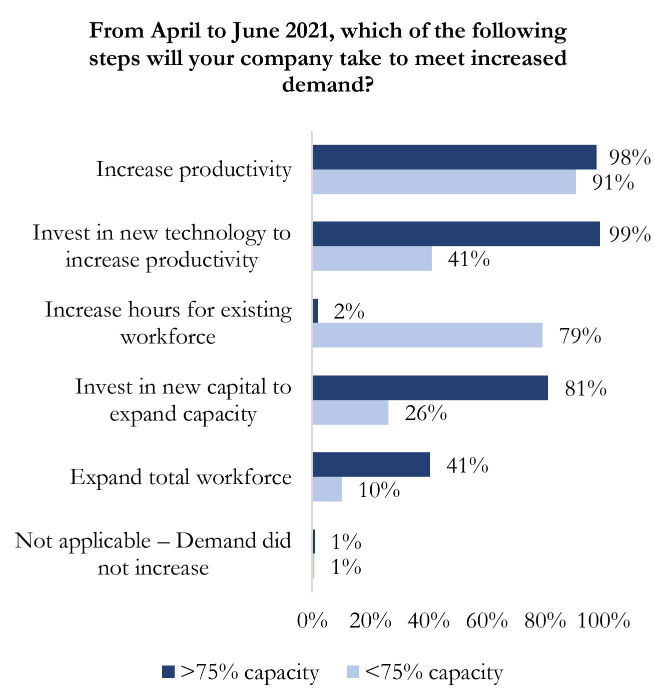
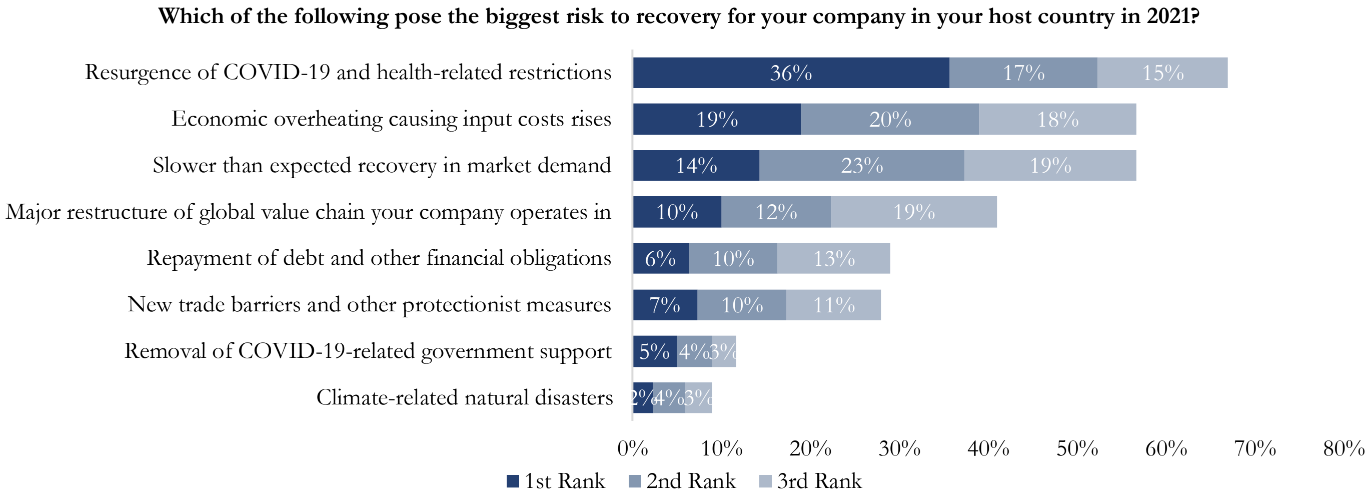


Figure 9: Share of firms citing biggest risks threatening their recovery in 2021 (N=300)



concerns are well founded. This highlights the fact that dealing with the spread of the disease remains the most important policy priority for governments and will directly affect the prospects for economic recovery.

Survey data highlight that economic recovery is delicately balanced, with risks on both the upside and downside. Many firms (57 percent) pointed to the threat of an economic overheating scenario, where rapid global economic recovery causes input shortages and price increases as a key risk. At the same time, a similar share (56 percent) reported concerns about a slower-than-expected recovery in demand. Other potential risks were cited far less often by firms, demonstrating the importance of overall macroeconomic conditions to firms' recovery prospects.

Interestingly, removal of COVID-19-related government support was perceived as a risk by very few firms. Given the evidence in earlier survey rounds that most firms had access to some form of government support, this result suggests that companies may be less dependent on crisis-related support in 2021 than in the earlier pandemic period.

Changes to Investment and Supply Chains in Response to COVID-19

Improved economic conditions during Q4 2020 and Q1 2021 have contributed to a stabilization of MNEs' investment plans. However, the longer-term outlook for FDI in developing countries remains subdued, with uncertainty about future economic conditions holding back more investment. Still, opportunities remain for governments to encourage investment through policy and regulatory reforms, such as relaxing entry restrictions.

Changes to investment plans

Overall, 92 percent of respondents expected no change in their parent company's level of investment in their host country over the next 1-3 years. This result was consistent across sectors and regions, and continued a trend towards a more stable investment outlook across multiple survey rounds **(Figure 10)**. Critically, however, only 8 percent of firms expect their parent company to increase investment, suggesting that FDI flows to developing countries may remain subdued for some time.

Only 20 percent of respondents were "very certain" about their company's investment plans **(Figure 11)**. When asked why investment levels would likely remain unchanged, three out of four cited uncertainty about future demand, and almost half cited low expected demand growth **(Figure 12)**. Together, these results reinforce the importance of global economic recovery to future investment and suggest MNEs are continuing to take a 'wait-and-see' approach.

Figure 10: Expected changes in investment in the host country (Q3 N=305; Q4 N=329; Q1 N=300)

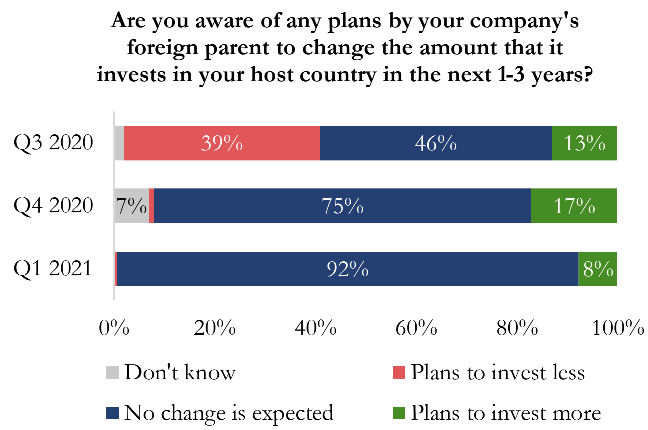


Figure 11: Level of certainty about parent company's investment plans for host country (N=300)

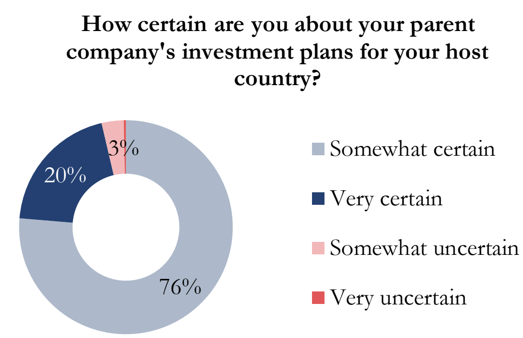
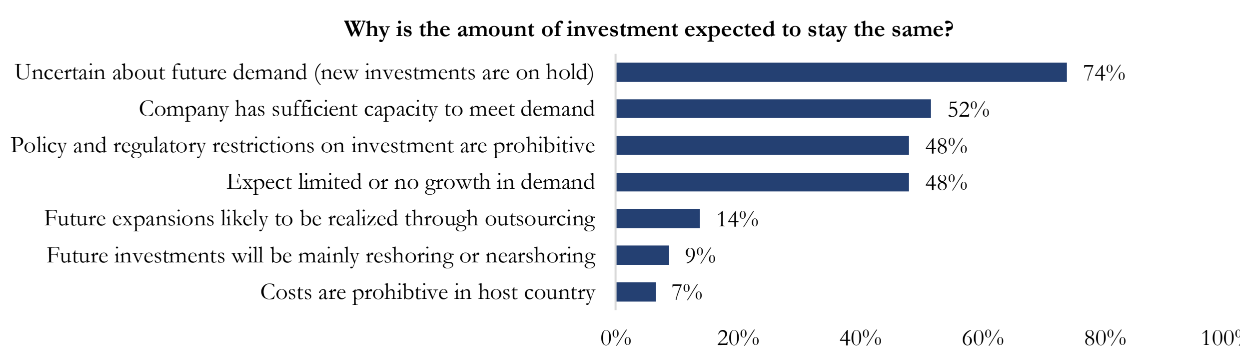


Figure 12: Main drivers for the absence of change in investment plans (among respondents expecting investment to remain the same) (N=275)



More than half of firms expecting investment to remain the same stated that existing spare capacity was also a factor, confirming the clear connection between capacity utilization and expansionary investment discussed above.

Policies to encourage investment

Government policies and regulations that apply to foreign investors can play a critical role in enabling and encouraging greater FDI inflows. For example, in the Q4 2020 survey, 86 percent of respondents that expected to invest more in coming years cited changes in the regulatory environment as an important factor shaping their plans. Similarly, in Q1 2021 almost half of the respondents that expected no change in their parent company's level of investment cited policy and regulatory restrictions as a contributing factor discouraging additional investment **(Figure 12)**.

To better understand what policy changes could make a difference, firms were asked what types of policy initiatives could encourage further investment in their host country of operation **(Figure 13)**. Among the top three policy initiatives ranked by respondents, two directly relate to investment constraints. More than half of respondents cited relaxation of investment constraints and restrictions among the top three most desired initiatives.

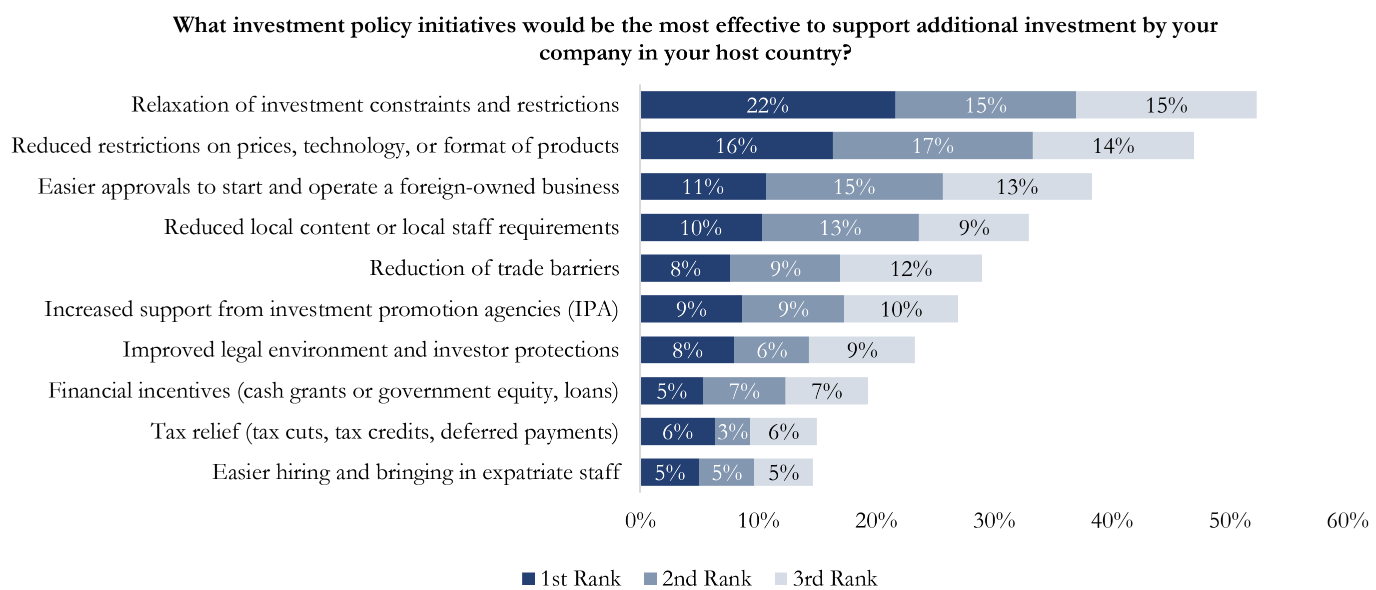
Reduced restrictions on prices, technology or formats of products was the second most cited investment policy priority. Such policy restrictions particularly stand out among respondents based in East Asia, with 30 percent of respondents ranking them first, against 16 percent for the whole panel. These results highlight that policymakers should seek opportunities to support investment in the recovery period through strategic adjustments to investment policies, reduced operational restrictions, and support for MNEs.

Supply chain and business model changes

Confirming the trend observed over Q4 2020, survey results from Q1 2021 provide little evidence of significant changes to global supply chains of MNEs. Overall, just 15 percent cited nearshoring or reshoring as a factor influencing their parent company's investment plans over the next 1-3 years, and only 2 percent are changing the countries from which they source their inputs.

Similarly, very few anticipate changes in the role their host country will play in their company's operations. Only 8 percent expect greater vertical integration within their host country, while 4 percent expect a shift to handling more advanced activities in their host countries.

Figure 13: Policy initiatives mentioned by respondents as encouraging investment in their host country (N = 300)



Increased Technology Adoption and Sustainability Measures by MNEs

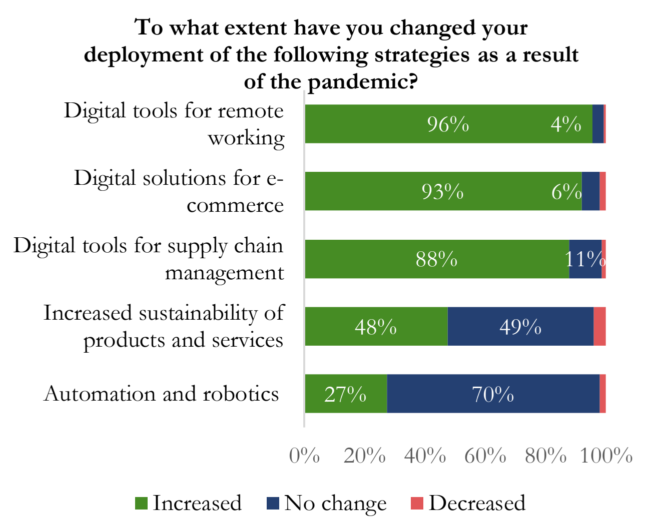
The challenges presented by the COVID-19 pandemic, as well as longer-term trends in the global economy, have driven many firms to increase their adoption of new technologies. Importantly, foreign parent companies have played a significant role in the adoption of these technologies by their affiliates, highlighting the potential for FDI to facilitate technology transfer to developing countries.

MNEs have also placed greater emphasis on implementing sustainability measures, with foreign parent companies again playing a critical role. This shift has been driven by a combination of government policy, rising parent company expectations, and firms' own concerns about the risks posed by climate change.

Technology adoption

As observed in previous survey rounds, the vast majority of respondents reported they had increased their deployment of technology-driven strategies as a result of the pandemic **(Figure 14)**. These included digital technologies for remote working (96 percent), supply chain management (93 percent), and e-commerce solutions (88 percent).

Figure 14: Share of firms that increased take-up of technology and sustainability (N = 300)



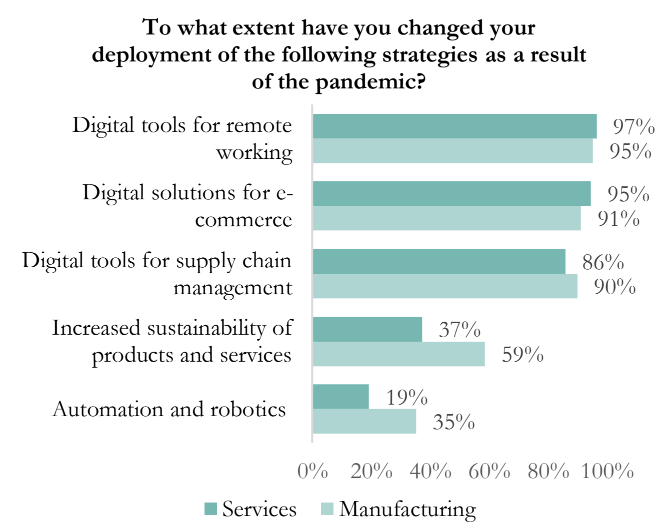
While fewer respondents reported increasing their use of automation and robotics (27 percent), this remains relatively high considering the capital intensity of such investments. Automation and robotics were more likely to be adopted by manufacturing firms (35 percent) compared to services firms (19 percent) **(Figure 15)**.

Similarly, adoption of these technologies was higher among respondents employing 250 or more workers (44 percent) than smaller companies (18 percent), possibly reflecting the fact that acquisition and deployment costs of these technologies make them more accessible to larger firms.

Increased automation also appears more prevalent among firms located in Sub-Saharan Africa, Europe and Central Asia, and Latin America and the Caribbean, compared to those in Asia and MENA (although this may reflect firms in Asia and MENA already being more advanced in terms of automation.)

Across the board, MNEs that increased technology adoption reported that their foreign parent company played a critical role in the process. For example, among firms that adopted digital technologies, 98 percent

Figure 15: Share of firms that increased take-up of technology and sustainability, by sector (N = 300)



received financial support to do so from their foreign parent, 98 percent received guidance, and 94 percent received access to technologies directly **(Figure 16)**. These results underscore how the linkages from foreign parent companies to affiliates provide a powerful mechanism for technology transfer to developing countries.

Adoption of sustainability measures

Alongside technological change, governments, investors, companies, and consumers are increasingly focused on sustainability and the need to confront the climate crisis. This focus extends to MNE affiliates in developing countries, with 48 percent reporting they increased their efforts to improve sustainability and decarbonize their operations since the onset of COVID--19 **(Figure 14)**.

The focus on sustainability was more prevalent among manufacturing and export-oriented firms **(Figure 15)**. As with technology adoption, foreign parent companies played a critical role in supporting affiliates to address sustainability issues **(Figure 16)**.

Among firms increasing their sustainability focus, external pressures were also a major driver of change **(Figure 17)**. Foremost was pressure from local governments and regulators to improve environmental performance, cited among the top three drivers by 83 percent of firms. This reflects the "public good" nature of environmental issues and underscores the importance of robust environmental policies to drive changes in private sector behavior.

Pressure from foreign parent companies was also cited among the top drivers by 75 percent of firms. As global companies commit to sustainability goals and face more stringent policies at the headquarters level, these changes are likely to continue to flow through their corporate structures and supply chains, including to their affiliates in developing countries.

There are also signs that firms are internalizing the risks posed by climate change and environmental degradation in their own decision making. The risk of disruption and losses due to climate change was cited among the top drivers by 71 percent of firms. By contrast, pressure from local investors and pressure from customers and clients were rarely cited by firms as a factor.

Figure 16: Support from parent foreign company in the adoption of technologies (N = 300)

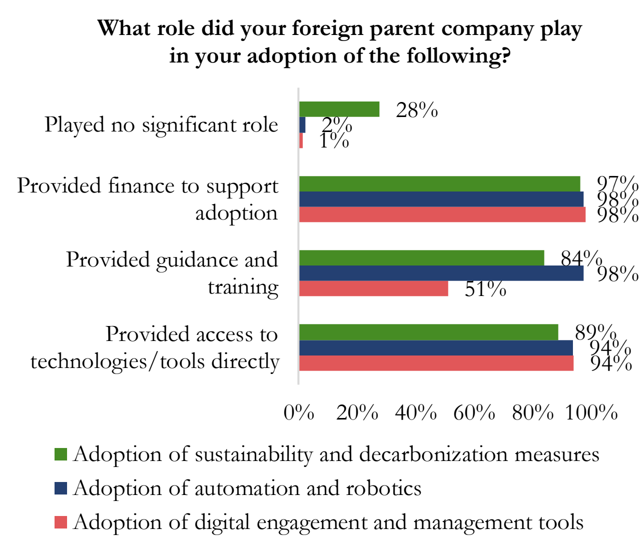
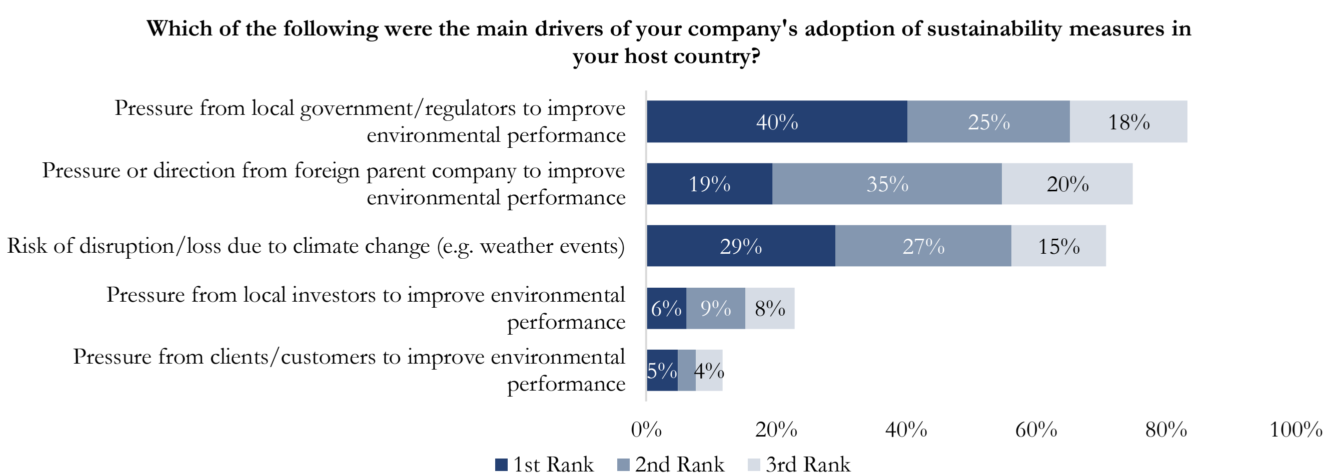


Figure 17: Main drivers of the adoption of sustainability measures by MNE affiliates (N = 300)



Appendix A: About the Survey

The data for this study comes from the fifth quarterly Pulse survey conducted between April 14 and May 14, 2021. Like the previous four rounds, the fifth-round Pulse survey goal is to monitor MNE performance along several supply and demand dimensions, gain information on business strategy adjustments, and assess policy responses. We specifically added MNE capacity and recovery to our field of work for this survey round.

Survey Coverage

The survey involved interviewing senior executives in affiliate operations of MNEs in the following six regions: East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, South Asia, and Sub-Saharan Africa. The 300 MNEs that responded to the survey represented the six regions (50 respondents from each region) and the manufacturing and service sectors (150 respondents from each sector).

Survey Content

Questions were organized into the following sections:

1. *General information on the company and interviewee*, including host and source country, position, number of employees, total asset, sector, and sub-sector.
2. *The effect of COVID-19 on the first quarter of 2021,* including the company's performance on various dimensions compared to the same period in 2020 and adverse impacts on aspects of the supply chain.
3. *The capacity and recovery strategies of MNE affiliates in 2021,* including the current capacity level of MNE affiliates, the steps taken to recover from the pandemic effects, recovery strategies considered by MNEs for the next quarter, and the potential risks that could threaten their recovery.
4. *Investment plans and policy initiatives*, including the parent company's investment plan changes, changes in the supply chain in terms of input sourcing and policy initiatives that could encourage investment.
5. *Investment of MNEs in technology and sustainability,* including the changes in the deployment of those strategies, their foreign parent company's support in the adoption of such strategies and the drivers of MNEs adoption of sustainability measures.

Survey Administration

The World Bank Group commissioned EY Advisory (EY) and Euromoney PLC (Euromoney, as EY's subcontractor) to conduct the fifth Pulse survey. The survey was conducted online, in English.

Each online survey was approximately 20 minutes long. Respondents participated in and completed the survey anonymously to protect their privacy and encourage participation and candid responses. The survey data was delinked from individual responses.

The survey was launched on April 14, 2021 and the fieldwork was completed on May 14, 2021.

Data Collection and Data Summary

The survey data set contains 300 responses from MNEs operating in 36 developing countries. The figures below present the distributions of respondents by region and country of operation **(Figure 18)**, foreign parent company location **(Figure 19)**, business size by number of employees **(Figure 20)** and total assets **(Figure 21)**, the respondent's position **(Figure 22)** and the business sector/subsector **(Figure 23)**.

Figure 18: Sample distribution by region and country of operation

Region/Host Country	Count	Percent
East Asia & Pacific	**50**	**17%**
Cambodia	2	1%
China	20	7%
Indonesia	6	2%
Malaysia	8	3%
Philippines	6	2%
Thailand	2	1%
Vietnam	6	2%
Europe & Central Asia	**50**	**17%**
Bulgaria	8	3%
Georgia	8	3%
Russia	16	5%
Turkey	10	3%
Ukraine	8	3%
Latin America & the Caribbean	**50**	**17%**
Argentina	8	3%
Brazil	14	5%
Cuba	4	1%
Ecuador	4	1%
Jamaica	2	1%
Mexico	14	5%
Peru	4	1%
Middle East & North Africa	**50**	**17%**
Algeria	4	1%
Egypt	12	4%
Iran	10	3%
Jordan	10	3%
Lebanon	6	2%
Morocco	8	3%
South Asia	**50**	**16%**
Bangladesh	16	5%
India	20	7%
Maldives	4	1%
Pakistan	4	1%
Sri Lanka	6	2%
Sub-Saharan Africa	**50**	**16%**
Cote d'Ivoire	4	1%
Kenya	6	2%
Namibia	6	2%
Nigeria	10	3%
South Africa	14	5%
Tanzania	10	3%
Total	**300**	**100%**

Figure 19: Sample distribution by location of foreign parent

Region/Source Country	Count	Percent
East Asia & Pacific	**56**	**14%**
Australia	8	3%
China	10	3%
Hong Kong SAR, China	2	1%
Japan	3	1%
Korea, Rep	43	1%
Malaysia	1	0%
New Zealand	1	0%
Singapore	9	3%
Taiwan, China	3	1%
Thailand	1	0%
Europe & Central Asia	**119**	**40%**
Austria	3	1%
Belgium	5	2%
Croatia	1	0%
Denmark	8	3%
France	20	7%
Germany	20	7%
Ireland	6	2%
Italy	6	2%
Netherlands	7	2%
Norway	2	1%
Poland	2	1%
Spain	3	1%
Sweden	5	2%
Switzerland	11	4%
Turkey	1	0%
United Kingdom	19	6%
Middle East & North Africa	**12**	**4%**
Israel	1	0%
Jordan	1	0%
Qatar	2	1%
Saudi Arabia	1	0%
Syrian Arab Republic	1	0%
United Arab Emirates	6	2%
North America	**98**	**33%**
Canada	2	1%
United States	96	32%
South Asia	**3**	**1%**
Bangladesh	1	0%
India	15	5%
Pakistan	2	1%
Sub-Saharan Africa	**12**	**4%**
Botswana	1	0%
Ghana	1	0%
Kenya	2	1%
Mauritius	1	0%
Nigeria	2	1%
South Africa	3	1%
Uganda	1	0%
Zambia	1	0%
Total	**300**	**100%**

Figure 20: Sample distribution by size (number of employees)

Size	Count	Percent
Smaller (<250 employees)	195	65%
Larger (>=250 employees)	105	35%
Total	**300**	**100%**

Figure 21: Sample distribution by assets in host country

Assets	Count	Percent
Less than 2 million	41	14%
USD 2-5 million	103	34%
USD 5-10 million	34	11%
USD 10-50 million	55	18%
>USD 50 million	58	19%
Do not know	9	3%
Total	**300**	**100%**

Figure 22: Sample distribution by respondent's position

Respondent's position	Count	Percent
Country General Manager	107	36%
Country Finance Head	37	12%
Country Strategy Head	10	3%
Country Sales Manager	70	23%
Country Operations Manager	61	20%
Other	15	5%
Total	**300**	**100%**

Figure 23: Sample distribution by business sector and subsector (ISIC 4.0)

Business sector/subsector	Count	Percent
Manufacturing	**150**	**50%**
Basic metals	5	2%
Beverages	7	2%
Chemicals and chemical products	16	5%
Coke and refined petroleum	2	1%
Computer, electronic and optical products	15	5%
Electrical equipment	20	7%
Fabricated metal products, except machinery and equipment	1	0%
Food products	11	4%
Machinery and equipment not elsewhere classified	19	6%
Motor vehicles, trailers, and semi-trailers	8	3%
Other manufacturing	17	6%
Other transport equipment	2	1%
Paper and paper products	2	1%
Pharmaceuticals	11	4%
Recorded media	1	0%
Rubber and plastics products	5	2%
Tobacco	1	0%
Wearing apparel	6	2%
Wood products	1	0%
Services	**150**	**50%**
Accommodation and food services	5	2%
Administrative and support services	6	2%
Education	1	0%
Electricity and gas supply	7	2%
Financial services (including insurance)	19	6%
Health and social services	17	6%
Information and communication	38	13%
Other services	4	1%
Professional, scientific and technical activities	17	6%
Real estate	1	0%
Transportation and storage	26	9%
Water and waste services	1	0%
Wholesale and retail trade	8	3%
Total	**300**	**100%**

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