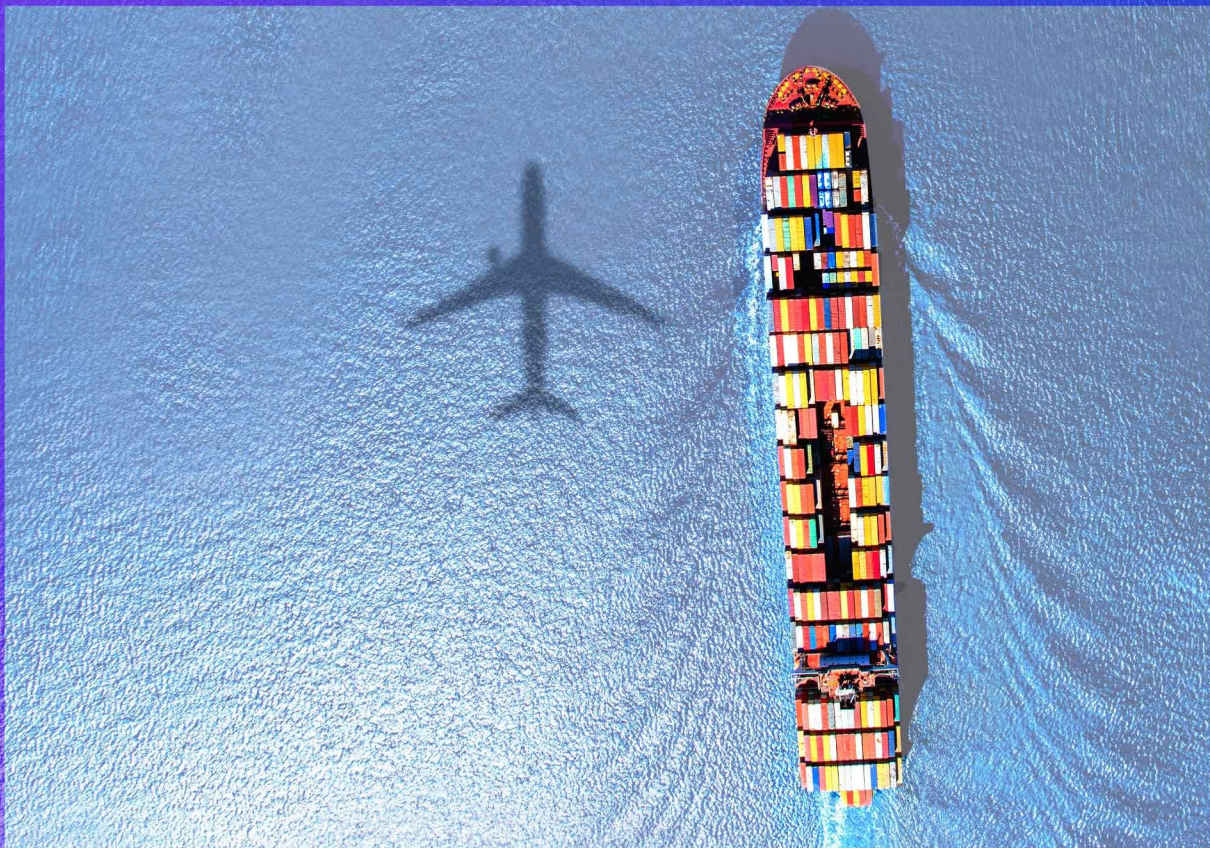


# Charting a new course in Asia Pacific

*Regional trends in global sourcing*





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# Foreword

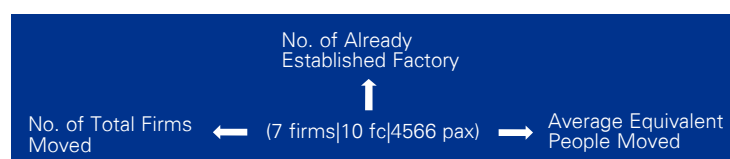
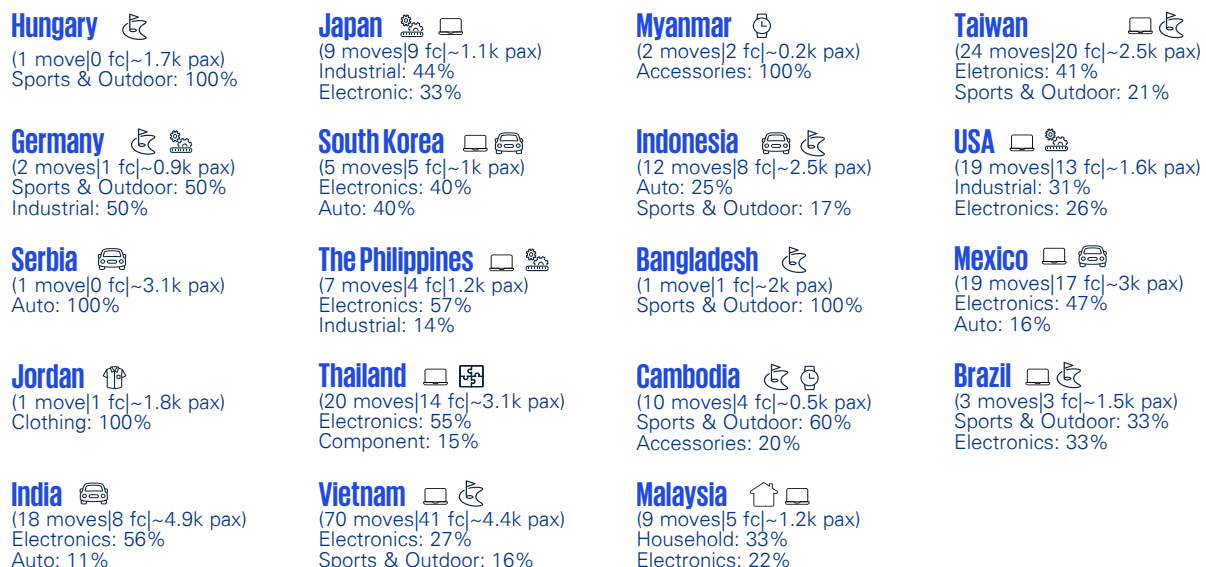
As businesses assess their operational capacity needs for a predicted bumpy recovery, to recalibrate during and post-pandemic, it is crucial to understand what brought us to this point and where it is likely leading us.

The Pacific Basin Economic Council (PBEC), Monash University Malaysia and KPMG, together with contributions from PBEC members, are pleased to publish this report on global sourcing, reviewing the most recently announced supply chain and sourcing movements in the region, charting a new course in Asia Pacific.

The data in this report, provided in collaboration with Monash University Malaysia, comprises a sample of 132 companies that are considering changing or have already altered their supply chain destinations between 2018 and 2023, covering 232 sourcing market moves (see Figure 1).

Through web scraping 1,089 relevant news articles were collected from multiple sources, as well as company reports published between 1st January 2016 and January 31st, 2022. In addition, official information and company documents were collected from companies' webpages as a "measuring stick" to ensure the accuracy of the information.

**Figure 1. Primary geographic locations for inbound sourcing moves, by number of moves and leading industries making moves in each market**



Source: Monash University



The report provides some key takeaways and recommendations for business leaders to consider. More importantly, it provides an up-to-date guide on navigating their business through these turbulent times. The report seeks to evaluate the trends and examine the following three areas of interest:



**The What** - Specific regional factors arising from the ongoing developments in the US-China trade relationship, the economic sanctions imposed on Russia, and finally, the increasing politicisation of economic trade and its encompassment through the lens of national security policy.



**The Where** - Different trends emerging within each industrial sector and the factors/incentives determining business leaders' decision making on where to move their sourcing and production capacity, and whether it is ultimately one or multiple alternate destinations they move too.



**The How** - Based on the above mentioned factors and other considerations, companies are evaluating the markets involved in their sourcing and supply chain operations.

The initial observations from the data are that an extensive overhaul of supply chains and sourcing moves are not necessarily taking place in Asia Pacific. Instead, the data suggests a more considered approach to the pandemic's supply chain impacts in the region and highlights other reasons behind the movements in capacity. There is a more bullish view on globalisation from Asian-based business leaders, and an increasing appetite for investments in technology to enable increased visibility and traceability to manage supply chains.

Some of the trends observed from the data have placed leading brands and corporations under a magnifying glass, to a point where it became an urgent requirement to obtain the ability to track and trace their supply chains beyond tiers 1 and 2. This has led many companies to upgrade their I.T. capabilities and cyber security protocols and announce strategic partnerships and acquisitions in the ESG specialist space. This highlights the importance the global business community is putting on the development of a digitally-enabled circular economy, as boards pay more attention to reputational risks and public perception associated with the sustainability of business practices.

We hope you will find this report helpful, and we welcome your opinion on the sourcing shift patterns in Asia Pacific.



**Michael Walsh**  
CEO  
Pacific Basin Economic Council



**Anson Bailey**  
Head of Consumer & Retail  
KPMG Asia Pacific



**Neale G. O'Connor**  
Professor  
Department of Accounting  
Monash University, Malaysia





# Executive summary

After more than two years of acting in permanent crisis-mode, brands, retailers, and manufacturers are now starting to focus beyond the short term.

In the dynamic manufacturing and supply chain environment that is the Asia Pacific region, retail sourcing leaders are closely following market developments, industry direction, and growth opportunities. Major disruptions, such as international freight, continued trade tensions, political instability in key sourcing markets, and increasing shortages of materials - as well as catastrophic global events from fires to floods - continue.

The PBEC-KPMG-Monash University 'Charting a New Course in Asia Pacific: Regional trends in Global Sourcing' joint report takes an in-depth look at sourcing and the emerging trends and patterns across the region that we believe will make a lasting impact on the global business landscape over the coming years. Through interviews with business leaders and analysis of investment decisions and indicators across several Asia Pacific countries, we identify business models for shoring up and sustaining global supply chains and growth, as well as the factors and challenges that remain that need to be addressed to enable these markets to continue to thrive in today's constantly changing business environment.



*Companies based in Asia Pacific and around the world are adjusting their supply chain and inventory management policies in line with recent trends. Examples include shifts from “Just-In-Time” to “Just-In-Case”; near-shoring and on-shoring; and the emergence of micro supply chains. While considering these changes, decision makers should keep in mind that supply chain adjustments are just one element of response. In order to be most effective, organisations also need to consider changes to their operating models – including the adoption of improved data-driven insights, enhanced people skills and experience, and more comprehensive governance and reporting.*

**Peter Liddell**

*Global Operations Centre of Excellence Lead and Partner  
KPMG in Australia*





## Study methodology

This report features a detailed analysis of companies' motivations with regards to sourcing and supply chain operations. It also details which destinations they are moving capacity to, along with the reasons behind such decisions.

Through web scraping for relevant news, a total of 1,089 articles were collected from multiple sources, including media reports, trade press, books, government announcements, company websites, and documents, as well as company reports published between 1 January 2016 and 31 January 2022, that discussed companies relocating production facilities. In addition, official information and company documents were collected from the companies' webpages as a "measuring stick" to ensure the accuracy of the information. Each document/report was jointly examined for quotes from C-level executives of a particular company. The supporting quotes selected from each source must indicate the name of the company the information is talking about, which market(s) the company is moving to, has moved to, or is planning to move sourcing to, and the reasons why they are moving their production, assembly, or manufacturing to a particular sourcing market (moving R&D or sales centres to a new market were excluded).



In this report, a sample of 132 companies were analysed that are considering or have already altered their supply chain sourcing, covering 232 market relocations between 2018 and 2023 (Figure 2).

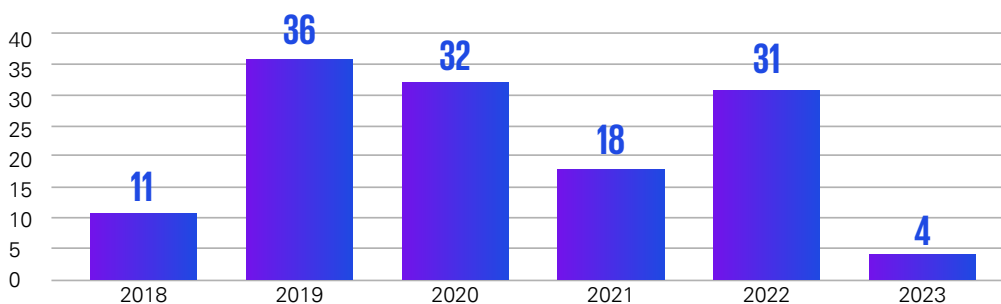


As depicted in Figure 3 below, most companies in the sample represent Fortune 500 multinational companies. The market capitalisation of these companies is large, with more than 75% valued at over USD 1 billion.



Most of the capacity movements are in Asia, broken down as follows: 16% in North Asia, 55% in Southeast Asia, 12% in Europe, and 17% in the Americas. Southeast Asia still dominates the sourcing move away from China (Figure 4).

**Figure 2. Companies announcing changes of order capacity to various markets by year: 2018 - 2023**

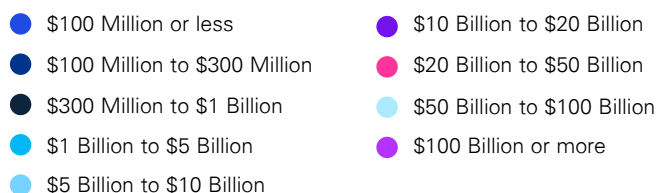
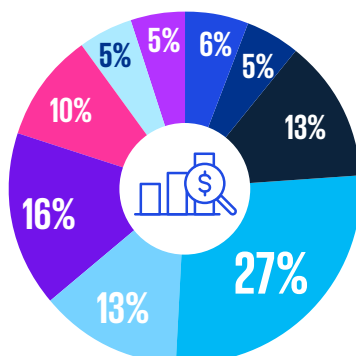


Note: 2023 figures represent planned moves by companies (n = 132)

Source: Monash University



**Figure 3. Market capitalisation (USD) of the 132 companies**

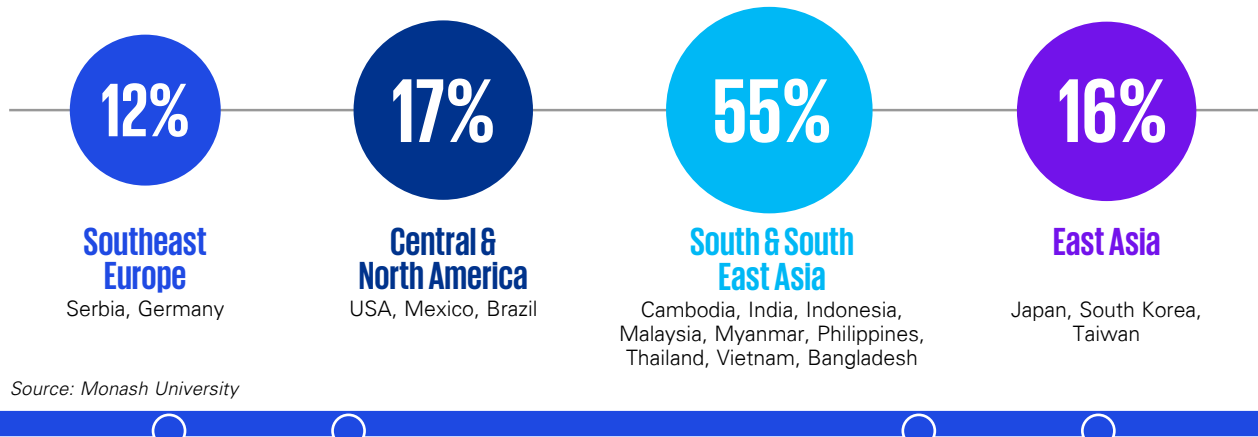


Note: Dominant company headquarters are the U.S. (34%), Taiwan (24%), Japan (21%), and China, incl Hong Kong SAR (14%)

Source: Monash University



Figure 4. Company relocation distribution – 2018 - 2023



### Key takeaways

A critical factor in the APAC region's continued success is strong GDP growth, particularly in its emerging market and developing economies (EMDEs). The latest IMF forecasts predict EMDE Asia will grow 20% faster than the global average this year. Despite all the recent factors that have impacted the global economy, Asia Pacific remains a growth-oriented region. Some of the key takeaways, opportunities and concerns from our study of these patterns and decisions by business leaders are as follows:



**The support on offer to invest in new and additional manufacturing locations.** Governments continue to support new economic expansion with various measures, tax incentives, and schemes to attract manufacturers, suppliers, founders, and investors, and provide the workforce with talent, while balancing business leaders' concerns.



**Supply-side risks regarding access to sustainable materials and general raw materials** are among the highest-ranked concerns among business leaders.



**Transportation costs, delivery reliability, supplier capacity, and the financial stability of suppliers** are still key concerns in moving capacity or entering a new market for the first time.

### Six key trends to watch

1

Much of the relocated distribution has remained in Asia (71%), with 55% centered in Southeast Asia. Vietnam receives the highest number of company inflows, but India shows the greatest potential for future sourcing patterns to emerge. Vietnam tops the list with 70 companies that relocated or diverted production there, followed by Taiwan (24), Thailand (20), and India (18) (Figures 8 and 9). Outside of Asia, Mexico is the biggest beneficiary outside of the U.S. (19), given its proximity to the U.S. market. The U.S. also features as a sourcing relocation destination (19), but less than half of these are reshoring moves (9).

2

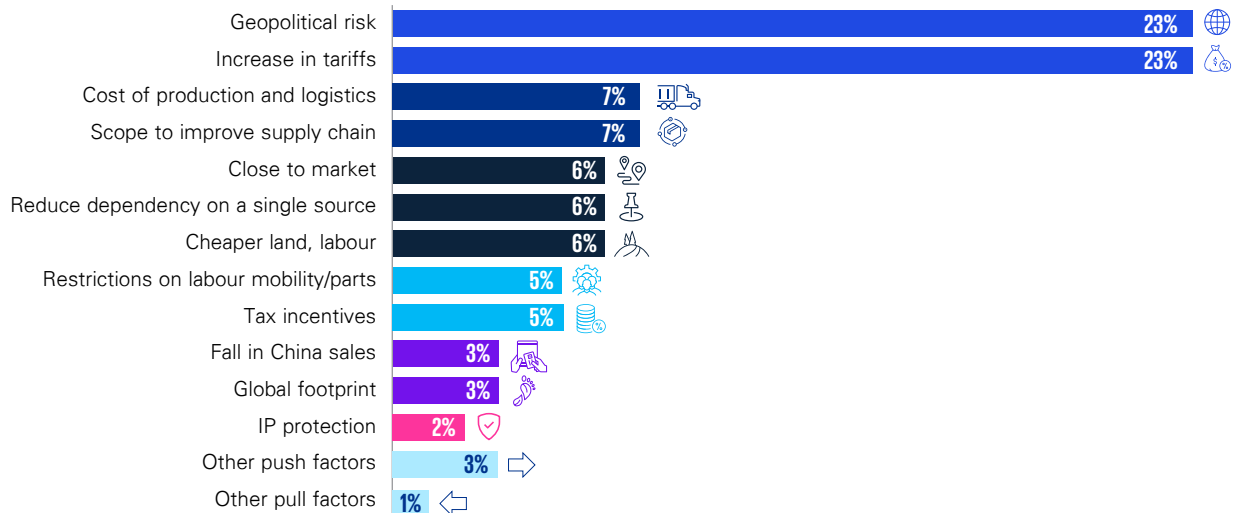
A critical question is whether the data collated would show that sourcing patterns in APAC are dominated by U.S. companies, given the ongoing U.S.-China trade tensions and the impetus by the Trump administration during 2018 to 2019 to encourage companies to return to the U.S. with the administration's 'American First' policy. In terms of the headquarters and company origin of the 132 companies analysed, the observation is that they are mainly from the U.S. (34%), followed by Taiwan (24%), Japan (21%), and China, including Hong Kong SAR (14%).



- 3** Many capacity moves were to multiple markets (44%), highlighting the increased complexity of observed sourcing patterns and the further fragmentation of global supply chains. China's mature manufacturing infrastructure means that more than one alternative sourcing destination is needed to meet the demands of capacity moves.
- 4** Each market has predominantly received moves centred around a particular industry. For example, Taiwan, Thailand, India, and Mexico have predominantly received sourcing moves in electronics. Companies involved in electronics, automotive, and footwear were early movers in adjusting their sourcing locations, followed by clothing, household, and component industries (from 2020 onwards).
- 5** The observed sourcing patterns represent a combination of new and existing entrant factory moves. Interestingly, these observed moves were not necessarily moving capacity from one location to another but, in some instances, to multiple locations, increasing the manufacturer's diversity and complexity. Existing entrant factory moves (53%) were more prevalent than new entrant factory moves (31%). A smaller number of companies decided to reshore some of their capacity (16%), the main reason being to take advantage of existing capacity and be close to final markets (see Figure 5). The data also reveals how these moves affect labour headcount for the receiving market. The reasons behind these moves and specific trends may significantly impact supply chain decisions for other manufacturers.
- 6** While the increase in tariffs dominated the reasoning for the sourcing moves, they only represent 23% of the reasons given, and are accompanied by the uncertainty created by geopolitical factors (23%). Indeed, an equal portion of the companies decided to move their capacity based on incentives and to more stable supply chain settings of the receiving market (25%).



**Figure 5. Reasons for sourcing moves**



Source: Monash University



“



*The emergence of the COVID-19 pandemic three years ago was a wake-up call for sourcing leaders as they clamoured to secure products and resources when inventory was low, particularly across key industries such as electronics and retail. Finding just-in-time air transportation capacity was challenging and expensive as sea freight and ports were severely affected. Since then, it's been observed that more companies have taken a longer-term view, balancing trying to remedy the ongoing disruptions in the supply chain with making data-driven technology and capacity investments for the future. China continues to shift its focus further upstream in the supply chain and production quality as inflation and rising costs of doing business take their toll.*

**Neale G. O'Connor**

*Professor, Department of Accounting  
Monash University Malaysia*

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Collectively, this report shows the different reasons for industry-specific global supply chain movements, including challenges, opportunities, changing manufacturing patterns, and the impact of government intervention, both negative and positive.

“



*In the coming years, brands and manufacturers will examine how new ‘on demand’ manufacturing models – where new designs and products can be rolled out in days not just in small quantities but at scale, with the products already presold to consumers – will transform their business. As companies weigh how they can learn from the data analytics and AI-automated design aspects of these models, they will also consider how to adapt their supply chains to become more sustainable.*

**Anne-Laure Descours**

*Chief Sourcing Officer  
PUMA*

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## Chapter 1:

# The macroeconomic environment



### Asia Pacific coming of age

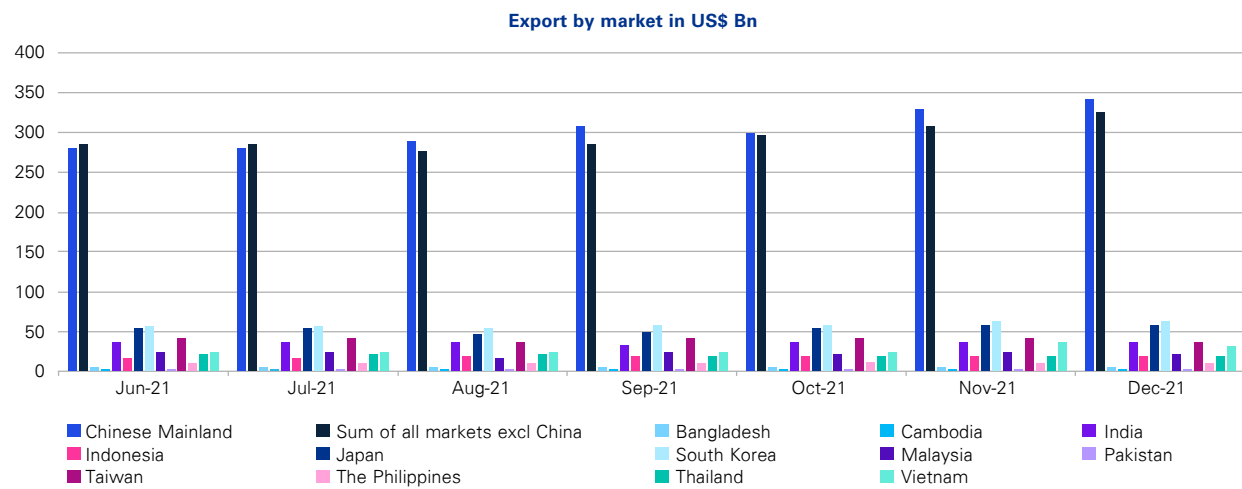
In the last three years, China's exports and imports have risen roughly five times faster than the global average. Meanwhile, foreign direct investment (FDI) into China has continued to rise in recent years despite shrinking global FDI, attesting to China's strong pull factors compelling companies to keep expanding in the world's second-biggest economy. Chinese imports in 2021 rose 30.1% to \$2.7 trillion as the world's second-largest economy rebounded from the pandemic. The country's global trade surplus was 26.4% higher than in 2020, which economists had previously said was among the highest ever reported by any economy.<sup>1</sup> In parallel to China's own story emerging from the data, there is also a noticeable rise in manufacturing centres across Asia that offer more choices for global brands, manufacturers, and sourcing companies. In mid-2022, global economic observations indicated a prolonged supply chain crunch and rising inflationary pressures have affected supply and demand, mitigating these issues became a priority for business leaders and the global sourcing industry in Q3 (see Figure 6).

<sup>1</sup> Associated Press, China's trade surplus surges to record \$676.4B in 2021, January 2022. <https://apnews.com/article/coronavirus-pandemic-health-business-global-trade-united-states-24da5cc5c27b824a9fc55adf9d4900dc>





Figure 6. Export by markets in USD Bn



Source: Monash University

A gradual global recovery has also given way to more robust global demand. But notwithstanding the impact of the pandemic, China's rising share of trade has also stemmed from its ability to climb up the value chain. China has been increasing its market share in medium and high-tech manufacturing products such as machinery and equipment, electronics such as smartphones and laptops, as well as emerging areas like green technology. China also has the largest annual supply of tertiary graduates globally, including four million who have studied science, technology, engineering, and mathematics (STEM) subjects.

Rising innovation capacity from decades of investment in R&D has also been paying off, as China tops the global patent application rankings. Meanwhile, a dynamic domestic market allows firms to iterate and develop high-quality products, which also helps to lift export quality.

Similar growth can be observed in other markets in Southeast Asia. This fast-growing market is the third-largest economy in Asia and the fifth largest in the world.

Tourism is one of the most important industries in Southeast Asia, and it's finally on the rebound. The problem is this rebound is happening slowly — as vaccination numbers slowly increase across the region. Tourism has always been the ace up Southeast Asia's collective sleeve. Its slow but steady march towards its former \$400 billion glory should start feeding into other sectors, increasing consumer confidence, and generally helping the region's economic health.



## Deeper market integration between China and ASEAN through supportive trade policies

Another key driver is the Regional Comprehensive Economic Partnership (RCEP) agreement, the world's largest free trade deal to date, which came into force on the first day of 2022. Since then, it has brought tangible dividends to economic and trade cooperation between China and ASEAN countries.

Customs data shows that, in the first quarter, China's imports and exports to ASEAN reached 1.35 trillion yuan (202.2 billion USD), an increase of 8.4 percent year on year, accounting for 14.4 percent of China's total foreign trade.

During the period, trade between China and ASEAN accounted for 47.2 percent — or nearly half — of China's foreign trade with RCEP partners, according to the data. With the RCEP agreement, ASEAN has once again overtaken the E.U. to become China's largest trading partner.

Since the RCEP came into effect, it has brought great benefits to enterprises, founded on the reduction of import costs and the increase of export opportunities after tariff reductions. According to the agreement, more than 90 percent of goods traded in the region will eventually become tariff-free, which will greatly boost cross-border trade.<sup>2</sup>

Deeper integration is a two-way street as China's imports from Asian partners have also increased. While the introduction of tariffs and export bans by the U.S. in recent years has played a role in dampening direct trade flows between the U.S. and China, this has been supplemented by imports from other economies, such as the ASEAN countries. This has primarily been manufactured products, partly due to deepening supply chain links, but commodities also account for a critical share of imports from ASEAN, given their relative abundance.



*Trade is now intertwined with national security issues and geopolitical risk. This is linked to the growing usage of dual-use technologies, intensifying geopolitical issues, and the failure of WTO rules to help manage the interface between trade and security. Trade policy will need to be recalibrated to reflect these complexities. While the WTO continues to have an extremely useful role to play in areas like trade facilitation and capacity building, there is no evidence to suggest that a consensus-based organisation riven by deep fissures can lead the charge on the toughest and most complex issues of the day. As our ability to reach agreement on updated rules for a single, global trade system diminishes, like-minded countries will increasingly look to self-selected trade groupings to advance their collective and individual interests. Despite the risks, expect these actions to continue and intensify in the years to come.*

**Stephen Olson**

Senior Research Fellow Hinrich Foundation



<sup>2</sup> China Economic Net, June 2022, HYPERLINK "[https://urldefense.com/v3/\\_https://www.hellenicshippingnews.com/rcep-deepens-china-asean-economic-and-trade-cooperation/\\_;!!N8Xdb1VRTUMIZel!ngcLDeDqvmK9N9v1zaHJU1K8w2K69WUX5-AN5W8dFc5XwJwZzJK9Y-bIHm2p4aTien6n-oxGqTKDvJGBz6DW1HCGb\\$](https://urldefense.com/v3/_https://www.hellenicshippingnews.com/rcep-deepens-china-asean-economic-and-trade-cooperation/_;!!N8Xdb1VRTUMIZel!ngcLDeDqvmK9N9v1zaHJU1K8w2K69WUX5-AN5W8dFc5XwJwZzJK9Y-bIHm2p4aTien6n-oxGqTKDvJGBz6DW1HCGb$)" <https://www.hellenicshippingnews.com/rcep-deepens-china-asean-economic-and-trade-cooperation/>





## China's energy transition and decarbonization commitments

China has set two major carbon emissions targets, the first of which is due to be reached in 2030. To achieve these goals, policymakers have created an overarching policy framework to guide China's energy transition. As part of its decarbonisation plan, China has announced several major renewable energy projects and is set to become the leader in renewable and clean energy by the end of the decade. At the same time, the country's growing energy demand puts it at odds with these commitments, as the country continues to increase the output of coal to a stable power supply. China has been investing heavily in renewable energy over the past decade, with the total installed energy capacity of renewable energy increasing steadily.

According to the National Energy Administration (NEA), China's installed renewable energy capacity reached 1063 gigawatts (G.W.) in 2021, accounting for 44.8 percent of China's total power generation capacity. Hydroelectric power accounts for the highest proportion of installed renewable energy capacity, 16.5 percent of the country's total power generation capacity, followed by wind (13.8 percent), solar (12.9 percent), and biomass (1.6 percent).<sup>3</sup>

As China engages in its green transition, this may prompt further demand for imports of commodities as domestic production faces certain constraints.



*We see a dynamic sourcing market in which key players are actively seeking strategies that can allow them to future proof their businesses. While we see various factors that have contributed to sourcing moves, businesses should put purpose and sustainability foremost when making decisions. The resilience of businesses is intrinsically linked to our collective efforts to help secure a sustainable future for the planet and its people.*

### **Anson Bailey**

Head of Consumer & Retail  
KPMG Asia Pacific



<sup>3</sup> 'What's the State of China's Energy Transition' by China Briefing From Dezan Shira & Associates, Oct 2021 <https://www.china-briefing.com/news/earth-day-2022-whats-the-state-of-chinas-energy-transition/#:~:text=According%20to%20the%20National%20Energy%20Administration%20%28NEA%29%2C%20China%E2%80%99s,44.8%20percent%20of%20China%E2%80%99s%20total%20power%20generation%20capacity>



### Potential for additional regional trade deals

Some Asia-Pacific Economic Cooperation (APEC) member economies, such as Australia and New Zealand, intend to revive the Free Trade Agreement of the Asia-Pacific (FTAAP), which has been talked about since APEC's inception, and was tabled by the APEC Business Advisory Council in 2004 by business leaders as a viable solution. It would involve the 21 Pacific Rim nations that make up the APEC. Part of the FTAAP's agenda is to build on and develop existing trade frameworks in the region. Therefore by defacto, it has the potential to take the best elements from RCEP, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and the Digital Economy Partnership Agreement (DEPA), as well as involve the Pacific Alliance (P.A.) trade bloc and South Pacific nations to be more inclusive.

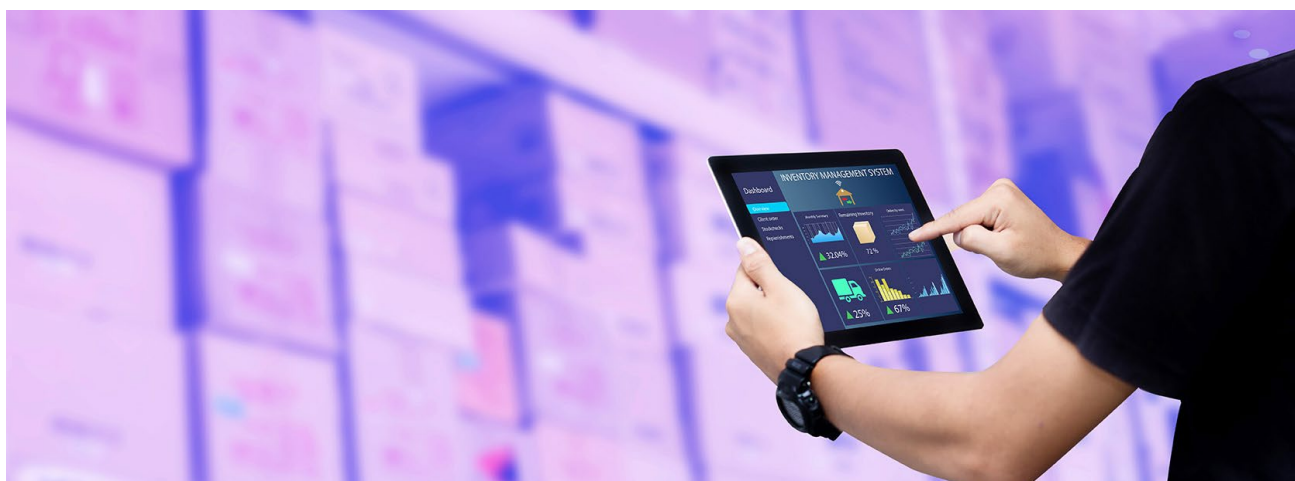
It is hard to immediately replicate the decades of investment that have built up China's trade infrastructure, which has contributed to strong network effects. In the 2021 China Business Report from the American Chamber of Commerce, 72% of manufacturing survey respondents said they had no plans to move production out of China, and only 1.6% of companies were planning to move out all their production in the next three years.<sup>4</sup>



### Global supply chain disruptions

As Figure 7 on the next page shows, many elements are behind the drivers of change in global supply chains. First, the general uncertainty caused by external environmental drivers has recently been unprecedented. This has directly impacted the viability of supply chains for SMEs, which do not have the portfolio of existing facilities in other countries to make order moves in response. On the other hand, multinational corporations are likely to source from multiple suppliers and countries; thus, they can more strategically shield their operations from uncertainties.

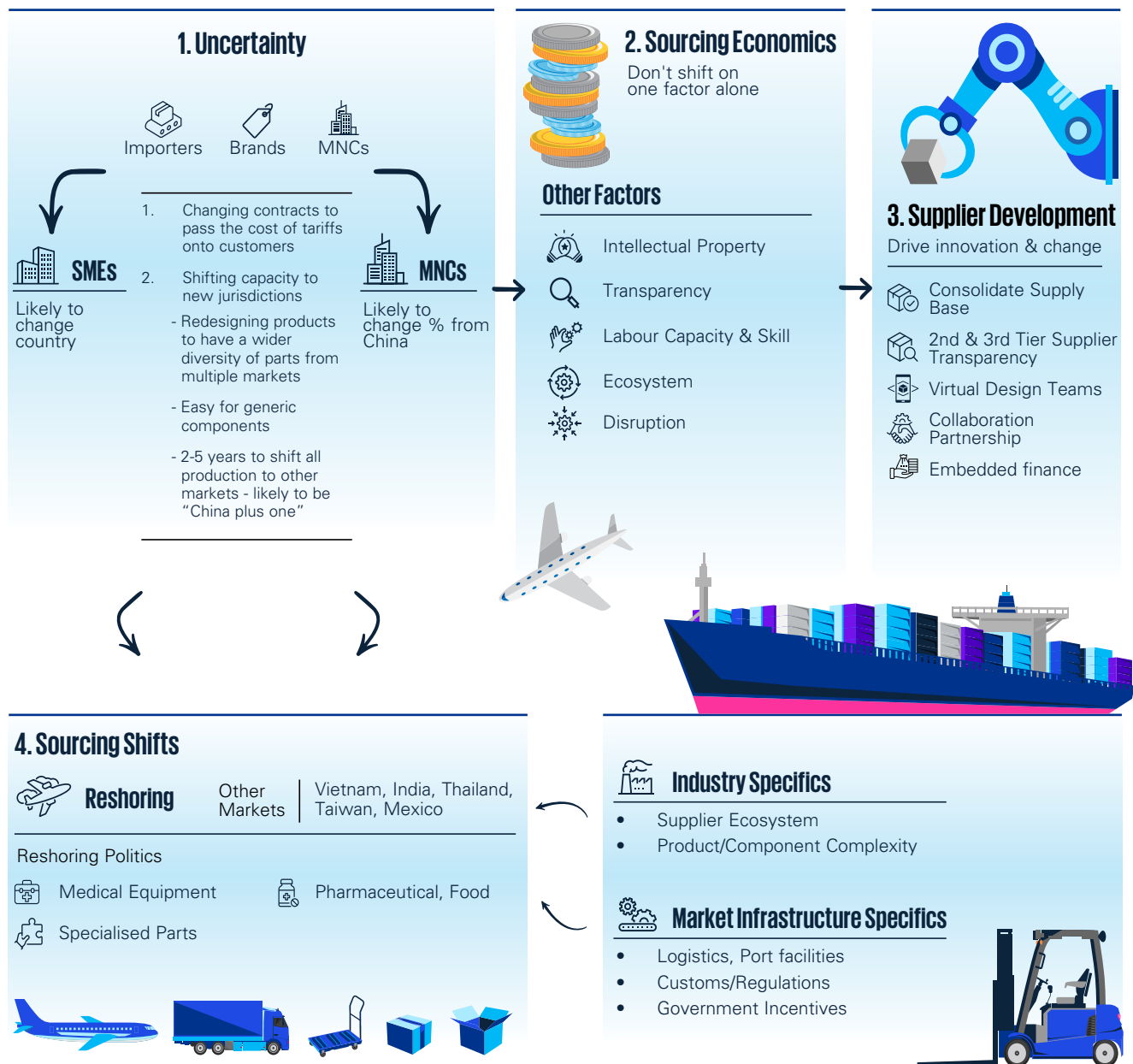
While there is a tendency to move because of uncertainty caused by external factors, such as trade tensions, geopolitical risk, and the pandemic, operational factors are also likely to drive business leaders' decision-making to move capacity. Often, it behooves management to consider factors that dictate the location choice, such as intellectual property risk, transparency, labour costs, workforce skill level, materials ecosystems, and the likelihood of disruption.



<sup>4</sup> AmCham Shanghai Releases 2021 China Business Report, Sep 2021, <https://www.amcham-shanghai.org/en/article/amcham-shanghai-releases-2021-china-business-report#>



**Figure 7. Outline of a typical decision process on potential sourcing moves**



Source: Monash University

## Chapter 2:

# Sourcing patterns

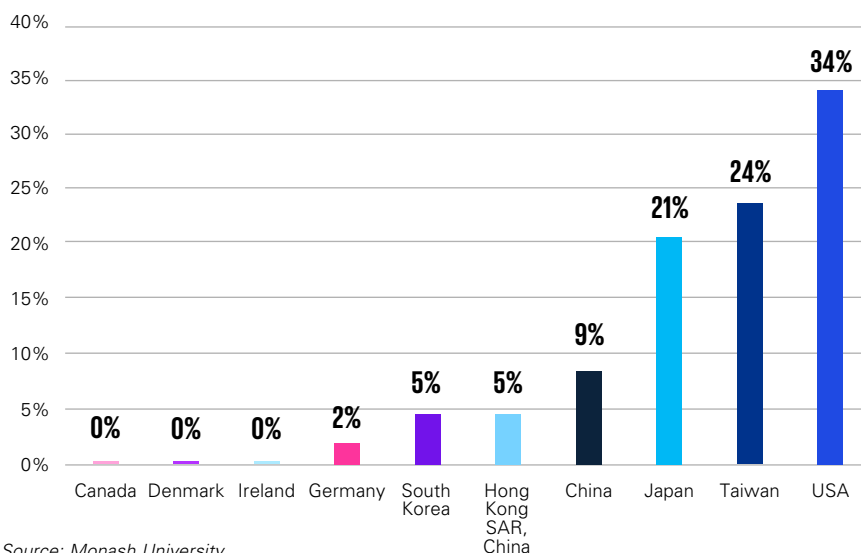


### Company headquarter origin

Our data show that U.S. companies make up 34% of the sample, followed by APEC member Taiwan-based firms (24%), Japanese (21%), and Greater China (14%, which includes Hong Kong SAR- and Macao SAR- owned companies (see Figure 8)). Given Taiwan's strong trade ties with the U.S., it is not surprising that companies originating from Taiwan returned to their home, while Japanese firms did likewise.



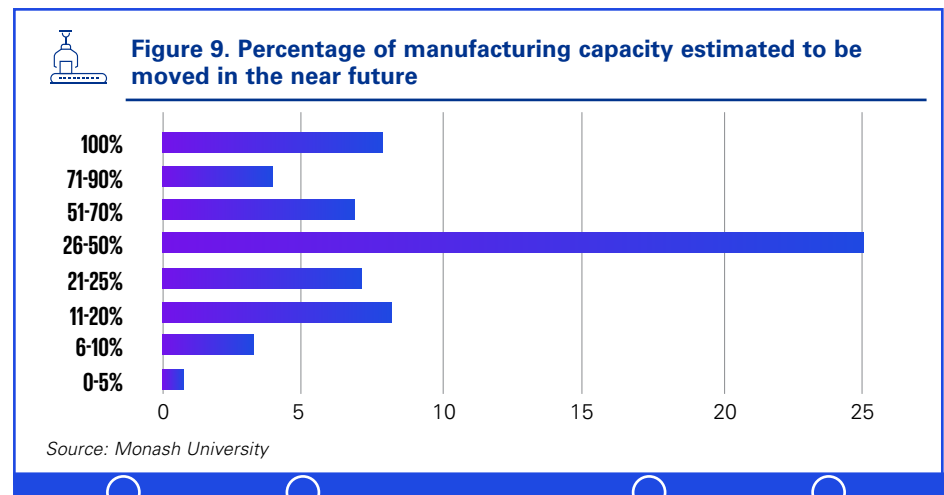
**Figure 8. Location of company headquarters (132 companies)**





## Managing the capacity diversification from China's large footprint

The data shows that companies are not choosing to shift manufacturing capacity entirely but have kept a sizable portion of their manufacturing capacity there to serve the consumer market. Thus, only eight companies from 132 surveyed have moved their total capacity from China (Figure 9). A majority of companies moved less than 50% of their China manufacturing capacity to other markets.



Another observation is the fractional capacity moves diverted to multiple market destinations to manage capacity because of China's large sourcing footprint. Such multi-market sourcing moves are necessary even though they come at the cost of increasing complexity.

Of the 232 sourcing moves, the data showed that single market moves only make up 74 (32%) of the 232 market moves. Most of the sourcing moves are multi-market (158). Moves to two different markets seem to be the most prevalent, with 64 market moves (28%) (see Figure 10 on next page).

From Figure 10 below, we also observe that there are 45 (19%) three-market moves, 24 (10%) four-market moves, and 25 (11%) five-market moves. A clear trend is that global supply chains are becoming more complex with the dominance of multi-market moves.

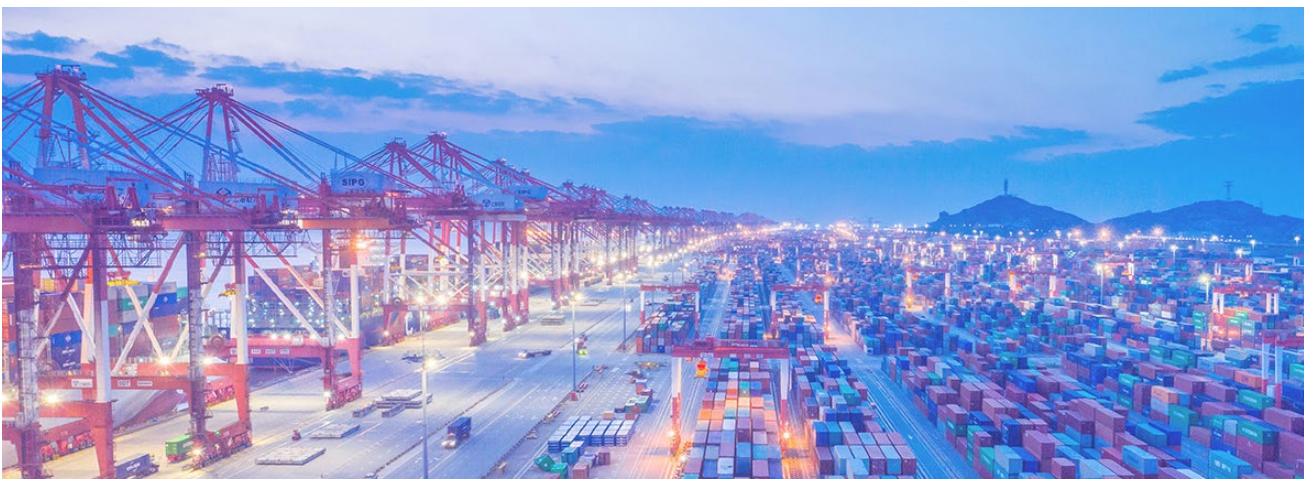
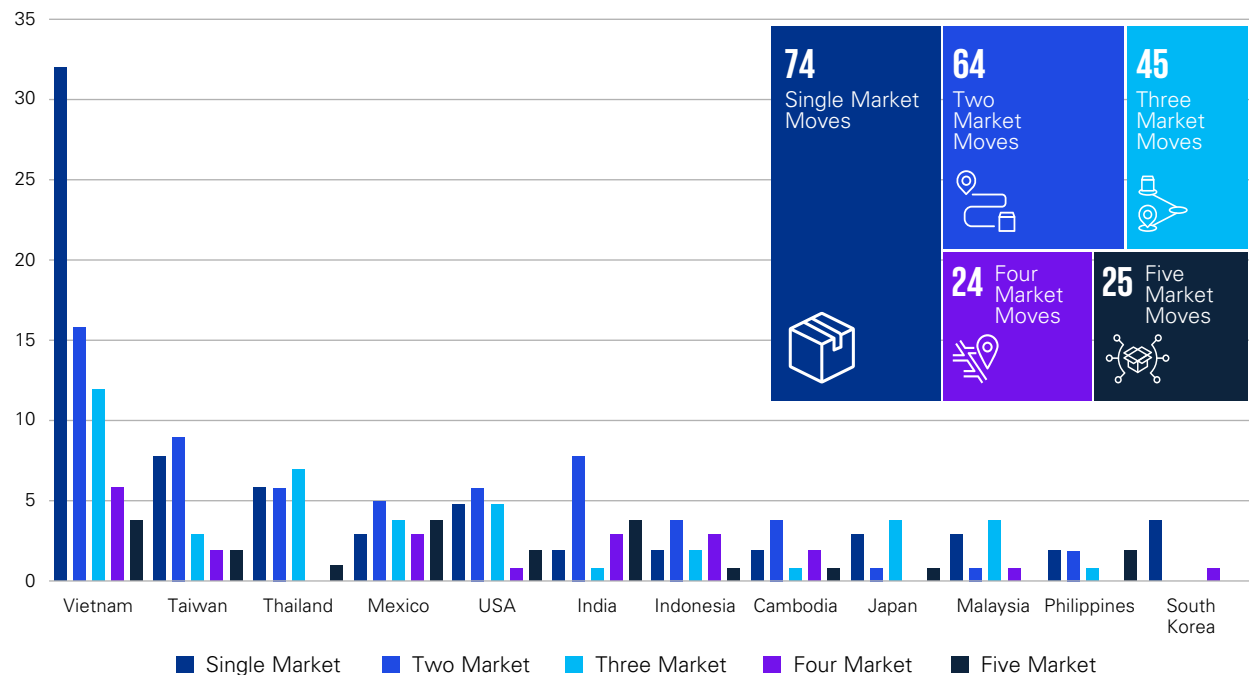




Figure 10. Multiple market sourcing moves (232 moves)



Source: Monash University




















In terms of industries, consumer electronics dominate the sourcing moves from China (35%). This is followed by the household products (13%), industrial products (12%), and automotive (10%) sectors (see Figures 11 and 12). Vietnam is the largest recipient of sourcing moves and is the only market that has attracted companies from high-value-added (electronics, industrial, and components) and low-value-added (household, clothing, and footwear) sectors.

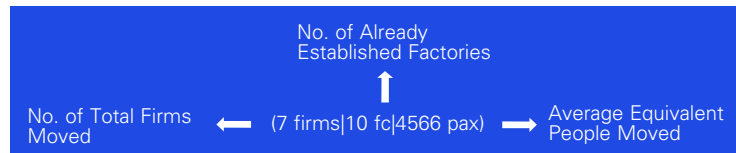
Figure 11. Distribution of sourcing moves across markets and industry sectors

Region	Asia												Europe				Americas			Total
Industry	Vietnam	Taiwan	Thailand	India	Indonesia	Cambodia	Malaysia	Japan	Philippines	South Korea	Myanmar	Bangladesh	Germany	Hungary	Jordan	Serbia	USA	Mexico	Brazil	
Electronics	19	11	13	1	2		3	2	3								4	9	2	81
Household	12	2	1	2	1	1	4			1							4	2		30
Industrial	6	1	3	1	1		1	6	1				1				5	2		28
Auto	5	1	2	2	3		1	1	1	2						1	2	3		24
Component	7	4	1	2	1				1								1	2		19
Footwear	8				2	3				2		1						1	1	16
Clothing	8				2	1			1						1		2			15
Sports & Outdoor	3	5					3							1						12
Accessories & Souvenirs	2					2					2						1			7
<b>Total</b>	<b>70</b>	<b>24</b>	<b>20</b>	<b>18</b>	<b>12</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>19</b>	<b>19</b>	<b>3</b>	<b>232</b>

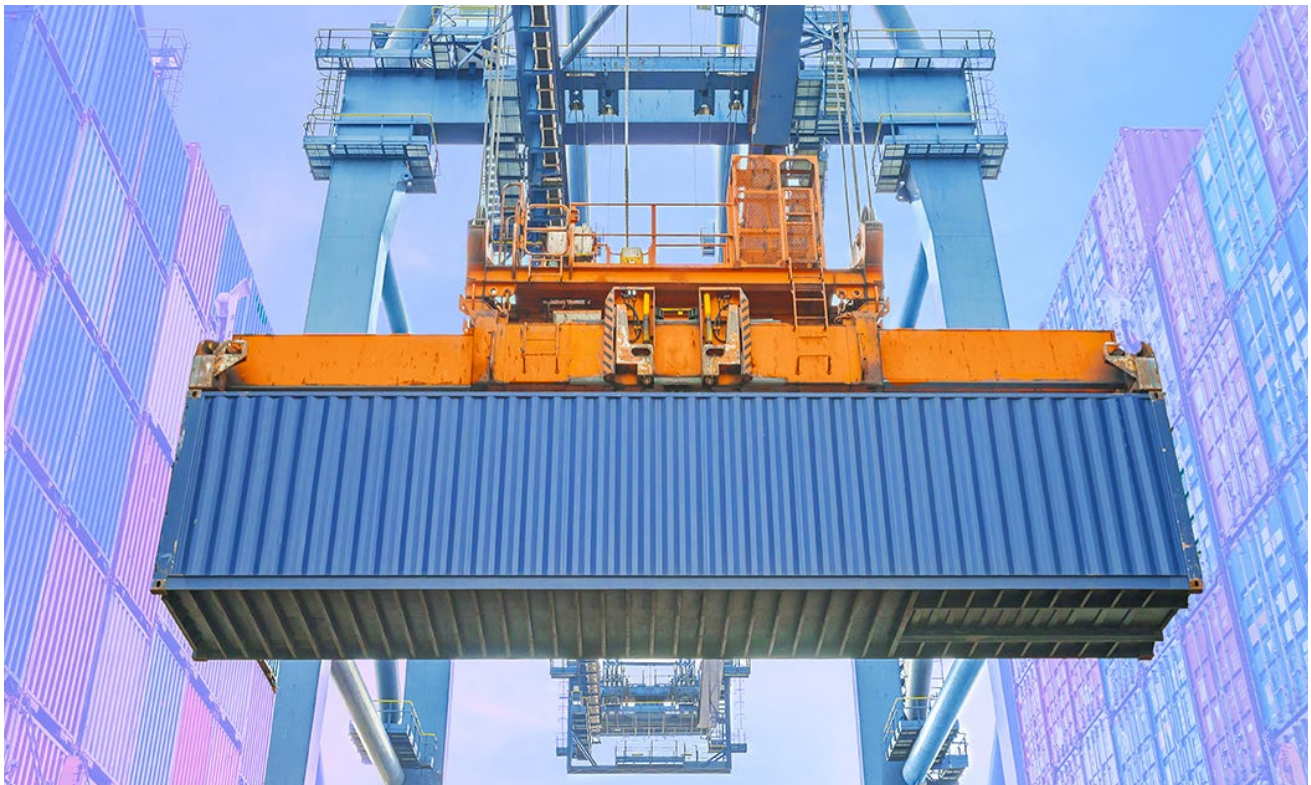
Source: Monash University

**Figure 12. Multiple moves and relocated market status**

<b>Hungary</b>  (1 move 0 fc ~1.7k pax) Sports & Outdoor: 100%	<b>Japan</b>  (9 moves 9 fc ~1.1k pax) Industrial: 44% Electronic: 33%	<b>Myanmar</b>  (2 moves 2 fc ~0.2k pax) Accessories: 100%	<b>Taiwan</b>  (24 moves 20 fc ~2.5k pax) Electronics: 41% Sports & Outdoor: 21%
<b>Germany</b>  (2 move 1 fc ~0.9k pax) Sports & Outdoor: 50% Industrial: 50%	<b>South Korea</b>  (5 moves 5 fc ~1k pax) Electronics: 40% Auto: 40%	<b>Indonesia</b>  (12 moves 8 fc ~2.5k pax) Auto: 25% Sports & Outdoor: 17%	<b>USA</b>  (19 moves 13 fc ~1.6k pax) Industrial: 31% Electronics: 26%
<b>Serbia</b>  (1 move 0 fc ~3.1k pax) Auto: 100%	<b>The Philippines</b>  (7 moves 4 fc 1.2k pax) Electronics: 57% Industrial: 14%	<b>Bangladesh</b>  (1 moves 1 fc ~2k pax) Sports & Outdoor: 100%	<b>Mexico</b>  (19 moves 17 fc ~3k pax) Electronics: 47% Auto: 16%
<b>Jordan</b>  (1 move 1 fc ~1.8k pax) Clothing: 100%	<b>Thailand</b>  (20 moves 14 fc ~3.1k pax) Electronics: 55% Component: 15%	<b>Cambodia</b>  (10 moves 4 fc ~0.5k pax) Sports & Outdoor: 60% Accessories: 20%	<b>Brazil</b>  (3 moves 3 fc ~1.5k pax) Sports & Outdoor: 33% Electronics: 33%
<b>India</b>  (18 moves 8 fc ~4.9k pax) Electronics: 56% Auto: 11%	<b>Vietnam</b>  (70 moves 41 fc ~4.4k pax) Electronics: 27% Sports & Outdoor: 16%	<b>Malaysia</b>  (9 moves 5 fc ~1.2k pax) Household: 33% Electronics: 22%	



Source: Monash University





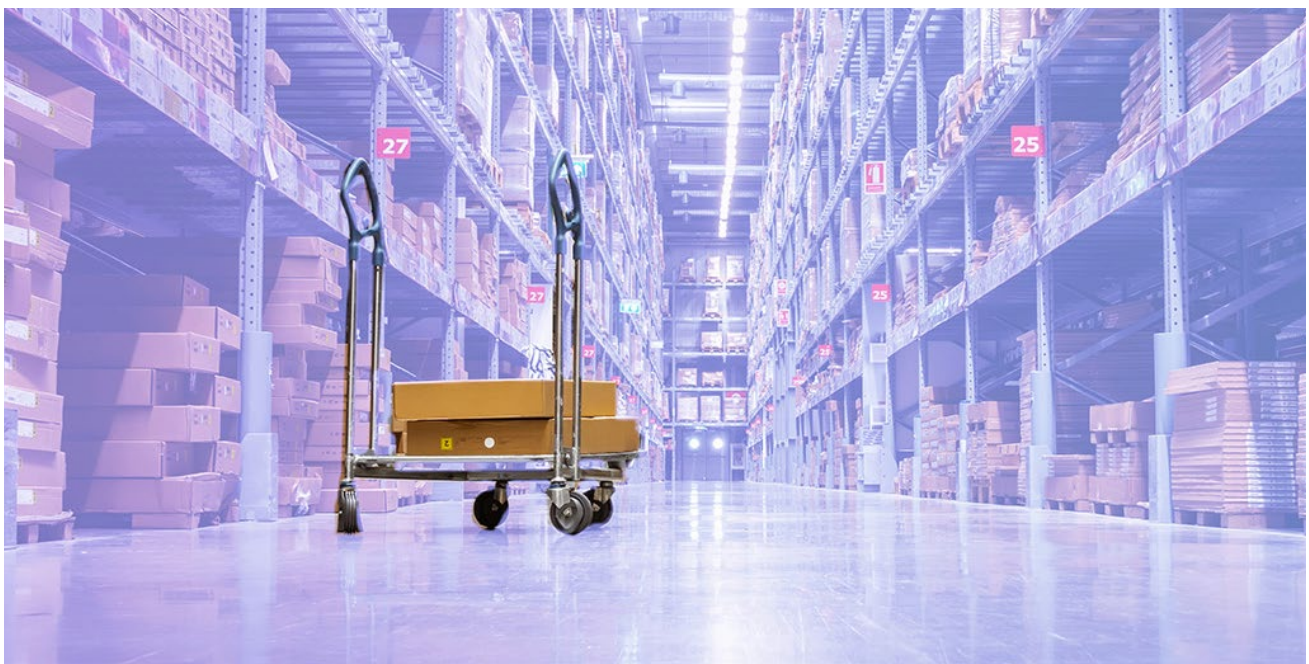
### Sectorial beneficiaries – equivalent employment impact

Further analysis of the sectorial sourcing moves is illustrated by the following estimates of the number of people employed because of these moves, termed equivalent capacity in labour moves (Figure 13). The equivalent capacity labour moves are estimated based on (i) information on the size of a company's operations in China and (ii) the percentage of the move from existing capacity or the percentage of export share being moved from media announcements. These percentages are then applied to a firm's existing factory capacity in China. An assumption is that an equivalent amount of labour and technology is deployed in the recipient market to manage the sourcing move. The numbers in the graphs reflect these estimates.

Sourcing moves in terms of capacity moves are observed for two reasons. First, the size of capacity moves to other markets depends on many factors, such as the size of the company, the ecosystem and factory demands of the industry, and whether the move is for the first time. For example, Vietnam received sourcing moves from 70 companies, about four times the number of companies (18) moving capacity to India. Yet, our estimated labour capacity move to Vietnam was only three times larger. The larger single-firm capacity moves to India reflect the scale of operations needed for electronics and automobile manufacturing. In contrast, Vietnam shared the capacity moves across many industries (see Figure 13).

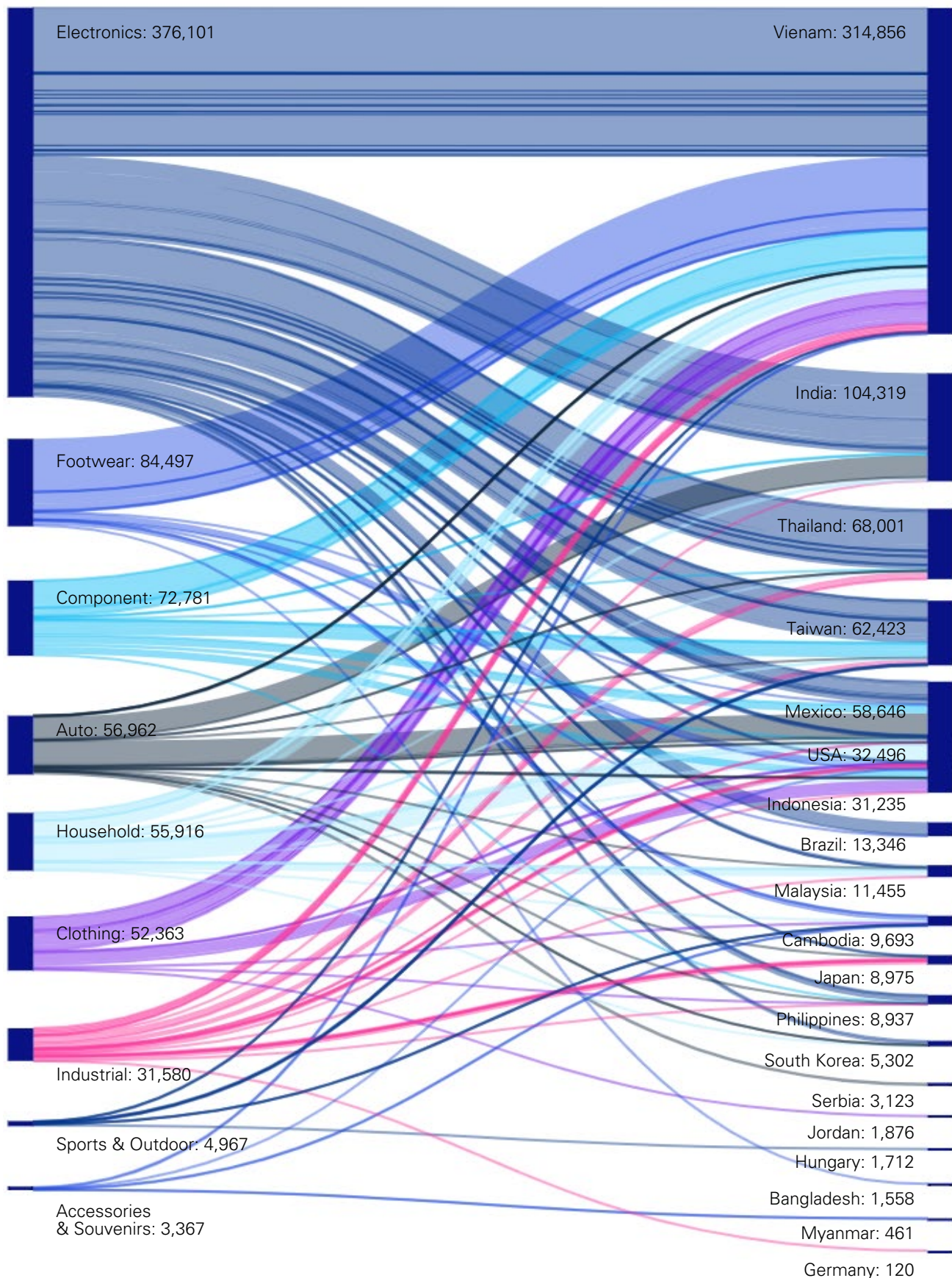
Second, the capacity moves are also informative for the government policy of the recipient markets, as they develop ecosystems and formulate incentives to attract FDI. Larger capacity moves can signal the recipient's markets' policies and incentives being in the right place for specific industries.

Vietnam is the largest recipient, with over 300k people driven both by electronics and footwear sectors, followed by India (100k people), Thailand (68k people), and Taiwan (62k people). All these markets are large recipients of electronics sourcing moves.





**Figure 13. Estimated equivalent labour capacity (people) sourcing moves – 2018 to 2023**



Source: Monash University

Looking at the past four years, the following observations are made (Figure 14). Vietnam is noted for its slowdown as a sourcing move recipient, while Taiwan, the U.S., and Mexico are increasingly receiving sourcing moves. The move to Mexico has only recently gathered momentum, which could be partly due to the high barriers to entry; as we note in the next section, most of the moves to Mexico were to established factories, not new ones.

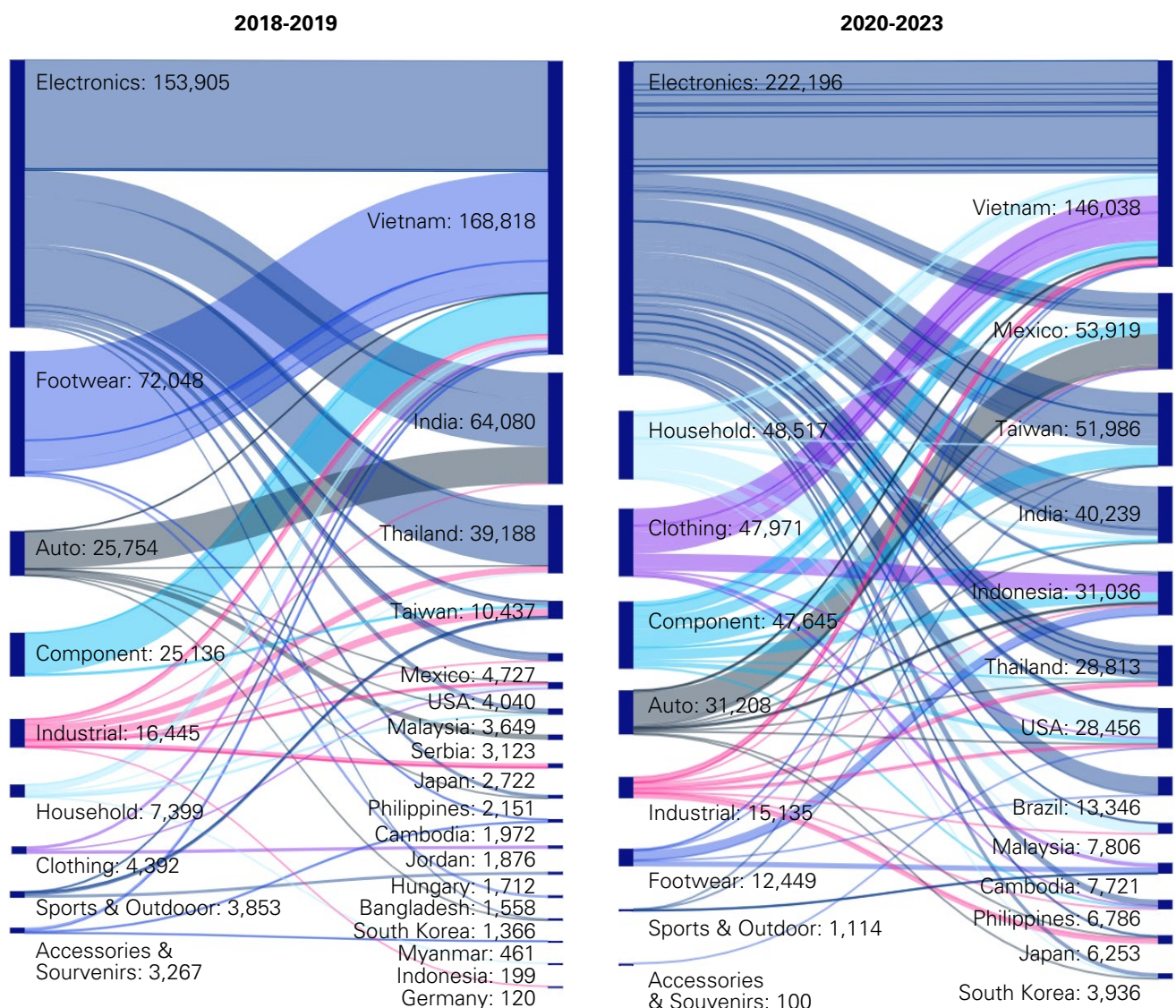
Footwear is seen as an early mover during 2018 to 2019 but has tapered off more recently.

Electronics continue to feature heavily among the sourcing moves – during 2018 to 2019 and 2020 onwards, adding Mexico and Brazil to its sourcing move more recently.

Auto was an early mover to India and, more recently, Mexico, matching the increasing move of the component sector to Mexico.

Finally, clothing accounted for a significant portion of sourcing moves during the Covid-19 pandemic period, with significant moves to Vietnam and Indonesia.

**Figure 14. Estimated equivalent labour capacity (people) sourcing moves, 2018-2019 vs 2020-2023**



Source: Monash University





## Diversification of global supply chains - new versus existing entrant patterns

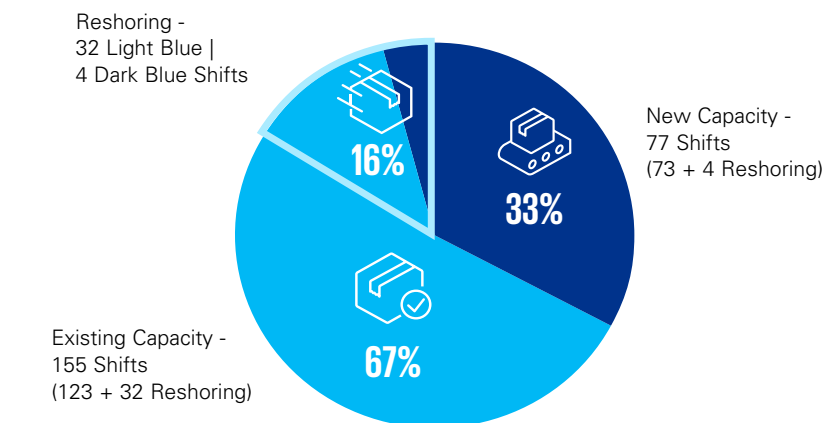
A key question is whether firms are establishing new supply chains as new entrants or simply diverting production to other markets with existing capacity.

Even though U.S.-owned companies make up a third of the companies in this study, only five of them completely closed their factories/operations in China. At the same time, two Japanese and one South Korean company did the same among the eight out of the 132 companies sampled. It was observed that the industry is experiencing a redistribution of sourcing capacity across Asia and partly to the Americas.

Our findings suggest that global supply chains are becoming more complex as multi-market moves become predominant.

Thirty-six of the 132 companies decided to re-shore part (23) or all (13) of their moved capacity. Sixty of the 132 companies stated they are expanding capacity through new factories in other markets (production relocation). Finally, 98 of the 132 companies have or are increasing the utilisation of existing capacity (trade diversion) in other markets. Thus, both trade diversion and production relocation are underway.<sup>5</sup> Figure 15 depicts the breakdown of new and existing entrant sourcing moves by market.

**Figure 15. Types of sourcing moves to various markets (n=232)**



Source: Monash University



*As supply chain specialists and merchandisers work to remap sourcing flows, they must take into consideration various impacts on their businesses, including production availability and capacity, constantly changing consumer demand, practices in destination markets, trade regulations, lead time to market, ESG targets, and other factors. Throughout this process, collaborating with logistics partners with an understanding of local networks and available infrastructure can improve end-to-end management and ensure on-time delivery of merchandise at planned costs.*

**Regine Picard**

Head of Lead Logistics Asia Pacific  
Maersk



<sup>5</sup> Many companies pursued both reshoring, production relocation and trade diversion. An earlier report by Nomura (Varma and Loo, 2019) documented the moves of 56 companies between 2017 and 2019. Our study includes many of these companies and expands the scope to 132 companies, with existing moves from 2018 and planned moves out to 2023.



As shown in Figure 16 below, Vietnam is leading in attracting companies to expand existing capacity, whereas most entrants to India are setting up new factories.

**Figure 16. Existing and new entrant locations (132 companies, 232 market moves – largest recipients highlighted)**



Source: Monash University

Regarding infrastructure requirements, what are the industrial ecosystems associated with one's supply chain in-market as it stands today, versus where it will be in five or 10 years' time?

A combination of the availability of a new supply chain ecosystem and an opportunity to be close to market are factors when India is looked at, as it is home to nearly 1.4 billion people, with one of the fastest growing middle-income populations.



*The C-suite has made it a priority to reinvent their supply chains to become more agile and resilient against these risks, with diversification of sourcing and manufacturing locations across Southeast Asian emerging markets. In 2023 and beyond, we can expect to see a strong push towards enterprise technology innovation and digital transformation, which should help enable companies to build new capabilities and improve end-to-end visibility for better resilience.*

**Walter Kuijpers**

Partner, Supply Chain Transformation  
KPMG in Singapore





### Reasons for sourcing diversification

Besides geopolitical issues, there are multiple factors to consider when deciding to move capacity to another market, especially for the first time. The data analysis reflects the strategic positioning of the sourcing move decision. Across the 132 companies and transcripts of reasoning made by C-level executives for their 232 moves, 696 reasons were cited for the sourcing moves made and proposed (see Figure 17). This averages out to three reasons per market move.



### Push and pull factors are important considerations

Push and pull factors strengthened the resolve to move capacity, with each making up 25%. As mentioned earlier, 53% of companies were moving capacity to countries with established manufacturing operations to take advantage of lower barriers to entry associated with moving to a market for the first time. Still, while this critical hurdle is cleared, other push and pull factors are relevant in driving the sourcing move.

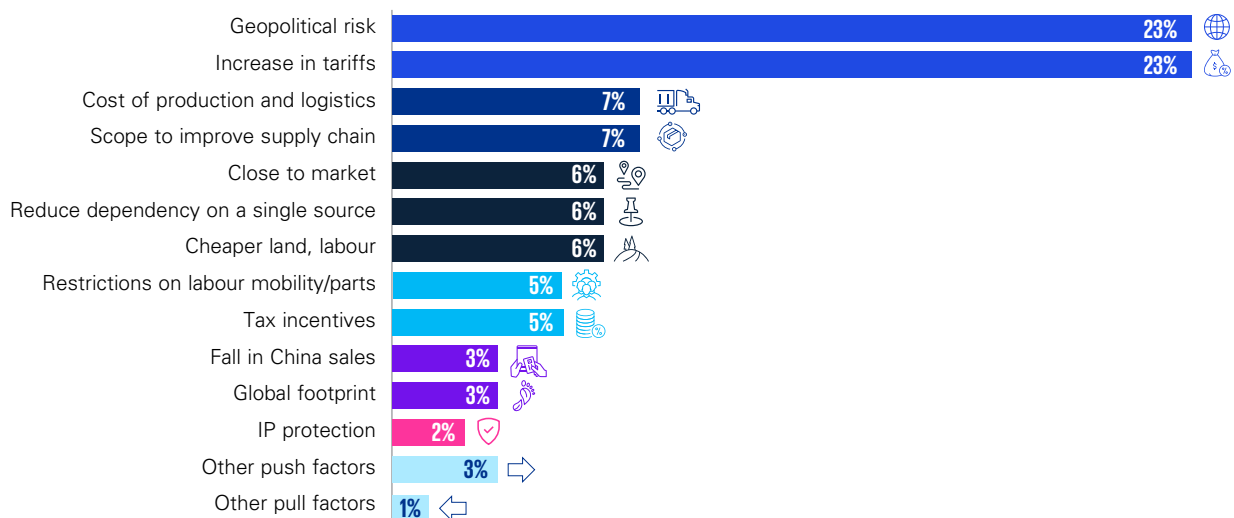
The changing macro environment (push factors) and incentives from the receiving market (pull factors) make up 50% of the reasons for the sourcing move, in addition to the other major drivers associated with the trade dispute and geopolitical risk.

Several push factors are notable, such as costlier land and labour, COVID-19 restrictions on labour and materials, etc., making up 25% of the reasons for the sourcing move. (Figure 17).

The sourcing move decision was also subject to pull factors concerning the sourcing recipient market, such as scope to improve the supply chain (7%), being close to market (6%), cheaper land and labour (6%), and tax incentives (5%), making up close to 25% of reasons cited for the sourcing move. (Figure 17).



**Figure 17. Reasons for sourcing moves**



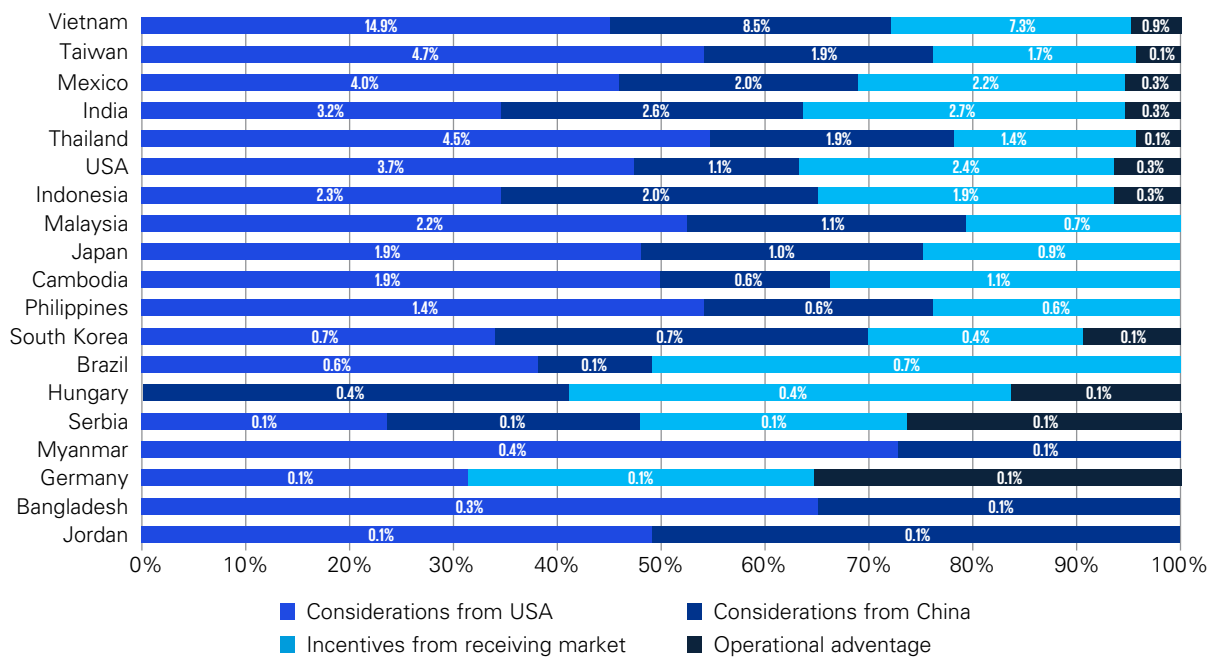
Source: Monash University

As noted above, the sourcing move decision is driven by trade disputes, geopolitical risk, and country/market push and pull factors. These factors are likely to be more or less evident depending on the industry because of the different ecosystems required for operation.

Figure 18 shows the relative weight of moves to the receiving markets across the four groups of reasons. The reasons that attract moves to various countries were further explored to understand the actual attractive forces that are working (Figure 18).



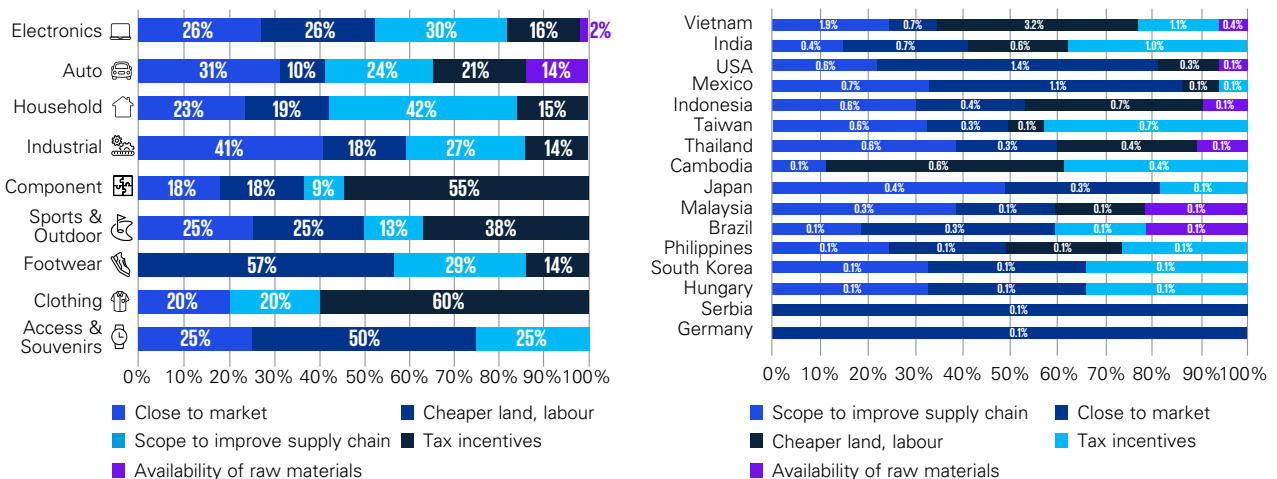
**Figure 18. Reasons for sourcing moves by markets**



Source: Monash University



**Figure 19. Incentives for sourcing moves by industry and by market**



Source: Monash University



In terms of understanding the receiving market incentives that help to attract sourcing moves, the scope to improve the supply chain was significant for the top five receiving markets, as well as Indonesia (Figure 19). It was interesting to find that tax incentives are significant for Taiwan, India, and Indonesia. Next, cheaper land and labour are significant for Vietnam, India, and Cambodia. Being close to the market is significant for Mexico, the U.S., and India.



### Reasons behind existing, new capacity, and reshoring moves

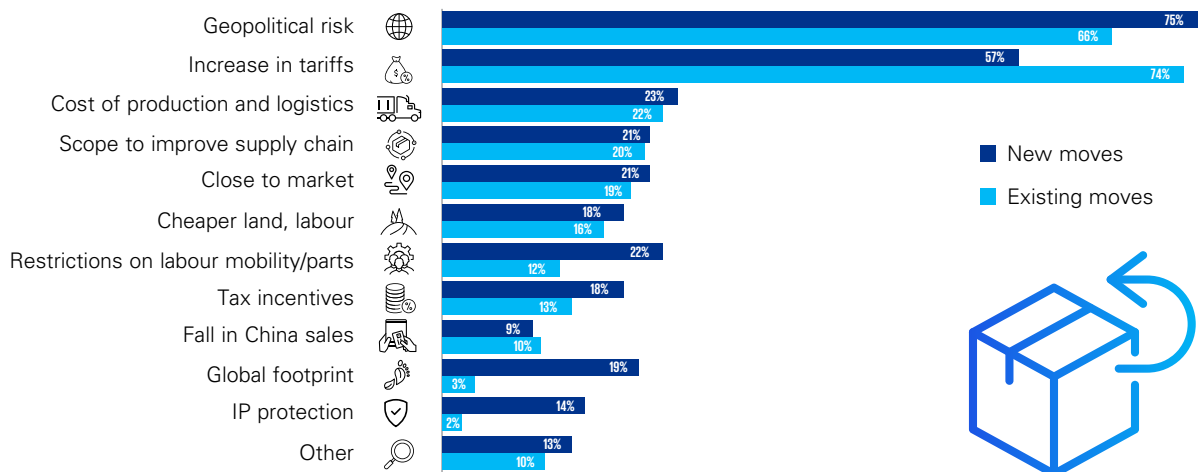
The differences in the reasons for the sourcing move are likely to depend on whether the company is moving to a market for the first time or if it can divert capacity to an existing factory in the new sourcing market. Figure 20 shows the reasons for moves against the total market moves for existing entrants (155) and new entrants (77) moves.

“Existing capacity moves were driven more by U.S. tariffs (74%), whereas new capacity moves were motivated by geopolitical risk factors (75%).”

Considering push and pull factors, new capacity market moves were driven more by push factors, such as pandemic-related restrictions on labour (22% vs. 12%), intellectual property protection (14% vs. 2%), and pull factors such as, being close to market (21% vs. 19%), cheaper land and labour (18% vs. 16%), tax incentives (18% vs. 13%). Finally, having a larger global footprint (19% vs. 3%) mattered to entering new markets because of the additional resource demands needed to successfully enter and set up the supply chain.

The different reasons documented for existing and new market moves indicate the multifaceted nature of the foreign direct investment decisions that developing countries need to be aware of.

**Figure 20. Reasons for existing (light blue) and new (blue) entrant sourcing moves**



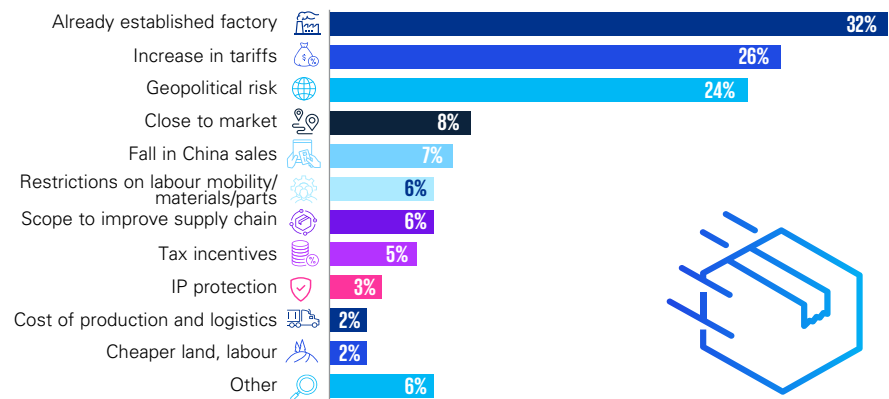
Note: Distribution of the 696 citations of 13 reasons provided by the 155 existing (purple) and 77 new (blue) entrant moves

Source: Monash University

It was noted that 36 companies decided to reshore, i.e., to move capacity back to their domestic market (Figure 21). Only four markets were found to be reshoring destinations (Taiwan, the U.S., Japan, and South Korea).

Most reshoring companies are in the automotive, industrial, and components sectors, requiring higher investment, a more trained workforce, and an established ecosystem to support them.

**Figure 21. Reasons for the 36 reshoring moves**



Note: Distribution of the 128 citations of 13 reasons provided by the 36 companies reshoring moves

Source: Monash University



### Predicting sourcing market moves

The previous analysis highlighted the multifactor drivers of the observed sourcing moves. For the most part, C-level managers, boards of directors, and other stakeholders would care to know which drivers are the most important for a particular market recipient. To answer this question, a predictive analytics model was set up to predict whether certain factors or a combination would result in a sourcing move to a particular market or not. According to the data, the most popular market recipients were profiled for their sourcing moves: Vietnam, Thailand, Taiwan, India, and Mexico (Figure 22).

For Vietnam, geopolitical risk and cheaper land and labour were significant predictors of a sourcing move to this market, possibly a key reason behind its ability to attract textiles, footwear, and clothing manufacturers.

For Taiwan, it was observed that having an established factory is predictive of a sourcing move, reflecting its strong electronics ecosystem, cultural ties, and network advantage. Tax incentives were also found to be a significant predictor.

For Thailand, the availability of raw materials is critical for a move to this market, reflecting the already established electronics ecosystem. Thailand's geographical location in central Southeast Asia, developed logistic infrastructure and special economic zones (EEC), and wide 5G connectivity coverage are likely to be supportive of a sourcing move. In addition, the Thai government has been pushing for the restructuring of Thailand's economy with a focus on new s-curve industries, including electronic vehicle manufacturing. However, potential challenges lie in the country's aging population and low fertility rate which are expected to have an impact on the Thai labour force.

Furthermore, Thailand's BOI has recently deployed measures aimed at attracting foreign businesses to relocate and facilitate large-scale investment, this also includes incentives to encourage corporates to establish STEM (Science, Technology, Engineering and Mathematics).

Analysis for India shows there are several factors predictive of a sourcing move. For larger companies that require an extensive worldwide labour workforce in manufacturing goods, it was found that India was an important destination for the sourcing move. India is challenging concerning its logistics, but it still has great potential in its burgeoning consumer market and its friendly ties with most developing countries in the region and the U.S..

For Mexico, being close to the U.S. market is a critical factor, as manufacturing is less than a two-day truck ride from the U.S.. In addition, barriers to entry, such as a lack of familiarity with Mexico and its culture, mean that having an already established factory is highly predictive of a sourcing move.



**Figure 22. Logit models on predicting a sourcing market move**

Recipient market	Vietnam	Taiwan	Thailand	India	Mexico
<b>Documented reason for the shift</b>					
USA headquartered company			**		**
Company age	*	**			
Market capitalization US 1000			**		
Workforce worldwide		**		**	
Percent shift	*	*			
<b>Considerations from the USA</b>					
Date of relocation			**		
Geopolitical risk	**			**	
<b>Considerations from China</b>					
Fall in China sales				***	
<b>Incentives from receiving market</b>					
Close to market	*	*	***		***
Tax incentives	*	*		**	
Cheaper land labour	***		***		*
Availability of raw materials	*		**		
Scope to improve supply chain				**	
Already established factory		**		**	***

Note: Significance of the positive (light blue)/negative (dark blue) estimates \*\*\*, \*\*, \* indicates a p-value of  $\leq 0.01$ , 0.05, and 0.10 in a two-tailed test  
 | An already established factory is included as an existing entrant factor. Availability of raw materials is included as part of "Other" factors in Figure 17  
 Reasons for sourcing move.

Source: Monash University



*With Gen Z consumers leading in social media engagement with brands and adoption of immersive technologies like AI that enhance customer experience, brands and manufacturers need to understand how to leverage the greater amounts of customer data created to predict emerging trends and reach target markets with suitably tailored products at a far greater speed. While technology enables more agile sourcing and manufacturing from multiple locations, businesses need to fully consider the tax, ESG and regulatory considerations related to their sourcing moves.*

**Anson Bailey**

Head of Consumer & Retail  
KPMG Asia Pacific





## Chapter 3:

# Receiving markets of decentralised global supply chains

It was noted that 36 companies decided to reshore, i.e., to move capacity back to their domestic market (Figure 21). Only four markets were found to be reshoring destinations (Taiwan, the U.S., Japan, and South Korea).

Most reshoring companies are in the automotive, industrial, and components sectors, requiring higher investment, a more trained workforce, and an established ecosystem to support them.

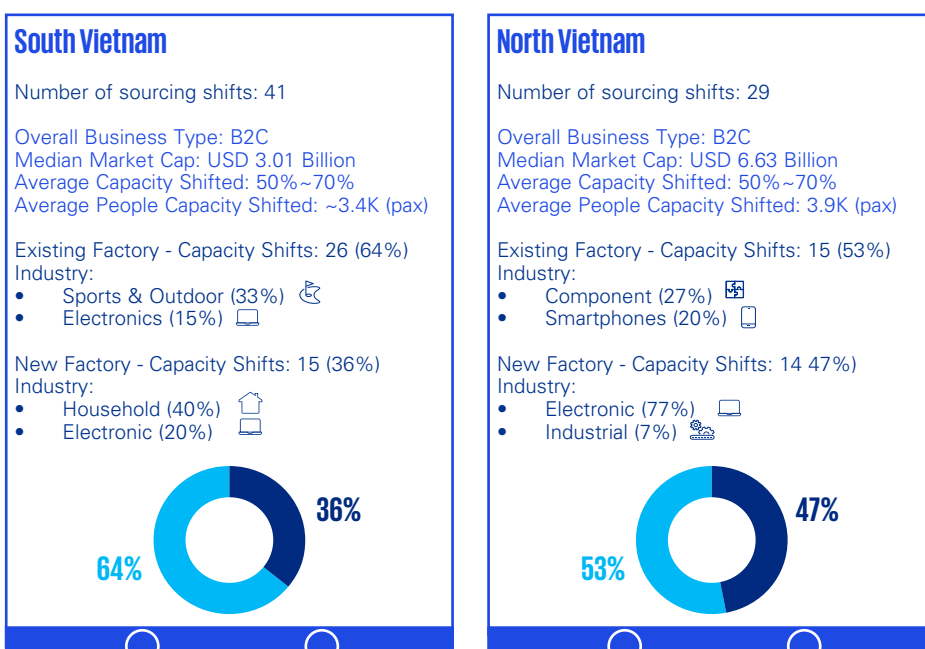


## Is Vietnam the new Guangdong?

Southeast Asia will continue to capture a fraction of the assembly and basic production, as China increasingly commands a higher share of value-added to global products, such as increasing design, brand development, and R&D parts. But within Southeast Asia, not all countries are made the same, with Vietnam stands out in growing its higher end production base (Figure 23).



**Figure 23. Companies relocating capacity to Vietnam (moves = 70)**



Source: Monash University

In many ways, Vietnam could be similar to Guangdong province – but 10 years behind in its stage of development. Indeed, Vietnam's population size, demographics, and minimum wage levels in 2021 were close to Guangdong's in 2011 (Figure 24). Vietnam is also aiming to proactively attract foreign investors through preferential taxes and the proliferation of industrial parks. In Q1 of 2022, Vietnam's exports overtook Shenzhen's total exports. While it was predicted that Vietnam's exports would overtake Shenzhen at some point, no one predicted it would be quite this soon.



**Figure 24. Vietnam today is comparable to Guangdong a decade ago**

	Vietnam 2021	Guangdong 2011	Guangdong 2021
Population	97M	104.4M	126M
Average population age	32.5 years	30.6 years	38 years
Minimum monthly wage, adjusted to 2020 USD	\$169	\$213	\$307

Source: Monash University; ILO; national statistics; author calculations



*The speed of Vietnam's economic transition is fascinating. Within 10 years, the leading driver of export for the country changed from largely agricultural (rice and cashew nuts) and apparel (shoes and leather goods) to electronic components and computer equipment. Vietnam has become a leading producer of cell phones and telecommunications equipment. We are now witnessing the second wave of the country's economic transition and the rapid emergence of a large middle-class consumer market.*

### **Luke Treloar**

Head of Strategy, Vietnam and Cambodia  
KPMG in Vietnam



Yet if the Guangdong analogy holds, Vietnam's advantages may not be sustained for long. For instance, by 2024, Vietnam is expected to be fully compliant with labour requirements in the CPTPP and the EU-Vietnam Free Trade Agreement, which will put upward pressure on wages.

Vietnam will likely continue to improve its infrastructure and labour force resilience to remain as attractive a market as possible. But its role in the Asian supply chain may be limited to being a satellite of the "global factory" next door.

Traditionally viewed as a regional alternative to China, Vietnam maintained its popularity during the global trade uncertainty witnessed in 2020.<sup>6</sup> As of early 2021, it was named a top-three sourcing market by a quarter of respondents globally. Prior to 2018, several Chinese companies, especially in the textile and garment industry, had already relocated to Southeast Asian countries such as Vietnam, and more manufacturers from other industries have moved to Vietnam from 2018 onwards.

<sup>6</sup> Hong Kong-based QIMA Report May 2021



### India is attracting new entrant movers

Meanwhile, traditionally viewed as a textile powerhouse, India was also said to be one of the leading sourcing partners for at least a third of respondents across multiple sectors, including promotional products, eyewear, jewellery, fashion accessories, and footwear. What is shown by the data is that India is increasingly attracting significant investment in the electronics sector, especially from companies moving there for the first time (Figure 25). This is quite apparent in the electronics sector, as 10 out of 18 firms documented a move to India for the first time, six of which were in the electronics sector and two in the automotive sector. To illustrate this, Apple has doubled its sourcing capacity in India over the past three years from 3% (2019) to over 6% (2022). These developments are incentivised by the ability to avoid customs duties when reaching India's consumer market with locally-produced items. Though there are considered to be logistical constraints and limited port capacity, the move to India is considered a strategic move for companies with a 10 to 15-year outlook.



*India today is one of the largest consumption-driven economies globally. Given the rapid uptick in consumption, increased investments in enhancing production capacities in India and technological interventions across supply chain networks will be integral. Tech-oriented startups are starting to play a significant role to further augment growth in the sector. Infrastructure gaps may continue to act as a challenge in penetration in the Indian market, especially in Tier-II, Tier-III cities as well as rural markets. However, with augmentation of newer systems such as route optimization, fleet management tools and last-mile visibility tools, delivery networks could be optimally planned. Evidently, we know that for India, providing a seamless journey for consumers through a mix of digital and physical infrastructure will require the backing of a strong supply chain. It is important to stay focused on a long-term outcome and empower supply chains for the future.*

#### Harsha Razdan

Head - Clients and Markets,  
National Leader - Consumer Markets, Life Sciences and Internet Business  
KPMG in India



**Figure 25. Companies moving capacity to India**

#### India

Number of sourcing shifts: 18

Overall Business Type: B2C  
Median Market Cap: USD 9.9 Billion  
Average Capacity Shifted: 50%~70%  
Average People Capacity Shifted: ~4.9K (pax)

Existing Factory - Capacity Shifts: 8 (44%)

Industry:

- Electronic (63%)
- Component (13%)

New Factory - Capacity Shifts: 10 (56%)

Industry:

- Electronic (50%)
- Auto (20%)



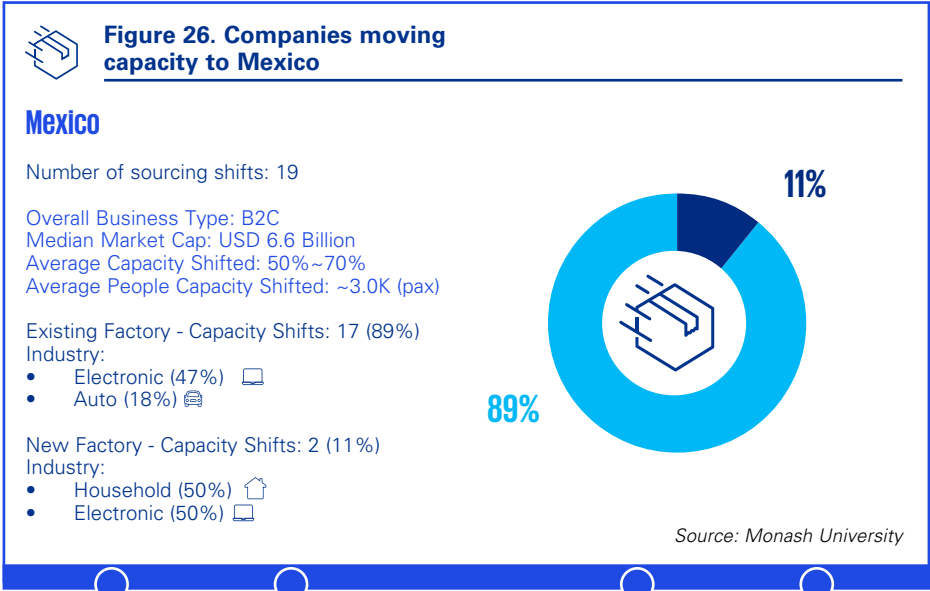
Source: Monash University





Latin America has renewed ambitions to attract FDI

In the wake of pandemic-related factory shutdowns and supply shortages, U.S. companies have started moving operations to countries located more closely, such as Mexico, Columbia, Ecuador, Honduras, Nicaragua, El Salvador, and Costa Rica, to lessen their dependence on sea freight (Figure 26).



Latin America has a land-based transportation route to the U.S., and the region has a low cost of labour that is comparable with China and Southeast Asia. Economies welcome more factories and supply chain-related jobs in areas like transportation.





### New reasoning over traditional assessments of ease of doing business

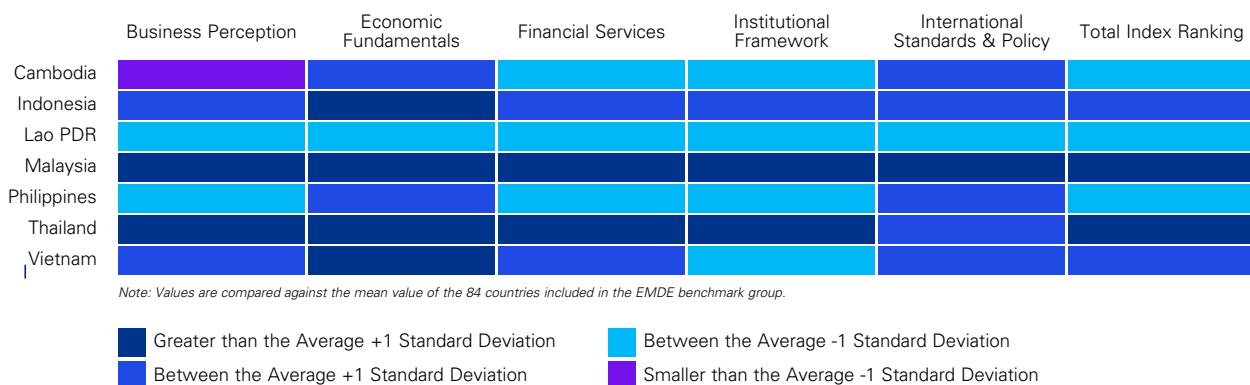
The data on sourcing moves highlights new strategic reasoning and justifications for sourcing moves based on combinations of geopolitical, and push and pull factors.

While Taiwan and Thailand score high on the ease of doing business, and reflect the sourcing moves documented in this report, the many sourcing moves to Vietnam, India, and Indonesia - which score significantly lower on the ease of business scale - belie the importance of this factor.<sup>7</sup> This trend provides an added incentive for policy makers to enhance the business environment, which would help to attract even more new capacity FDI in the future.

To better assess the attractiveness of emerging Southeast Asia, it is helpful to compare its performance with a benchmark group. Countries classified as Emerging Markets and Developing Economies (EMDE) were used by the International Monetary Fund as this benchmark (Figure 27). The similarities in development indicators establish a fair baseline for comparison.



**Figure 27. Comparing emerging Southeast Asian countries with the EMDE benchmark**



Source: Monash University; Milken Institute (2022)

The above table shows that Malaysia and Thailand are the two strongest countries in Southeast Asia, significantly outperforming the average EMDE score. The remaining five countries are comparable to the average EMDE score, with Cambodia and Laos being the two weakest-performing countries.

When considering the ease of doing business in specific markets, it is important to consider the Organisation for Economic Co-operation and Development (OECD)'s Inclusive Framework on base erosion and profit sharing (BEPS). The framework, which is still evolving, sets a global minimum tax rate of 15% for multinational enterprises with turnover above EUR750 million. This and other BEPS rules will likely to affect the effective tax rates and cash tax obligations for large multinationals, therefore impacting how they allocate their taxable income by market jurisdiction.

<sup>7</sup> Ease of doing business World Bank Report 2020

In addition, making adjustments to supply chains can have consequences resulting from changes in the scope of activities, roles & responsibilities for centralized or decentralized activities, as well as insourcing or outsourcing of activities. This may require modifications to transfer pricing models and detailed supply chain network analysis to understand other tax implications such as indirect taxes and customs duties.

Below are some actions that organisations can consider taking to optimise their tax position when making supply chain moves:



An analysis of the organisation's existing supply chain and transfer pricing model to assess whether it is aligned with value creation and the functional profile of the group;



Development of a future supply chain and transfer pricing model which takes into account changes in functional and entity risk profiles as a result of changes in activities;



Simulation of the potential financial consequences of transfer pricing model changes, as well as changes in supply chain network changes including the future indirect tax impact;



Seeking implementation support for defining optimal scenarios with a clear understanding of trade-off between supply chain cost and service implications versus tax benefits.





## Chapter 4:

# Managing supply chains in the new normal

ESG regulations has been a major force for change besides the COVID-19 pandemic. In Europe there is an increasing number of ESG regulations; consumers are also taking more interest on sustainability. Historically the sourcing industry has a practice of cutting margin; nowadays it is to build long term supplier relationship for the acceleration of ESG.



*The combination of intensified brand-supplier collaboration and increased near-shoring can provide an effective lever to tackle the continued challenges of demand and supply market uncertainty.*

**Michael Walsh**  
PBEC CEO



*It is an imperative for manufacturers to decarbonise the supply chain. There are many ways to do so, and the more sustainable a supplier is, the more bargaining power it has. A sustainable approach can bring further benefits to organisations across the supply chain, such as forging stronger relationships, improve decision-making, enhance risk management, and in turn, improve profitability.*

**Angus Choi**  
Partner, ESG Advisory  
KPMG in China





## The Impact of Environment, Social, Governance (ESG)

When considering a sourcing move, companies need to include ESG impact considerations on the location that the manufacturing is moving into, as well as the one left behind.

ESG addresses the non-financial factors that impact a company's performance, and these issues are often material to a company's strategy and long-term value creation. Broad sets of stakeholders - not just shareholders - hold companies accountable for their progress against ESG factors.

In addition to rising stakeholder demand for ESG accountability, government regulation is creating an urgent imperative for companies to take action. Looking ahead to the second half of 2023 and beyond, manufacturers and trading houses operating across the Asia Pacific region and around the world are expected to be impacted by a flood of new ESG-related regulation, much of which is originating from the European Union but also from other jurisdictions.

With these two drivers in mind, ESG is a very good risk mitigation tool, and critical for bringing together and directing capital to meet the challenges industries face in this transition to meet zero-emission targets set by governments.



## The value of transparency in supply chains

Supply chain transparency is a prerequisite for sustainability. It has also become crucial to handling uncertainty, exposure to risks, and supply chain disruptions.

The Supply Chain Worldwide Survey<sup>8</sup> revealed that 70% of the companies surveyed perceive their supply chain as 'very' or 'extremely' complex. The majority of apparel companies surveyed in a supply chain study<sup>9</sup> expressed that they planned to have a transparency solution in place by 2027.

The drive for transparency covers different elements and requires the involvement of multiple stakeholder groups. Digitalisation and technology solutions are enablers for supply chain transparency.

New business models and value propositions may also have resulted from the collaboration within the ecosystem of the end-to-end supply chain, vertically and horizontally.

Transparency allows traceability and visibility of supply chains, which helps reduce risks and costs by guaranteeing fewer disruptions and reducing waste. Companies are then equipped to respond quickly and proactively to risks and operational inefficiencies.



*ESG is not only for sustainability teams, it is for all business departments. There are technology solutions nowadays to allow more sustainable products without a huge cost. With scale, it is not impossible to make it cost effective and eventually profitable over time.*

**Anne-Laure Descours**

Chief Sourcing Officer  
PUMA



<sup>8</sup> Supply chain transparency: creating stakeholder value, KPMG, 2021

<sup>9</sup> Moving the needle – Threading a sustainable future for apparel, KPMG, 2021



## Digitalisation of Trade & Trade Finance

The COVID-19 pandemic has contributed to the acceleration of digital transformation, with the implementation of 'Paperless Trade' standing at 64%. However, the implementation level of 'Cross-Border Paperless Trade' is substantially lower at 38%, with bilateral and subregional paperless trade systems remaining either mostly partial or on a pilot basis.<sup>10</sup> Nonetheless, progress in the implementation of 'Paperless Trade' and 'Cross-Border Paperless Trade' measures is remarkable, with increases of 6.3 and 5.4 percentage points over the 2020-21 period, respectively – the highest improvement in these areas since the introduction of the survey in 2015.

International trade is an engine for economic growth and poverty reduction, and sustainable trade facilitation is one indispensable dimension of trade facilitation. However, while 'Agricultural Trade Facilitation' measures have been comparatively well-implemented, the implementation of trade facilitation measures aimed at SMEs and women in business face big challenges, with average implementation rates of 41% and 31%, respectively.

Given their importance in achieving sustainable and inclusive development, particularly in times of crisis, trade facilitation strategies should be designed in a more holistic and inclusive manner.



*As the pandemic has put pressure on the production flows, logistics and retail replenishment, businesses need end-to-end supply chain data measured and tracked to aptly react to the market dynamics. Interoperability and visibility are key to identifying and tracking products as they move through the trade networks, ensuring consistency and efficiency across operations like the sourcing function.*

**Anna Lin**

CEO / GS1 Hong Kong and Board Member of PBEC



Recently, Steven Beck, Head of the Asian Development Bank's Trade and Supply Chain Finance Program, who also spoke at PBEC's Annual Dialogue Week 2021, noted that standardised barcodes can make supply chains more transparent and urged "greater use of such standards is needed, which would help improve safety and security for key goods like food and medicine, and generally make trade more efficient, sustainable and inclusive."

To facilitate trusted, real-time supply chain collaboration, the WTO and the International Chamber of Commerce (ICC) launched the first-ever standards toolkit that helps companies and government agencies adopt available standards to accelerate the digitalisation of trade processes. GS1 is referenced in the toolkit as one of the pillars to ensure seamless data sharing, reporting, due diligence, and compliance requirements.

<sup>10</sup> Soo Hyun Kim Economic Affairs Officer Trade Policy and Facilitation Section, Trade, Investment, and Innovation Division ESCAP: Update on Trade Facilitation Activities: Regional Organization Cooperation Mechanism for Trade Facilitation (ROCTF) Annual Meeting, New Delhi, India. September 2019.



Reducing trade costs is essential to enabling economies to participate in global value chains effectively and to continue using trade as an important engine of growth and sustainable development.

According to the latest data from the ESCAP-World Bank International Trade Cost Database, the overall cost of trading goods among the three largest European Union economies is equivalent to a 41.4% average tariff on the value of goods traded. In contrast, trade costs among the middle-income members of the ASEAN, which have actively pursued regional integration through trade and investment over the past decades, still stand at a 76.7% tariff equivalent.

Amidst the current COVID-19 pandemic, shipping and air freight costs were pushed up due to capacity constraints, posing significant challenges for supply chains globally. The crisis has had an impact on key components of trade costs, particularly those related to travel and transport. In addition, high levels of uncertainty magnify the impact on trade costs. The increasing visibility of traditional trade barriers and surging trade and transport costs pose risks to the recovery of the global economy. For example, trade barriers have hit the semiconductor industry particularly hard, with implications for many sectors far beyond those that the tech industry is currently facing. While reversion of many of the changes in trade costs is expected once the pandemic is brought under control, some effects may persist.

It is imperative for regional connectivity to be enhanced through coordinated trade facilitation actions at this pivotal time. Continued and sustained efforts should be made to further enhance cooperation, make trade information transparent, and strengthen countries' capacity to contribute to recovery and prepare adequately for future crises. This includes the climate crisis, in which trade facilitation certainly has a mitigating role to play.

In addition, the further proliferation of embedded finance (EmFi) solutions for B2B transactions in Asia Pacific is expected in the next few years. This may help to reduce transaction costs while better facilitating trade flows and improving supply chain efficiency.



*Building resilience in supply chains is no longer about tweaks and minor modifications. Several of our customers - leaders in their respective industries - are taking a multi-dimensional approach to fortify their supply chains. Digitalisation must be underlined with agility in execution. Service providers need to be accountable, innovative, and able to invest in better solutions. Core logistics functions must spend more time mapping complete value chains and continuously pressure test them for contingencies. Above all, all supply chain professionals will be much closer to their product team priorities, ESG agenda, market expansion plans, consumer behaviour changes, and so on, because every function in their company is now impacted by the design of supply chains.*

**Amita Maheshwari**

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# Conclusion

Global events, such as the pandemic and geopolitical tensions, have tested the resilience of global supply chains and exposed vulnerabilities and disruptions to production and logistics. Manufacturers have been forced to rethink their strategies, ranging from where they source raw materials to the relocation of production units. As the pandemic has highlighted the challenges companies face due to the reliance on a single geography, manufacturers are diversifying and relocating their supply chains to become more resilient. This has led to the emergence of countries in Asia, the ASEAN, and the LATAM regions as attractive alternatives.

As the data in this report has revealed, business leaders' decisions made since 2018, and being made now for the coming three to five and 10-year horizons are changing the supply chain and sourcing landscape in Asia Pacific. A generational shift is perhaps subtle in its appearance, but nonetheless, a pattern that is predicted to continue regardless of tariff easing on certain products and commodities. Strategic competition is here to stay. This extends to other Asian and APAC economies seeking a bigger share of the global supply chain market as China's domestic economy changes and shifts its policy attention further upstream in the manufacturing of goods and services.

As companies redesign their sourcing strategies and plan relocation to other markets, they must consider associated third-party risks pertaining to stable governance, tariffs, tax regimes, adequate infrastructure, access to market, availability of skilled labour, sanctions, environmental-related concerns, local issues, cyber-attacks, and unethical sourcing. Bribery and corruption also remain areas of major concern in some emerging markets. Governments must enforce strict anti-bribery and anti-corruption laws to instil confidence and attract more reputable foreign direct investments. Companies must also ensure detailed investigation and due diligence work before choosing alternative suppliers/regions to relocate their manufacturing units.

The pandemic continues to disrupt traditional supply chain practices, and post-COVID-19, the world will see altered supply chain structures. Fundamentally, manufacturing and supply chains will become more localised, directly impacting companies' operations, costs and sourcing.

In addition, supply chains will adopt more robust planning in anticipation of future pandemics and incorporate better sustainability and resilience into their systems. These changes are expected to change how business is conducted long after the pandemic subsides. Open global data standards will not only enhance cross-border trade aspects during the pandemic recovery phase, but will also build much-needed preparedness into border processes and supply chains to ensure future resilience.

While each constituent will inevitably address a somewhat unique combination of issues and conditions, it is strongly encouraged that all stakeholders, including the business community, commit to open, accessible, and interoperable standards to ensure a level playing field, and promote innovation to achieve global resilience.





The world is increasingly connected, and technology is a critical enabler. For supply chains, technology can significantly help improve resilience. By digitalising capabilities and different supply chain components, businesses can make strides in various areas, including trade facilitation, forecasting, inventory management, and manufacturing processes.

For example, implementing demand forecasting with demand-sensing and demand-shaping AI capabilities allows companies to keep up with consumer shifts and market insights that drive the demand. IoT-enabled manufacturing process enablement and AI-enabled strategic sourcing are two other solutions that companies can consider when updating their manufacturing process enablement and sourcing & procurement functions. Smarter planning, including data-driven Sales and Operations Planning (S&OP) and Sales and Operations Execution (S&OE) rounds out these capabilities.

## Industry recommendations

Overall, the data analysis indicates that China, Southeast Asia and the Pacific Nations are well-positioned to attract more foreign investment and - over the longer term - become even bigger players among emerging markets and developing economies, especially with FTAs like RCEP, CPTPP and DEPA that facilitate multilateral trade, as well as facing up to the increasing digital needs of sourcing firms, the logistics sector and suppliers in general. However, to capitalise on these trends and stay competitive against other regions, business leaders have a role to play to assist policymakers in taking the necessary actions to address some of the region's weaknesses.

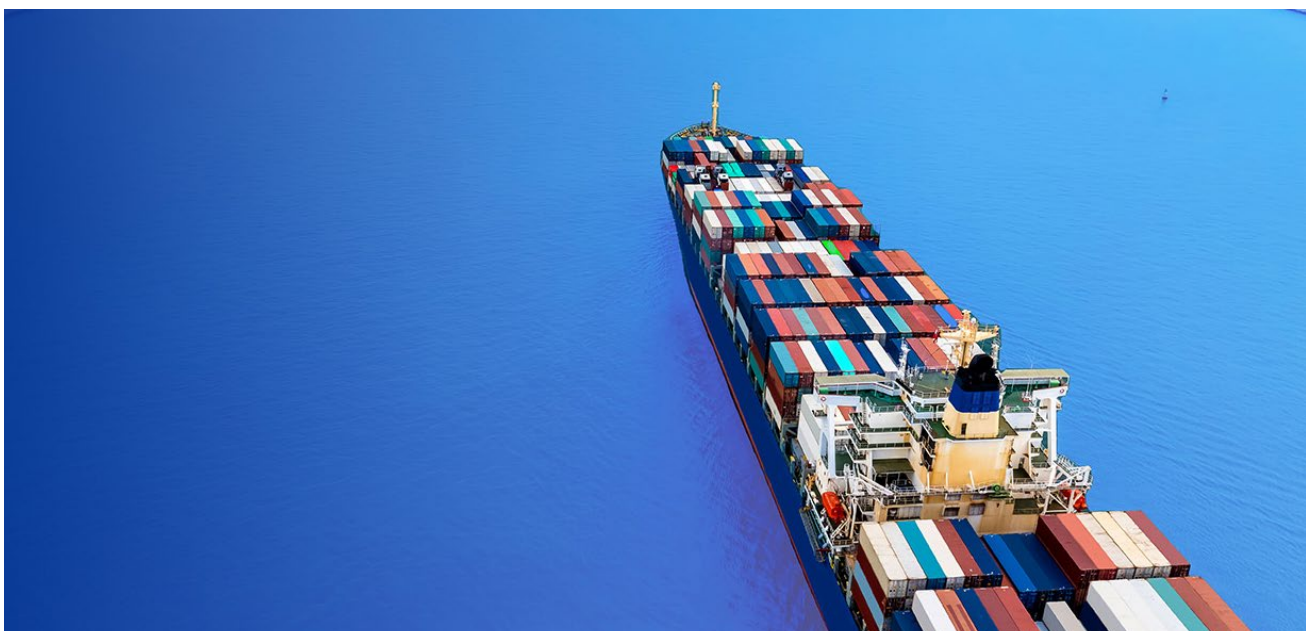
Having assessed all recent trends and reasons for the current sourcing moves, it is suggested companies have the following four areas in their considerations when reviewing their operations:

-  Planet – Protecting nature and fostering a sustainable future,
-  People – Respecting individuals and embracing diversity,
-  Prosperity – Purpose-led corporate decisions, value-added partners, and
-  Governance – Value-led commitment to corporate social responsibility.

As emerging Southeast Asia and LATAM block economies become more integrated through FTAs and collaborative bilateral agreements, businesses can better coordinate production processes within those regions and take advantage of each market's unique resources and opportunities. This will foster more prosperity and skilled jobs for each nation's people. Greater disclosure of information and transparency by Asian, Pacific, and Latin Governments will increase the APAC region's attractiveness to foreign investment, generate a more favourable business environment, ensure the labour available is digital trade-ready, and increase the speed of the digitalisation of supply chains.

Governments and businesses alike must leverage global capital flows despite geopolitical risks to advance both the ASEAN and LATAM region's development agendas, thereby delivering inclusive and sustainable growth across all segments of the population, which will benefit global supply chain resiliency, keep companies competitive and relevant, attract talent and help the world economy recover from the pandemic, enabling increased focus on tackling the bigger issue of the planet.

Within the context of ASEAN, Singapore plays a prominent role as a hub and center of excellence for connectivity into the regional and global supply chain, also allowing companies to leverage Iskandar and Batam as manufacturing locations. A range of tax and other incentives offered by the city-state can benefit global supply chains as they diversify across Southeast Asia.





The following five recommendations are put forward to the region's business leaders to help them navigate and remain competitive in the APAC region.



### **Focus on design lines and productivity**

When deciding on the strategic shift, it is important to understand the impact of shifting source destinations on (i) the future operations model (data, technology, service delivery model, skills, governance), and (ii) the available workforce (skills, availability, readiness). Global players will need to reassess the readiness of the labour force available in the new market destination, as significant localised training programs and mentoring will be required. Seek production ecosystems to support the new design and material requirements of products in your pipeline.



### **Increased sourcing market complexity and digitalisation**

Most of the documented sourcing moves are to more than one market, and for the most part, the recipient markets are smaller with varying degrees of development in terms of productivity, and social and environmental concerns, adding to more complex supply chains. With this greater decentralisation of supply chains and greater demands from stakeholders on the environment, social, and governance risks, digitalisation instruments are needed to help facilitate the added complexity of coordinating the supply of raw materials, assembly and shipment across more markets.



### **New market moves require visibility and experience**

Nearly one-third of sourcing moves are to new markets. This creates new supply set up challenges to integrate with existing supply chains. In this case, visibility is needed more than ever, so steps should be in place to visualise the supply chain structure in the new market. Developing relationships with suppliers and government representatives, frequent communication, and data gathering is critical to assess environmental and social factors, and detect problems and bottlenecks sooner. The importance of having senior international management on the ground cannot be over-emphasised as a necessity to achieve productivity and visibility goals in the new destination market, at least in the first five-year period. For example, training factory managers to input real-time data on material and assembly flows can enhance the visibility of decentralised supply chains and timely risk mitigation efforts to address problems when they arise.



### **Maximise social impact to address climate impact**

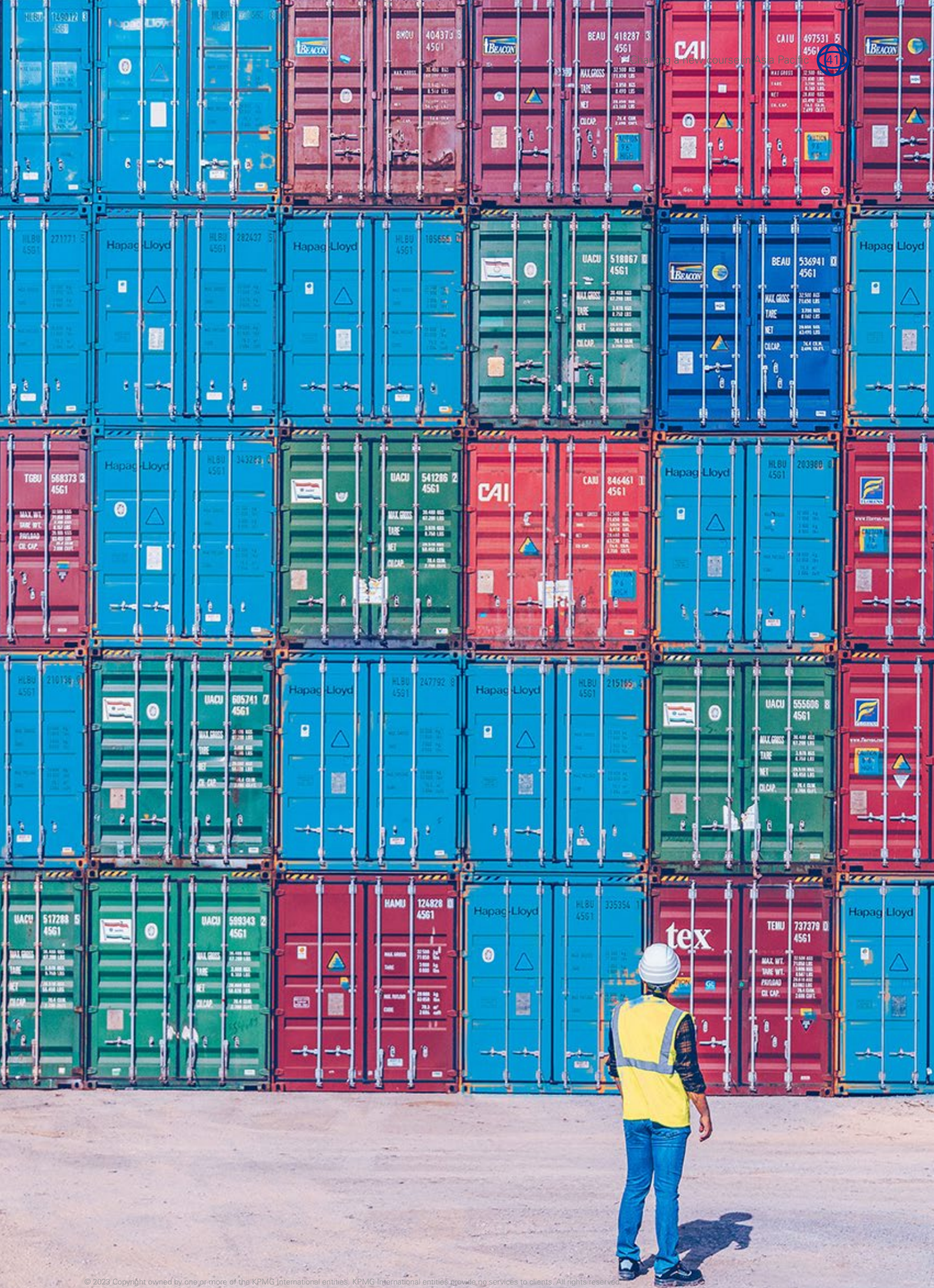
Perhaps the biggest challenge for corporations and business leaders involved in global trade is to increase their social impact when deploying their foreign capital. Facilitation factors in attracting foreign direct investment are directly associated with the country's governance and need to be monitored for (i) changes in regulations which include labour laws and employment welfare, (ii) import duties on raw materials, (iii) key infrastructure needs and energy security, and (iv) government support provided to enable and deliver projects in a timely manner.



### **Push and pull factors matter to the country's FDI policy**

There are policy implications for governments of non-OECD nations - the significant recipients of sourcing moves - as they seek to keep and attract FDI to aid their economic development. Issues of tax incentives, land subsidies, technology parks, talent development, and infrastructure are essential considerations. Our analysis of the pull factors highlights several pull factors such as, being close to market, cheaper land and labour, tax incentives, and availability of raw materials. The different reasons documented for existing and new market moves indicate the multifaceted nature of the foreign direct investment decisions that developing countries need to be aware of.





Charting a new course in Asia Pacific

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# Abbreviations

<b>APAC</b>	Asia Pacific
<b>APEC</b>	Asia Pacific Economic Cooperation
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>B2B</b>	Business to Business
<b>CTPPT</b>	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
<b>EPC</b>	Electronic Product Code™
<b>EMDE</b>	Emerging Market and Developing Economies
<b>ESCAP</b>	United Nations Economic and Social Commission for Asia and the Pacific
<b>ESG</b>	Environmental, Social & Governance
<b>E.U.</b>	European Union
<b>FTAAP</b>	Free Trade Agreement of the Asia Pacific
<b>GVC</b>	Global Value Chains
<b>HKSAR</b>	Hong Kong Special Administrative Region
<b>IIEG</b>	Intelligent Transportation Systems (ITS) Experts Group

<b>LATAM</b>	Latin America
<b>NGO</b>	Non-Government Organisation
<b>PA</b>	Pacific Alliance
<b>PBEC</b>	Pacific Basin Economic Council
<b>PECC</b>	Pacific Economic Co-operation Council
<b>R&amp;D</b>	Research & Development
<b>RCEP</b>	Regional Co-operation Economic Partnership
<b>RFID</b>	Radio Frequency Identification
<b>SME's</b>	Small and Medium Enterprises
<b>STEM</b>	Science, Technology, Engineering, and Mathematics
<b>TPP</b>	Trans-Pacific Partnership Trade Agreement
<b>TPTWG</b>	Transportation Working Group
<b>U.S.</b>	United States of America
<b>WTO</b>	World Trade Organization



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# About The Pacific Basin Economic Council

The Pacific Basin Economic Council is a non-profit, nonpartisan organisation. For the past five-plus decades, the PBEC has served as a catalyst for meaningful dialogues between business leaders, government representatives, NGOs and academics. It is a platform for informative discussions and initiatives that facilitate and promote the freedom of movement and trade across APAC. The PBEC host closed-door meetings, conduct research together with its partners, interview leading entrepreneurs, and organise public engagement events. It has the reputation and ability to convene top experts, innovators, and influencers from different backgrounds and competing viewpoints on a regular basis. The PBEC leverages its historical links, expertise, and insights to construct periodic report updates, forthcoming policy announcements, opportunities for investors, events, and submission of its own policy recommendations construed by its members by consensus. Its 'by invitation only' peer-to-peer membership structure provides meaningful access to market intelligence, mentors, and marketing resources required to create ever-expanding opportunities for members, their businesses, and their broader communities.

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