Global supply chains: The race to rebalance
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Introduction

Rarely in history have business leaders dealt with as many challenges as they have over the last three years, each uniquely complex and compounding. And never before have leaders had to respond to them all at once.

While the COVID-19 years were about rebalancing and de-risking supply chains, we now face a new environment. Economic volatility driven by inflation, energy crises and geopolitical tensions — among other forces — have created a new reality for business leaders. Prices are likely to remain high for a sustained period, and it’s no longer enough to focus on resilience and short-term profitability. Businesses need to transform to survive and grow.

To survive, let alone thrive, businesses need to consider sweeping transformation across all areas of the enterprise, including supply chain. This requires the entire C-suite, including the CEO, taking the reins from the procurement department and the need for speed. There’s a global race happening right now as businesses look to rebalance their supply chains and seek new suppliers, locations and talent. The sheer volume of businesses on the move and the finite number of alternatives mean that businesses have to compete arduously for their attention while they pick and choose from a long line of contenders. Government incentives to attract new foreign direct investment only intensifies this competition. Unfortunately, these incentives aren’t always the golden ticket they seem to be.

In this report, we will cover why we believe this shift from resilience to growth is necessary, what it means for CEOs in Asia Pacific as well as for those trading with Asia Pacific, and what businesses can tangibly do to find growth in this environment.

Fortunately, despite the global turbulence, Asia Pacific is weathering the storm. Over the next decade, 70% of global growth will come from Asia Pacific. The region is set to have the highest aggregate consumer expenditure by 2030 and it’s home to some of the largest consumer markets. South Asia and Southeast Asia are experiencing astonishing consumer market growth, up to an expected 200% by 2030 in the case of Indonesia and the Philippines. The Regional Comprehensive Economic Partnership (RCEP) will likely enhance growth. The world’s largest free trade agreement in history — among the largest economies in Asia, including China, Indonesia, Japan and South Korea — encompasses 30% of the world’s GDP and population. Although the US is not part of the RCEP, if we factor in the United States’ reliance on the region for input costs, Asia Pacific’s position is even stronger.

There are three fundamental questions that businesses need to consider when repositioning their supply chains for growth:

1. How to navigate the competitive landscape of supply chain transformation.
2. How to use next generation technologies.
3. How to turn Environmental, Social and Governance (ESG) into a value driver for business growth.

We recommend six practical steps businesses can take to get it right.

We are united in the belief that the ‘ask’ of CEOs has never been greater. CEOs and the wider leadership team must now be diplomats to deal with geo-economic and polarisation issues, crisis managers to quell angry customers when supply disruption limits product availability, purpose evangelists to retain talent, socially conscious to view decisions through an ESG lens, digitally literate to drive transformation, all while having the risk tolerance for business model reinvention.

Are you ready?
Geopolitical and trade tensions around the world have prompted many businesses to relocate parts of their supply chains. As more businesses consider how to de-risk their supply chains, the race to rebalance is getting more and more competitive. Businesses should not expect the same eager response from new potential suppliers as they received from their existing providers many years ago. Suppliers in desired relocation destinations could have a dozen requests for proposals in front of them. Bargaining power is shifting from businesses to suppliers, similarly for site managers and talent pools. In short, the relationship has fundamentally changed. Where is the most appropriate location? How do you make that decision?

‘Lift and shift’ is no longer enough. Business change needs to be much more holistic and transformational to match the scale and pace of the economic and societal change we now face.

Matthew Comte
Operations Transformation Leader, Principal, PwC US

What are CEOs saying?
Similar to the global response, the supply chain in Asia Pacific is a major driver (60% moderate to large extent) of industry profitability. The US is at 45% versus Indonesia (76%), Singapore (70%) and Japan (67%). Regional trade hubs (Singapore, Japan) and younger, high-growth potential economies (Indonesia) realise the supply chain’s impact on growth more acutely.

Source: PwC’s 26th Annual Global CEO Survey, 2023
Our PwC Global Risk Survey 2023 found that the majority of business leaders saw supply chain disruption as a business risk. But disruption is often a catalyst for necessary transformation. Embracing supply chain disruption is an opportunity to transform operations, explore new strategies, and emerge stronger, fostering adaptability and growth in the face of uncertainty.

Risk management leaders are more likely to view supply chain disruption as a risk, while both finance and operations leaders are more likely to view it as less of a risk but not quite an opportunity. US$5bn+ organisations are more likely to view all as opportunities, apart from ‘Transition to new energy sources’ and ‘Supply chain disruption’.

How can businesses differentiate?
Businesses need to offer more to scout sites and locations, attract and retain talent, and seek new suppliers. Offering simply to develop their capabilities in line with the rest of a company’s supplier portfolio is no longer enough.

Sites and locations
Securing new land from the growing competition requires a move that is a cut above the rest. Rather than just relocating a factory, a global manufacturer may consider creating a whole ecosystem for that geography to become synonymous with a specific type of industry. Think Penang, Malaysia for medical and electrical devices, and the central provinces of Thailand for the automotive industry.

Create an attractive proposition that will bring further investment, suppliers, new talent and adjacent industries that will enable the area to flourish in multiple ways. This may be particularly attractive to less mature markets, where the value in the uplift benefits not just the economy but its people and ESG aspirations.

Smart businesses will realise that due diligence on relocations needs to be far more involved than ever before. The race for sites, suppliers and talent has seen Vietnam approach the limit of its capacity as well as the US and Europe struggling to find ‘megasites’ due to reshoring, creating a boom in industrial real estate. Meanwhile, although Malaysia rates relatively high on skills and infrastructure (second to China), its labour force is relatively small.
Global supply chains: The race to rebalance

Indo-Pacific alternatives abound, but no single location can replace China*. That said, some companies may shift part of their operations or manufacturing elsewhere in Asia.

<table>
<thead>
<tr>
<th>Skills rank (1=best)</th>
<th>1</th>
<th>Malaysia</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>China</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indonesia</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thailand</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vietnam</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td></td>
<td>India</td>
<td>107</td>
</tr>
</tbody>
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Skills rank

<table>
<thead>
<tr>
<th>Infrastructure rank (1=best)</th>
<th>1</th>
<th>Malaysia</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>China</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td></td>
<td>India</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thailand</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indonesia</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vietnam</td>
<td>77</td>
</tr>
</tbody>
</table>

Infrastructure rank

<table>
<thead>
<tr>
<th>Size of labor force (thousands)</th>
<th>China 792,081</th>
<th>India 471,296</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indonesia 139,165</td>
<td>Malaysia 16,277</td>
</tr>
<tr>
<td></td>
<td>Mexico 57,298</td>
<td>Thailand 39,053</td>
</tr>
<tr>
<td></td>
<td>Vietnam 56,151</td>
<td></td>
</tr>
</tbody>
</table>


When seeking alternative locations, businesses will require trade-offs between workforce profiles, infrastructure capabilities and the regulatory environment. For example, Vietnam’s proximity to China for component imports, its development in electronics and textiles and a recent partnership signed with the US (that aims to extend commercial ties in aviation and semiconductor industries) will need to be weighed against skills scarcity, especially seen in top technical skills.

CEOs also need to consider (although they are not always directly responsible for) the availability of labour in the locations they are scoping (see figure 3 on page 7). This is proving to be a significant challenge for many companies and suppliers, particularly in locations which are attracting foreign direct investment due to attractive government incentives. These incentives often lead to an intense competition for talent as the influx of demand outweighs the availability of skills within the existing talent pools.
Attracting and retaining talent

Attracting and retaining talent is not a one-size-fits-all kind of model. This is about more than the size of the pay packet. It’s career progression, work/life balance, cultural sensitivities and brand messaging. Many workers post-COVID (especially those who are relied upon to send money home) have realised that they need their health first and foremost to earn anything at all. Where they work, how they work and what benefits are provided now rank highly. All of these need to be tailored to an employee value proposition that’s region and demographic specific.

Companies can benefit from thinking beyond their immediate talent requirements and work towards developing talent ecosystems, which attract talent in themselves. Partnering with local educational institutions and skills development agencies helps to strengthen generational and regional talent pools.

Building a workforce that can adapt to different ways of working, particularly through technology, is critical to supply chain resilience. Our Workforce Hopes and Fears 2023 survey included 19,500 Asia Pacific employees and shows that answers to the current skill shortage may be hiding in plain sight. Less than half (48%) of employees feel their employers provide them with opportunities to apply their skills effectively in the next five years. This could indicate that their individual skills are either not understood or not being used in the most effective way.

The technology skills shortage remains acute. It’s taking longer to fill key roles, some surveys show, and salaries for data roles in Association of Southeast Asian Nations (ASEAN) economies continue to rise even amid workforce reductions in the technology sector globally.

In the US, technology skills shortages put the projected growth of semiconductor manufacturing at risk. A recent industry report estimates that 67,000 jobs could go unfilled at current degree completion rates, or 58% of projected new jobs. Could upskilling your existing people be the answer?

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**Figure 3: Labour costs and availability are top concerns in supply chain relocations**

<table>
<thead>
<tr>
<th>Considerations when relocating supply chains</th>
<th>Average monthly wages (RMB) of China, Indonesia, Malaysia, Thailand and Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour costs and availability</td>
<td>China: 7,343&lt;br&gt;Malaysia: 5,241&lt;br&gt;Thailand: 2,847&lt;br&gt;Vietnam: 2,180&lt;br&gt;Indonesia: 1,291</td>
</tr>
<tr>
<td>Logistics including shipping costs and lead times</td>
<td>80%</td>
</tr>
<tr>
<td>Trade issues and tariff rates</td>
<td>41%</td>
</tr>
<tr>
<td>Geographic proximity</td>
<td>28%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>16%</td>
</tr>
<tr>
<td>Qualified and educated labour pool</td>
<td>13%</td>
</tr>
<tr>
<td>Intellectual property protections</td>
<td>13%</td>
</tr>
<tr>
<td>Pro business culture</td>
<td>10%</td>
</tr>
<tr>
<td>ESG</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: PwC China Analysis, 2023

Source: CEIC, the National Bureau of Statistics of China
Choose well, and look beyond government incentives

It may be tempting to move operations to a location where the government offers sizable subsidies and incentives. Governments worldwide vigorously promote them, putting extra pressure on the global race. The recent CHIPS and Science Act and Inflation Reduction Act in the US, India’s Production-Linked Incentive Scheme, and Japan’s manufacturing subsidy are examples. But is there an available talent pool and suppliers nearby? Does the ecosystem your business needs exist there? Further, have you identified where future growth will be? Once you have the answers, you can look for suppliers and manufacturing locations that not only make sense today but position your company for tomorrow.

Companies need to look beyond attractive government incentives and ensure that they have access to supplier and talent pools — these two are key to successfully rebalancing a global value chain.

David Wijerante
International Growth Leader
Partner, PwC Singapore

Winning over new suppliers

Value-adding differentiation might be extending deep-tier financing from a manufacturer to a supplier looking to expand in locations where access to capital is difficult or costly, creating joint ventures in new production capability. Another way might be to invest in local research and development (R&D). Close to half of Chinese executives surveyed by PwC China in 2021 planned to increase investment in ASEAN region and not only in manufacturing (29%) but in sales/purchasing offices (24%) and R&D centres (9%), indicating that investment plans for ASEAN are aimed at long-term operations and expansion.
Part 2:
How to use next generation technologies

With the complexity of external factors that can weigh on supply chain performance comes the need for better forecasting and faster adaptation. Technology can help. Using digitisation to make networks more transparent and more autonomous means the supply chain operates as a connected and self-orchestrating ecosystem.

Are footprints optimised for trade preferences? What about trade disputes? Climate risk? Increased risk from cyberwarfare and espionage? Much of the data businesses need to understand their exposure to these types of risks and respond to them, lies outside the enterprise. Relying simply on internal data to forecast demand, as many businesses still do, can leave companies vulnerable to sudden shifts. Take the example of the big retail chains late in the pandemic in the US that were left with mountains of unwanted stock as long-delayed orders of goods came in, only to discover that customer preferences had changed. Substantial losses were incurred.

Advanced technologies that absorb massive amounts of external and internal data to support or even make real-time decisions, are crucial to staying ahead. This is how they can help:

1. Improved efficiency and cost reduction
   Technology can automate manual tasks, streamline processes and optimise resource allocation, leading to significant cost savings and improved operational efficiency.

2. Enhanced resilience and risk mitigation
   Technology can provide real-time visibility into supply chain operations, enabling proactive risk identification, predictive analytics and rapid response to disruptions.

3. Increased transparency and traceability
   Technology can track the movement of goods and materials throughout the supply chain, providing end-to-end visibility and ensuring product authenticity and compliance.

4. Enhanced customer experience
   Technology can enable real-time order tracking, personalised recommendations and seamless customer interactions, improving customer satisfaction and loyalty.

5. Sustainability and ESG compliance
   Technology can optimise transportation routes, reduce waste and monitor environmental impact, supporting sustainability goals and ESG compliance.
Q: To what extent have the following technologies been adopted by and/or applied within your supply chain operations?
Q: What level of investment is planned for the following technologies over the next 24 months?
Source: PwC 2023 Digital Trends in Supply Chain Survey; base of 305

<table>
<thead>
<tr>
<th>Technology</th>
<th>Adoption</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud-based common data platform</td>
<td>33%</td>
<td>51%</td>
</tr>
<tr>
<td>Internet of Things (IoT) / Connected devices</td>
<td>33%</td>
<td>46%</td>
</tr>
<tr>
<td>Third party spend analytics tool</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Scan and intelligent data capture</td>
<td>37%</td>
<td>33%</td>
</tr>
<tr>
<td>Artificial intelligence / Machine learning</td>
<td>31%</td>
<td>26%</td>
</tr>
<tr>
<td>Blockchain</td>
<td>30%</td>
<td>23%</td>
</tr>
<tr>
<td>Radio Frequency Identification</td>
<td>32%</td>
<td>21%</td>
</tr>
<tr>
<td>Robotics / Robotic Process Automation</td>
<td>31%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Adoption: Limited adoption, Full adoption
Investment level: Less than US$1 million, US$1 million to < US$5 million, US$5 million or more

Our 2023 Digital Trends in Supply Chain Survey shows that artificial intelligence and machine learning will see the largest spending from the C-suite over the next two years, with 22% of executives saying their companies expect to invest at least US$5mn in these technologies.
Use of artificial intelligence

**Artificial intelligence (AI)**
Using sophisticated pattern recognition to proactively identify challenges (delays, quality, cost) and opportunities (sourcing/supplier selection, pricing, demand management) across procurement.

**Machine learning (ML)**
Using disparate, real-time data sources to inform both production and sourcing decisions that affect processing, waste and recovery particularly in energy, utility and resource businesses.

**Deep learning (DL)**
Predictive analytics can be used to combine internal and external factors as a key driver for forecasting, automation and use of IoT especially in the logistics component of the supply chain (e.g. Logistics 4.0).

**Generative AI (GenAI)**
Use of natural language inputs are maturing to the point where anybody in a business — not just supply chain professionals — can request reports on inventory levels, vendor performance and cost efficiencies with accurate and thorough analysis on-demand.

Cybersecurity and privacy considerations need to be prioritised from day one. Technology can even help with that. For example, adaptive controls are one of the more promising areas of using GenAI in cyber defence. Machine learning algorithms and GenAI tools could soon recommend, assess and draft security policies tailored to an organisation’s threat profile, technologies and business objectives.

**Accelerate innovation**
Innovation needs to be an ongoing process. Globally, PwC has invested nearly US$2bn across our network to grow and scale our AI capabilities, launched partnerships with multiple AI leaders from Microsoft to Harvey and rolled out AI tools across our lines of service. Despite the heartening response from the C-suite regarding an uptick in technology investment, it was less evident how this factors into long-term business strategies.

For instance, more than half of respondents (51%) said optimising costs was a top objective when investing in technology for their supply chains, but less than one-third (30%) cited exploring new innovations. Given the new global reality, we propose businesses fortify supply chains now through innovation — to bolster them for the difficulties and opportunities ahead.
Digital supply chain excellence pays off
Investing in advanced supply chain capabilities yields results through lower costs, increased revenues, improved sustainability, higher asset utilisation, better risk management and greater rates of on-time, in-full delivery to customers. PwC’s Global Risk Survey 2023 reveals a top performing 5% of organisations spread across all industry sectors — identified in the research as Risk Pioneers — are forging ahead in the pursuit of opportunity. Research suggests, Risk Pioneers are more likely to gather and analyse cybersecurity and IT (69%), supply chain and logistics (55%) and environmental and sustainability data (53%) (see figure 5).

Digitising your supply chain is critical to repositioning for growth. It reduces costs, as well as risks. Why wouldn’t you?

Wilson Chow
Global Technology, Media & Telecommunications Leader and AI Strategic Task Force Leader, Partner, PwC China

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Q: What types of data does your organisation gather and analyse for risk management and opportunity identification?
Source PwC’s Global Risk Survey 2023: base of 3910

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Figure 5: Data used for risk management and opportunity identification

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cybersecurity and IT data</td>
<td>61%</td>
</tr>
<tr>
<td>Internal operational data (e.g. Finance, Human Resources)</td>
<td>58%</td>
</tr>
<tr>
<td>External market data (e.g. competitor/industry knowledge)</td>
<td>51%</td>
</tr>
<tr>
<td>Regulatory and compliance data</td>
<td>50%</td>
</tr>
<tr>
<td>Supply chain and logistics data</td>
<td>46%</td>
</tr>
<tr>
<td>Environment and sustainability data</td>
<td>43%</td>
</tr>
<tr>
<td>Geopolitical and macroeconomic data</td>
<td>39%</td>
</tr>
<tr>
<td>Social media and online data</td>
<td>37%</td>
</tr>
</tbody>
</table>
This can help you run simulations of the downstream and upstream impacts of disruption and decide the best course of action accordingly.

Imagine responding to a supply chain threat in concert with all your suppliers, including tier 2 and tier 3: AI-enabled control towers allow you to do just that.

**Matt Labovich**  
Data Analytics and AI Leader, Principal, PwC US

The benefits of a digital twin flow all the way through to the customer. The transparency lets a customer understand, in real time, when a disruption is occurring. At the same time, autonomy enables elements of your ecosystem to adapt and respond, while the digital twin warns the customer of the outcome. Digital twins are a great way to rebuild trust after the turbulence of the last few years, and especially with fragmented, globally integrated supply chains.

**Source:** PwC's Connected and autonomous supply chain ecosystems 2025 survey of 1,601 companies, conducted between October 2019 and January 2020
Where once sustainability was considered a lofty aspiration for supply chains, changes in many consumer and governmental expectations now demand it. And where once a slap on the wrist was the penalty for poor ESG performance, now market access can be denied. The Withhold Release Orders (WROs) issued by the US are a case in point. They stop goods from entering the US if forced labour is suspected in their manufacturing or production. Businesses that invest in sustainability now see it as vital to not only staying in business, but to long-term viability.

The questions haven't changed. It's the potential legal ramifications for companies to know and show what's going on in their supply chain. Not that long ago, the penalty was a black eye in The Guardian or The New York Times. Now, it could be denial of market access. Products made with forced labour are prohibited from entering the United States.

Jeremy Prepscius
Asia Pacific Sustainability, Sustainable Supply Chains
Managing Director, PwC Hong Kong

Weigh ESG impacts in investment and sourcing decisions
Traditionally, the decision to move a supply chain has been about cost reduction. Now, businesses need to consider a broader range of reasons within an increasingly complex and dynamic ecosystem of issues. Customers, investors, business partners, policymakers, tax authorities and sustainability activists want more information on how a product gets put together and arrives at the door. It’s no longer acceptable to not know the answer.

Due diligence of new locations needs to be more thorough than ever before. Engage in strategic discussions on labour relations specifically early on.
Evaluate both the local conditions and your potential suppliers’ ability to operate within them. Be aware that labour dynamics differ from place to place. Working in a trade union environment in India will be very different from working with the Vietnam General Confederation of Labour and different again in Indonesia, so supplier competency in managing labour access and relations is vital. Consider, too, the conditions of your chosen site. From geography to community dynamics and climate, all factors must be considered in your assessment. In short, recognise that the new location is not a blank canvas. It sits within a complex ecosystem that affects its suitability to a business, influenced by government policies, labour unions, access to labour, infrastructure, pricing, subsidies, availability of renewable energy and trade barriers. They all matter.

The biggest ESG challenges within industries’ supply chains are the various standards without a guideline (56%), the difficulty of coordinating with suppliers (40%) and the lack of relevant experts (38%) (see figure 7).

If you’re not understanding the combined impacts of environmental, societal, economic, political pressures and so on … on your supply chain, then are you playing chess or are you playing checkers?

Craig Stronberg
Intelligence, Director, PwC US

What are CEOs saying?
The impact of climate on supply chain decision-making is underestimated outside of Asia Pacific. Large countries in Asia Pacific are more proactive. 20% of Asia Pacific CEOs believe to a large or very large extent that climate risk will impact supply chains (versus 16% globally), China is at 37% and Indonesia is at 24%.

Source: PwC’s 26th Annual Global CEO Survey, 2023
Look at regulation and the direction it’s heading

Businesses face a growing regulatory environment on ESG issues. In 2022/23 alone, at least eight economies introduced laws or initiatives around only the ‘social’ aspect, specifically modern slavery and human rights.

The volume of shipments stopped for forced labour enforcement by the US this year so far has reached over 4,000. There are currently 51 WROs in place against entities in economies including Malaysia, India, China, Japan and Mexico.

The European Union (EU), too, is making progress towards its Corporate Sustainability Due Diligence Directive (CSRD). Legislation is due to come into effect between 2024 and 2028. It will be mandatory for a significant number of European and non-European businesses to provide detailed information on their ESG performance. It’s also the first to include the circular economy as a reporting category. Considering Asia Pacific’s vital role as a major supplier of goods to Europe, business leaders in the Asia Pacific region should determine if they’re required to report under the new CSRD. If so, preparations need to start now. Neglecting to act will increase the risk of penalties such as financial sanctions, exclusion from investor portfolios and reputational harm. It could also impact the ability to trade with the EU.

From a regulatory perspective, circularity looks unstoppable. Worldwide, over 50 national roadmaps and strategies have been launched and a further 520 circular economy-related policies on issues such as plastic taxes, bans and extended producer responsibility schemes. At the national level, Japan, China, Vietnam and Indonesia all have national circular economy policies/strategies, while neighbouring nations in the region have sector or product-specific resource-efficiency circular policies with more thorough regulations on the way.

The EU’s Carbon Border Adjustment Mechanism, a carbon tariff on carbon-intensive products, will bring additional import charges for some businesses. It takes effect in 2026, but reporting requirements start as early as this year. It is our experience that few exporters in Asia Pacific are ready for what is to come. To avoid an inevitable scramble towards the end of the year, now is a good time to act. There is no magic shortcut to managing new international supply chain rules.

Consider, too, that the concept of what constitutes a supply chain is evolving. There’s a growing importance of addressing Scope 3 emissions in supply chains, recognising that these emissions often represent a significant portion of a company’s overall carbon footprint. Scope 3 refers to indirect greenhouse gas emissions outside a company’s direct operations but are still associated with its value chain activities. These emissions typically arise from upstream activities such as the extraction and production of raw materials, transportation of goods and waste disposal as well as downstream activities such as the use of sold products and end-of-life disposal. This may surprise some business leaders, especially those not used to tracking emissions, as they can be difficult to monitor and quantify without the right technology and systems in place.

For some, 65-95% of your organisation’s carbon footprint may be Scope 3 emissions. Work with your suppliers for faster and more inclusive improvement.

Amy Cai
Sustainability Managing Partner, PwC China
The increased focus on ‘S’ in ESG

Businesses are increasingly expected to understand, report on and take steps to prevent actual and potential human rights impacts and modern slavery violations in their global supply chains. This is partly due to changing regulatory environments. It’s also a reaction to shifting customer and other stakeholder expectations and the rapid integration of human rights due diligence into ratings, reporting and shareholder engagements. The message — increasingly loud and clear — is this: Businesses must invest now to identify and manage human rights risks in their operations and supply chains so that they’re able to address them, avoid doing harm to people and protect their reputation and right to operate.

Supply chains in the Asia Pacific have particular vulnerabilities. This is because the region accounts for 43% of the global general manufactured goods market, while 80% of employment in the Asia Pacific is in low-to-medium skilled work. There’s also a significant rebound in new migrant workers in Asia from 2.2 million in 2021 to 4.6 million in 2022, according to the Asian Development Bank Institute, the Organisation for Economic Cooperation and Development and the International Labour Organization.

Migrant labour, particularly transnational migration, when combined with low-skilled jobs is a high-risk factor for human rights issues, including bonded and forced labour. Then consider that climate impacts and adaptation risks (already being felt and set to increase significantly in certain key export locations) also have implications for workers, employers and multinational supply chains.

What can Asia Pacific business leaders do? Analyse the risk of modern slavery and human rights violations across the multiple tiers of your supply chains. If you source finished goods from relatively low-risk countries, don’t stop there. Look for modern slavery risks deeper in your supply chain. Focusing on key risk areas across your supply chain, from raw materials through to finished goods, helps to manage risks in operations, supply chains and relationships systematically. Look too for human resources gaps in your systems and processes, and then educate and train all stakeholders, including directors, customers, employees, suppliers and investors.

The aim is to strengthen supply chain partners and create resilient supply chains. This, in turn, decreases risk, increases innovation, allows for tax and regulatory optimisation and enhances reputation.

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**Figure 8: United Nations Guiding Principles on Business and Human Rights**

Due diligence: Defines the parameters

1. **Integrate** Principle 19
   - **Step 1:** Identify and assess the actual and potential adverse human rights impacts connected to the business

2. **Track** Principle 20
   - **Step 2:** Embed human right policy commitment into all relevant business functions

3. **Communicate** Principle 21
   - **Step 3:** Track the commitments to confirm the policies are implemented across the business

4. **Assess** Principle 18
   - **Step 4:** Know and show policies and processes confirm businesses respect human rights in practice

Sustainability is now a driver of value, not a cost
Embedding ESG principles into your business is more than a compliance exercise. It helps enable long-term viability in a changing world.

Strong ESG performance is increasingly viewed favourably by stakeholders, including customers, investors and employees. This can lead to increased brand loyalty, stronger investor confidence and improved employee morale. It can help you tap into emerging markets and attract customers who prioritise environmentally conscious products and services, opening new revenue streams and strengthening market positioning.

The evidence is clear in capital markets, which also creates positive externalities. Asia Pacific has the fastest percentage growth in ESG Assets-under-Management forecasted to triple from today to US$3.3tn in 2026. Moreover, most institutional investors surveyed by PwC (60%) reported that ESG investing has already resulted in higher performance yields, compared to non-ESG equivalents.

Investors surveyed also told us they’re willing to pay for ESG performance — three-quarters (78%) saying they would pay higher fees for ESG funds.

You can mitigate potential risks associated with environmental damage, social unrest and governance failures. This can lead to lower costs, improved operational resilience and reduced regulatory scrutiny.

It can also lead to innovation and improved resource efficiency, bringing cost savings, enhanced productivity and a competitive advantage.

By engaging collaboratively with suppliers through guidance and education, training and capacity-building or even incentives, businesses can improve the quality and accuracy of their ESG disclosures, drive positive change throughout their supply chains and contribute to a more sustainable future.
It’s time to shift from reconfiguring for resilience to rebalancing for growth. Continuing global turbulence has only exacerbated the supply chain crises of the COVID years, creating a race for new suppliers, locations and talent and highlighting the pressing need for more wholesale strategic transformation. Despite these challenges, Asia Pacific is still primed for growth. Businesses that differentiate themselves to win this race, while using advanced technologies and ESG to their advantage, will see future success secured.

We recommend six practical steps that businesses can take to rebalance for growth:

1. **Elevate supply chain importance to the C-Suite** (if not the CEO). Supply chain management has traditionally fallen under the purview of procurement. In this transformed landscape, CEOs and the wider C-suite must take the reins to understand and manage the risks and opportunities appropriately. The supply chain is no longer an operational concern. It’s a strategic asset that holds the key to success in turbulent times.

2. **Differentiate your value proposition** to win over potential new suppliers, sites and talent pools. Competition for suitable sites, suppliers and talent is intensifying as more global businesses look to Asia and elsewhere for sourcing and production. Differentiating your value proposition to them through the range of measures we’ve identified will better position you for success.

3. **Look beyond government incentives** to enable you to have access to suppliers and talent while identifying where future growth will be. Incentives are not the golden ticket they seem to be. Discerning businesses will look beyond the easy-win and dig deeper with due diligence. Is there an available talent pool and suppliers nearby? Does the ecosystem your business needs exist there? Is this where your future growth will be? Set yourself up for success tomorrow, not just today.

4. **Invest in technology**, including digitising your entire supply chain ecosystem, to align with your overall business strategy for long-term growth and competitive advantage. Leading companies invest more in advanced digital supply chain capabilities and get higher returns. Transforming your linear supply chain into one digital ecosystem is the gold standard. By giving you unprecedented visibility, it enables you to reduce risk while strengthening supply chain relationships and improving revenue.

5. **Make ESG a value driver for growth** by embedding it into your overall supply chain strategy. Embedding ESG principles into your business is no longer just a compliance exercise. It’s a driver of value, opening new revenue streams and strengthening market positioning. Customers, investors, business partners, policymakers, tax authorities and sustainability activists continue to press for change on ESG matters, making inaction incompatible with long-term viability.

6. **Proactively partner with suppliers**. Partnering with suppliers boosts innovation, reduces risk through strategic diversification and enables inclusive growth. Collaboration on ESG matters, in particular, will not only improve the quality of your sustainability reporting, but drive positive change throughout the supply chain ecosystem.
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