



Asia-Pacific  
Economic Cooperation

Advancing Free Trade  
for Asia-Pacific Prosperity

# RESEARCH OUTCOMES 2024

SUMMARY OF RESEARCH PROJECTS

Policy Support Unit

**Asia-Pacific Economic Cooperation (APEC)** was established in 1989. The 21 Member Economies are Australia; Brunei Darussalam; Canada; Chile; China; Hong Kong, China; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; the Philippines; Russia; Singapore; Chinese Taipei; Thailand; the United States; and Viet Nam.

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# Economic Driver 1: Trade and Investment

## Trade and Services

### A New Look at the Free Trade Area of the Asia-Pacific (FTAAP): Review of APEC's Collective Progress

Link: [https://www.apec.org/publications/2024/05/a-new-look-at-the-free-trade-area-of-the-asia-pacific-\(ftaap\)-review-of-apec-s-collective-progress](https://www.apec.org/publications/2024/05/a-new-look-at-the-free-trade-area-of-the-asia-pacific-(ftaap)-review-of-apec-s-collective-progress)

The Free Trade Area of the Asia-Pacific (FTAAP) is a concept initially proposed by the APEC Business Advisory Council (ABAC) in 2004. Two years later, APEC Economic Leaders acknowledged that it merits serious consideration as a long-term prospect. Since then, APEC has been actively initiating and implementing various initiatives meant to advance the FTAAP agenda. This report reviews APEC economies' collective progress moving forward the FTAAP agenda consistent with APEC Economic Leaders' and Ministers' instructions.

## Findings & Recommendations

In the view of the APEC Policy Support Unit (PSU), APEC economies have continuously undertaken various initiatives that have gradually advanced the FTAAP agenda. Throughout the years, the Committee on Trade and Investment (CTI), with the support of its sub-fora and other relevant APEC fora (e.g., the CTI–Economic Committee FTAAP Policy Dialogue on Competition-Related Provisions), has led the successful culmination of activities channelled through the Capacity-Building Needs Initiative (CBNI), the exploration of next generation trade and investment issues (NGeTIs), and the Information Sharing Mechanism on RTAs/FTAs. The achievements gained from these channels complemented the work that APEC economies did under the various work programs and potential work programs related to the FTAAP. APEC has also consistently received the strong support of both ABAC and the Pacific Economic Cooperation Council (PECC).

Despite these progressions, APEC economies could continue to push forward the FTAAP agenda by identifying and addressing existing gaps:



Strengthen financial support of CBNI activities



Encourage more collaborative activities



Consider practical approaches to progress the FTAAP agenda

- Strengthen APEC's financial support of CBNI activities, especially those that address less attended RTA/FTA areas. Under the CBNI's first to third phases, APEC has generously funded 70% of the cumulative total project value of all CBNI activities. However, this review found that some RTA/FTA topics, including emerging issues, have either been neglected or given relatively less support. APEC economies can strengthen financial support to these areas by utilising funding sources such as the FTAAP and Global Value Chains fund or by encouraging projects for these less attended RTA/FTA areas under the fourth phase of CBNI.
- Encourage more activities that collaborate with not only other APEC fora and sub-fora but also external partner institutions. APEC economies have undertaken several initiatives that support the FTAAP agenda. Some of these initiatives involved collaboration with internal members (e.g., Group on Services and Sub-Committee on Standards and Conformance) and with external partner institutions (e.g., ABAC, PECC, the OECD). APEC can benefit from encouraging similar engagements and involving more external partners, especially to explore relevant topics that APEC has less experience and/or expertise.
- Consider practical approaches to progress the FTAAP agenda. As advised by ABAC, APEC economies can consider adopting a range of shorter-term FTAAP elements and other tailored support on emerging issues. Accomplishing this may require APEC to consciously adopt more flexibility and inclusivity in FTAAP-related projects and initiatives, such as by engaging civil society and non-government organisations. APEC economies can also explore creative yet practical approaches, such as utilising digital technologies to increase the frequency and scope of multistakeholder engagements.

Another practical approach that economies can consider is to leverage the usefulness of devices already in use by APEC, such as the CTI pathfinder initiatives and mutual recognition agreements. Economies can also take initiatives that adopt a flexible approach from the onset. Such an approach benefits from not only acknowledging the importance of capacity building and technical assistance but also the flexibility of deciding which topics participants can get involved with. These practical approaches can help APEC economies move forward the FTAAP agenda.



## 2024 Update to Monitoring Pandemic Recovery Under the APEC Services Competitiveness Roadmap (ASCR)

Link: [https://www.apec.org/publications/2024/10/2024-update-to-monitoring-pandemic-recovery-under-the-apec-services-competitiveness-roadmap-\(ascr\)](https://www.apec.org/publications/2024/10/2024-update-to-monitoring-pandemic-recovery-under-the-apec-services-competitiveness-roadmap-(ascr))

This second report builds on the first report from 2023, providing an updated assessment of developments in the recovery of services trade, particularly in the travel, transport (including logistics-related services) and other business services sectors, as part of the APEC Services Competitiveness Roadmap (ASCR) reporting process.

### Findings

- APEC is seeing a resurgence in commercial services trade. Annual data shows that after the region's full recovery in 2022, APEC trade in commercial services continued growing to USD 5.4 trillion in 2023, 7.6% higher than the year before. The gap between the actual and the projected values of APEC commercial services trade also continued to narrow in 2023 — shrinking from USD 1.2 trillion in 2020 to USD 0.2 trillion in 2023. APEC is likely to have fully recovered too in terms of commercial presence (mode 3), as suggested by global estimates that pointed out that the services sector attracted USD 679 billion in 2022, surpassing the two-decade peak of USD 646 billion in 2008.
- Collective progress notwithstanding, APEC needs to ensure that no economy is left behind. Despite the collective resurgence of commercial services trade, recovery continues to be uneven across economies. While most APEC members have already fully recovered both in commercial services and in transport services trade, a few remain only partially recovered. Concerningly, although the travel sector is recovering, 15 economies are still below their pre-pandemic level in 2023. Even in the other business services sector where APEC generally thrived amid the pandemic, two economies had a relatively challenging experience as evidenced by their continued non-recovery from the pandemic.
- APEC trade in travel services remains partially recovered but a full recovery may happen soon. Despite jumping to USD 1.1 trillion in 2023, trade in travel services remain lower than the pre-pandemic level. Notwithstanding, the trend suggests that a full recovery may happen in 2024. Similar insights could be distilled from both international tourist arrivals and tourism receipts data. The sector's continued recovery could have been contributed by the continued rollback of COVID-19 border requirements, which all APEC economies have removed as of the beginning of 2024.
- APEC trade in transport services has continued to grow since its full recovery in 2021, but a vulnerable (and even worsening) regulatory environment risks a potential slowdown for growth. While the sector's 2023 trade value of USD 1.1 trillion is slightly lower than the year prior (likely due to shipping rates' normalisation), it remains sufficiently high to indicate the sector's full recovery from the pandemic. Yet, the APEC Index scores indicate that collective efforts by economies to bring down the level of restrictions in the logistics customs brokerage sub-sector have not moved the needle sufficiently to bring it back to the 2019 pre-pandemic level, which is less restrictive. Moreover, five sub-sectors (i.e., air transport, maritime transport, courier, rail freight transport, and logistics cargo-handling) became more restrictive in 2023 relative to 2022. Notably, the courier sub-sector became even more restrictive than during the pandemic. These developments alongside other headwinds could potentially slow down trade growth in the transport sector.
- APEC trade in other business services did not experience a fall during the pandemic and has continued to scale greater heights, expanding further to USD 0.41 trillion in 2023H1. Although economies have made commendable efforts in tackling restrictions in sub-sectors such as accounting, engineering and legal services (their 2023 average scores are lower than their 2022 scores), they were not sufficient to move them to the 2019 pre-pandemic level, which is less restrictive and could impact the sector from achieving its potentials in terms of trade value.
- Government policies remain a critical factor that could affect services trade recovery. Analysis of measures listed in the latest review period indicated in the WTO's compilation for the Trade Policy Review Body (i.e., mid-October 2022 to mid-October 2023) revealed policies that could have contributed to the region's continued recovery, including raising thresholds above which government approval would be needed and facilitating short-term activities in certain sectors by not requiring an application for visas or permits. However, it also pointed to policies that could impede services trade from reaching greater heights, such as requiring filings as pre-conditions for cross-border data transfers.
- Concerningly, APEC's regulatory environment for services trade remains more restrictive than its pre-pandemic level — accompanied by a worrisome trend of increasing restrictions for digital services trade. The 2023 average APEC Index score showed continued improvements in the regulatory environment affecting services trade, but it also indicated a level of restrictions that is still above the 2019 pre-pandemic situation. Meanwhile, despite the increasing role of digitalisation in services trade, the digital STRI score describes an APEC region that is becoming more restrictive with regards to digital services trade.



# Economic Driver 1: Trade and Investment

- Given the influence of policies, APEC should be vigilant to prevent backtracking of progress made. The regulatory environment has worsened for the courier sub-sector, making it more restrictive than the pandemic level. As for air transport, maritime transport, rail freight transport, and logistics cargo-handling, their 2023 conditions show a more restrictive environment compared to 2022.

## Recommendations

Policy approaches to help achieve meaningful recovery:



Redouble efforts in tackling restrictions



Focus on specific policy categories but be mindful of holistic approaches



Press on with efforts to improve the state of services data and statistics



Leverage the ASCR APEC-wide actions

- APEC should redouble efforts in tackling trade restrictions. Across all sub-sectors where the APEC Index score is available, trade liberalisations have generally slowed down in 2023 relative to 2022. Moreover, trade liberalisations observed between 2022 and 2023 (and between 2021 and 2022 in many sub-sectors) were mostly contributed by the rollback of COVID-19 measures. Setting aside the COVID-19 trade liberalisations revealed that economies collectively introduced more non-COVID-19 trade restrictions relative to trade liberalisations between 2022 and 2023. It is critical that economies tackle restrictions affecting services trade over and beyond rolling back COVID-19 measures.
- APEC may wish to focus on specific policy categories, but policymakers should also be mindful of the importance of holistic approaches in overcoming restrictions. The contribution of restrictions on foreign entry (as a policy category) to the overall 2023 score has increased relative to the 2022 score across all sub-sectors where the APEC Index is available, some by more than one percentage point. At the same time, noting the interlinkages between measures and the fact that different agencies could be overseeing the implementation of these measures, it is important that economies do not lose sight of the value of a holistic approach to overcoming their negative impact on services trade.
- APEC needs to press on with efforts to improve the state of services data and statistics in the region, progress notwithstanding. The

APEC Index has been expanded to cover 18 economies, up from 15 in the first pandemic recovery report. Yet, economies need to continue to expand the coverage of this index, both in terms of economy and sectoral coverage. Analyses of various data as inputs to this report also shows that more needs to be done to improve the state of services data and statistics in the region.

- APEC could leverage the ASCR to make meaningful recovery in these sectors of interest. The ASCR underscores APEC's commitment to facilitate services trade and investment and to enhance the competitiveness of the services sector in the region. A broad range of APEC-wide actions, both cross-cutting and sectoral, have been identified in the roadmap to motivate economies to work closely at a regional level. If followed through, these actions could go a long way in facilitating the much-needed recovery of the travel sector and bring transport (including logistics-related services) and other business services sectors to greater heights.

## Win, Lose or Draw: Estimating the Impact of Trade Disengagement on APEC Trade

Link: <https://www.apec.org/publications/2024/05/win--lose-or-draw--estimating-the-impact-of-trade-disengagement-on-apec-trade>

Over the past three decades, globalisation and multilateralism have significantly benefited the APEC region. However, there are loud calls for economic and trade disengagement, advocating a return to fragmented economic blocs last seen in the 1980s. This policy brief endeavours to elucidate what would happen — who wins, and who loses? — if fragmentation were to occur.

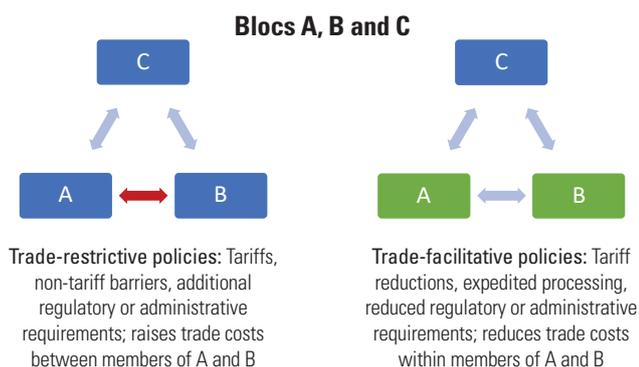
## Findings

Globalisation and multilateralism have brought profound benefits to the APEC region over the past three decades. Macroeconomic data show that they have been a net positive for participating economies. However, despite their benefits, there are loud calls for economic and trade disengagement, to retreat back to a fragmented world of exclusive economic blocs last seen in the 1980s.

Trade disengagement and geoeconomic fragmentation involve the increasing adoption of targeted economic and trade policies and the division of the global economy into blocs driven by geopolitical preferences. Certain economies may choose to disengage economically from some partners while facilitating ties with others. This is antithetical to the principles of globalisation and to multilateralism, which seeks to treat all trade partners the same. While this is an evolving situation, the effects are starting to be seen and measured.

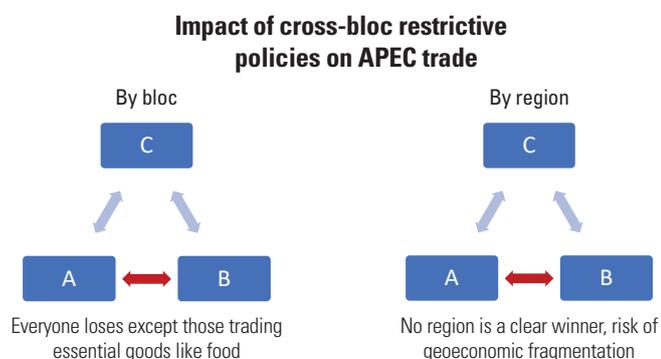


What are the consequences of outright fragmentation? Who stands to win or lose in a regional economy characterised by exclusive economic blocs? Using data spanning over three decades, the PSU estimates the impacts of trade disengagement policies on APEC trade flows. Specifically, we categorise economies into three blocs – A, B and C – and consider the scenario where blocs A and B impose trade-restrictive policies against each other. We also consider the alternative where blocs A and B implement trade-facilitating policies for their respective members. Bloc C remains neutral in all situations.

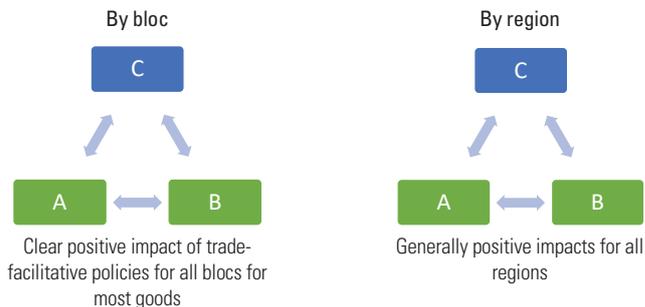


The findings show that, generally, cross-bloc trade restrictions negatively impact APEC trade for all blocs and almost all sectors, the exceptions being in the food and digital sectors. Even member economies that stay neutral suffer losses in terms of trade, indicating potential unintended repercussions of targeted restrictive policies. An analysis by geographical region shows adverse effects across APEC, with varying degrees of impact, highlighting the pervasive nature of the negative impacts on trade.

Conversely, intra-bloc facilitative policies benefit trade for all blocs, including member economies belonging to the neutral bloc, benefiting most goods. The analysis by geographical region confirms overall positive trade trends across APEC.



### Impact of intra-bloc facilitative policies on APEC trade



### Recommendations

Economies need to avoid policies and actions that contribute to trade disengagement and geoeconomic fragmentation. Theoretically and empirically, globalisation and multilateralism have been associated with a win-win situation. It logically follows that their antithesis, that is, trade disengagement and fragmentation, will be a lose-lose proposition. This is what economic theory tells us, and this is what the counterfactual analysis in this policy brief confirms at the macroeconomic level.

Economies therefore need to rebuild trust in each other as trading partners. This involves adhering to trade and economic policy commitments that are in line with free trade and economic integration. Policies that promote the formation of exclusive blocs are shown to generally result in subpar outcomes relative to open multilateralism. This also involves avoiding actions that undermine trust in trading partners, including protectionism or actions that inject policy uncertainty into an already volatile market.

There is a need to strengthen international institutions of regional cooperation and integration. These include formal bodies like the WTO as well as informal fora like APEC. Amid geopolitical tensions and market volatilities, economies could find it attractive to revert to protectionism or to limit economic activity to a smaller set of economies. In this regard, multilateral institutions could play an important role in providing an avenue where economies can discuss, debate and achieve consensus on supporting economic cooperation rather than resorting to unilateral actions.

Geoeconomic fragmentation is an ongoing process, which means it is not a done deal. Economies still have the space to affirm their consensus for regional cooperation and reverse this trend. Walking back from trade disengagement is especially incumbent for the APEC region, which has open multilateralism and economic integration at its core.

# Economic Driver 1: Trade and Investment

## Connectivity, Supply Chain and Value Chain

### APEC Supply Chain Connectivity Framework Action Plan 2022–2026 (SCFAP III): Mid-term Review

Link: [https://www.apec.org/publications/2024/11/apec-supply-chain-connectivity-framework-action-plan-2022-2026-\(scfap-iii\)--mid-term-review](https://www.apec.org/publications/2024/11/apec-supply-chain-connectivity-framework-action-plan-2022-2026-(scfap-iii)--mid-term-review)

This report presents the mid-term review of the APEC Supply Chain Connectivity Framework Action Plan 2022–2026 (SCFAP III), assessing the progress made by APEC economies in addressing the five SCFAP III chokepoints.

### Findings & Recommendations

To assess progress, this review draws on quantitative indicators and descriptions of policies implemented by APEC economies to address the five chokepoints. The chokepoints are:



1. Inefficient digitalisation of end-to-end supply chains, including border procedures and trade documentation exchanges



2. Inadequate infrastructure development to support robust multi-modal connectivity and logistics networks



3. Insufficient cooperation on data flows and cross-border payments to support increasingly digitalised supply chains



4. Lack of understanding on green supply chain management practices and increasing pressure for supply chains to be sustainable



5. Lack of targeted support to facilitate MSMEs' access and integration into global supply chains

The review uses 43 of the 69 quantitative indicators identified in a 2023 report, subject to data availability, to assess progress by comparing aggregate values for APEC economies with several benchmark groups, including ASEAN, the European Union (EU) and the OECD. The key findings from the assessed quantitative indicators are:

- **Chokepoint 1.** Progress has been made on paperless trade facilitation, but improvement is needed in electronic sanitary and phytosanitary (SPS) certificates and sea cargo manifests.
- **Chokepoint 2.** Resilience is demonstrated through advancements in ICT infrastructure, port capacity and connectivity.
- **Chokepoint 3.** Progress has been made on paperless payments, exchange of trade-related data, and certification recognition, though legal framework gaps persist.

- **Chokepoint 4.** Mixed results are seen, with increased sustainability reporting and renewable energy use, but setbacks in reducing greenhouse gas emissions.
- **Chokepoint 5.** Weak progress on facilitating MSME trade, with declines in Single Window access and trade facilitation committee representation.

The quantitative analysis is supplemented by an overview of policies implemented by APEC economies to address chokepoints affecting supply chain connectivity. Based on 64 submissions from nine economies, the following best practices have been identified across the five chokepoints, highlighting initiatives that address supply chain bottlenecks:

- **Chokepoint 1.** Enhancing digitalisation by fostering interoperability, upgrading systems, reducing barriers, promoting innovation and leveraging emerging technologies.
- **Chokepoint 2.** Improving infrastructure development through digitalisation of ports and logistics, adoption of new technology and boosting regulatory efficiency.
- **Chokepoint 3.** Facilitating data flows and cross-border payments by establishing international standards, enhancing digital trade provisions and fostering a conducive FinTech environment.
- **Chokepoint 4.** Promoting sustainable supply chains through green management practices, the bio-circular-green (BCG) model and empowering MSMEs in eco-friendly initiatives.
- **Chokepoint 5.** Supporting the integration of MSMEs into global supply chains through digitalisation, capacity building and inclusive participation in Authorised Economic Operator programs.

### Helping Businesses Build and Maintain Open, Secure and Resilient Supply Chains

Link: <https://www.apec.org/publications/2024/01/helping-businesses-build-and-maintain-open-secure-and-resilient-supply-chains>

The report provides an independent analysis of vulnerabilities in global supply chains, the impacts of recent disruptions on firms and economies, and the strategies being considered to make supply chains more resilient. It also offers recommendations to promote resilient supply chains across the Asia-Pacific region.

### Findings & Recommendations

The study involves reviewing literature, surveying over 700 firms across APEC in five traded goods sectors (consumer goods and retail, food and beverage, extractives and mineral processing, transportation, and resource transformation/manufacturing), conducting case study



interviews, and leveraging on supply chain expertise. The key findings are outlined below.

Impacts of recent disruption. The COVID-19 pandemic has put an unprecedented spotlight on global supply chains. The fallout from lockdowns and restricted economic activity sent shockwaves across the global economy, the impact of which is still being felt in the form of price inflation and shortages of goods like semiconductors and minerals. With one in twenty companies suffering a supply chain disruption costing at least USD 100 million every year, the importance of supply chain stability and resilience cannot be underestimated.

Responding to the disruption. Many stakeholders indicated that their broad response to the disruption caused by COVID-19 involved three phases:

- First phase. An initial knee-jerk reaction to supply chain breakdown that involved building buffers into their supply chain in the form of inventory stockpiling, obtaining extensions from their customers and vendors, and negotiating flexibility into contracts. However, these reactionary initiatives did not resolve the issue or address vulnerabilities in the supply chain.
- Second phase. This involved looking at innovative solutions to shipping issues such as sourcing space on containers or other transport modes not subject to constrictions. With shipping costs up four to five times what they were pre-pandemic, firms were price takers with no countervailing buyer power. Firms also started to look at procuring more reliable suppliers. In this phase, firms began to understand the complexities of their supply chain and how a lack of visibility posed such a threat to it. Firms started to think about digitisation, scenario planning, the need for real-time data and how to achieve visibility.
- Third phase. This involved more medium- to long-term thinking about supply chains in terms of undertaking a thorough risk assessment of the supply chain, mitigation strategies, and considerations around nearshoring and onshoring. Other considerations included sustainability of the supply chain and compliance with evolving regulations.

Supply chain disruption has not ended, and businesses recognise that resilience will be key to weathering the inevitable future disruption. Businesses have to consider the trade-off between resiliency and efficiency; the disruption has challenged the consensus on lean supply chains and just-in-time inventory, laying the ground for a debate on the merits of nearshoring and raising fears of a return to protectionist trade practices.

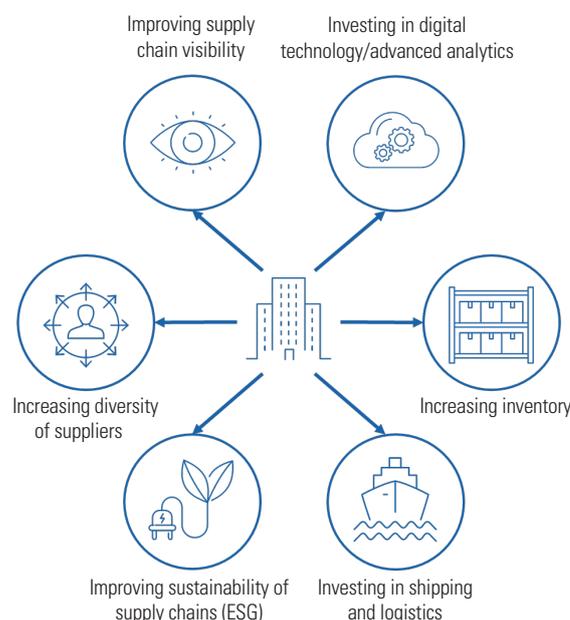
Beyond issues around supplier reliability, shipping and tariffs, businesses now have to align their supply chain with commitments to environmental sustainability and ensure compliance with international labour standards. This further emphasises the need to achieve greater visibility of the supply chain in order to fulfil due diligence obligations. It also underlines the potential need for considerable investment in technology and network localisation tactics.

Key supply chain risks and their impacts. Respondents to the survey identified the risks to their supply chain as encompassing global factors such as freight costs and shipping issues, economic slowdown, natural disasters and trade disputes, in addition to firm-level risks such as insufficient diversification of suppliers, heavy reliance on offshoring, and inability of suppliers to respond to technological changes.

The impacts of supply chain disruption have been well documented. Most respondents to the survey indicated that supply chain disruption cost them between 11% and 20% of their annual revenue.

In the case study interviews conducted, some of the broad themes around supply chain vulnerabilities included shipping and logistics issues, inability of suppliers to respond to technological change, lack of supply chain visibility, and insufficient diversification of suppliers and a reliance on offshoring pre COVID-19.

Supply chain resilience strategies. More than 85% of survey respondents indicated their intention to revise their supply chain strategy to make it more resilient, and 51% estimated that it would cost up to 30% over current spending to achieve resilience. In general, survey respondents viewed the following strategies as likely the most effective means of achieving resilience:



# Economic Driver 1: Trade and Investment

Across the survey and interviews, most stakeholders agreed that there was a need to procure multiple sources of raw materials inputs, and to increase inventories on hand — from just-in-time to just-in-case inventory. There has also been a shift from planning and forecasting to scenario modelling, which produces a range of possible supply chain outcomes/impacts depending on the likelihood of certain risks materialising.

Resilience toolkit. Future supply chains will have to be visible, agile and sustainable if they are to function in an increasingly uncertain global environment. Firms are the key actors in driving this change from the previous era of efficient and lean supply chains. Government also has a role to play in influencing the production decisions of businesses and taking the lead in areas of domestic significance, for example, stockpiling key resources when necessary. The key themes in the toolkits are as follows:

## At the firm level

- Preparing for risk
- Raising supply chain flexibility
- Reviewing product design and production
- Enhancing digitalisation of the supply chain
- Raising social and environmental sustainability in supply chains

## At the government and economy-wide level

- Supporting continuity of supply and economic growth
- Maintaining price stability
- Preserving trade that supports supply chain resilience
- Enhancing digitalisation of supply chains
- Maintaining a conducive business environment
- Supporting investment and technological innovation
- Supporting greater social and environmental sustainability across supply chains

Key areas for APEC going forward. Survey respondents asked the following of government to support supply chain resilience:

- Keeping trade policy transparent and accessible
- Promoting policies aimed at strengthening domestic supply chain capabilities
- Reducing tariffs and non-tariff barriers
- Reducing customs administration
- Promoting trade harmonisation and regulatory coherence

To increase resilience, APEC members should support change within their economies and across the Asia-Pacific region. This starts with raising awareness of the need for supply chain resilience. APEC members should

look beyond current vulnerabilities and challenges and concentrate on those that will probably arise in the future. Key to resiliency will be encouraging regional collaboration and discouraging economies acting unilaterally.

Success will most likely involve a mix of measures, including the following, each of which aligns with the three pillars of APEC's agenda and the APEC Putrajaya Vision 2040:

- Risk scanning and monitoring. APEC should monitor and share information about risks, vulnerabilities and likely resiliency of APEC economies and their critical supply chains. This could assist in identifying early warning indicators for economies and possibly for key industries/sectors.
- Trade facilitation. Reducing trade friction and bureaucracy at the border. This would build on progress already made by APEC economies to implement a Single Window system for the processing of trade documents, enhancing common digital infrastructure to improve the ability of private operators to exchange information with border agencies.
- Shipping and logistics focus. Detailed review of vulnerabilities and emerging issues in shipping, transport infrastructure and logistics within APEC economies, and promotion of measures to resolve issues therein.
- Digitisation agenda. Continued efforts in promoting digitisation in trade and industry, with a much heavier focus on supply chains. This should involve detailed studies on sectors that have pioneered the digitisation of supply chains.
- Sustainability of supply chains. Continued encouragement of green growth through heightened transparency and accountability for environmental performance throughout supply chains.

## Unlocking the Upstreamness Benefits in Global Value Chains

Link: <https://www.apec.org/publications/2024/11/unlocking-the-upstreamness-benefits-in-global-value-chains>

This policy brief examines the concept of upstreamness, analyses the industrial positioning of several APEC economies, and discusses the benefits and challenges of upstream and downstream positions. It also highlights the pivotal role policymakers play in incentivising sustainable practices, addressing supply chain resilience, and fostering collaborative partnerships.



## Findings

Upstreamness reflects the position of an industry or economy in the supply chain. Producers are more upstream if they specialise in producing intermediate goods, and they are less upstream (or more downstream) if most of their output goes directly to the end user.

### Examples of high and low upstream industries



Participating in global production networks offers advantages to both upstream suppliers and downstream users. In Asia, both advanced and emerging economies have shifted upstream in global value chains, meaning they now provide intermediate inputs to other economies.

The degree of upstreamness is closely related to the strength of forward linkages. In the context of international trade, the greater the share of an economy's industrial output that is being used as intermediate inputs by its trade partners, the higher the upstreamness.

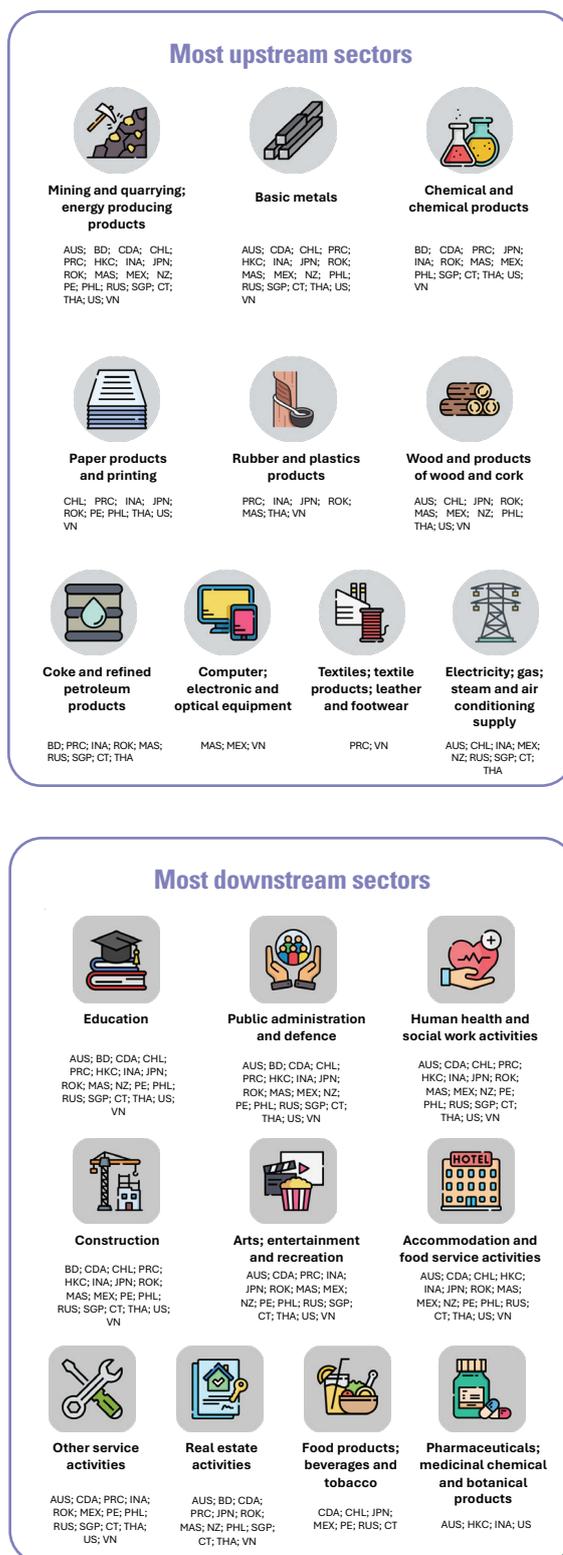
APEC economies' upstreamness positions. The upstreamness of industries in APEC economies is explored using data from domestic input–output tables. Generally, an economy's primary sectors, such as mining, are more upstream while its service sectors are among the least upstream.

In certain cases, an economy's unique economic structures contribute to variations in the relative upstreamness values of different sectors. In Viet Nam, for example, the dominance of the textile and computer industries has made them among the most upstream sectors in the economy.

Linking trade and upstreamness. On average, both the exports and the imports of APEC economies are more upstream than the world average. Also notable is that APEC economies vary in terms of the upstreamness of their exports relative to their imports. An analysis of trade data on the upstreamness positions of APEC economies reveals that some economies export relatively upstream products, such as mining products. Others report higher import upstreamness, which would imply more downstream-oriented exports or production.

Benefits and challenges. Exploring the benefits and challenges of upstream and downstream positions provides insights into business strategies. In the upstream position, the potential for reduced competition and the ability to command higher prices in certain industries underscore the advantages of being positioned closer to the strategic raw material sources. However, having to optimise resource efficiency and mitigate supply chain disruptions pose critical challenges that upstream firms must address to ensure survival and sustainability.

## The most upstream and downstream sectors in APEC economies (2018)



Downstream positions offer their respective opportunities and challenges. Firms are able to access a diverse customer base. They could realise economic growth through taking advantage of the complex division of labour and they could even create value through building brand awareness.

## Economic Driver 1: Trade and Investment

At the same time, the downstream landscape is not without its trials, including inconsistent supply and constraints arising from deficiencies in upstream technological capacity and the degree to which the upstream sectors are competitive (which affect prices, for example).

### Recommendations

In moving forward, businesses need to carefully evaluate their industry context, resources and strategic goals to determine the optimal positioning within the value chain. Strategic decisions should be underpinned by a thorough understanding of the dynamic trade-offs between the benefits and challenges associated with both upstream and downstream positions. Innovative solutions and collaborations can play a pivotal role in enhancing competitiveness and resilience.

Despite the distinct differences and characteristics of the upstream and downstream sectors, they are best understood as interconnected elements within a complex supply chain system. Disruptions or policy changes in any segment of the supply chain can trigger spillover effects on the entire supply chain, both domestically and globally.

Such impacts are serious as multinational companies depend on global supply chains to maintain their competitive edge. These global supply chains account for approximately 21% of a company's performance, contributing to 16% of Amex's, 23% of Dell's, 14% of FedEx's, 13% of Daimler's, 19% of Microsoft's, 21% of Nestlé's, 22% of Siemens' and 21% of Unilever's performance.

Government policy could play an important role in shaping the dynamics of businesses positioned upstream and downstream in the value chain. By providing targeted incentives, governments can encourage upstream sectors or lead firms to adopt and invest in environmentally sustainable practices, which, in turn, promotes broader environmental responsibility and sustainability across the entire value chain. Policymakers can:

- Develop strategies to enhance supply chain resilience by forging alliances to establish buffer inventories for essential goods; networks to facilitate alternative supply sources; and contingency plans (together with the business sector) for managing and overcoming disruptions.
- Address supply inconsistency issues by facilitating collaborative partnerships between downstream and upstream firms. This could be achieved through public-private dialogue to identify coordination

problems and find solutions that facilitate progress toward agreed-upon development objectives.

- Pay particular attention to the leverage points within a supply chain when formulating and implementing supply chain policies. These points serve as strategic intervention areas within the system where even minor adjustments can trigger significant changes throughout the entire system. For example, creating buffers in inventories and warehouses could improve supply chain resiliency. At the same time, there is a need to be judicious in applying levers of any kind. In the example of the inventory buffers, if they are excessively large, they become costly to maintain and inflexible, and turn obsolete as a strategic tool. Therefore, while leverage points should be considered a crucial strategic tool, their use must be carefully calibrated to avoid issues such as greater inefficiencies and increased costs.

### Peer Review and Capacity Building on APEC Infrastructure Development and Investment (Reviewed Economy: Chile)

Link: <https://www.apec.org/publications/2024/10/peer-review-and-capacity-building-on-apec-infrastructure-development-and-investment-chile>

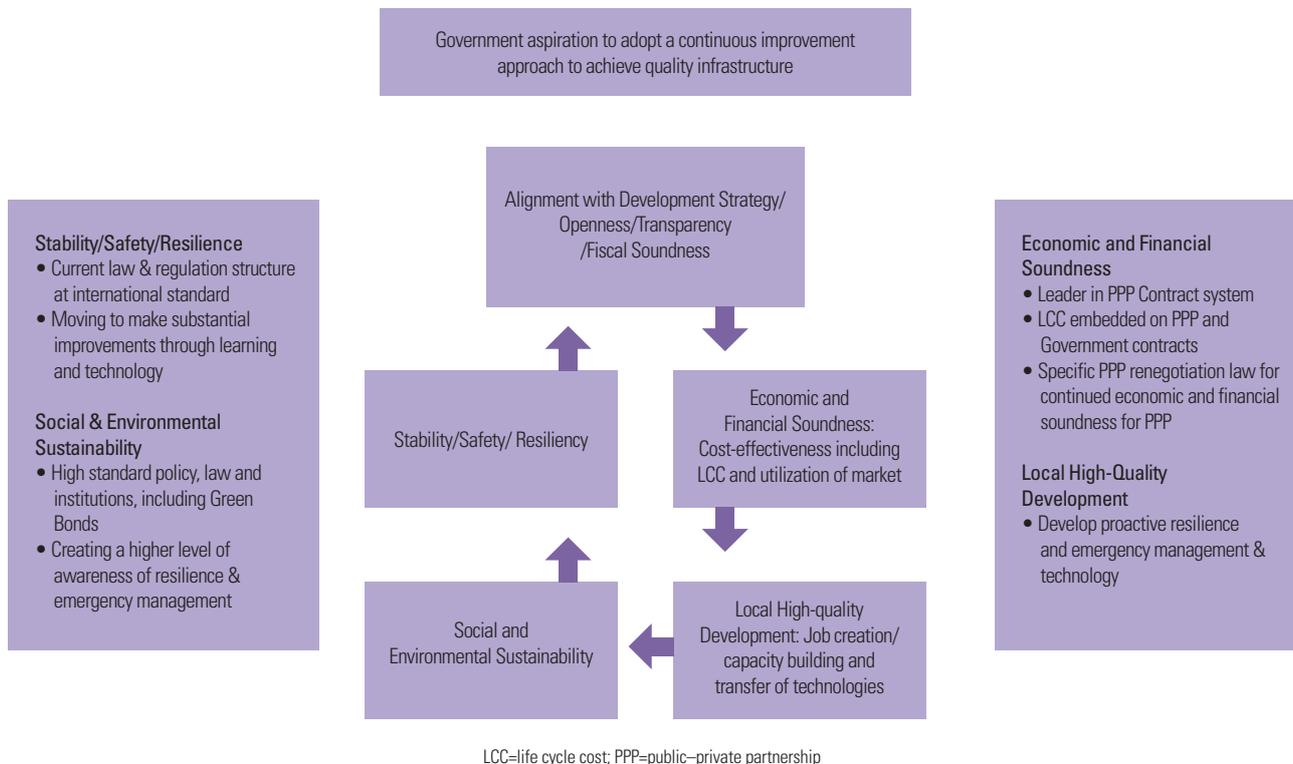
This report captures the results of a peer review that was conducted on the policies and practices in Chile, including the relevant laws, regulations and guidelines relating to the planning, selection and implementation process of infrastructure projects. It suggests capacity building activities based on the needs identified from the peer review.

### Findings

The review on Chile focuses on three areas: (1) resilience and emergency and disaster management related to preventing and addressing traffic accidents, within the framework of the operation/implementation of public-private partnerships (PPPs) (concession agreements); (2) technology and intelligent road management (intelligent transport systems) within the operation/implementation of PPPs (concession agreements); and (3) the use of public direct investment for infrastructure development, with a focus on reviewing the way in which infrastructures and public buildings are developed and how resilience in the face of extreme events due to climate change is incorporated into infrastructure development.



The figure below positions Chile in the context of the five elements of quality infrastructure.



In terms of alignment with the development strategy (element 1), Chile demonstrates a commitment to long-term infrastructure development through its medium- and long-term plans at both the central and regional government levels. These plans prioritise attracting private investment through a combination of laws, incentives and strategic frameworks.

Chile's infrastructure development process also prioritises affordability assessments and maximising value for both investors and society, specifically:

- **Conventional Infrastructure.** Life cycle cost, including environmental and social impacts, are considered in project evaluation. Willingness to pay is sometimes assessed, especially for projects with user fees.
- **PPP Infrastructure.** Feasibility studies for PPP comprehensively examine user willingness to pay and affordability. Projects must demonstrate financial viability and broader societal benefits. Chile actively collaborates with multilateral development banks to leverage private investments effectively.

Chilean laws and project guidelines promote the use of a local workforce in both conventional and PPP infrastructure projects. This aims to directly benefit local communities through job creation. Additionally, Chile encourages the use of effective technologies during infrastructure project planning through a supportive framework:

- Urban planning and construction laws often mandate standards that necessitate modern technologies.
- The Ministry of Public Works and its divisions actively promote technological adoption, especially in PPP projects.

For stability/safety/resiliency (element 4), while the current legal and regulatory structure in Chile already meets international standards, there is a continuous drive for improvement through learning and technology adoption.

Chile demonstrates a high standard of policy, law and institutions for social and environmental sustainability. This is exemplified by their pioneering work in green bonds, including being the first sovereign issuer in the Americas (2019) and launching the world's first sovereign sustainability-linked bond in 2022, which attracted international investors across Europe, Asia and the Americas, a sign of confidence in the Chilean economy. For future work, as emphasised during the peer review workshop based on the experience of Japan, there is a need to create a higher level of awareness of resilience and emergency management.

From this overall assessment, the economy of Chile is already in a strong position and aspires to adopt a continuous improvement approach to its infrastructure, with specific targets in resilience capacity, emergency management and intelligent transport systems. The regulatory structure and the government institutional structure are of international standard.

# Economic Driver 1: Trade and Investment

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## Recommendations

The major areas for improvement are summarised as follows:

- Building on the existing policy and legal/regulatory framework, a higher level of institutional coordination for resilience preparedness and emergency management is the next significant step for the government.
- Adopting a specific policy for prevention/risk mitigation of disasters that will be the foundation for managing infrastructure building and risk.
- The allocation of risk between the public and private sector and the development of higher standards of cooperation and risk sharing between them will enhance the contractual landscape for Chile and could create high level skills and expertise especially within the private sector.
- While Chile already is at the forefront of green financing, the next step is to create a market based on financing for resilience that incorporates the policy of prevention/mitigation of disasters and their impact.
- To make significant headway and to define the areas and approaches that Chile could adopt, it needs to develop benchmark partners to begin the process of learning and capacity building within its public and private sectors. Those partners can come from Japan (where resilience circumstances and emergency management issues are similar to Chile) and the United Kingdom; Australia; and Canada for innovative approaches involving private sector concession contracts under PPP-type arrangements.



## Economic Driver 2: Innovation and Digitalisation

### Digital Trade and Technologies

#### Digitalising Trade: The Role of Paperless Platforms

Link: <https://www.apec.org/publications/2024/03/digitalising-trade-the-role-of-paperless-platforms>

This policy brief examines the current state of digital trade facilitation with a focus on the role of digital trade platforms. It identifies the challenges hindering the wider adoption of such systems and provides recommendations to overcome key barriers.

#### Findings

Developments in digitalising trade. APEC economies have continued to make progress on digitalising various trade procedures over the years, as shown by the UN Global Survey on Digital and Sustainable Trade Facilitation. A total of 14 APEC economies have fully implemented electronic single window (SW) systems, which allow parties involved in trade and transport to lodge standardised information and documents at a single entry point to fulfil all import, export and transit-related regulatory requirements.

While the primary purpose of SWs is to simplify information flows between trade parties and the government, more specifically in facilitating customs declaration, they have been augmented over time to support e-payments, logistics, insurance and data insights, among others. It is worthwhile to note that, globally, there exists a diversity of SW systems, as each economy tends to design the system to fit its specific local context and regulatory requirements. There has also been a significant rise in private digital trade platforms. These vary in geographic reach, services offered, and technology employed.

Trade platforms could serve a range of core functions, such as trade finance, shipping and logistics, digitalisation of trade documents and/or provision of value-added services (e.g., insurance services and marketplace services). They can serve as one-stop shops integrating various trade processes. In fact, some platform providers engage multiple partners and suppliers to provide services on their platforms, forming extensive trade networks and increasing the value of their offerings. Technology-wise, blockchain has become the technology of choice among many platform providers as its perceived immutability enhances trust, a critical quality for trade transactions.

The COVID-19 pandemic, which significantly disrupted supply chains, has led to further calls for digitalisation. One anecdotal evidence of the reinvented global commitment to accelerate the use of digital tools to facilitate trade is the doubling of the membership of the Framework

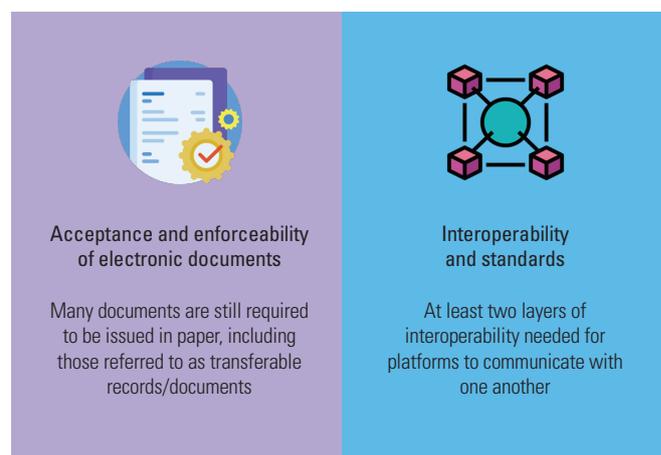
Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (CPTA) to 13 between 2021 and 2022. There has also been a significant attempt to produce and align global standards and promote interoperability. The WTO and the International Chamber of Commerce (ICC), for instance, have jointly published the Standards Toolkit for Cross-Border Paperless Trade to provide an overview of existing standards that can help drive adoption and promote interoperability. The ICC Digital Standard Initiative (DSI) has created the Industry Advisory Board to bring together global stakeholders in the trade ecosystem to ensure the harmonisation of standards for trade documents.

Issues affecting wider adoption of digital trade platforms. Although the increasing use of digital tools and the proliferation of digital trade platforms are steps in the right direction, available data suggest that further efforts are required. The 2023 UN Global Survey on Digital and Sustainable Trade Facilitation which covers 18 APEC economies indicates that most APEC economies have only partially implemented the electronic exchange of customs declarations, certificates of origin and SPS certificates that are required for cross-border shipments.

Additionally, 17% of APEC economies have not implemented the paperless collection of payment from a documentary letter of credit or the electronic exchange of certificates of origin. Uptake of digital trade platforms and associated services could also be improved, with only 1.2% of the bills of lading (BLs) issued being electronic in 2021 despite digital bill of lading (eBLs) coming into existence in the 1990s.

While technologies such as blockchain show promise, in 2022, at least five key blockchain projects, including we.trade and TradeLens, failed. High costs, challenges in building networks of services providers and users, regulation, and lack of integration with existing infrastructure have been identified as possible contributors to their collapse.

The policy brief identifies four factors that could be holding back the adoption of trade digitalisation, namely:



## Economic Driver 2: Innovation and Digitalisation



### Commercial reasons

Long-term sustainability is a challenge as platforms can rack up exorbitant costs depending on the technology used.



### Digital skills and infrastructure

Lack of confidence to operate in a digital-first world. Disparities in digital infrastructure can hinder the adoption of digital trade platforms.

## Recommendations

Overcoming barriers to adoption. Promoting the adoption of digital tools, and in particular, digital trade platforms, requires more efforts in tackling the issues identified.

- Advancing legal recognition of electronic documents. Economies need to more widely and formally recognise electronic trade documents through legal frameworks. Internationally, some 60 economies have established the laws and standards for e-signatures, ensuring that electronic contracts may have the same enforceability as physical contracts. As legislative reform may take time, a short-term measure could be for digital solution providers to develop rulebooks, as has been done by eBL providers such as Bolero (Bolero Rulebook) and WAVE (WAVE Application & Network Bylaws). These frameworks ensure that the eBLs created by the providers can carry out the three functions of a physical BL, namely as a receipt, a document of title and a contract of carriage. Ideally, different solution providers should come together to formulate a globally accepted rulebook.
- Improving global and industry standards and interoperability. The adoption of global standards is integral to facilitating interoperability between systems. Model laws – such as the UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services (2022), Model Law on Electronic Transferable Records (2017) and the UNCITRAL Model Law on Electronic Signatures (2001) – provide a harmonised legal framework for economies to facilitate seamless digital trade transactions within and across borders. Regulators may also access the Standards Toolkit for Cross-Border Paperless Trade by the WTO and ICC to implement the various existing global standards in their domestic legislation.

To enhance data interoperability, it is crucial to promote the adoption of international standards for (electronic) trade documents. Additionally, the private sector can collaborate actively to promote interoperability in international trade by associating through different alliances representing stakeholders along the supply chain of international trade. This could strengthen inter-industry cooperation to create interoperable data standards across platforms and international jurisdictions.

- Enhancing commercial viability. Platform providers need to consider the commercial viability of their business models instead of only the functionality of their technology. It is important to regularly review cost structures and eliminate sources of inefficiency. For instance, while blockchain is an important technology in digitalising trade, not all processes need blockchain.

As operating a digital trade platform requires significant capital commitment with no guarantee of success, potential providers and/or services suppliers have to carefully consider if it would be better to participate in existing platforms instead of creating their own platforms. Additionally, platforms need to strengthen its network effects and diversify its service offerings.

- Identifying and addressing gaps holistically. Economies should adopt holistic approaches to digital transformation. In the context of supporting trade digitalisation, it is important to identify the specific chokepoints that could hinder progress.

There are various aspects to addressing the chokepoints. On stakeholder engagement, for example, trade facilitation committees could enhance communication and coordination among stakeholders to create synergies and establish unified access points for transport and trade procedures throughout the supply chain. On digital infrastructure, it is crucial to improve coverage and ensure that the infrastructure is constantly upgraded so that various stakeholders could access digital platforms and participate in the ecosystem. Policymakers should also have targeted initiatives to ensure affordability. On legislative gaps, economies can connect with the DSI and the members of its Legal Reform Advisory Board to explore collaborative efforts to promote a harmonised and conducive legal framework for effective paperless trade.

Role of international and regional organisations. Organisations such as APEC and ADB play a critical role in promoting digitalisation as well as the adoption of digital trade platforms and of the enabling legal framework for the digitalisation of trade. In APEC, digital platforms are a key enabler of cross-border trade and firmly support the APEC goal of regional economic integration.



Overcoming barriers to adoption requires coordination and collaboration between economies and among government agencies, as well as engagement with the private sector given their integral role in global value chains. APEC provides the avenue to share information, to undertake capacity-building activities, and to explore cross-fora collaboration. DSI, co-founded by ADB and Singapore under the ICC umbrella, aims to accelerate a globally harmonised, digitised trade environment. ADB, in collaboration with UNCITRAL, DSI and other stakeholders, is playing a critical role in efforts to harmonise legal frameworks by publishing knowledge products, carrying out capacity-building activities, and deploying technical advisory support to some of its member economies to support legislative reform. The collaborative efforts of international organisations stand as crucial drivers in propelling the digitalisation of trade and the adoption of innovative platforms.

## Reframing an Unfolding Canvas: Policy Approaches to Facilitate APEC's Creative Economy amid Evolving Digital Technologies

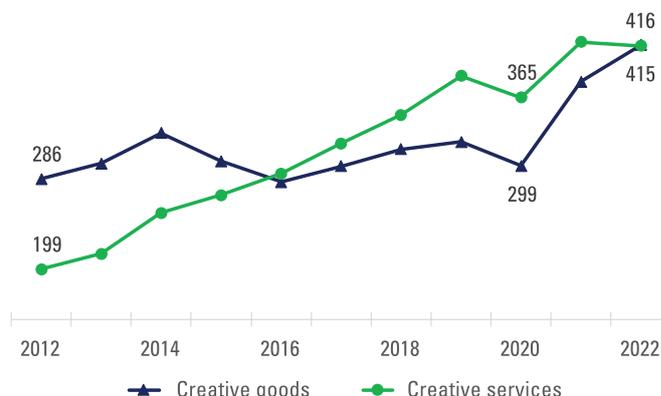
Link: <https://www.apec.org/publications/2024/07/reframing-an-unfolding-canvas--policy-approaches-to-facilitate-apec-s-creative-economy-amid-evolving-digital-technologies>

This policy brief discusses the intersection between the creative economy and digital technologies, particularly how digital technologies can help drive creative processes. It also identifies some of the key challenges faced by the creative economy in using digital technologies and offers policymakers approaches to reframe existing policy environments, thereby facilitating APEC's creative economy amid the evolving digital technologies.

### Findings

Overview of the creative economy in APEC. APEC's gross exports of both creative goods and services have increased since 2012, reaching USD 416 billion (goods) and USD 415 billion (services) in 2022. Notably, creative services overtook creative goods in export value in 2016. Also, between 2013 and 2019, exports of creative services grew at an average annual rate of 10%, significantly outpacing the 2% growth rate of creative goods. The quick pace of the growth of creative services may be attributable to the emergence of digitally deliverable services, especially amid the pandemic.

**APEC gross exports of creative goods and services in 2012–2022 (billion USD)**



Note: Goods trade data (2013–2018) for PNG are based on 2012 data. Data for 2022 for PNG; and RUS are based on 2021 data. Services trade data (2020–2022) for VN are based on 2019 data. The APEC aggregate does not include BD; and CT due to incomplete data coverage.

Creative goods and services represented 5.8% of the APEC region's total gross exports of goods and services in 2022. This is lower than the global share (6.9%), suggesting that there is room for creative economy exports to grow further alongside other goods and services. Meanwhile, APEC represented 40% of global gross exports of creative goods and services in 2022, lower than its peak in 2015 (44%). Despite growing in value, APEC's share of world creative gross exports has been decreasing since 2016. This could be indicative of faster growth in the rest of the world.

How digital technologies help drive creative processes. The World Bank has estimated that the digital economy alone is responsible for more than 15% of global GDP, growing 2.5 times faster than physical global GDP over the last decade. This trend of increasing digitalisation is likely to benefit the creative economy as well. In fact, the circumstances caused by the COVID-19 pandemic made it imperative that the creative economy digitally adapt in various ways and to varying extent. Some in the creative economy have benefited from new and emerging technologies, such as generative artificial intelligence (AI), while others have started to use technologies that have been around for decades but have seen improvements and increased affordability over time, such as computer-assisted design and videoconferencing platforms.

In the context of the creative economy, digital technologies that have gained interest of late are AI, extended realities (e.g., augmented, virtual), drones, machine learning algorithms (e.g., neural networks, deep reinforcement learning), more advanced and powerful graphics processing units, micro-controllers and single-board computers, micro-light-emitting diodes, and blockchain distributed ledgers.

## Economic Driver 2: Innovation and Digitalisation

Whether used individually or in combination, these digital technologies can help drive creative processes in at least three ways:



**Enhance creative production and dissemination processes**  
(e.g., animation, lossless compression)



**Inspire creative ideas and content creation**  
(e.g., creative writing, musical composition)



**Expand ways to appreciate and participate in creative experiences**  
(e.g., spatial computing, AI-generated environments)

### Challenges for the creative economy in utilising digital technologies.

The challenges fall into four themes:



**Digital divide**  
(e.g., digital readiness, gender divide)

More than 3/4 of survey respondents did not feel ready to operate in a digital-first world



**Legal frameworks for IP rights**  
(e.g., heightened risk of infringement issues, ambiguity on fair use)



**Mindsets of potential users**  
(e.g., distrust on new technologies)



**The broader policy environment for the creative economy**  
(e.g., presence of strategic plans, roadmaps, incentives)

## Recommendations

Policymakers could consider the following policy approaches to facilitate digital technologies in APEC's creative economy:

- Formulate holistic educational and skills training programmes. In the digital economy, creative talents could mean people who are not only creative but also at ease with using digital technologies to manifest their creativity. As such, it is critical that economies ensure a steady supply of digitally literate creative talents. Fundamentally, economies would have to establish a holistic curriculum where creative subjects are integrated in science, technology, engineering and mathematics (STEM) education, and vice versa. Specialised school curriculums could also be explored.

At the same time, economies would have to inculcate the value of upgrading one's skills through lifelong learning programmes. After all, more than 65% of students who enter primary education are estimated to likely end up in jobs that do not yet exist. Depending on the specific creative sector, this may mean identifying and offering more targeted skills training programmes or developing transferable skillsets. Also, to build experience across the creative sectors, it is important that economies explore avenues such as internships, apprenticeships and job placements.

- Narrow the material-access digital divide. Affordable access to relevant hardware and software is a prerequisite to the use of digital technologies in the creative sectors. Easier access to financing, grants and incentives could go a long way in helping creative talents on this front.

Furthermore, the optimal use of digital technologies is conditional on the availability of supporting digital infrastructure. Specifically, on broadband connectivity, it is imperative that economies focus on improving access and coverage by working with telecommunication providers. Digital infrastructure aside, it is important for economies to enhance physical infrastructure to serve as venues for creative goods and services to be showcased and experienced. In some cases, this may entail programmes and initiatives to develop digital and physical infrastructures in parallel.

- Provide clarity on intellectual property (IP) issues. IP lies at the front and centre of the creative economy. Laws and regulations to protect IP incentivise rights holders to create in the first place, but they are also designed to maintain an open and competitive environment among creatives.

The emergence of new digital technologies such as AI has raised questions that regulators and IP offices are currently grappling with. To encourage the wider adoption of digital technologies in the creative economy, it is critical that IP issues are sufficiently clarified. One way to do this is by working closely with the relevant industries and rights holders to foster productive dialogues on identifying best practices to enable the creative economy's growth. Economies should also endeavour to overcome existing IP issues that may have been exacerbated by digital technologies.

- Create and adapt ecosystems to be supportive of digital technologies. The potential impact of the use of digital technologies, particularly emerging technologies, in the creative economy is immense. One way to maximise this potential is by adopting an economy-wide strategic policy or programme that coordinates stakeholders' efforts and provides a common vision



or roadmap. Here, it is important to highlight that there is no one-size-fits-all approach in creating a supportive ecosystem. Often, a plethora of initiatives act in concert (holistically).

Certainly, the role of targeted policies and programmes also matters. After all, some technologies are relatively new, so their use cases remain limited. Others, which have been around longer, continue to broaden their usage and evolve along with technology advancements and affordability. It is important that economies do not stifle the adoption of these technologies and stand ready to tackle the challenges that may arise.

- Expand collaborations with stakeholders. Different stakeholders could contribute to creating a favourable environment for the adoption of digital technologies and it is crucial that economies leverage their efforts.
- Improve internationally comparable statistics and databases. Having an internationally agreed definition and reliable and comparable statistics are critical to supporting the development of the creative economy, including its adoption of digital technologies. Adopting regular and consistent reporting would allow policies to be shaped in a form that strengthens the creative economy's development. Economies could participate in various international efforts on this front.

The creative economy's untapped potential gives APEC a strong incentive to shape its development. This could entail policy interventions that give the creative economy the right set of enabling factors amid a digital technologies landscape that continues to evolve. Even as APEC economies take different approaches domestically, regional endeavours could complement their efforts. On this front, APEC can do what it does best: serve as an incubator of ideas. Furthermore, APEC provides an avenue to share information and undertake capacity building activities. This can go a long way toward building a mature creative economy across the region. Given that these endeavours would require coordination and collaboration between government agencies and various stakeholders, APEC can leverage its convening role by fostering cross-fora collaboration, public-private dialogues, workshops and similar events.

## More than Just Another Expansion: Why Does the 3rd Information Technology Agreement (ITA3) Need to Be Bold?

Link: [https://www.apec.org/publications/2024/12/more-than-just-another-expansion--why-does-the-3rd-information-technology-agreement-\(ita3\)-need-to-be-bold](https://www.apec.org/publications/2024/12/more-than-just-another-expansion--why-does-the-3rd-information-technology-agreement-(ita3)-need-to-be-bold)

This policy brief recounts APEC's history with ITA1 and ITA2 and, building on this, elaborates on why an expansion is relevant for the region. It also discusses why and how economies could make this prospective ITA3 bold and urges APEC to once again take a key role in advancing free trade.

### Findings

ITA1 and ITA2. The following shows a brief overview of why they were developed:

#### ITA1

**Early 1990s:** An alliance of export-oriented ICT companies from Canada; the EU; Japan; and the US urged their respective governments to negotiate an agreement that would liberalise tariffs on ICT goods.

**1996:** ITA1 made progress. What broke the standstill was APEC's intervention, with both Economic Leaders and Trade Ministers endorsing the ITA1's completion during the first WTO Ministerial Conference in Singapore.

Since 1996, the ITA1 has seen its membership grow from just 14 to 56 members (including 17 APEC economies) as of December 2024.

#### ITA2

**2012:** Six ITA1 members—all APEC economies—called for its expansion. The private sector again played a key role in urging their governments to pursue this expansion; indeed, just a year prior, Economic Leaders heeded the private sector's call by agreeing to play a key role in the negotiations.

**2015:** The ITA2 was successfully concluded at the Tenth WTO Ministerial Conference in Nairobi, with 24 members (including 13 APEC economies) as its founders.

ITA2 membership has not increased as of December 2024.



## Economic Driver 2: Innovation and Digitalisation

Both ITA1 and ITA2 have arguably supported globalisation, improved the general affordability of ICT goods, and encouraged innovation activity across multiple sectors. Globally, gross exports of ITA1 and ITA2 goods were valued at USD 3.8 trillion and USD 2.5 trillion in 2022, respectively, representing a compound annual growth rate (CAGR) of 6.2% for ITA1 and 4.6% for ITA2 since the agreements were signed.

The APEC region too saw its gross exports grow and likely benefited from the entry into force of at least the ITA1.

### ITA1

APEC gross exports. Increased by close to five times, from USD 0.7 trillion in 2000 to USD 3.2 trillion in 2022, representing a CAGR of about 7.4% — higher than the world aggregate.

APEC's share of global ITA1 gross exports. Grown over the years, from about 66% in 2000 to 85% in 2022.

### ITA2

APEC gross exports. Increased by approximately 33%, from USD 1.4 trillion in 2015 to USD 1.9 trillion in 2022, translating to a CAGR of about 4.2% — lower than the world aggregate.

APEC's share of global ITA2 gross exports. Hovered around 75–77% between 2015 to 2022.

Notwithstanding the increase in the trade value of ITA1 and ITA2 goods, it should be acknowledged that some economies, particularly developing ones, have not benefitted — with some even losing competitiveness. Various elements must come together to augment an ITA participant's absorptive capacity and its likelihood of benefitting from the agreement (e.g., investment attraction, increased global value chain participation, increased exports). Indeed, one's ITA participation has to be complemented with strategic policy reforms and adjustments in several areas.

Why is a bold ITA3 relevant? Improving access to affordable and reliable ICT products, facilitated by a potential ITA3, is one way to achieve the objectives identified in the Aotearoa Plan of Action (APA). In an expanding digital economy, access to these products has also become a necessity. Additionally, ICT products can support sustainability and help mitigate some of the environmental risks posed by climate change.

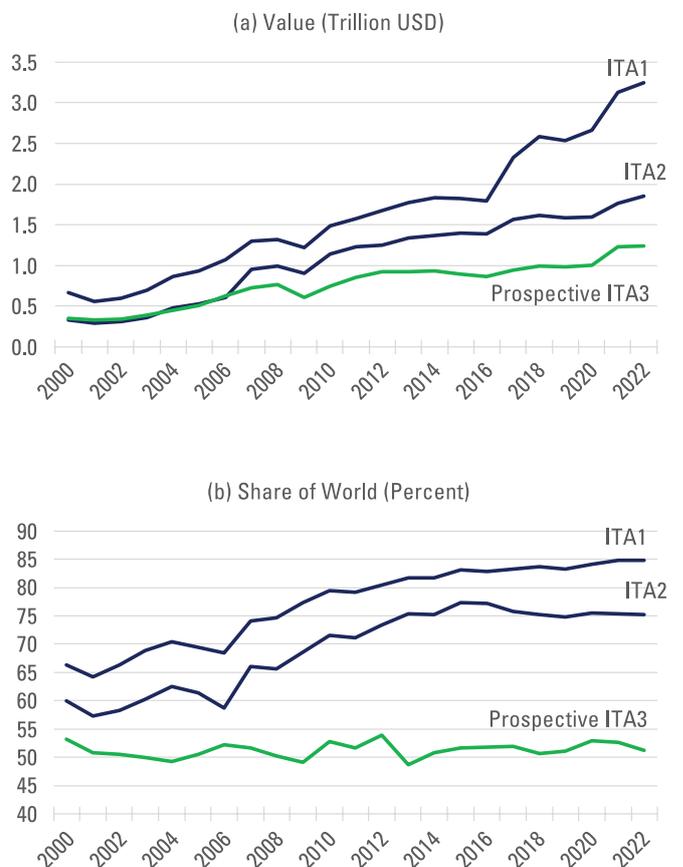
Examples of relevant technologies whose diffusion and adoption can be facilitated by a potential ITA3 include energy-efficient products, renewable energy technologies, semiconductors (and

their manufacturing equipment and related components), and smart manufacturing. Furthermore, new manufacturing methods mean that products, which may appear familiar on the surface, could be produced with equipment not covered by existing ITA agreements. Therefore, it makes sense to consider including this equipment in a potential ITA3.

It is also important to recognise that increasing digitalisation means ICT components are now found in a wider array of products. Moreover, advocating for the inclusion of so-called “non-ICT products” in an ITA is not a new idea. In fact, the ITA2 already covers some medical equipment, such as scanners and magnetic resonance imaging machines.

Looking at trade and tariffs. For the analysis of this policy brief, and without prejudice to how a potential ITA3 may be operationalised, these new and emerging technologies were defined by combining the operational definitions from two lists: one industry-led and the other from the National Board of Trade (Sweden). After modifications, this combined list renders a total of 290 unique product codes, some of which overlap with those in ITA1 and ITA2.

### APEC gross exports of ITA goods in 2000-2022, by category



Note: Following the WTO methodology, re-exports from HKC are excluded, while the World aggregate includes intra-EU trade. Data for HKC from 2017 onwards are estimated. Data for missing years are estimated based on the nearest previous year data available.

Trade data from UN Comtrade shows that APEC gross exports of these proposed ITA3 goods rose from USD 0.4 trillion in 2000 to USD 1.2 trillion in 2022. APEC represented a fairly unmovable 51% of world gross exports of ITA3 goods during this period. These are lower than APEC's gross exports of both ITA1 (USD 3.2 trillion) and ITA2 (USD 1.9 trillion) in 2022, which respectively represented 85% and 75% of world gross exports.

APEC's relative performance on ITA3 goods trade suggests that there is a significant room for improvement. One way is by minimising tariffs, which is also the primary objective of ITA1 and ITA2. For context, the latest data from the WTO shows that APEC's mean most-favoured nation (MFN) tariff for ITA3 goods has been decreasing over the past two decades. A closer examination of the mean MFN tariffs by HS 6-digit product codes further reveals that the number of ITA3 goods with duties above 5% went down from 118 in 2000 to 75 in 2022. Notwithstanding these improvements, the maximum MFN tariff for ITA3 goods could still reach as high as 20%.

Going beyond just tariffs. Tariff liberalisation is part and parcel of ITAs but to truly achieve the goals of the APA requires economies to go beyond just that. Notably, non-tariff measures (NTMs), which remain largely unresolved in both ITA1 and ITA2, are becoming a more pressing concern in the current trade environment. However, the treatment of NTMs can be complicated primarily because of two reasons. First is that the costs of NTMs are not easily observed. Second is that NTMs could be a policy tool to advance legitimate public policy objectives.

## Recommendations

Economies can ensure a bold ITA3 by:



Strengthen dialogues between governments and industries to identify potential ITA3 products



Relook approaches to ensure that the ITA3 remains evergreen



Incorporate stronger interventions related to NTBs



Deepen the ITA3 by institutionalising provisions on capacity building

- Strengthening dialogues between governments and industries to identify potential ITA3 products. Historically, the private sector has played a key role in shaping the past ITAs. Learning from this, it would be beneficial for governments and industries to strengthen dialogues to systematically identify potential ITA3 products. One possibility is to utilise established frameworks.
- Relooking approaches to ensure that the ITA3 remains evergreen. Both ITA1 and ITA2 were negotiated using a positive list approach. Given the rapidly changing technological landscape, where digital components are becoming more pervasive, bolder solutions should be considered for a prospective ITA3. This could be by using a negative list approach instead where listed products are those that are excluded from the agreement. If a positive list remains preferred, participants could agree on product coverage using 4-digit HS headings instead of the current 6-digit HS sub-headings. Alternatively, economies could consider a mix of these approaches. If history is of any guide, previous ITA negotiations have been successfully concluded through the use of creative approaches.
- Incorporating stronger interventions related to NTBs. With the continued reduction or removal of tariffs, NTBs have become the primary concern of economies and traders. The ITA Committee's role includes consulting on such measures for trade in eligible products under the ITAs. While the Committee has undertaken various activities (including formulating an NTMs work programme, adopting guidelines, and organising capacity-building workshops), stronger interventions are needed.
- Institutionalising provisions on capacity building. Capacity building should be at the core of a potential ITA3. Recent trade agreements often include chapters or provisions on this matter. In addition, a proposal was made in the WTO to institutionalise regular symposiums or workshops where industry representatives and stakeholders can share the latest developments in the ICT sector and enhance information sharing on the implementation of the ITA1, among others.

APEC needs to send a strong signal that pursuing agreements like the ITA and its expansions is valuable. A practical step towards this goal is ensuring full participation by member economies in the existing ITAs. Moreover, APEC must recognise that while the existing ITAs could have contributed to the increase in trade of related goods, there are limitations that may have constrained the potential benefits. Technological advancements have led to the exclusion of many products from the existing ITAs, including those that could promote environmentally sustainable and resilient economic growth. Lower tariffs could facilitate the trade of these products. It is also crucial for the prospective ITA3 to address factors beyond tariffs, such as better



## Economic Driver 2: Innovation and Digitalisation

approaches for identifying product lists, NTBs, and the absorptive capacity of participating economies, some of which could have been overlooked in the existing ITAs.

The current structure of APEC ideally positions it to discuss these matters. Cross-fora dialogues, whether bilateral or more, can be highly effective. Furthermore, APEC could leverage insights from ABAC to better understand the private sector's perspective on their desired direction, opening pathways for possible collaboration and coordination. Conducting a deeper study on how APEC economies have benefited from the existing ITAs, and how a prospective ITA3 could build on these benefits, would value-add to the discussions.

### Structural Reform and Macroeconomic Policies

#### APEC Economic Policy Report 2024: Structural Reform and Financial Inclusion

Link: <https://www.apec.org/publications/2024/11/2024-apec-economic-policy-report>

A flagship product of the Economic Committee, the 2024 APEC Economic Policy Report discusses the topic of structural reform and financial inclusion, addressing both demand-side and supply-side issues through structural reforms to facilitate all people to access and utilise financial services.

### Findings & Recommendations

#### Objective 1: Expanding quality access to financial services

Financial inclusion is crucial for economic growth. The synergistic relationship between financial inclusion and economic growth and development has been demonstrated in tomes of research and decades of data. The intuition is simple enough: financial inclusion provides access to financial services such as savings, insurance and credit services. In turn, access to savings and insurance helps households grow wealth and smooth consumption, while access to credit can support entrepreneurial activity and business expansion. This creates opportunities for employment and output expansion, while helping mitigate risks across the economic system. Indeed, if money is the lifeblood of the economy, then financial inclusion is what ensures its proper circulation.



Ensure the stability of the financial sector



Bring down the cost of financial services



Reduce barriers to financing for MSMEs



Digitalise financial services

- Ensure the stability of the financial sector. The strength and stability of financial systems is the cornerstone of financial inclusion. Prudent macroprudential policies, financial market safeguards, and mechanisms for financial consumer protection are the necessary conditions for financial inclusion. These are essential to build trust in financial institutions such as banks, credit unions or insurance agencies. While financial market regulation is mainly the remit of central banks, finance ministries and financial market authorities, structural reform can also play a role in strengthening financial markets such as by strengthening corporate governance, ensuring business transparency and accountability, and applying the principles of good regulatory practice to financial oversight.
- Bring down the cost of financial services. Costs come in many forms. For depositors, these costs include minimum deposit requirements, account maintenance fees, withdrawal fees and other service fees. For borrowers, these costs include interest rates, appraisal fees, legal fees and other service fees. For insurance contracts, these costs are mainly in the form of premiums and lock-in costs. Cost of visiting a bank branch in terms of time and transportation could also be considered as transaction costs of financial services. While financial institutions need to recoup the costs of providing services, measures could be taken to ensure financial services costs are kept reasonable.
  - Promote competition and innovation while safeguarding stability and security. Competition in the financial sector will motivate financial institutions to expand, innovate, and improve their services to meet the needs of clients, including groups with untapped economic potential. Competition will also encourage operational efficiency, reducing costs associated with service provision. However, incentivising competition and innovation will need to be balanced with ensuring that firms adhere to their regulatory responsibilities and manage risk appropriately.



- Creating regulatory sandboxes to test new ideas is one such strategy. Providing a space to test new financial products and services without putting the sector at risk can support responsible innovation. This is where regulatory sandboxes can help financial inclusion. For example, the emergence of fintech lending services, including peer-to-peer (P2P) lending, may promote greater access to finance for MSMEs, but such services could also be prone to fraudulent practices. Regulatory sandboxes can provide the flexibility to test out P2P lending without putting the wider financial market at risk. However, sandboxes can be expensive and diverse in design, and require significant resources dedicated to supporting a small number of firms. They may not be appropriate in certain jurisdictions.
- Reduce barriers to financing for MSMEs. Despite their significant contribution to the economy and employment, MSMEs continue to face challenges in accessing credit. The percentage of loans to MSMEs to total loans has remained low in most APEC economies, mainly due to lack of collateral and inadequate financial records. Information asymmetry persists for MSMEs, making it difficult for lenders to adequately assess their risk. Targeted policy measures to improve MSMEs' access to credit could help. For example, some APEC economies have developed public credit guarantee schemes which allow the transfer of risk to the guarantor, making lending to MSMEs more attractive. Developing a financial data infrastructure that is accessible for MSMEs will also help address information asymmetry issues.
- Look closely into microfinance. One avenue for reducing the cost of credit to MSMEs and poorer households is microfinance. Policies supporting microfinance are largely well developed in APEC economies, although business models may differ. In some economies, microloans are extended through government-owned institutions and the lending rate is usually subsidised by the government. In others, microfinance schemes are run by private financial institutions or credit unions.
- Consider alternative financing options. APEC economies could also support the growth of alternative financing options for MSMEs, including those enabled by digital technology or fintech. While crowdfunding has been around for a few decades, economies such as Hong Kong, China and Thailand are experimenting with the establishment of a dedicated stock exchange for raising capital for MSMEs. Alternative financing modalities for MSMEs include factoring — essentially the use of accounts receivable as collateral for loans — supported by risk-mitigating supporting infrastructure such as a central registry for accounts receivable and digital factoring. Other innovative financing options for MSMEs, such as zero-coupon convertible notes or crowdlending, could also be explored further.

- Digitalise financial services. Digitalisation of finance can broaden the array of available financial services, may bring down the cost of financial service delivery and can offer alternative options for groups with untapped economic potential. Digital innovation in finance could help in the targeted delivery of financial services — as well as social protection, as was seen during the COVID-19 pandemic — to specific sectors needing assistance. At the same time, cybercrime and hacking are real and growing concerns, and digital tools also need to ensure cybersecurity and protect personal data. Access to financial services has also been expanded through digital banks. The rise of digital banks brought positive impacts in terms of improving access to financial services and the quality of delivery in some jurisdictions. Together with other digital finance operators, digital payments have enabled the growth of digital transactions fuelled by burgeoning e-commerce platforms. However, challenges that arise from digital payment services, including ensuring the safety and reliability of digital payments, need to be addressed with proper regulation and oversight.

Objective 2: Ensure inclusion in financial inclusion

Inclusion is central to financial inclusion. As in all policies related to inclusion, financial inclusion should be a deliberate and deliberative process. Inclusion does not spontaneously happen; it needs to be built in from the start and actively implemented. As the data and econometric analysis show, financial access alone is not enough; distribution matters too. Ensuring that access to financial services and credit reaches all segments of the population — with emphasis on groups with untapped economic potential — is what puts inclusion in financial inclusion.



Remove structural barriers to financial inclusion



Promote ease of doing finance



Consider the specific needs of groups with untapped economic potential

- Remove structural barriers to financial inclusion. Eliminating avenues for financial discrimination — if it still exists in law or practice — should be a priority. This involves not only removing laws that bar certain groups from accessing financial services, but also enacting laws that explicitly prohibit discrimination such as those based on gender or other demographic characteristics. While financial institutions rightly conduct know your client (KYC) checks and creditworthiness assessments, safeguards should be in place to ensure that these are not discriminatory in practice.



## Economic Driver 2: Innovation and Digitalisation

- Promote ease of doing finance. For many groups with untapped economic potential, such as those in rural or remote areas, Indigenous Peoples and those in the informal sector, a lack of registration papers or identification documents can be a barrier to accessing financial services. While financial institutions need to know their clients, efforts could be made to reduce the documentary requirements of transactions while maintaining high compliance standards. For example, in cases where paper documents are lost, the use of digital identification could be enabled. Alternatives to formal documents could also be considered, such as in some economies where mobile phones subscriptions have enabled client identification and access to digital wallets.
- Consider the specific needs of groups with untapped economic potential. Groups with untapped economic potential remain untapped because of factors that exclude their participation in the economy. As described in individual economy reports from some APEC economies, reasons for this exclusion could be historical, cultural, structural and others. The specific barriers facing these groups require specific action to ensure financial inclusion.
  - Address cultural and language barriers. Differences in culture or language could present barriers to financial services. For example, some cultures may view the collection of interest on loans as usurious while other cultures may view account ownership in collective terms rather than personal property. Language can also be a barrier especially for people from linguistic minorities who may struggle with the language of business. Depending on an economy's context, culturally sensitive and multilingual financial services could provide financial inclusion for groups with untapped economic potential.
  - Provide reasonable accommodation. The needs of persons with disabilities (PWDs) and the elderly also need to be considered in the context of financial inclusion. Reasonable accommodation for PWDs and accessibility for elderly clients should be part of financial inclusion efforts, such as ensuring the accessibility of spaces, use of augmentative and alternative communication (e.g., sign language or braille) and use of assistive technology to enable financial transactions.
  - Conduct sensitivity training for financial personnel. Ultimately, banking and finance are human interactions: the clients are humans and the financial institution is managed by humans. Financial institutions will need to be cognisant of the issues faced by groups with untapped economic potential and be sensitive to their needs. Even as more operations are digitalised, the underlying processes, algorithms and even AI tools will need to be sensitive to real human situations and circumstances.

### Objective 3: Facilitate utilisation of financial services

Utilisation of financial services matters. Having an account alone is not enough. Active usage of financial accounts is crucial to activate the economy, without which the advantages of account ownership can stay unrealised. Promoting utilisation requires policies that can stimulate higher economic growth and promote job creation, enabling individuals and firms to achieve the sustainable income levels that are necessary to promote active usage of financial services.



Promote financial literacy



Facilitate entrepreneurial opportunity

- Promote financial literacy. Financial literacy is an enabler of sustainable demand for financial products and services. Almost all APEC economies have integrated financial education as part of their financial inclusion strategy. These financial education programs are available for all ages, and some are tailored to specific needs of the vulnerable communities. Some economies even established formal curriculums or education systems on financial topics as part of formal schooling. In addition to financial education programs, other formats that have been effective in enhancing financial literacy include counselling and support groups, especially to help with specific financial issues that require personalised support.
- Facilitate entrepreneurial opportunity. Financial inclusion does not end with signing the check. A holistic approach will also consider the utilisation of this credit through entrepreneurship support, networking, information sharing and capacity building — issues especially important for MSMEs and groups with untapped economic potential. Supporting the success of MSMEs will not only increase the likelihood of loan repayment, but also ensure sustained demand for financial services.

### Progress Evaluation and Future Direction: An Analysis of the Cebu Action Plan (CAP)

Link: <https://www.apec.org/publications/2024/03/progress-evaluation-and-future-direction-an-analysis-of-the-cebu-action-plan>

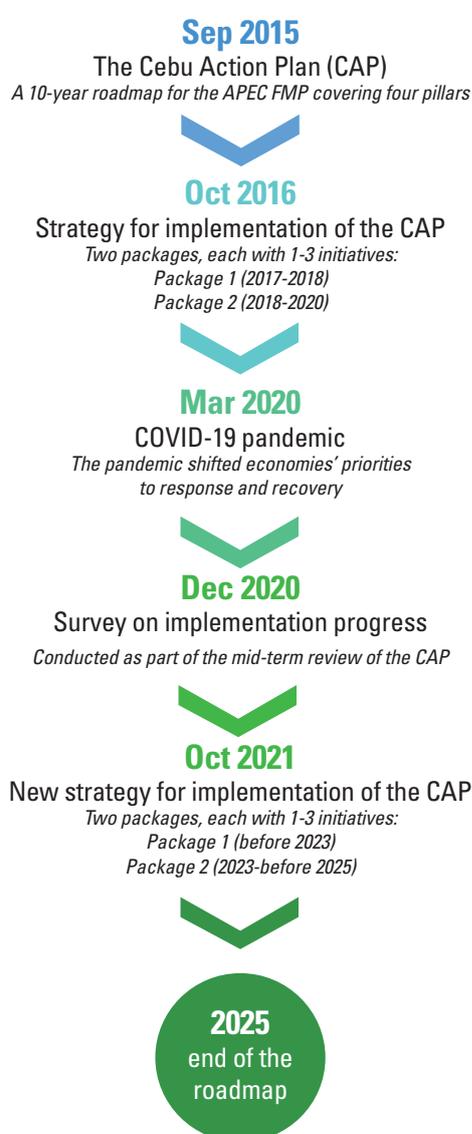
This policy brief outlines APEC economies' implementation of the Cebu Action Plan (CAP), analyses challenges in delivering actions under its



pillars, and offers suggestions for developing a revitalised roadmap ahead of the CAP's conclusion in 2025.

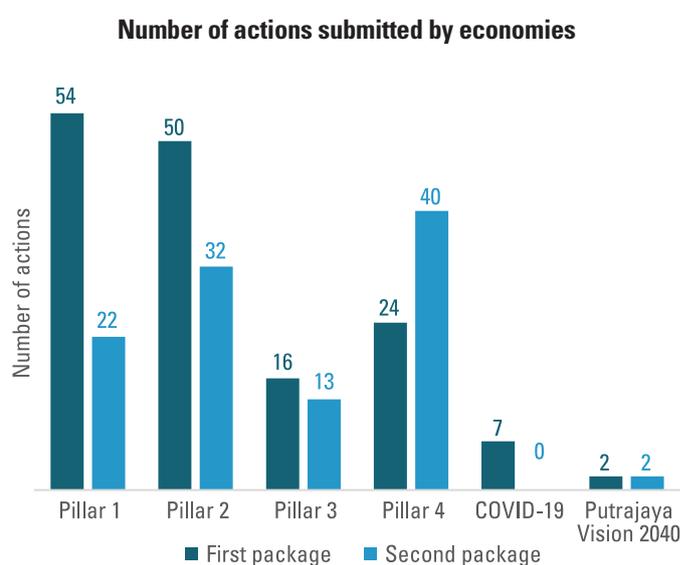
## Findings

The CAP, launched on 11 September 2015, serves as a voluntary and non-binding 10-year roadmap designed for the APEC Finance Ministers' Process (FMP). The CAP is structured around four pillars: (1) Promoting Financial Integration, (2) Advancing Fiscal Reforms and Transparency, (3) Enhancing Financial Resiliency, and (4) Accelerating Infrastructure Development and Financing. The four pillars are further expanded into 21 initiatives, each of which includes a list of deliverables and an associated indicative timeline. The timeline of CAP progress is shown below.



In October 2021, APEC Finance Ministers endorsed the New Strategy for Implementation of the CAP, which encourages member economies to adopt a phased approach. Apart from the four pillars, the new strategy allows economies to adopt initiatives that respond to the adverse effects of the COVID-19 pandemic or align with one of the economic drivers outlined in the Putrajaya Vision 2040.

Implementation of the four pillars. A total of 251 actions had been submitted for implementation by all APEC members as of October 2023. Economies reported actions across all four pillars of the CAP. In addition, in line with the new implementation strategy, five economies submitted a total of seven actions to address the impacts of the COVID-19 pandemic, while two economies reported actions specifically aligned with the drivers of the Putrajaya Vision 2040. Pillar 2 has the highest uptake by economies, while Pillar 3 has the lowest.



- Adoption of initiatives. When examining actions per pillar, the findings are:
  - Pillar 1. There is greater interest in initiatives focused on creating an enabling environment for MSMEs and financial inclusion and literacy.
  - Pillar 2. Fiscal reforms, exchange of financial account information, and the Base Erosion Profit Shifting (BEPS) project are the three widely adopted initiatives.
  - Pillar 3. Economies seem to focus more on the development of disaster risk financing and insurance.
  - Pillar 4. The initiative on encouraging long-term investment in infrastructure has the highest number of actions reported by economies.



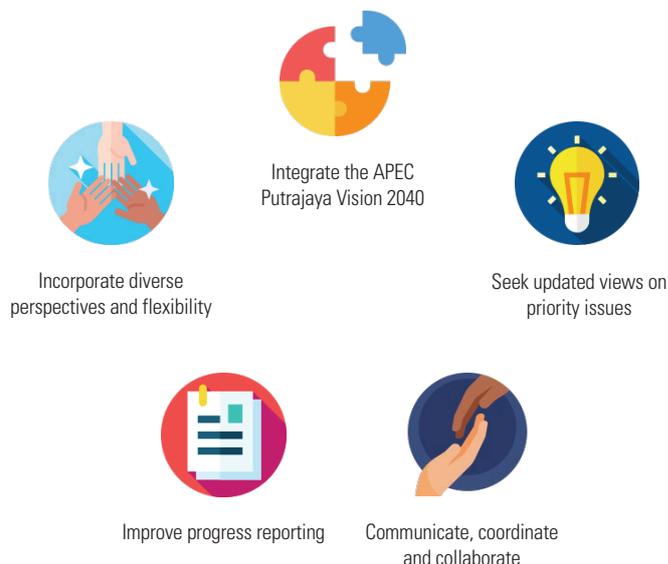
## Economic Driver 2: Innovation and Digitalisation

- Perceptions and alignment with the CAP. The results from a 2020 survey conducted by the FMP to gauge how economies perceive the CAP reveal the following:
  - In general, economies find the CAP to be a useful guide for achieving a more financially integrated, transparent, resilient, and connected APEC community. However, they have observed inconsistency in implementing the roadmap, as many members fail to use the CAP as a reference point when initiating policy changes in relevant areas.
  - A misalignment exists between what economies identify as key elements of the CAP and their actual commitments. Economies view Pillars 2 and 3 as the most important areas of the CAP, with Pillar 1 considered as the least essential.
  - Economies stress the importance of addressing pandemic and climate change challenges, emphasising the need for financial sustainability and stability. However, the observed pattern of actions reported by economies suggests otherwise. Rather than prioritising Pillar 3, they seem to focus on issues under different pillars, such as improving the financing environment for MSMEs (under Pillar 1) or addressing BEPS (under Pillar 2). This disconnect can be partly attributed to the vague deliverables of Pillar 3.
  - In the post-pandemic era, economies suggest that more attention should be directed toward sustainability and digitalisation. Members are especially concerned with the effects of the pandemic on debt sustainability. This is evident in the fact that approximately a third of the actions are related to implementing fiscal reforms and enhancing the robustness of tax revenue sourcing. In addition, some members recommend placing more emphasis on developing or improving digital integration among economies, underscoring that such integration could facilitate broader access to financial services and improve financial security overall.

Economies' views on the future of the CAP. Suggestions from the 2020 survey can be categorised as follows: (1) retaining the current CAP and its four pillars, as the initiatives remain relevant and essential post-pandemic; (2) modifying the CAP, either by expanding current initiatives to incorporate actions related to green recovery, sustainable finance, debt sustainability and pandemic preparedness, or by introducing an additional new pillar focused on various aspects of recovery, such as fiscal, economic, and well-being; and (3) designing a new roadmap with new pillars and priority areas.

### Recommendations

The roadmap post-CAP should build on the progress made in the implementation of the current CAP and, at the same time, recognise domestic priorities and align with regional priorities, as appropriate. Recommendations for a roadmap post-CAP are as follows:



- Integrate the APEC Putrajaya Vision 2040. This vision should be formally adopted as a pivotal element in the roadmap post-CAP, with a focus on integrating innovation and digitalisation across all initiatives. This is imperative to enhance financial access and inclusion as well as expand financial literacy and education through digital platforms. It will also support the development of green finance initiatives and other innovative instruments that cater to sustainability goals, and future-proof financial systems to better navigate technological disruptions. Embracing digitalisation is also essential to improve regional financial integration through efficient cross-border transactions and collaboration, and enable real-time monitoring and response mechanisms, among others.
- Incorporate diverse perspectives and flexibility. There should be dialogues to tackle diverse perspectives on priority areas of the roadmap. Efforts at strengthening and modifying the existing CAP pillars or identifying new focus areas that address specific challenges could be pursued. The FMP could also consider a flexible approach that allows APEC economies to choose from a range of initiatives, prioritise or sequence actions and identify timelines given domestic conditions. It is suggested that the priority areas for a financial roadmap post-pandemic emphasise promoting economic recovery, financial resilience, and sustainability. Moreover, it is necessary to identify indicators that are available and comparable across APEC members to effectively track progress in implementation.



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- Communicate, coordinate and collaborate. The roadmap should strive for a practical and widely referenced framework by economies initiating policy changes through effective communication, coordination, and collaboration. This could be achieved by establishing a mechanism or platform to share a mutual understanding of the strategic direction through brief presentations or submissions, emphasising best practices and lessons learned. Coordination with government agencies should also be strengthened to avoid overlaps and duplication of initiatives. In parallel, a deeper collaboration between FMP, other APEC fora, and international organisations should be promoted to leverage synergies. Empowering the FMP as the implementation overseer could also help ensure alignment of actions with overall strategy and prevent duplications within the APEC process.
  - Improve progress reporting. An enhanced reporting mechanism necessitates establishing clear guidelines and frequencies to facilitate coordination and progress tracking across relevant governmental agencies. Moreover, progress reporting should be transformed from a mere compliance exercise to a valuable tool that focuses on tangible impacts and outcomes. This may require identifying quantitative and qualitative indicators as mentioned earlier, to effectively gauge progress and create a narrative that explains the contribution of policy changes by economies toward advancing the overarching strategy.

In tandem with progress reporting, it is imperative to institute periodic reviews to evaluate the roadmap's effectiveness, allowing for adjustments in response to evolving global circumstances. Additionally, members could consider integrating work streams within the FMP to develop strategies for addressing identified priority areas, consolidate progress reports and extend support to economies struggling with implementation.

- Seek updated views on priority issues. Given the potential shift in economies' preferences and priorities post-pandemic, it may be beneficial to conduct a follow-up survey to capture updated perspectives. The insights gleaned from this survey will inform the components of the roadmap post-CAP, particularly in determining priority areas and corresponding indicators, timeline and periodic reviews, implementation strategies, and reporting mechanisms.



# Economic Driver 3: Strong, Balanced, Secure, Sustainable and Inclusive Growth

## Women's Empowerment

### Empowering Tomorrow: APEC Women Entrepreneurs in Startups

Link: <https://www.apec.org/publications/2025/01/empowering-tomorrow--apec-women-entrepreneurs-in-startups>

This study explores the dynamics surrounding women entrepreneurs in startups across the APEC region and offers policy recommendations to enhance their support ecosystem.

### Findings

This report examines, using census and survey data, interviews, and policy analysis, the prevalence and challenges of women entrepreneurs in APEC region startups, both as employees and especially as founders and leaders, and analyses policies and best practices to promote women's entrepreneurship in the APEC region. There are four main findings.

- Following APEC economies and defining startups by age as firms of 0–3 years of age, there are 59.7 million startups in the APEC region in 2023, up from 41.8 million in 2017, making up 17% of the APEC region's firms. Of these, typically about one-tenth are in the ICT sector.
- There are considerable data gaps in women's role as startup founders and employees. Private databases suggest that fewer than 10% of APEC economies' technology-driven startups are founded or co-founded by a woman. To be sure, there are inequalities in the APEC region — in some economies, women startups have blossomed, while in others they trail notably behind men-led firms.
- Academic literature and interviews reveal five key barriers to women entrepreneurship in the APEC region:
  - Inadequate access to finance at different stages of the startup's lifecycle.
  - Inadequate access to peer networks and experienced mentors — and in some markets, difficulties navigating the many potential networks that do exist.
  - Low share of women in STEM fields, which limits the pool of women founders and co-founders for technology companies.
  - Women's mindset and perception of startup life as not accessible or possible for women.
  - In some APEC markets, there are legal barriers and insufficient remedies for women in labour markets and workplace.

- Governments in the APEC region as well as various associations have adopted a number of policies and programmatic approaches to support women-led startups in various stages, such as ensuring that a larger set of women are able to become entrepreneurs; helping women in the early stages of their startups; enabling women-led startups to grow into mature companies; and helping women-led startups exit, such as to find a strategic investor. Some key approaches called for by the interviewees for this study include:
  - Government grants for women-led startups in their early stages, for example to build a minimum viable product.
  - Government grant support for startups' internationalisation.
  - Funds and investor syndicates focused on investing in women-led startups.
  - Private sector-led networking initiatives and peer mastermind groups among women-led startups.
  - Government procurement opportunities and contracts that the government reserves for women-led businesses.
  - Laws that promote women-led startups, equality in the workplace, non-discrimination in credit applications, and maternity leave policies.
  - Applied entrepreneurship education and promotion of young women's leadership in primary and secondary schools.
  - Promotion of women's leadership in business and government, including in technical roles, for normalising women's leadership across society.

Many of these solutions are already being pursued in various APEC economies. Nonetheless, APEC economies can play a key role in encouraging analysis on the impact of various efforts to promote women startups and enable member economies to share good practices in advancing women-led startups.

### Recommendations

Policy recommendations for governments to promote women-led startups include:



- Access to grants
- Access to venture capital
- Peer network programs and leadership coaching
- Laws to promote women in the workplace, women entrepreneurship, and equal opportunity
- Entrepreneurship education for young women
- Promoting women in STEM fields
- Government procurement opportunities
- Leveraging technology and innovation
- Improving data on women-led firms and startups
- Meeting women-led startups where they are and tailoring support
- Countering harmful social stereotypes and biases



- Enhancing access to grants. Government grants can be a particularly useful mechanism to enable women-led startups to get started and access technologies and developers that they may need to build a minimum viable product. Governments can also promote partnerships with financial institutions to provide lower interest rates for women-led startups, which could also help level the playing field. In markets with financing options, awareness campaigns that educate women entrepreneurs about available financing can empower them to make informed decisions about their business development. In addition, women startups are often quite quickly looking to scale their companies beyond their home markets, but face challenges to access networks, travel, and secure trade finance. Governments can support women startups with grants for trade missions, expanding their networks as well as setting up meetings with foreign buyers for potential partnerships.
- Access to venture capital. Interviews and data suggest that women-founded startups are much less likely to receive venture capital than their male counterparts, and when they do, they receive less funding, which limits their ability to hire talent and scale their businesses. Funds led by women to invest in women and syndicates among private investors as well as those led and organised by governments are powerful means to crowd in capital to women-led startups. Some APEC governments, most prominently Canada and Australia, have already made significant efforts to usher in private investment in women-led firms.
- Peer network programs and leadership coaching. Women entrepreneurs place a high value on networks and mastermind groups that offer support, camaraderie, useful contacts and tips. There are many well-working networking groups in the APEC region; however, they often struggle to scale and service the needs in the market. Governments could most usefully partner with these peer networks and help scale models that work.
- Laws to promote women in the workplace, women entrepreneurship, and equal opportunity. APEC governments such as Korea and Viet Nam have passed laws that promote women in the workplace and women's entrepreneurship. Some APEC economies also have laws on equal access to credit and legal protections for maternity leave. These types of instruments, if implemented well, help women to enter the workforce and build a career, including in startups. APEC plays an important role in helping governments share information on the impact of these laws on women's entrepreneurship.
- Entrepreneurship education for young women. Integrating entrepreneurship education into school curriculums and systematically coaching young women to take leadership roles in entrepreneurship courses can inspire the next generation of women entrepreneurs. Highlighting successful women across different industries and societies as role models can normalise women's leadership and encourage more women to pursue entrepreneurial ventures and challenge existing social stereotypes.
- Promoting women in STEM fields. Women remain underrepresented in STEM and computer science fields, which limits the pool of women founders and co-founders in technology fields. Governments need to implement targeted scholarship programs to increase women's participation in STEM fields. These initiatives could include supporting partnerships between educational institutions and tech companies to create internship opportunities for women in STEM, and outreach programs that highlight career opportunities in STEM for young women, emphasising the importance of equality and inclusion in these fields.
- Government procurement opportunities. Allocating resources for firms promoting the advancement of women, along with conducting digitised, transparent bidding processes can enable women-led startups to get started on working with governments, a potentially lucrative and large market that can be difficult to break into as a young and untested company.
- Leveraging technology and innovation. Supporting women to access and learn about technological tools that streamline their operations can help overcome initial needs for hiring. In addition, digital platforms and online communities can extend the reach of support programs for women, especially in regions with limited physical infrastructure, enabling women entrepreneurs to access resources and opportunities regardless of location.
- Data on women-led firms and startups need to be improved. Sex-disaggregated data on business formation, survival, and continuity is very limited across the APEC region. Canada has provided an excellent example, by disaggregating firm formation and survival data by sex and age. In addition, there is a need for governments to track progress on a range of factors affecting women-led startups, such as access to finance, technologies, and markets.
- Meeting women-led startups where they are and tailoring support. There are as many segments of women-led startups as there are women-led startups. Governments need to provide an enabling environment that facilitates access to support by many distinct types of women startups to enable business growth and help women to navigate opportunities in the marketplace. Support also needs to be contextualised to the entrepreneurs' economy and location; often, women in poorer economies and rural areas have



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completely different experiences and opportunities than their peers in advanced economies and major cities.

- Countering harmful social stereotypes and biases. It is imperative to challenge stereotypes and socio-cultural norms that view women as less capable than men in owning and running businesses. These perceptions often suggest that women should be confined to traditional roles such as homemakers or limited to traditionally feminised careers. These sex-based biases contribute to funding inequalities, where male-led or male-owned businesses are favoured over women-led enterprises, perpetuating inequality in access to resources and opportunities for women entrepreneurs.

There are varied experiences across the APEC region on promoting women-led startups. However, good practices have yet to be well-analysed and widely shared. APEC economies can encourage analysis on the impact of the various women startup promotion initiatives that they implement and enable member economies to share good practices in advancing women-led startups. APEC economies can also pool resources and encourage peer networking among women-led startups across the APEC region.

## Unpacking Issues in the Gig Economy: Policy Approaches to Empower Women in APEC

Link: <https://www.apec.org/publications/2024/01/unpacking-issues-in-the-gig-economy-policy-approaches-to-empower-women-in-apec>

This policy brief discusses women’s participation in independent work, particularly in the gig economy, and unpacks women-related issues that hinder women’s greater economic participation in this area. It also offers policymakers different approaches to advance women’s economic empowerment and integration.

### Findings

Prevalence of gig work in APEC. Within the APEC region, the size of the gig economy varies from 0.7% to 38.1% of their respective total labour force. It is estimated that gig workers represent less than 10% of the total labour force in most APEC economies as of 2023.

#### Broad examples of gig workers



**Transient Workers**  
Workers with widely available skills, in jobs with high turnover or seasonality



**Experts**  
Workers with specialised, scarce skills who can split their time between multiple clients, given their demand



**Generalists**  
Workers with widely available skills, in jobs made up of discrete tasks and easily transferable knowledge



**Project-based Managers**  
Managers in project-based occupations



**Traditional “Company Workers”**  
Workers in jobs that consist of discrete tasks but require some contextual knowledge

Women’s participation in the gig economy. On a global level, women are actively involved in online gig work. In 2021, an estimated 42% of online gig workers were women, similar to the proportion of women in the global labour market (40%). The interest shown by women in the gig economy signals the potential for gig work to support the economic participation of women. In APEC economies, the proportion of women in the gig economy ranges from 18.5% to 55.8% of their respective total gig workers.

Why do women participate in the gig economy? The ILO and the World Bank have observed that the primary factors motivating women’s participation in the gig economy are the opportunities to earn additional income and the flexibility that it provides. In fact, women place a higher value on these aspects compared to men, and women are also more likely than men to engage in online gig work due to lack of opportunities in the traditional job market. The motivations for women to participate in the gig economy could be viewed as falling into four categories, depending on whether the purpose is to derive primary income or supplementary income, and whether participation in gig work is from preference or out of necessity.

Issues faced by women in the gig economy. Benefiting from the gig economy is steeped in challenges, with some more nuanced.



**Socio-cultural gender biases**  
(e.g., greater unpaid care work, unfair filial expectations)



**Unequal pay and difficult access to finance**  
(e.g., occupational segregation, gendered laws, lack of options)

Globally, women earned 11% less than men because of occupational segregation



**Insufficient labour regulations and social protection coverage**  
(e.g., discrimination and harassment, weak institutions)

## Recommendations

Policy approaches to empower women in the gig economy include:



Support behaviour modification to overcome socio-cultural gender biases



Actively regulate gig work



Improve access to financial resources



Provide targeted learning opportunities and skills development training



Consider accessible social protection for female gig workers

- Support behaviour modification to overcome socio-cultural gender biases. Countering gender biases at home and in the workplace is an ongoing process that requires commitment and effort from individuals, communities and institutions. Education, in tandem with media attitudes and public information campaigns, can play a critical role in promoting awareness about gender biases and its harmful and perpetuating impacts on individuals and societies. The education curriculum could integrate gender equality perspectives to guide mindsets and behaviours, especially among young people. In parallel, workplace policies should be supportive. Local communities and authorities can further encourage women's greater participation in economic activity through the establishment of affordable, safe and decent childcare facilities.
- Play an active role in regulating gig work. Gig platforms remain largely unchecked to the detriment of gig workers' welfare. Regulators could play a more proactive role here. One area that needs attention is algorithmic bias and opacity in gig platforms. To address this, platforms would need to develop algorithms responsibly, collect diverse and inclusive data, and monitor the system to rectify gender biases and algorithmic mismanagement that could take away gig workers' flexibility, autonomy and opportunities.

Another area is sexual harassment and discrimination. On security for female gig workers within intimate and vulnerable spaces, for instance, platforms can begin by adopting well-crafted occupational safety and health protocols. Regulators can serve as a watchdog to ensure that platforms comply with these changes and implement proper safeguards. In addition, regulators can be avenues for gig workers' grievances, acting as arbiters in lieu of (or together with) gig workers' collective representation. Regulators can also require gig work platforms to establish an effective system for female gig workers to safely voice their concerns.

- Improve access to financial resources. Access to financial resources allows women to actively participate in the gig economy by enabling them to purchase digital devices and internet connections and to upgrade their skills or undergo training. At the same time, having laws mandating equal rights to property and inheritance, equal pay for women and men doing similar work, as well as non-discrimination in credit access based on gender, are not sufficient in themselves. These laws need to be accompanied by a change in attitude to widen women's access to financial resources.

Having laws in place also does not guarantee greater access to credit. Financial institutions evaluate the creditworthiness of potential borrowers using various criteria other than having collateral, such as familiarity with the customer based on previous interactions, the quality of the business plan and the borrower's history of loan repayments. Policymakers can help women build their credit history by supporting platforms that generate and use alternative data to evaluate the creditworthiness of a person.

- Consider accessible social protection for female gig workers. Regardless of whether economies define gig workers as employees or recognise them as intermediate categories or an entirely new segment altogether, the legal ambiguity of gig workers should not deprive them of basic labour rights, such as social protection coverage. However, unilaterally providing social protection and health coverage would be a cost burden on gig work platforms. Recognising this, policymakers may consider alternative social protection mechanisms.

Perhaps, more creatively, economies can consider establishing a dedicated provident fund (co-funded by the government, the gig platform and/or the gig worker) to ensure that expecting mothers have access to maternity and/or parental leave benefits. Likewise, providing access to healthcare services through public or private insurance systems or government-funded healthcare programmes is a critical component of social protection systems to ensure the well-being of women and their households. Policymakers can also consider extending social assistance in the form of free or subsidised use of decent childcare facilities or equipment needed for gig work. Economies with enough fiscal space may even consider income tax reliefs of a certain threshold specifically catered to female gig workers.

- Provide targeted learning opportunities and skills development training. Skills development training remains important and includes both reskilling and upskilling. In fact, 21–37% of gig workers in various APEC economies want gig platforms to provide access to training, more than any other benefit. Educators can start by targeting certain skills. Furthermore, gig workers normally do not have access to mentors who can impart experience and



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guidance. Policymakers can help gig workers connect with mentors by organising networking events or community forums. Moreover, since men and women face different realities, it may be relevant to form support communities that consider the conditions faced by women, including the unequal share of caregiving and domestic responsibilities.

## Micro, Small and Medium-Sized Enterprise (MSME)

### Enhancing MSME Data Interoperability in the APEC Region

Link: <https://www.apec.org/publications/2024/09/enhancing-msme-data-interoperability-in-the-apec-region>

This issues paper analyses the importance of interoperable MSME data for evidence-based policymaking, reporting on a survey of APEC economies regarding MSME data sources, definitions, and alignment with the Small and Medium Enterprises Working Group's (SMEWG) priorities. It also provides the latest economy-level data, explores opportunities for data cooperation, and offers recommendations for achieving MSME data interoperability in APEC.

### Findings

The lack of interoperable data impedes evidence-based regional policymaking for MSMEs in the APEC region. Despite MSMEs being a crucial component of APEC's vision and major contributor to APEC economies, there is a notable absence of accurate and reliable cross-economy data for MSMEs that policymakers can depend on.

Data interoperability ensures the comparability of concepts and measurements across different sets of data originating from various member economies. Comparability of concepts can be established through unified definitions, classifications, and categorisations between economies and over time. Comparable measurements are achieved through consistency in units of measurement and data formats.

Data plays an integral role in all stages of the evidence-based policymaking process. Achieving data interoperability simultaneously strengthens this process and enhances the effectiveness of regional cooperation. More specifically, data interoperability improves issue identification and coordination; enhances monitoring and assessment of policies; facilitates cross-border learning and collaboration; and ensures transparency and accountability.

Current MSME data in APEC is not comparable, aggregable, or averageable. While APEC economies collect data on MSMEs in a manner that provides rich data at the domestic level, this data is non-conducive to regional analysis:



Discrepancies in definitions, estimations, and type of data collected prevent an accurate view of MSME issues and status across the region



Notable discrepancies exist between economies regarding the classification criteria of MSMEs and whether data can be disaggregated for micro, small, and medium enterprises individually

MSME data sources in APEC point to opportunities for interoperability. Twenty APEC economies conduct regular business or firm-level surveys to gather data on MSMEs, albeit the intervals at which the surveys are administered vary between economies. Additionally, 12 economies link data across various sources, including ad hoc surveys, administrative data, household surveys, trade documents, and census data. This provides a rich source of existing data from which to build interoperability.

A majority of APEC economies collect data on the number of employees, MSME sales or revenue, and MSME merchandise trading activity, representing an opportunity for easier data interoperability across the region. However, data gaps still remain in MSME data for the APEC region. In particular, many economies lack MSME data relating to areas of internationalisation, inclusion (e.g., women, people with untapped economic potential), sustainability, and digitalisation.

### Recommendations

Improvements to data interoperability could be achieved without requiring changes to domestic regulations regarding MSMEs. Impacts on primary data collection or collation costs, if any, could be kept to a minimum, while adjustments to data processing, analysis, and reporting could be feasibly implemented. In principle, changes should be based on existing data sources and processes.

Achieving interoperability could be done in three steps:

#### Step 1: Preparation

- Data semantics and taxonomies. APEC economies should develop unified statistical and operational definitions of how the primary data should be processed to be amenable for further processing and combination.
- Data formats and questionnaires. As data can be transmitted in various ways, coordinating data formats in advance will ensure a smoother transmission process and reporting mechanism.



- **Data sharing mechanisms and economy focal points.** Identifying and agreeing on procedural issues — such as who disseminates the questionnaires, when they are disseminated, and the time period of responses — will help facilitate the statistical work that occurs during the implementation phase.

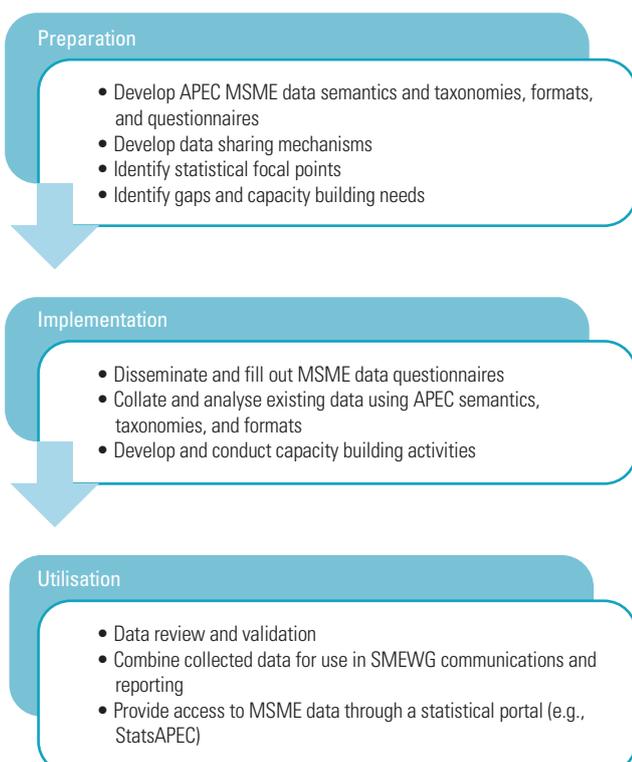
### Step 2: Implementation

- Economies and the APEC Secretariat would conduct the agreed processes and reporting mechanisms. In order to support the implementation step of data interoperability, the roles between stakeholders and the process of communication and coordination should be clarified in advance.

### Step 3: Utilisation

- **Data review and validation.** To ensure the quality and robustness of submitted data, data should be reviewed, cleaned of inconsistencies, and double-checked with statistical focal points.
- **Monitoring, communication, and policymaking.** There should be an established process to ensure interoperable data is maximally utilised in the SMEWG discussions and reports.
- **Dissemination and access.** Interoperable data can be disseminated as a statistical public good for policymakers, researchers, and stakeholders around the region. Possible avenues of dissemination include hosting the data in existing portals that store time-series data, such as the StatsAPEC portal.

## General steps for MSME data interoperability



## Addressing Informality: Transitioning to the Formal Economy

Link: <https://www.apec.org/publications/2024/02/addressing-informality-transitioning-to-the-formal-economy>

This policy brief identifies the root causes of informality and discusses what is required at the policy level to address informality and promote a proper transition to a formal economy.

### Findings

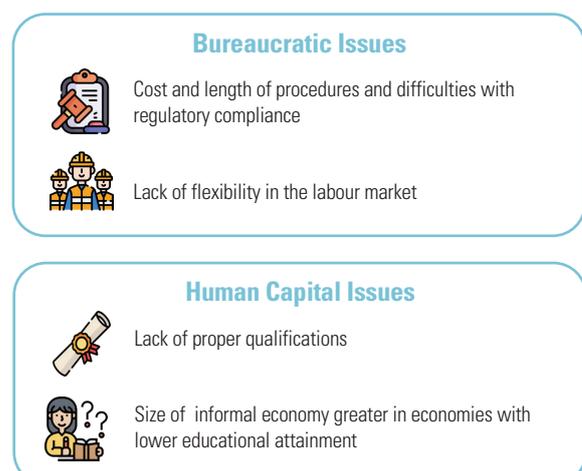
According to the ILO, the informal economy refers to all economic activities by workers and economic units that are — in law or in practice — not covered or insufficiently covered by formal arrangements. They have estimated that 6 out of 10 workers — or about 2 billion individuals — are working informally. This is even more pronounced in low and lower-middle income economies, where the overall prevalence rate could rise to more than 80%, with informal economic activities representing on average about 35% of the GDP of each economy.

Informality remains pervasive in many APEC economies. The size of the informal economy in the APEC region has been estimated at around 13.4% of GDP in 2020, with a high of 59.4% in Peru and a low of 8.5% in the US. In addition, informal employment in the seven APEC economies that do have such data ranges from 25% to 80% of the workers in the economy.

Informality is associated with negative socioeconomic implications:

- Informal employment correlates with higher poverty levels
- Informal workers are insufficiently, or not covered, by social safety nets
- Informal economic activities are associated with fewer opportunities to expand
- Informality implies a narrower tax base and revenue loss

The factors explaining the presence of informality are:



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### Institutional Issues



No respect for rule of law and enforcement



Rampant corruption



Rent-seeking practices

- **Bureaucratic barriers.** The cost and length of procedures and the difficulties associated with regulatory compliance could motivate individuals and firms to remain in the informal economy. This occurs more often among MSMEs and less-educated workers as scale and human capital issues could make them spend a considerable amount of time navigating through all the requirements. The higher the cost and the longer the time needed to formalise, the more the incentive to remain informal. Latin America and Southeast Asia are two regions where informality rates are high and perform poorly regarding time and cost to start a business.

Another bureaucratic issue is the lack of flexibility in the labour market. When labour regulations stipulate large statutory salary deductions for a number of reasons (for instance, social security contributions), many workers will prefer to stay off the payroll and remain informal. Also, firms could consciously choose to stay informal if it is onerous to recruit formally and dismiss workers. Even formal firms could decide to hire workers informally when labour regulations make costly the process of hiring and dismissing a worker.

- **Human capital issues.** Deficiencies in developing human capital could trigger informality. Informal employment could be the only source of work available to some workers because of their lack of proper qualifications and their lower productivity. In general, informality tends to be higher in places with lower educational attainment. For economies where adults have fewer average years of schooling than the APEC-wide average of 10.6 years, the average size of their informal economy is 11 percentage points higher relative to the average for the rest of the APEC economies. Similarly, the share of vulnerable employment is 31 percentage points higher in those economies.
- **Institutional issues.** Problems related to respect for the rule of law and enforcement, rampant corruption and rent-seeking practices, when they are the norm, promote informality. The benefits of formalising are low when enforcement is poor, litigation is long, expensive and cumbersome, and expectations for the independence of the courts are minimal. In addition, it is more difficult to convince informal actors to formalise when social cohesion is poor and societies have little trust in the government, private institutions

and any type of networks/associations. An analysis using the Social Capital Index, which measures levels of trust and respect and the interactions of individuals with institutions, shows a direct association between social capital and informal output. Less socially cohesive economies tend to experience higher levels of informal output.

### Recommendations



Create an enabling environment for doing business



Design incentives and deterrents



Enhance human capital development



Strengthen institutions

Create an enabling environment for doing business. Enhancing the ease of doing business in a formal setting requires more than simply reducing registration fees. Attention should also be paid to eliminating cumbersome administrative procedures, which take up time and resources that could be used for other productive actions. Economic actors are more willing to formalise if the steps are simple, the compliance costs reasonable, and the benefits of participating in the formal economy are greater than the benefits of staying informal. Administratively, inter-institutional coordination is required to prevent repetition of tasks across different agencies. Many of the solutions generally involve integrating and digitising some of the functions of the relevant agencies.

Another enabling element is access to credit with reasonable conditions (particularly interest rates). To be successful, entrepreneurship projects require access to capital, which could help firms deal with the costs of formality. There is also a need to address the virtuous circle created due to formal firms being more likely to obtain bank loans at lower interest rates compared to informal businesses. Government policies need to establish conditions for a competitive financial sector that could offer affordable interest rates to borrowers, in particular, MSMEs.

Carefully designed tax and social security systems are also required to promote formalisation. When tax rates are excessively high, firms keep many of their operations informal to evade paying taxes. Similarly, when tax systems are cumbersome, compliance costs are high, it reduces the incentives to participate in the formal economy.



Policymakers should also avoid introducing too many different schemes in a tax reform to cater for specific groups, as they may not necessarily stimulate formalisation.

Similarly, introducing flexibility in labour markets through reforms to reduce the barriers to hiring and dismissing workers formally is important and has to be accompanied with social safety nets to facilitate the reinsertion of workers into the economy. Social protection policies are critical in the transition to formality.

Design incentives and deterrents. Policymakers need to be aware that the exclusionary effect of barriers to conducting business is one of the main causes of pervasive informality. At the same time, they need to ensure that economic agents will not behave in ways that flout rules, disrupt order, disregard tax obligations and compete unfairly with those in the formal economy.

While solid enforcement and detection systems could increase the cost of remaining informal, a zero-tolerance approach to punish informality could be counterproductive. Severe enforcement may not reduce informality much; instead, it could force those in the informal sector deeper into the underground economy, with worse consequences. It is more advisable to focus on incentives such as accessibility to public services. For instance, when the population notices that taxes are being used judiciously, there is more incentive to comply with tax obligations. Access to better education, good quality transportation systems, efficient police protection, improved public health systems and a fair judicial system strengthen the notion that tax revenue is being used properly, and individuals and firms will feel that they are reaping the benefits of paying taxes and complying with other legal obligations. Changing people's mindset with small incentives could also contribute to reducing informal practices such as not declaring transactions or assets.

Enhance human capital development through education and training. Access to proper education and training is an essential component to improve labour productivity and provides workers the necessary skills to obtain better-paid jobs and improve their chances to move into the formal economy. A more accessible educational system reduces informality levels. According to a study by Haanwinckel and Soares, informality rates among workers fell by more than 10 percentage points between 2003 and 2012, most of which can be explained by the increased schooling during the same period. Improvements in educational outcomes can reduce informal output. A World Bank study indicates that a 10-point increase in the PISA reading score is associated with a fall in informal output by 0.1 percentage point of GDP over the next two years.

Knowledge diffusion is an important pillar in driving up formalisation. For informal MSMEs and workers, one of the barriers to formalisation is their understanding of the formalisation process itself. Raising awareness through campaigns to educate the public about the benefits of transitioning to the formal economy and the obligation it carries could support government efforts to promote formalisation.

Strengthen institutions. Problems related to deficiencies in rule enforcement, corruption, weak governance and lack of transparency create the conditions for informality to expand. Resolving these issues are important steps to support the transition to formality. In fact, improvements in governance and institutional systems are associated with a decrease of informal output. A study by the IMF has shown that greater government accountability is associated with a smaller informal economy.

A whole-of-government approach matters when addressing informality. The multifaceted nature of informality requires a combination of policy measures that often fall under the responsibility of a multiplicity of public institutions. Inter-institutional coordination is critical to designing and implementing an effective strategy to address informality holistically and guarantee a successful transition to formality.

## Sustainability

### Driving the Future: Leveraging Regional Cooperation for Inclusive, Sustainable, and Resilient Electric Vehicle (EV) Battery Supply Chains

Link: <https://www.apec.org/publications/2024/08/driving-the-future--leveraging-regional-cooperation-for-inclusive--sustainable--and-resilient-electric-vehicle-battery-supply-chains>

This policy brief discusses the challenges and potential solutions for developing a sustainable and resilient electric vehicle (EV) battery supply chain in the APEC region.

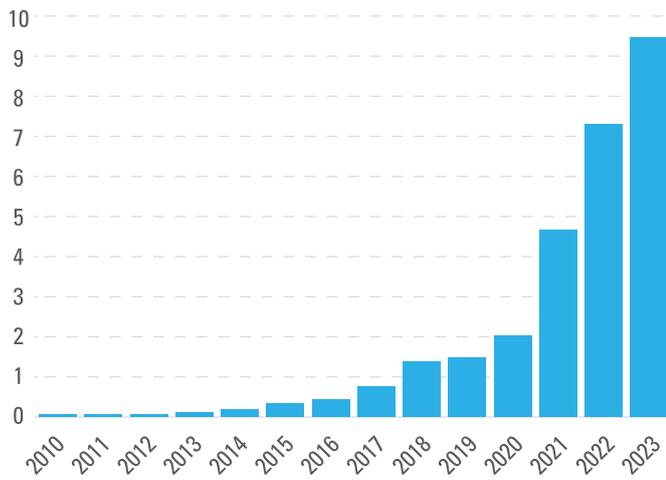
## Findings

The road to electrification: Risks and opportunities. Many APEC economies have committed to ambitious targets for electrifying their domestic transportation sectors, driving a rapid increase in battery EV sales across the world over the past decade. This surge is mirrored within APEC economies, where battery EV sales have also experienced substantial growth. In 2023, the top five APEC economies for battery EV sales accounted for over 70% of battery EV sales worldwide.



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**Global battery EV sales (million vehicles), 2010-2023**



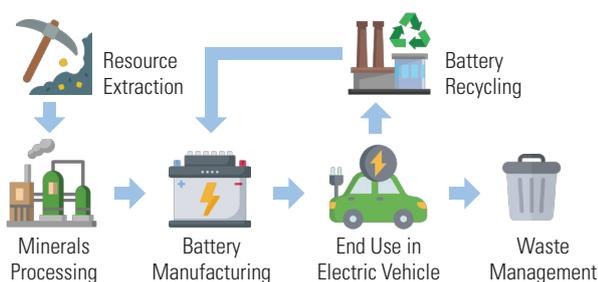
Source: International Energy Agency (2024)

Despite this significant growth, challenges remain in ensuring that EV adoption effectively decarbonises the land transportation sector. For instance, EV adoption is constrained by public concerns about high costs and battery reliability as well as a lack of low-cost models. In addition, the environmental costs associated with the mining of critical minerals, energy-intensive battery production, and transportation have been cited as significant barriers to using EVs for climate change mitigation and adaptation. A related concern is the source of electricity for producing and recharging these energy-intensive batteries, highlighting the importance of renewable energy.

In May 2024, the APEC Automotive Dialogue reaffirmed the region’s commitment to developing a more sustainable EV supply chain. Many APEC economies play prominent roles within the global EV battery supply chain, with many being home to significant manufacturing and production capacity. It is critical that APEC adopts reforms to ensure that these structural changes help drive decarbonisation and sustainable economic growth.

EV battery supply chain: Caution, bumps ahead. The transition to EVs depends not just on the vehicles themselves but on a complex ecosystem of supporting technologies and services. This paper provides an analysis on three key segments of the EV battery supply chain:

### A visual representation of the EV battery supply chain



- Mineral extraction and battery production. Critical minerals, such as lithium, graphite, cobalt, and nickel are indispensable for producing EVs, which have more intensity and diversity in mineral inputs compared to internal combustion engine vehicles. The lithium-ion battery is the most commonly used EV battery, but its type varies based on mineral and chemical compositions.

The EV battery production process is both energy-intensive and potentially highly polluting, which could offset the benefits of electrification. Beyond mineral sourcing, the stringent purity requirements for batteries puts a strain on costs and sustainability. Additionally, climate change exacerbates the frequency of extreme weather events such as floods, heat waves, and blizzards, which can disrupt mining operations and transportation routes, as well as reduce EV battery performance.

- Supply chain distribution. Recent discussions in the EV industry have focused on export and import controls, which create constraints within the supply chain. Many experts emphasise that global trade relationships for EV batteries will remain crucial for the foreseeable future. A balanced approach that integrates both global sourcing and localised efforts is necessary to ensure the efficiency and sustainability of the EV battery supply chain.

Increased logistics and transportation costs present major challenges to the sustainable and cost-effective development of EVs. Transporting minerals over long distances is expensive, and export/import controls further inflate distribution costs within the EV supply chain. The energy-intensive nature of current transportation methods, combined with the need for infrastructure resilience against climate impacts, exacerbates these expenses. As companies strive to integrate sustainable practices, higher initial costs present a barrier to widespread adoption.

- Battery recycling. With global EV sales having surged in the past decade, the first wave of EV batteries will soon reach the end of their lifecycle. A report projects that battery recycling demand could rise to 14 million batteries per year by 2040. Recycling batteries can reduce up to 25% of the carbon footprint associated with battery production. However, EV batteries present significant recycling challenges. For example, it is difficult to recover high levels of minerals from discarded batteries. To avoid a massive waste problem as the first generation of EV batteries reaches the end of their lifecycle, battery recycling must be more profitable than just throwing away the batteries. Addressing this challenge will require both private and public financing support.

## Recommendations

Sustainability and resilience are intrinsically linked. Developing a green supply chain is not only good for the environment, but also enhances its overall resilience. Therefore, solutions to EV battery supply chain challenges must be oriented toward fostering a more sustainable, resilient, and inclusive industry. To achieve this, APEC economies could:



- Cooperate on research and development. APEC economies should promote research and development initiatives that reduce reliance on minerals from primary sources and increase battery recyclability. This is key for reducing costs and increasing sustainability within the EV battery supply chain.

In the long term, technological advancements can eliminate dependency on specific resources, such as critical minerals, thereby reducing the environmental impact of mineral extraction and processing. Moving to more advanced forms of cathodes and battery chemical compositions can also free up the supply chain by reducing reliance on critical minerals. Exploring other types of batteries beyond the currently dominant lithium-ion battery can mitigate reliance on critical minerals and related supply chain challenges through diversification.

Battery recycling is another critical area for research and development. If batteries can be efficiently recycled, this will reduce the carbon footprint of EVs as well as supply chain risks. As battery composition changes and even shifts to other formats, such as sodium-ion batteries, recycling facilities will also need to adapt.

- Develop a circular and distributed economy. Building a circular and distributed supply chain will increase climate change resilience

and sustainability while reducing investor risk. This can be done by creating mechanisms for joint investments among APEC economies, with a focus on battery recycling and mineral recovery.

Investment in EV manufacturing and battery recycling will enable economies to create distributed supply chain hubs, diversifying supply chains, and lowering risks from disruptions. These hubs can attract investments in low emission transportation, even if the economies lack the natural resources needed for EVs. By investing in battery recycling facilities across APEC economies, the region can also develop a circular economy approach to EV batteries. This will reduce reliance on critical minerals from primary sources, and transform the supply chain by including more economies, such as those with strong battery recycling capacities.

Increased partnerships within the EV supply chain can help reduce tensions and level the playing field for APEC economies. This will also mitigate market risks by distributing investment burdens and stabilising the supply chain. Additionally, the more invested economies are in each other's EV supply chain, the less likely they are to impose trade restrictions. This interdependency can be fostered through encouraging foreign investment in EV manufacturing and battery recycling.

- Set standards and ensure supply chain visibility. Setting clear standards and regulations regarding EV battery production and logistics is essential. Environmental, labour, and ethical standards — in line with international agreements and commitments — will ensure that EV battery inputs, processing, and supply chains are sustainable and inclusive. This approach will also help motivate domestic market standardisation and promote continued regional cooperation and integration in EV battery supply chains.

Setting standards is also essential in developing a circular economy for EV batteries. What can be considered as recyclable material and therefore moved across borders for processing and resource recovery, needs to be defined and standardised. Setting standards needs to come with supply chain transparency and visibility. This will provide EV producers and consumers the assurance that their batteries adhere to proper standards of sustainability, labour practice, and ethics.

Digitalisation will be a key ingredient for supply chain transparency and visibility. Transparent disclosure of EV supply chain data will help support trade and sustainability goals. This information can support policy cooperation and harmonisation, especially in emerging areas like battery recycling. Transparency will also enable global pricing mechanisms that price in the costs of carbon emissions, pollution, and other externalities.



# APEC Regional Trends Analysis

The APEC Regional Trends Analysis (ARTA) is a serial publication of the PSU which provides an overview of the region's economy through an analysis of recent macroeconomic, trade, and investment trends. It tracks recent trade and investment measures implemented around the region and discusses risks and opportunities to the region's economic outlook. Four issues were published in 2024.

## February 2024

Link: <https://www.apec.org/publications/2024/03/apec-regional-trends-analysis-february-2024>

### Findings

The February 2024 issue reports that APEC GDP is estimated to have expanded by 3.5% in 2023, an increase from 2.6% in 2022, primarily driven by consumer spending alongside a rebound in tourism and travel. Inflation slowed to 3.8% in 2023, lower than the year-ago level of 5.9%. However, near-term economic prospects could be clouded by the accumulation of trade restrictions and remedies, potential spikes in commodity prices, elevated debt levels and global uncertainties.



APEC GDP is estimated to have grown by 3.5% in 2023, up from 2.6% in 2022, in tandem with the global economy.



Merchandise trade contracted in 2023 and services trade growth decelerated, while measures restricting trade rose.



Global uncertainties and weather-related conditions delay shipping, extend trade routes and drive up costs, posing threats to trade and inflation.



High debt levels require fiscal consolidation, but excessive tightening could stifle economic growth.

### Recommendations

Addressing these challenges requires a balanced mix of monetary and fiscal policies, underscored by the crucial role of regional cooperation in fostering an open, dynamic, resilient and peaceful Asia-Pacific community.



#### SWIFT MONETARY POLICY

Monetary authorities must stay vigilant against inflationary risks, ready to implement timely policy rate adjustments as necessary.



#### STRATEGIC FISCAL POLICY

Fiscal managers must prioritise consolidation and rebuild fiscal buffers to cushion against future shocks.



#### STRENGTHENED REGIONAL COOPERATION

Multilateral coordination must continue to promote and strengthen regional cooperation to keep trade open and address multiple challenges.

## May 2024

Link: <https://www.apec.org/publications/2024/05/apec-regional-trends-analysis-may-2024>

### Findings

The May 2024 issue shows APEC GDP growth in 2023 outpacing both the global growth and the region's year-ago growth. In the near-term, APEC is expected to continue to grow but at a moderated pace, reflecting uncertainties stemming from trade protectionism, persistent inflationary pressures, and geopolitical tensions.



APEC GDP expanded by 3.5% in 2023, outpacing global GDP growth at 3.2%.



Near-term inflation expected to moderate, but supply-side issues pose a threat.



Persistent trade route disruptions and elevated freight expenses remain significant challenges for global trade.



Gold demand surged as a hedge against intensifying global uncertainties.

### Recommendations

In the face of global uncertainties and volatile commodity markets, prioritising enhanced multilateral cooperation stands as an imperative. Fostering collective action to keep trade open, ensure global stability, and address complex and multiple challenges will fortify APEC economies against prevailing headwinds that threaten to diminish the gains made post-pandemic.



#### VIGILANT MONETARY POLICY

Remain on guard against new price pressures while fostering growth, ready to adjust policy rates accordingly.



#### PRUDENT FISCAL POLICY

Prioritise fiscal consolidation and debt sustainability while rebuilding buffers to safeguard against future shocks and support economic growth.



#### COMPREHENSIVE AND APPROPRIATE STRUCTURAL REFORMS

Consider key initiatives outlined in the Enhanced APEC Agenda for Structural Reform, APEC Services Competitiveness Roadmap, and APEC Economic Policy Reports to boost productivity and growth prospects.



#### STRENGTHENED MULTILATERAL COOPERATION

Foster collective action to keep trade open, ensure global stability, and effectively address complex challenges.



## August 2024

Link: <https://www.apec.org/publications/2024/08/apec-regional-trends-analysis--august-2024>

### Findings

The August 2024 issue expects APEC's GDP growth to remain steady at 3.5% in 2024, mirroring last year's pace. Economic prospects are improving as inflation decelerates, driven by appropriate monetary policy action and moderated food and energy prices. Positive economic signals are emerging, bolstered by a recovery in domestic consumption and stronger export performance. Despite these buoyant conditions, significant uncertainties cloud the short-term outlook



APEC GDP expands by 3.3% in Q1 2024 from 3.0% in Q1 2023, but intensifying global challenges could limit growth prospects.



Escalating tensions continue to disrupt trade; longer routes are increasing freight costs and heightening port delays.



Rising metal prices from increased demand and uncertainty could exert upward pressure on production costs and inflation.



Foreign direct investment inflows in APEC have fallen for three consecutive years as geoeconomic fragmentation rises.

### Recommendations

To maintain momentum, economies should avoid premature monetary easing, adjust rates gradually as needed, rebuild fiscal buffers, and achieve consolidation targets when feasible. Additionally, economic policies should facilitate rather than restrict trade and investment to achieve economic objectives.



#### MONETARY AND FISCAL POLICIES

Avoid premature monetary easing and adjust policy rates gradually as needed. Rebuild fiscal buffers and achieve consolidation targets when feasible.



#### ECONOMIC POLICYMAKING

To achieve policy objectives, economies have to consider policy options that facilitate and do not restrict trade and investment.



#### ROLE FOR APEC

Strengthen role as pathfinder and incubator of ideas to design policy frameworks and collaborative approaches for addressing complex challenges.

## November 2024

Link: <https://www.apec.org/publications/2024/11/apec-regional-trends-analysis--november-2024>

### Findings

The November 2024 issue shows the APEC region facing significant macroeconomic challenges, characterised by slowing growth and fiscal pressures from ageing populations.



APEC's growth is projected at 3.5% in 2024, then moderate to 3.1% in 2025, and further decline to 2.7% in the medium term, amid significant risks from soaring debt, heightened uncertainty, and geopolitical issues.



Rising trade restrictions pose dual threats of constraining trade flows and intensifying policy uncertainty, which could hinder trade, investment, and cross-border economic relations.



Higher metal prices reflect increasing demand from innovative technologies, but energy demand from these technologies is forecasted to more than double in the medium term.



Ageing populations in the APEC region are expected to result in shrinking labour force and rising fiscal pressures, compounding the already elevated government debt.

### Recommendations

Implementing comprehensive structural reforms, supported by deeper regional cooperation, is critical for enhancing economic resilience and fostering sustainable and inclusive growth in the region. Coordinated multilateral engagement is also necessary to mitigate trade vulnerabilities and manage geopolitical risks effectively.



#### MONETARY AND FISCAL POLICIES

Gradually adjust policy rates to support economic growth while remaining flexible to address inflationary risks. Focus on fiscal consolidation by directing resources toward social programs that uplift lives and sectors that contribute to growth.



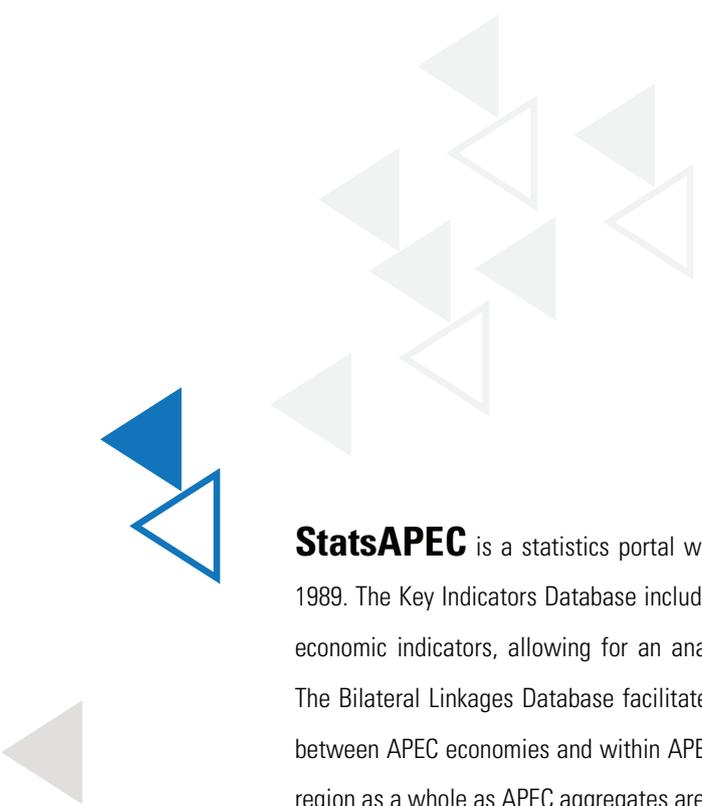
#### STRUCTURAL REFORMS

Implement structural reforms to address demographic shifts, support the green transition, and leverage digitalisation and AI, while also tackling challenges such as skills mismatches as well as sustainability and inclusivity issues.



#### STRENGTHENED MULTILATERALISM

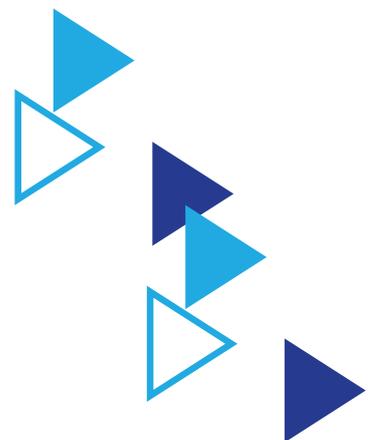
Foster multilateral cooperation to address shared challenges and implement policies that promote trade and investments toward a balanced growth that benefits all.



**StatsAPEC** is a statistics portal with data dating back to APEC's inception in 1989. The Key Indicators Database includes over 120 GDP, trade, financial and socio-economic indicators, allowing for an analysis of trends across a number of topics. The Bilateral Linkages Database facilitates detailed analysis of bilateral trade flows between APEC economies and within APEC. StatsAPEC makes it easy to examine the region as a whole as APEC aggregates are available for most indicators.



Visit <https://statistics.apec.org/> or scan the QR code to access the portal.





**Asia-Pacific  
Economic Cooperation**

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